CRM

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

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Using Museum Collections

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

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Jean H. Rodeck

Using National Park Service Museum Collections

The National Park Service has more than 28 million natural science specimens, prehistoric artifacts, ethnographic objects, historic objects, and 11,800 linear feet (l.f.) of archives in the collections of over 300 parks and seven centers in the states and territories of the United States. The articles in this issue of *CRM* present some of the many uses to which the collections are put each year.

Museum collections **are** each park's natural and cultural resources; they are not something "extra" that is added to a park, but the basic bits and pieces of the park itself. Museum collections **are** the biology, geology, paleontology, archeology, ethnography, history, and archives of each monument, preserve, historic site, and national recreation area. The only aspect that differentiates them from other resources in the parks is that they can no longer be left *in situ* or they will be lost. Losing park resources is against the law, for visitors as well as for the keepers of the public trust—employees of the National Park Service.

The women sat among the doomed things, turning them over and looking past them and back. This book. My father had it. He liked a book. Pilgrim's Progress. *Used to read it. Got his name in it.... Here's a letter my brother wrote the day before he died. Here is an old-time hat. These feathers—never got to use them. No there isn't room.... How can we live without our lives? How can we know it's us without our past?*

—*John Steinbeck,* The Grapes of Wrath

Anyone who has gone through the NPS training in resource management has learned, early on, that we are all resource managers. Those resources include museum objects of all shapes and sizes, of all materials, of all aspects of the natural world, of all aspects of our collective cultural heritage.

So, here we have 14 million cataloged objects and 6,900 l.f. of archives (add an estimated backlog of 14 million objects and 4,900 l.f. of archives) which we are documenting and storing to be available for future generations. Now that we have them, and know what and where they are (well, we are still working on that), what purpose can they serve other than to document the park resources?

In this issue of *CRM*, there are examples of what we can do with these objects and archives now, and what can be done in the future. We hope these examples will provide readers with inspiration or provocation to begin, or continue, to use collections in a manner that will expand the knowledge of the parks and make the collections more interesting and visible to the public.

The people who have contributed to this issue are front-line keepers of the public trust. They are the curators, museum technicians, and staff with the ancillary duty of collection management, whatever their titles, who have been given (and have accepted) the responsibility of safeguarding, and using, those natural and cultural resources that are now in boxes and cabinets across the country. These are the people who must be involved when park managers need information to make management decisions. These are the **people** who can assist managers by expanding their knowledge of what is already known about a park contained in archives, museum cabinets, and herbariums. These are the curators in the trenches. These are the **people** that should be used as thoroughly as they have indicated that **collections** can be used—used, but not used up!

A collection of articles like this is just the beginning. The examples presented here are only a few of the many ways that collections have been used in the past, and just a hint of how they can be used in the future. Let us know what you are doing. Send additional articles and news items to the Editor, *CRM*, for future publication.

Jean H. Rodeck (Swearingen), a 35-year NPS veteran, was Alaska's first regional curator, 1984 to 1995. She also served as regional curator in the Southwest Region. Jean is now the superintendent of Florissant Fossil Beds National Monument in Colorado.

Ann Hitchcock

We've Come a Long Way:
A Servicewide View

Long-time National Park Service curators will remember when we typed catalog records using carbon ribbons, loaded storage cabinets with paradichlorobenzene, and exhibited human remains and sensitive objects without consultation. That time was before the Automated National Catalog System (ANCS), the application of Integrated Pest Management to museum collections, and management policies that called for consultation with affected communities before deciding about the treatment of traditionally–associated resources. That time was only about 15 years ago. We've come a long way since then.

In 1980, we thought we had an estimated 10 million objects, approximately 3 million of which were cataloged. We now estimate the number is over 28 million objects and 11,800 linear feet (l.f.) of archives.* We have cataloged 45% of those objects and archives since 1988. Beginning in 1983 we have annually tracked the growth and documentation of NPS collections as parks complete the Collections Management Report.

The Object's the Thing

Recently while reviewing a packet of information I acquired 25 or so years ago I found the following information which was written and presented at an exhibits seminar by a very dear friend, the late Carol A. Cline Harlow, who at that time was Exhibit Designer for the Panhandle Plains Museum in Canyon, Texas. I believe the information is as timely and pertinent today as it was lo, those many years ago.

...

Intellectual honesty and objectivity are a must for the curator and designer in the interpretation of information and artifact in the museum. Personal prejudices and subjective views of history and art are to be avoided in any presentation.

...

The integrity of an object is important in its presentation. No object may be altered beyond normal restoration methods. If it was never shiny, don't shine it, even if it looks better shined. The personal history, use and intent of the producer of that object are the things that give it value; to add or subtract from that object to gratify personal aesthetics is to breach the integrity of the object.

Creative history is out; creative interpretation of history is in. Careful research about artifact and events is the base, and often the inspiration, for a good design. Truth is not only stranger than fiction, it is more interesting.

...

The artifact should be comfortable in its surroundings and its position while on display. A general rule to follow for museum exhibits is to display the object as it was used, i.e., a rifle shown in a horizontal position shoulder high, or in a stacked position, barrel up; clothing on a dimensional form.

...

The purpose of building or mounting an exhibition is to show the artifact. The display method used should enhance the artifact, not diminish it. When colors, case, furniture, graphics and other display accessories become so dramatic they overpower the object, good interpretation is the loser to ego.

...

A major find from China
So inspired the museum designer
With graphics immense
And colors intense
Asia's major became Asia's minor
—C.A.C.

Submitted by H. Dale Durham, NPS Gulf Coast Cluster System Support Office, Atlanta.

We know that some park and center collection storage facilities are exemplary. At others we have seen that the security and environment for toilet paper was better than for collections. Though we could identify the problems case-by-case, not until 1986, when each park completed the "Inspection Checklist for Museum Storage and Exhibit Spaces" did we have a uniform assessment servicewide.

At an opportune time, Congress asked NPS to submit, with its fiscal year 1988 budget, a report on the management status of its museum collections. That report included a staffing and funding estimate to catalog the backlog and correct the preservation and protection deficiencies that we had recently identified. This year we will have applied over $36 million of earmarked funds toward bringing the collections up to standard.

In 1984 we revised and reissued the *NPS Museum Handbook* in a loose leaf format so that it could be readily updated. We issued updates in 1987, 1990, 1994, and 1995. We revised and updated the *Conserve O Gram* series and sold both publications to the general public through the Government Printing Office. In this and other ways we raised the profile of the NPS museum program among our counterparts in other government agencies and the private sector.

Though we have come a long way, we estimate that at our present levels of funding it will be 2011 before we have everything cataloged. We also realize that caring for museum collections is a process, not a product. Preserving collections requires constant vigilance and cyclic maintenance. To achieve security for collections, we must continue to educate new staff to key control policies and opening and closing procedures. We must maintain and update security systems. Likewise, we must continue to revise our policies and procedures to reflect new technology and research. This year we are in the process of migrating from ANCS to a new automated collections management system that will better meet user needs and reflect current technology.

Access to museum collections and their accompanying documentation, whether it be through exhibits, research, personal interpretive services, or electronic technology, is our ultimate objective. In 1995 we established a site on the World Wide Web, giving a scope of collection summary and contact information for every park with a collection. We included a "Treasures of the Nation" section with images of objects and provided information on and samples of NPS museum collections management publications. Several parks developed World Wide Web sites with more detailed information on park resources.

We are planning publications about the collections in book, digital, CD-ROM, video, and other formats that will reach wider and wider audiences by the turn of the century. Our efforts to upgrade our automated documentation systems and improve the preservation and protection of collections will encourage information access and ensure that the collections will be in good condition for such uses.

We have come a long way. And the farther we go, the more opportunities appear. Each milestone, each advancement opens new ways to look at, analyze, interpret, access, preserve, use, and enjoy these treasures of the nation.

Ann Hitchcock has been Chief Curator of the National Park Service since 1980.

**According to the 1993 Collections Management Report.*

Pitcher, plates, shower head, fire extinguisher, Ellis Island. Photos by Klaus Schnitzer.

The following articles present some universal perspectives, philosophies, and examples of collection use.

David Guynes

The Guise of Summer: Seasonal Changes in Historic House Furnishings

American historic house museums differ immensely, ranging from humble 17th-century New England farmsteads to pompous Georgian plantation mansions. Many memorialize an elite family or individual, but nonetheless were places people lived. The "things" a historic house museum exhibits are sometimes only appreciated as objects d'art, quaint oddities, or icons of association. Whether famous, infamous or obscure, former residents of historic places were real people who ate, slept, and lived together. Houses have items in their collections once used by people.

Interpretive programs and furnishing plans may provide insight into seasonal housekeeping cycles without injury to the structure or valuable museum collections. J. Henry Chambers, in Cyclical Maintenance for Historic Buildings, contrasts historic housekeeping methods with modern methods, then recommends ways to safely clean historic structures and meet modern historic preservation standards. He emphasizes that many housekeeping techniques used by former inhabitants were clearly detrimental to the long-term preservation of the house. The same may be said of cleaning formulas and housekeeping methods directed toward furnishings.

Men hated the confusion of the biannual house cleaning and generally despised the ritual. It was the one time of the year when women seized the reigns of household government and determined where in the house men could enter, where they could sit, and even when they would have dinner. Harpers Bazaar, *1879.*

Domestic guides and advice books published during the late-18th and throughout the 19th century are helpful in exploring historic housekeeping routines and are valuable sources for learning about seasonal variations in housekeeping. Similar sources are studied in a valuable discussion of the challenges women faced in keeping house found in Susan Strasser's, *Never Done: A History of American Housework.*

Some collection items may be cautiously moved and aligned with seasonal historic housekeeping routines. Collection movement may be accomplished prudently if it avoids handling old, badly deteriorated collection items. In establishing routine furnishing plan changes, any scheme should be based on study of the history of the house and period interpreted, followed by consultations with conservators and historic architects. Each historic house curator can evaluate potentially affected collections and review opportunities to incorporate housekeeping cycles in the interpretive program without harm to the structure or collection.

Our discussion of seasonal housekeeping cycles starts with winter in America. Inhabitants of historic houses endured the discomfort and hindrances of winter with some difficulty. To withstand its rigors, many New England homes were banked or "blocked up" with leaves or seaweed, windows were sealed with paper or baize, and doors weatherstripped. Leather door sweeps date from the mid-18th century well into the 19th century. Eliza Leslie published a popular guide to housekeepers in 1840 and suggested "listing" doors by nailing strips of wood covered with baize in door gaps. Present-day historic houses could benefit from "listing" doors, both for energy conservation and controlling insects and rodents that frequently enter beneath ill-fitting door jabs. Most historic architects would frown on "banking" a house with leaves or seaweed, but it shows an early understanding of the principles of home insulation.

Metal stoves were often reassembled in the fall, having been dismantled and stored in spring

if they were not used for cooking. Franklin fireplaces and close (airtight) stoves were not in general use until the early-19th century. Reassembly was regarded as an infernal nuisance by contemporaries who complained that stovepipe pieces never rejoined properly. Curators may choose to forgo the same problems and frustration recorded in historic sources and leave parlor stoves together year-round. As in other seasonal routines, this one may be detrimental to artifacts committed.

Other collection items dedicated to keeping warm were fire screens, foot stoves, and settles. Fire screens, both pole screens and hand-held screens, fostered personal comfort near the fire; they blocked drafts, held in heat, and protected portions of the body from excessive heat since close proximity to the fire was necessary to stay warm. Pole screens with folding leaves to extend their coverage not only protected a lady's face from excessive heat, but sheltered her silk dress from scorching. Catherine Beecher, who wrote domestic guides and was Harriet Beecher Stowe's sister, advocated screens well into the second half of the 19th century. Small tin-and-wood foot stoves were fitted with an iron dish of hot coals and used for additional personal warmth. Often described as a feminine piece of furniture, it was sometimes called a "woman's stove." Leaving either of these items on exhibit beyond winter does not reflect seasonal cycles of use.

"Settles," with high-backs and draft-shielding sides, were highly coveted seats taking prominent positions before winter fires. They usually were reserved for the very old and very young. Unlike some other winter artifacts, settles had a seasonal use beyond cold weather. The high wing backs often formed a frame over which gauze netting was strung in summer to make a seated refuge from flies and mosquitoes.

Throughout cold winter months families huddled around parlor stoves or kitchen hearths with their small pockets of heat. Since fuel was expensive and required effort to obtain, families often chose to have only one fire burning. Usually it was the kitchen since food still needed to be prepared. Fireplaces were the least efficient sources of heat and by the middle of the 19th century, iron stoves had begun to replace them for heating as well as cooking. Curators of historic structures usually forgo the realism, risks, and damage to museum collections and historic structures from live fires in hearths and iron stoves.

Bed-warming pans of copper or brass were usually kept in the kitchen during the winter to be easily filled with hot coals. They were not left in beds but passed between the sheets of four-poster beds with heavy woolen bed curtains to help insulate sleepers from cold bedchambers. Bed warming pans were also used to remove dampness clinging to bed sheets. Soapstone replaced warming pans in the second half of the 19th century.

Winter's cramped intimacy around fires was uncomfortable, but it bound families as a social unit. Activities that would otherwise be spread throughout the house were confined near a source of heat. Kitchens that became sitting rooms drew furnishings from the rest of the house, including such things as looking glass, rocking chairs, desk, workstand, books, clock, and carpets. Shaving apparatus—razor, hone and strop—might end up near the only source of hot water. Winter exhibits may take into account the location of the family sitting room. Many of the routines of winter life found themselves played out in close proximity to the kitchen hearth or iron stove.

Spring arrived. Soot deposited by long months of winter fires and lamps was cleaned away and the house prepared for the widely divergent temperatures of summer. To accomplish this the house underwent a housecleaning of gigantic proportions and incredible effort. To male household members, spring cleaning seemed the reign of total chaos. It completely exhausted female family members even when they hired help to accomplish it. Eliza Leslie suggested spring cleaning coincide with the departure of the master on a business trip. Men were unattended during these times and afterwards complained they could not find anything. As a remedy, Eliza Leslie suggested he gather up his papers, lock them in his desk, and depart.

Chores during spring cleaning included sweeping chimneys, washing windows and frames, dusting wallpaper, washing woodwork, whitewashing walls, cleaning out closets, and scouring floors. Spring cleaning began with the upper floors and came down, whitewashing walls as it proceeded. Rooms were stripped of furniture, which was taken outside or stacked in the center of the room and covered with old carpets. Fireplaces were

Men were tormented by the thoroughness of the cleaning ritual as in this nightmarish scene where animated implements of house cleaning drive the gentlemen from his rightful place in 19th-century home life. Harpers Bazaar, *1893.*

THE HOUSEHOLDER'S ANNUAL MISERY.
"The spring house-cleaning days have come,
The saddest of the year."

The problem of flies and fly-specking furniture and household furnishings may have been more pronounced in the 19th century because of the prevalence of horses, the absence of modern sanitary facilities, in addition to the fact that window screening was not universal. Pencil drawing by William Marshall Merrick, Sketchbook, 14 July 1860. Print Collection, New York Public Library.

cleaned and adorned for summer. Brass andirons were removed, cleaned, rubbed with mutton suet, sprinkled with lime and wrapped in brown paper or muslin and stored in the garret. Parlor fireplaces were cleaned and "closed" with a decorative board and a large Oriental jar with cedar twigs was sometimes placed on the floor of the hearth.

Curators avoid drastic measures of historic spring cleaning, as they avoid winter open flames that necessitated such measures. Other aspects of the seasonal cleaning ritual may be illustrated to visitors so they see the results of spring cleaning rather than the action.

Curtains were taken down to remain in storage until the fall. Eliza Leslie argued that leaving curtains up in summer fades them and they become dusty from open windows; left up they impeded the flow of air into the room, something housekeepers were beginning to worry more about during the 19th century. Eliza Leslie recommended venetian blinds and linen shades for summer windows. Curtains were shaken out, brushed off, aired outside, afterward folded up with camphor or tobacco, then sewn up inside clean white sheets or tablecloths, and stored in a trunk reserved for curtains. Only the woolen curtains were taken down; muslin under-curtains were washed, bleached, ironed, and rehung.

Bed curtains were also taken down for the summer to be rehung in the fall. Removing curtains offered an opportunity to disassemble beds and, after washing the joints with soap and water, the whole bedstead was completely varnished. "Chintzes or [bed] Buggs" resided in cracks and crevices. Bedsteads often were made with turnposts that allowed easy disassembling using a "Bed Wrench," or "Bed Key."

Carpets were taken up. In some households, carpets were not removed for the summer, but simply untacked, shaken out and replaced. Carpets were stretched tightly and secured with tacks that

had little patches of leather under them to prevent tearing the carpet. A "carpet fork," a "little carpet crowbar," became essential to the effort. The removal provided an opportunity to put something beneath the carpet before it was returned. Some preferred cedar branches, others shredded tobacco or cracked black pepper, all as deterrents to moths. Some domestic manuals called for a bed of straw under carpets, others coarse paper, still others, straw matting. Eliza Leslie preferred "drugget," a coarse, durable cloth sometimes used under dining tables as a crumb cloth.

Illustrating any of these excessively brutal housekeeping measures in a historic house would damage textiles in the museum's collections. But few original textiles survive in historic house collections; if they do, it is usually wise to remove them from use in the house, retain them as documentation and replace them with modern reproductions. Even reproductions should not be abused. Storage and management standards for modern museum collections should apply to reproductions also since they represent valuable museum assets.

In the second half of the 18th century, straw matting was often left on floors year-round, or, if they replaced carpets in spring, when autumn approached carpets that had been in storage returned to cover straw mats. Tacking carpets was a practical solution that allowed dragging furniture from its usual position against the walls to be used. Often the carpeting did not extend to the walls, but was tacked down just short of the line of furniture along the walls. Baize was used to cover vulnerable portions of carpet such as that in front of the fireplace. Modern furnishing plans forego the damage to carpets and historic floors of "tacking" down rugs. Seasonal removal of original rugs would be discouraged by conservators. The same caution should apply if the rugs are reproductions.

Aside from eliminating sooty nuisances from winter fires, spring housecleaning was to marshal protection and counter new threats from summer

Households were plagued by infestations in the bedsteads and by nighttime mosquitos. Illustration by David Claypoole Johnson in Scraps *#3 (1832). Winterthur Library.*

dust and pests. Pictures and looking glasses were cleaned of winter smoke and the accumulation of flyspecks. One recipe from the period called for cleaning mirrors with a splash of gin and gilded frames with water boiled with onions and leeks. Once cleaned, gilded frames were covered with gauze, muslin or tissue paper held on with small pins. Lamps and chandeliers had gauze covers tied with ribbons. As a protection from dust, upholstered furniture was fitted with light cotton or linen covers, often with ties in the back resembling modern hospital gowns.

To prepare for summer's invasion of "Lilliputian lancers," each bed was enveloped in about 20 yards of mosquito netting or pavilion gauze. Fabrics to deter insects were also placed at windows as blinds or screens. Thomas Jefferson used wire screening at the White House and Monticello. When used in this way, wire screening was fitted into folding frames. Fabric was preferred to wire mess because it was more easily obtained, less expensive and did not rust. Window screens were not used more extensively because of the growing concern in the 19th century that they impeded the flow of fresh air into the room.

Modern suggestions that screens on historic houses are intrusive may be overcome to some degree if screens were in use during the late-18th century and throughout the 19th century. Screening historic houses that have their windows and doors frequently opened is a preventive measure that will greatly decrease the invasion of all kinds of insects that damage collection items and will preserve historic structures.

Early kitchens were important living spaces and often filled with implements and items of use, in addition to food stuffs. Historic house kitchens are often overly sparse in their furnishings in comparison to what was actually in early kitchens. Cookbooks and housekeeping advice books from the period are a good source of kitchen inventories, as are probate records, since some kitchen implements were valuable. Cover plate of The Kitchen Companion and Housekeeper's Own Book, *1844.*

Summer arrived. The family adjusted its living arrangements to fit the weather, choosing to reside in airy rooms, to reopen doors and windows and in other ways escape the confinement of the winter sitting room. Life in the house now moved to the windows and doorways, to breezeways and halls as family members sought to stay cool and comfortable. Through-halls became the summer sitting room, dinning room, music and game room. Furniture appropriate to a summer sitting room was moved to the center hallway.

When the summer ended, the seasonal cycle of cleaning away the accumulated dust repeated itself in fall housecleaning and preparations for winter began anew.

Residents of historic houses responded to seasonal changes in various ways. The patterns and practices discussed here were true for a large segment of American homes in the late-18th century and for much of the 19th century. House cleaning of the magnitude described, using harsh methods provides an interesting insight into the past. Many of the housekeeping customs discussed involved movement of furniture and objects that were used. Dressing a historic house in its summer costume of upholstery covers, gauze insect shields and straw matting, mimics the actions of real people attempting to deal with the rigors of seasonal climatic changes. Changes that we hardly notice today. Most of the items involved in dressing a historic house for summer should be reproductions of the original gauze and cloth covers. Furniture handled and moved seasonally should be carefully screened and selected based on its ability to withstand routine movement. Collection items involved in seasonal changes should be periodically inspected by a conservator.

Certainly many historic housekeeping customs and techniques are quaint and remote to our own experiences. They are themselves relics of the past. A past that was a real part of peoples lives and, with adequate research and preparation, can be conveyed in various ways to the visiting public of historic house museums without damage to the museum's collections.

Davis Guynes is the Supervisory Curator at the Museum and Archeological Research and Support (MARS) facility. Many NPS curators are simultaneously historians. David has masters degrees in both American History and Museum Studies. His interest in "dressing" historic houses for summer stems from consulting with staff at the Custis-Lee Mansion in Arlington, Virginia, concerning the practice. He can be reached at P.O. Box 435, Glenn Dale, MD 20769, called at 301-433-3519, or contacted through Internet by addressing david_guynes@NPS.gov.

Nancy H. Waters

Draft Standards for the Treatment of a Distinct Cultural Resource

In June 1994, a Focus Group of over 40 museum professionals met to draft standards and treatment options for historic furnished interiors based upon scholarship, sound planning, and with a commitment to cultural resource stewardship. The meeting, held at the National Trust property Clivden, was sponsored by the Historic Site Administrators Committee (HSA) of the Mid-Atlantic Association of Museums (MAAM), and was hosted by the National Trust for Historic Preservation and the National Park Service's Northeast Museum Services Center. The resulting draft standards presented here were modeled after *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, in an effort to provide the same level of nationally-recognized standards for furnished interiors as has long existed for historic structures.

This effort is still very much a work in progress and HSA welcomes your comments and suggestions. Future plans include:

- Continued dissemination of the draft standards to other museum professionals through other meetings and publications;
- Development of a decision-making process flow chart;
- Solicitation of NPS support for further refinement of the draft standards;
- Preparation of specific guidelines for "recommended" and "not recommended" application of treatments, similar to the *Secretary of the Interior's Guidelines for Rehabilitating Historic Buildings*, possibly using the format of *Interpreting the Secretary of the Interior's Standards for Rehabilitation*, which provides case studies and illustrations.

Nancy H. Waters is the Supervisory Staff Curator at the Northeast Museum Services Center in Boston. Currently, she assists parks in assessing and revising existing HFRs. Nancy can be contacted at the NMSC, National Park Service, Charlestown Navy Yard, Building I, Charlestown, MA 02129-4543, 617-242-5613, Fax 617-242-5686.

The Draft Standards were prepared with assistance from members of the Historic Sites Administrators Committee of the Mid-Atlantic Association of Museums. Contributors were Michael Henderson, Martin Van Buren NHS; John Lovell, New York State Bureau of Historic Sites; John Maounis, NPS Northeast Museum Services Center; Melodye Moore, Mills Mansion State Historic Site; and Nancy Waters.

DRAFT STANDARDS

Introduction

The furnished historic interior is an important and distinct cultural resource made up of the combination of fabric, features, finishes, furnishings, and room arrangement presented within a historic context. Together these elements convey significant and unique information about historical occupancy and use.

The Secretary of the Interior's Standards for the Treatment of Historic Properties have typically been applied to one historic resource or a variety of historic resource types, including; a single building; a complex of buildings such as a house, garage and barn; a site, with a designed landscape, natural features, and archeological components; structures such a system of roadways and paths or a bridge; and objects such as fountains and statuary.

Although the *Secretary's Standards* could be applied to furnished historic interiors, they do not specifically address the ensemble as a whole. Unfortunately, no other guidance with the weight or professional recognition of the *Secretary's Standards* exists for the evaluation and preservation of the furnished historic interior. As a result, original fabric, features, finishes, furnishings, and room arrangement are often ignored, dispersed, or destroyed during the architectural evaluation and treatment process.

The need for a coherent preservation philosophy that recognizes the significance of furnished historic interiors led the Mid-Atlantic Association of Museums' Historic Site Administrators Committee (HSA) to develop these draft standards. They draw heavily on the *Secretary's Standards* with the hope that the commonly accepted preservation philosophy and language used for historic properties will be adopted for furnished historic interiors. Using these guidelines, preservationists and historic site man-

agers will promote the protection and preservation of an important, and too often ignored cultural resource type.

Treatments

There are Standards for four distinct, but interrelated, approaches to the treatment of furnished historic interiors: Preservation, Restoration, Reconstruction, and Rehabilitation.

Preservation focuses on the maintenance and repair of existing historic materials and retention of an interior's form as it has evolved over time.

Restoration is undertaken to depict an interior at a particular period of time in its history, while removing evidence of other periods.

Reconstruction recreates vanished or non-surviving interiors for interpretive purposes.

Rehabilitation acknowledges the need to alter or add to an historic interior to meet continuing or changing uses while retaining the interior's historic character.

Choosing an appropriate treatment for a furnished historic interior, whether preservation, rehabilitation, restoration or reconstruction is critical and must be carefully considered. Because of the complexity and the variable elements within a furnished historic interior, few will fall exclusively within one definition. The decision making process must therefore evaluate the property's historical significance, its physical condition and integrity, its proposed use, and its intended interpretation. Site specific documentation and physical evidence should always take precedence in selecting a treatment option.

General Standards Adapted for the Treatment of Furnished Historic Interiors [1]

(1) The use of historic interiors shall maximize the preservation of fabric, features, finishes, furnishings, and room arrangement. These interiors shall interpret historic uses where possible or be placed in new uses that maximizes the preservation of historic fabric, features, finishes, furnishings, and room arrangement.

(2) Distinctive qualities or character of a historic interior shall not be destroyed. The removal or alteration of historic material or distinctive features shall be avoided. If removal or alteration is unavoidable, reversibility and thorough documentation are required.

(3) Historic furnished interiors shall be recognized as products of their complete history. Internally logical and consistent treatment decisions must be substantiated by documentary and physical evidence. Alterations without a historic basis shall be discouraged.

(4) Changes over time are evidence of the history and development of a historic interior. These changes may have acquired significance in their own right and this significance shall be recognized and respected.

(5) The distinctive materials, construction techniques, and examples of craftsmanship that characterize a furnished interior shall be preserved.

(6) Deteriorated fabric, features, finishes, and furnishings shall be repaired rather than replaced. Where the severity of deterioration requires replacement, the new fabric, features, finishes, and furnishings shall match that which is being replaced in design, color, texture and, where possible, materials. Replacement shall be substantiated by documentary and physical evidence and properly recorded.

In instances where fabric, features, finishes, and furnishings are placed at risk or subject to consumptive use, appropriate action shall be taken to ensure their preservation.

(7) Professionally accepted standards for the preservation (e.g. conservation, preventive maintenance, and housekeeping) of fabric, features, finishes and furnishings must be applied.

Treatments that cause damage to historic materials shall not be used. Care must be taken to provide an environment that balances the needs of the structure and furnishings.

PRESERVATION

is defined as the act or process of applying measures necessary to sustain the existing character, integrity, and materials of a furnished historic interior including the fabric, features, finishes, furnishing, and room arrangement. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials rather than extensive replacement and new construction. As it becomes necessary to protect fragile materials (e.g. textiles, paper, etc.) accurate, documented replacements will be used.

Preservation should be considered as the preferred treatment when:

- The historic interior's distinctive fabric, features, finishes, furnishings, and room arrangement are essentially intact and thus convey the historic significance without extensive replacement;
- a continuing or new use does not require additions or extensive alteration.

Prior to undertaking work, a documentation plan for preservation should be developed.

Standards for Preservation:

1. A furnished historic interior shall be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships. Where a treatment and use have not been identified, an interior shall be documented and protected, and, if necessary, stabilized until additional work may be undertaken.
2. The historic character of an interior shall be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a furnished interior shall be avoided.
3. Each furnished historic interior shall be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features shall be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Changes to a interior that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a furnished historic interior shall be preserved.
6. The existing conditions of historic elements shall be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive element, the new material shall match the old in composition, design, color, and texture.
7. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatment that causes damage to historic materials shall not be used.

RESTORATION

is defined as the act or process of accurately presenting the character, integrity, and materials of a furnished historic interior as it appeared at a particular period of time by the removal of fabric, features, finishes, furnishings, and room arrangement from later periods in its history, and the reconstruction and replacement of missing elements from the restoration period.

Restoration should be considered as the preferred treatment when:

- There is substantial physical and documentary evidence for the work;
- a particular time in the history of an interior is of unusual, architectural, and/or historical significance; when a substantial portion of original fabric, features, finishes, furnishings, and evidence of room arrangement survive for a given period;
- the loss of extant materials and finishes that characterize other periods would be minimal.

Prior to undertaking work, a particular period of time, i.e., the restoration period, should be selected and justified, and a documentation plan for restoration developed.

Standards for Restoration:

1. A historic interior must reflect its use during a selected restoration period.
2. The historic character of a furnished interior shall be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a furnished historic interior shall be avoided.
3. Each furnished historic interior shall be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve existing historic materials and features shall be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
4. Fabric, features, finishes, furnishings, and evidence of room arrangement that characterize other historical periods shall be documented prior to their alteration or removal, and retained whenever possible.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period shall be preserved. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize other historical periods shall be preserved whenever possible, and documented prior to their alteration or removal.
6. Deteriorated elements from the restoration period shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive element, the new element shall match the old in composition, design, color, texture, and, where possible, materials.
7. Replacement of missing elements from the restoration period shall be substantiated by documentary and physical evidence. A false sense of history shall not be created by adding conjectural elements, elements from other interiors, or by combining elements that never existed together historically.

8. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatment that causes damage to historic materials shall not be used.
9. Decorative schemes and designs that were never executed historically shall not be implemented.

Reconstruction

is defined as the act or process of assembling and replicating missing fabric, features, finishes, furnishings, and room arrangement to serve the purpose of depicting a furnished historic interior during a specific period of time. A reconstruction may be site specific or representative.

Reconstruction should be considered as the preferred treatment when:

- The depiction of missing components is required to understand and interpret a furnished interior of historical significance;
- there is enough site specific or generic historical documentation to ensure accurate depiction.

Prior to undertaking work a documentation plan for reconstruction should be developed.

Standards for Reconstruction:

1. Reconstruction shall be used to depict vanished or non-surviving portions of a furnished historic interior when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to the public understanding of the historic interior.
2. Reconstruction of a furnished historic interior shall be preceded by thorough research that identifies and evaluates those elements that are essential to an accurate reconstruction.
3. Reconstruction shall include measures to preserve any remaining historic materials, features, and spatial relationships.
4. Reconstruction shall be based on the accurate duplication of historic elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different elements from other historic interiors. A reconstructed furnished interior shall re-create the appearance of the non-surviving historic elements in materials, design, color, and texture.
5. A reconstruction shall be clearly identified as a contemporary re-creation.
6. Decorative schemes and designs that were never executed historically shall not be implemented.

Rehabilitation

is defined as the adaptive reuse of an interior for purposes other than as a furnished historic interior, while preserving those portions or features which convey its historical, cultural, or architectural values.

Rehabilitation should be considered as the preferred treatment when:

- Substantial repair and replacement of deteriorated and or missing fabric, features, finishes, furnishings are necessary;
- alterations or additions to the furnished historic interior are planned for a new or continued use;
- the presentation of a furnished historic interior is not appropriate, feasible, advisable, or documentable.

Prior to undertaking work, a documentation plan for rehabilitation should be developed.

Standards or Rehabilitation:

1. A furnished historic interior shall be used as it was historically, or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of an interior shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a furnished interior shall be avoided.
3. Each furnished historic interior shall be recognized as a physical record of its time, place, and use. Adaptive reuse that creates a false sense of historical development, such as adding conjectural features or elements from other historic interiors shall not be undertaken.
4. Changes to a interior that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a furnished historic interior shall be preserved.
6. Deteriorated historic elements shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive element, the new element shall match the old in composition, design, color, texture, and, where possible, materials. Replacement of missing elements shall be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, shall be undertaken using the gentlest means possible. Treatment that causes damage to historic materials shall not be used.

Abby Sue Fisher and Carolyn Wallingford

Beyond Traditional Curation of Collections

The Midwest Field Office of the National Park Service encompasses 13 states from the Canadian border, southward to Arkansas, eastward to Ohio, and westward to the Dakotas, Nebraska and Kansas. Site specific museum collections contain material culture from Civil War battlefields, archaic earthworks, sunken ships, and the legacy of former presidents.

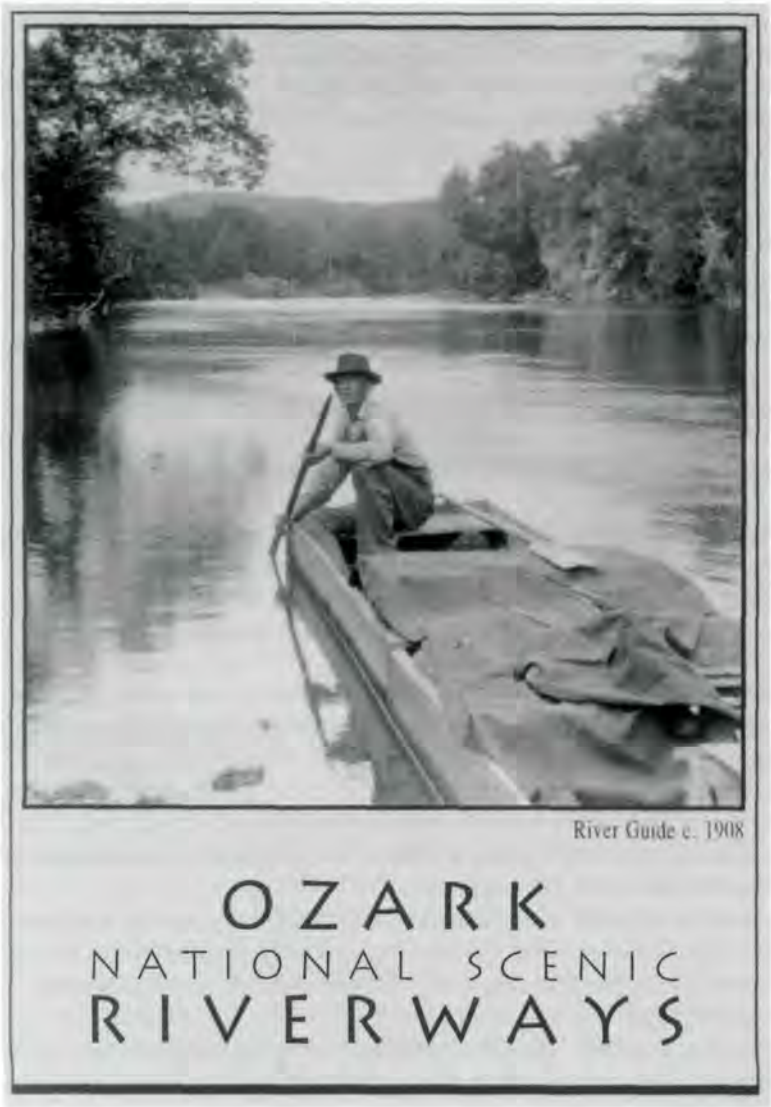
Traditionally, historians and park interpreters have combined artifacts and reproductions for both static exhibits and consumptive use contexts. To date, many of our history-based public educational programs have been confined to furnished historic houses, visitor center exhibits, reenactments, and living history farms. Our preservation concerns are rooted in our professional museum training and have limited our willingness to promote access to collections.

Is there a way we can truly use our collection, yet meet the obligations of the National Park Service mission to preserve, protect, and enjoy our natural and cultural resources? The public is eager to experience their national heritage and find answers to the questions: who was here before, how did they live, raise their families, and build their communities? We must involve the public in our preservation efforts to protect and preserve Park Service collections, while encouraging their use. The time has finally come to share our preservation dilemmas, to broaden our focus, and move beyond traditional curation.

There are ways to preserve and protect, yet conscientiously use collections. Some ideas include developing internship opportunities for students in historic preservation, museum studies, and cultural resources management; creating outreach programs that focus on resolving preservation dilemmas; producing audio visual programs featuring objects from collections; reproducing historic photographs for postcard books and posters; encouraging research and publication of site-specific collections; developing traveling exhibits; loaning artifacts for temporary exhibits; interfacing with private sector museums and historical societies; and finally, promoting accessibility.

National Park Service sites and their associated collections are the physical expressions of individuals whose stories unfold in their habitation sites and material culture. As stewards of these collections, we must look beyond traditional curation philosophy and seek new ways to share our national heritage.

National Park Service postcard courtesy Ozark National Scenic Riverways, Van Buren, Missouri.



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Joseph A. Cook

The University of Alaska Mammal Collection

The following presentation was given at a recent Alaska National Park Service resource managers' annual meeting. The meeting focused on the preservation of museum collections and the documentation of all park natural resources that exist in university museums and other museums worldwide. Emphasis was put on off-site natural history collections being preserved and accessible for future generations, as well as used for documentation of past research projects, for further research, and for verification of completed research.

From a curatorial point of view, everything that resource managers do affects the park and system support curators—because of the specimens and the associated records, or projects that only generate records. The research being done in the NPS benefits not only the parks, but others as well. The results of the work are often kept by the institutions who initiated the research in the first place, rather than deposited at the parks in which the work was done.

Partnerships are now being touted as a new tack for the NPS to take. However, partnerships have been in effect for years between the NPS and countless institutions of higher learning. There are collections from the old and new Alaska parks all over the world. All we need to do now is forge a closer relationship with these institutions and find out what was collected in the past so we can add to our existing database. There is a lot more known about the parks, particularly the old ones, that we have documented in our own catalog system, the Automated National Catalog System (ANCS). The Branch of Museum Services in the former Alaska Region has been searching for a number of years now (with varying degrees of success). Each park needs to continue searching for those old collections, getting the information from each university museum into its own computer systems.

The University of Alaska Museum is one of those long partnerships. The Museum has been preserving NPS collections, researching them, and making the information available to everyone. Dr. Joseph Cook, Curator of Mammalogy, was at the meeting to talk about the continuing use of natural science collections for research, to know the park resources better, and to continue to preserve the park database throughout the years of limited staffing and funding in a continued partnership that benefits the University of Alaska and all of the parks.

—Jean H. Rodeck

The relationship between national parks in Alaska and the University of Alaska Museum (UAM) has been evolving rapidly in the past few years. Questions we are frequently asked relate to what is the purpose of all those musty old museum collections, and do we really need to collect more specimens on national park lands? These are important concerns and the importance of a well-preserved (and researched) historic record (i.e., museum specimens) for interpreting the rapid changes that the earth's biota is now experiencing should be explored.

Well-annotated natural history collections are critical to developing an understanding of a particular flora or fauna. These collections are essentially libraries full of information on organisms. Each carefully prepared specimen may be thought of as a book that contains a set of data documenting that individual (species or population) at a particular locality on a particular date. The library analogy is limited, however, as none of the museum "volumes" can be replaced. We cannot go back in time and recollect a particular specimen at a particular location.

One of the most basic functions of museum collections is to document the earth's biotic diversity and specimens provide the physical documentation of species richness both spatially and temporally. Surprisingly, there is considerable diversity that remains to be documented in North America and our museum collections are woefully inadequate. Within the past five years, the UAM has documented the existence of three mammal species previously unknown in Alaska. One of these, the tiny shrew (Sorex minutissimus), was previously unknown in all of North America, but when museum collections were recently re-examined by a Russian specialist, several specimens of the tiny shrew were identified. One was collected in the Susitna Valley more than 15 years ago.

While national parks comprise a significant portion of Alaska, most of these areas have never been properly surveyed for biotic diversity. These surveys should be conducted in a systematic and rigorous manner. Series of specimens from particular localities are necessary to examine variations within and among species (e.g., age, sex, color, genetic). These specimens should be represented by a variety of preparations (skin, skeleton, frozen

tissues, parasites, etc.) and archived in a museum where they will be available for a variety of investigations. Museum work is generally poorly understood and unfairly exaggerated, even within the scientific community. The UAM has about 35,000 mammal specimens archived but given the size of Alaska, its complex landscape, and the number of years of collecting this represents, the UAM has a very inadequate and uneven representation of Alaska's mammal diversity. When compared to levels of natural mortality and accidental kills, museum collecting has an insignificant impact on wild populations.

Specimens represent historical populations and their value increases dramatically through time. This is particularly true as the diversity of many localities is degraded. Temporal changes in biotic diversity can be documented effectively only if extensive collections are periodically archived. We have lost the opportunity to document changes in the biota of many areas because no baseline inventory was ever conducted. Through cooperative specimen-based projects, national park biologists have been particularly important in helping to establish baseline data on wild populations in Alaska's relatively undisturbed environments. These data will be invaluable when assessing changes due to human impact and natural disturbance of the environment.

Today, museums are key to a veritable explosion of different kinds of studies on biotic diversity. For instance, in the past two years, 32 loans of more than 1,500 specimens have been made from the Alaska Frozen Tissue Collection (AFTC). The Centers for Disease Control in Atlanta has used 570 AFTC samples from rodents in efforts to understand the history and epidemiology of the Hantavirus disease. Other samples from declining marine mammal populations have been used to test for canine distemper. With PCR (polymerase chain reaction) and other innovations in the study of DNA, we now can examine genetic variation in populations of animals that were collected during different time periods, thus providing a more rigorous view of temporal genetic variation. For example, known contact zones between taxa can be reanalyzed for temporal stability if specimens from the contact zone were collected at regular intervals.

Ancient DNA studies on mammoth specimens from Alaska are underway in a German laboratory. Isotope analysis of bones allows investigators to examine diets of individual specimens, thus opening a whole range of studies to the paleo-ecologist. The effects of climate change or other perturbations on the distributions of species may be critically evaluated only with voucher specimens. These kinds of studies are underway now using museum specimens. We cannot even predict what kinds of questions new technological advances will allow. Currently, the UAM Mammal Collection forms the basis for 11 MS and PhD theses at UAF and at least 12 at other institutions.

Recent cooperative research projects in the UAM Mammal Collection have focused on 1) establishing baseline data on small mammal populations at regular (annual) intervals, 2) the zoogeography of Southeast Alaska, and 3) the relationships between the mammals of Alaska and those of eastern Russia. Field work supported by Glacier Bay National Park and Preserve, Bering Land Bridge National Preserve, Denali National Park and Preserve, Wrangell-St. Elias National Park and Preserve, and Gates of the Arctic National Park and Preserve, and other federal agencies, have been crucial to the development of this resource, now among the finest regional mammal collections worldwide.

Dr. Joseph A. Cook is the Curator of Mammals at the University of Alaska Museum in Fairbanks. He has worked with NPS collections extensively, and participated in a workshop with Alaska resource managers, sharing the above information and inviting more use of the collections from the national parks housed at the Museum. He can be reached through Internet, ffjac@aurora.alaska.edu. The address of the Museum is 907 Yukon Drive, Fairbanks, AK 99775-1200, 907-474-7505.

H. Dale Durham

Uses of Museum Collections

As visitors, we bring to a park or museum information and values that greatly affect our vision and focus. We may not see what is before us because our expectations are different or we are letting our previous experiences influence our view. This analysis holds true whether we are casual visitors or researchers.

As educational and resource management professionals, we must consider the various elements of use and impacts on our park museum collections. We acquire, prepare, and preserve museum collections to be used, but our collections may not be used immediately or automatically. The most important use of our collections may come 50 or 100 or 1,000 years from now.

The value and utility of park museum objects depends on their documentation. Few visitors

know how to read objects. Visitors and often scholars need our help in understanding museum collections. This is especially true if we are attempting to have the object state something specific. We must always remember our objects will say the wrong thing if we are not careful in our presentation of them.

A first consideration for the usability of museum objects is their physical condition and composition. Some objects are too fragile or poorly made to withstand the rigors of exhibition.

Uses of museum collections include exhibitions, demonstrations, outreach programs (parks as classrooms), special events, and research. However, the utility and value of museum collections comes more into focus as we begin to question our proposed uses of our objects and specimens. We should always ask several questions before we make objects available for any use.

Are all objects and specimens of equal value?

In many disciplines, objects and specimens are collected to support research. Often a natural scientist will collect specimens for analysis and use without considering their potential long-term value or the possibility of placing them in museum collections. Their long-term value as a benchmark of flora and fauna at a particular park may be determined years after the specimens were collected. An archeologist may determine that certain artifacts collected during a site excavation must be subjected to destructive analysis to determine more about the site and what occurred there. In these instances the documentation of the tests performed are of paramount importance.

Does an object's importance transcend its original purpose?

A look into our past will show us that objects often become symbols. For example, Lincoln's *Gettysburg Address;* the Liberty Bell; *Star Spangled Banner* and the *Constitution* are examples of transcendental values bestowed on objects well beyond their original use.

Do objects and natural history specimens mean different things to different people?

Our national symbols discussed above are examples of this. Other examples are ethnographic materials; historic furnishings in art museums; and, taxidermy mounts in natural history museums.

Are there differing, but equally important, viewpoints on use of museum collections?

Our perspective, vision, and focus greatly influences our viewpoint on appropriate uses of museum collections. Management decisions, tour routes, tour group size, marketing, and special uses force us to compromise or to make decisions to balance competing interests.

To ensure that museum collections are not used inappropriately, criteria should be developed to evaluate proposed use of the museum collection. The most important and hardest question to answer regarding the use of museum objects is: **Why do we want to use it?**

Once we have resolved the "why" question we should consider the following elements of this evaluation criteria:

- Is the proposed use consumptive?
- What will be the effects of use on the object and its proposed surroundings?
- Site Provenance. Is the object directly related to the park and its primary theme?
- Is use of an original object or specimen necessary?
- For what purpose will the object be used?

Often objects are used simply because they are available. In these instances the use is often conjectural, not historically accurate and vague. Too many times we have witnessed Native American ceramic pot shards being passed around as representing a particular culture or event. Or, we have seen objects used to represent a transcending theme such as a cotton bowl to represent a cotton gin and slavery.

One of the most familiar methods of using objects is in permanent and special exhibits. When used in exhibits, objects are said to "flesh out the bare bones of history." In context, objects help communicate ideas.

We can add to an object's interpretive value in many ways. We can exhibit it to show how it works or was used. We may place it with other similar objects to invite comparisons or with dissimilar objects to show contrast.

By labeling an object, it becomes evidence supporting a conclusion or may serve as a symbol of a more abstract idea or linkage to a person or event.

Exhibits help some people understand different concepts. Some exhibits are for enjoyment, others are aesthetically satisfying or have exciting form and color. The strangeness or bizarre nature of other exhibits may stimulate pleasurable feelings or curiosity.

Some exhibits provide comfort by recalling familiar memories. Others evoke stronger emotions.

Living History demonstrations bring more tactile senses into play. Through the use of reproduction objects or durable originals, the public can see first-hand how objects were used.

One of the most challenging uses of objects is as historic furnishings. When used to furnish a historic structure, the object is given the opportunity to convey the lifestyle and personality of the structure's historic occupants. To achieve this lofty goal, care must be taken to ensure that modern hygiene, current societal values, and housekeeping norms are not interjected into the recreated historic scene.

Another pitfall to avoid in managing a furnished historic structure is the rearrangement of the rooms once the furnishing curators leave. Many a tastefully-prepared furnished structure is reduced to a "period room" where the objects are rearranged as an open display. We have all seen the children's room where all the toys and dolls are lined up facing the tour route. Tours of such rearrangements result in nothing more than antique tours where individual objects and their monetary value overshadow the purpose and intent of the carefully recreated scene.

It is incumbent on the park curator, interpreter, and resource management specialist to ensure that museum collections are considered an asset to the park. This can be achieved only by making park museum collections a viable part of the park's resource base both from their resource management and educational values. We must ensure that museum collections and their documentation are consulted when management issues are considered; and we must ensure that museum collections are involved in park programs and activities.

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Elizabeth Banks

Using Resource Management Records

How extensive was the repair work on the interior of the Custom House in Salem in the 1880s, 1950s, 1970s? What problems were encountered in determining the historic paint colors? What photographs taken of the park since its establishment in 1938 show changes in the historic landscape? What park management issues and decisions in the 1930s have continued to be reviewed, questioned, and resolved in different ways? How have water quality issues in the rivers and harbor affected the area in the last 100 years? What park management decisions in the 1930s, 1940s, 1950s have affected the extent of research on historic landscapes, historic plant materials, land use, relationships with park neighbors, etc., that are recurring issues today? What information is contained in the park historians' desk files from the 1930s to the 1970s and how extensively were certain structures, features, and events researched? Is the park at risk of undertaking extensive research today that has already been accomplished?

Invariably the next question is, "What do we have in the files?" Finding the answer depends on the extent of preservation, organization, and access to the park records.

In January 1995, the Northeast Museum Services Center began a two-year project to conduct a Survey of Resource Management Records in the New England Cluster of the Northeast Field Area. This survey is focused on documenting the natural and cultural resource management records in parks and centers. The survey will also review management needs and provide recommendations. Assistance with recommendations will include measures for basic protection and appropriate steps, including transfer of specific records to the National Archives and Records Administration, temporary storage, disposal, or accession into the museum collection.

While it is commonly accepted that museum records that document museum objects should remain in close association with the objects, this concept is less well recognized for other cultural and natural resources such as historic structures and landscapes. Records that document the integrity, history, condition, conservation treatments, and preservation requirements of natural and cultural resources are critical for current and future management. It is well established that archeological field notes, including sketches, maps and photographs, are cataloged with the artifacts from the associated site. Neither the artifacts nor the field notes have much research value without the other. Likewise, researchers cannot understand or extract significant data from architectural fragments without examination of the accompanying documentation. Both the documentation and the artifacts must be preserved to be accessible for research use.

The Researcher's Perspective

Like most agencies, the Park Service often seems unaware that its actions are making his-

tory and that this history is critical to the nation and its culture. How many superintendents of parks or, for that matter, historic sites and monuments staffed by professional historians, file annual reports adequately recording activities affecting the preservation and administration of their areas?

The Park Service, as the principal preservation agency of the federal government, and its charges require far more research than is currently being done or contemplated. The conservation and preservation movements compose one of the fundamental American cultural stories of the 20th century.[1]

The recently revised 1994 edition of NPS-28, *Cultural Resource Management Guideline* addresses these issues consistently. Chapter 9 of this guideline, Management of Museum Objects, states:

...Natural and cultural objects and their associated records provide baseline data, serving as scientific and historical documentation of the park's resources and purpose. All resource management records that are directly associated with museum objects are managed as museum property. These and other resource management records are preserved as part of the archival and manuscript collection because they document and provide an information base for the continuing management of the park's resources.[2]

The National Park Service manages a complex, inter-related, and diverse wealth of natural and cultural resources. NPS staff and other researchers working on natural, cultural, and interdisciplinary projects require access to park resource management records. At the same time, they are creating significant resource management documentation, including a wide range of research proposals, base-line data, reports, preservation/maintenance treatments, and interpretation/education programs for ecosystems, endangered plants, landscapes, structures, archeological sites, museum objects, and archives. Management policies for the continued preservation and integrity of these documentary materials are outlined in NPS-28, *Cultural Resource Management Guideline;* NPS-77, *Natural Resource Management Guideline;* and NPS-19, *Records Management Guideline.* Records retention schedules in NPS-19 give specific direction as to the management of official copies of reports, correspondence, contracts, etc. Some records are designated to be transferred to the National Archives and Records Administration for permanent retention and access by researchers. "Non-official" copies, not designated for transfer to the National Archives, but needed for daily preservation and planning work at the park, are critical resources for effective park management.

Use of natural and cultural resource management archives by NPS staff and other researchers reflect different perspectives on the same research topic and the capacity of primary documents to answer new questions. For example, photographs taken 50 years ago to document historic structures may be re-examined with new questions in mind—what historic plants, paths, roads, viewsheds can be documented? Photographs of lakeshore conditions for natural resource research may be used by researchers today to document historic paths, roads, changes in viewsheds, existence of historic structures, etc., that were not the focus of previous research for the park.

Resource management documentation may also reveal changes in NPS management priorities at the national level and provide evidence of how these directives were merged with the on-going needs of the park. Conversely, the same archives may reveal how the needs of the park resources influenced servicewide management direction.

While many parks value their park records and frequently reference them in current management, other parks have little idea what is in the "old section" of the park files, or what is in another division's files. At the risk of sounding like a pronouncement from The Institute for the Criminally Obvious, research access to archival materials is dependent on knowledge of their existence and continuous management of them as a significant park resource. Knowledge of the wider context of park records may re-connect the park with other valuable resources. What park records are at the National Archives and Records Administration? What park records are at the Denver Service Center, Technical Information Center? What park records are in the Land Resources Division or the Library of Congress?

The researchers' perspective on the significance of park records recurs throughout *CRM*, Vol. 16. No.1, 1993, which focuses on Administrative History. Many observations were made regarding the preservation, integrity, value of, and need for research access to NPS records. Barry Mackintosh states in his introductory article,

All good history, administrative and otherwise, describes and evaluates people, events, ideas, and actions in the context of their own times rather than from a later perspective when definitions and other rules of the game may have changed.[3]

Dwight Pitcaithley's article in this same issue of *CRM*, "Publishing Administrative Histories," addresses professional standards for conducting administrative histories. These standards require that historians, "1) are thorough in their research,. .".[4] Historians can only be thorough if the park records have been preserved according to

NPS guidelines. The immediacy of first-hand accounts of the issues of the past provide connections to the present.

Also in *CRM* , "Researching and Writing a History of Natural Resources Management," by Richard Sellars, includes his frustration and concern regarding the difficulties in gaining research access to NPS records.

It seems important not to rely solely on official reports and policy pronouncements but to determine what prompted them and identify differences of opinion.

Overall, the records situation gives clear and irrefutable evidence that the Park Service, which prides itself in presenting major historic sites to the American people, has not taken sufficient pride in its own history to develop a professional records program. 5

The two-year survey underway is a first step to focus attention on this issue and assist parks in managing and gaining the benefits of access to their documentary resources. Based on the needs identified by parks and centers, a basic standard operating procedure will be prepared at the conclusion of the project which will outline recommendations, list guidelines available, and resources available to NPS staff in records management.

The continued preservation and integrity of park resources is dependent on the preservation and integrity of their associated documentation. These records provide a key to answering countless questions.

Notes

1. Dilsaver, Lary, "Administrative History for History and Administration, "*CRM* Vol. 16. No.1. 1993:6-7.
2. NPS-28, *Cultural Resource Management Guideline*, National Park Service, History Division, 1994: 145.
3. "Administrative History—A Management Tool," *CRM* Vol.16. No.1. 1993:1,5.
4. "Publishing Administrative Histories," *CRM* Vol.16. No.1. 1993:13,16.
5. "Researching and Writing a History of Natural Resources Management," *CRM* Vol.16. No.1. 1993:4,24.

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Kent Bush

Museum Collections in the Columbia Cascades Cluster

John Day Fossil Beds National Monument was authorized in 1974 to preserve a unique series of fossil beds in the John Day Valley of central Oregon. These fossil beds are some of the most diverse Miocene deposits in the world, and provide specimens of previously unidentified plants and animals of that era. Over the past decade paleontologist/curator Ted Fremd has sponsored the use of the park collections with numerous museums and universities.

Every fossil specimen must be considered as unique, even when there appear to be numerous examples (such as shark teeth or trilobites) extending even to the commercial market. This is particularly true of the more complex life forms from the more recent, species diverse, geologic periods. There have been cases in the paleontological community where a single, partial specimen can provide sufficient documentation to identify a new species of plant or animal.

It is in this context that curators such as Ted Fremd foster the scientific use of comparative collections, largely through providing universities and museums with reproductions of specimens taken from molds of the originals. While this technique has also been used to duplicate some of the more rare stone tools from archeological investigations, the extensive use of molds to create study collections is particular to the science of paleontology. Because of their importance to the development of modern species, these reproductions of the fossil collections of John Day are well represented in teaching and exhibit collections in universities and museums around the world.

Authorized in 1965, Nez Perce National Historical Park, Idaho, is the only unit in the park system that commemorates an extant American Indian group. Consisting of 38 separate sites, the park preserves and interprets the history of the Nez Perce people, and their relationship with the developing European settlement of the Northwest. The park is the Nez Perce Tribe's "repository of choice" for the maintenance of archeological collections. Many of the ethnographic and historic items in the park collection are on loan from the

Nez Perce Tribe. The park also holds archival material (including the Nez Perce Allotment Book) as well as an extensive historic photograph collection.

The management of the museum collection at the park represents a true cooperative venture between the National Park Service and the Nez Perce Tribe. The park realizes that many of the objects in the collections have special significance to the Nez Perce, and actively promotes the use of the collections by tribal members. The Seven-Drums Society performs an annual ceremony to assure the continued spiritual health of the items in the collection, and the people who work there. There is a continuous use of the ethnographic material by individuals researching traditional clothing styles and beadwork patterns, as there is of the historic photographs. Many Nez Perce have also located photos of their grandparents and great-grandparents in the photo collections. The archival collection has established linear descent for such things as land claims, and early sound recordings in the archives serve to document specific chants and dances.

Recently, Fort Vancouver National Historic Site, Washington, dedicated a reconstruction of the 1844 building used by the Hudson Bay Company to process and store furs for shipment to Great Britain. The Fur Store features a reconstructed fur press and sample pelts, but most of the building contains a modern curatorial facility that will house a study collection of archeological-material from at least four Hudson Bay Company sites in the Columbia Cascades Cluster.

Included in this study collection will be material from Fort Vancouver, Fort Colville, Fort Nez Perce, and Bellevue Farm, all Hudson Bay Company sites within park boundaries in the Columbia Cascades Cluster. After the collections are transferred and installed, about two million objects will be available for comparison and study.

The Center also contains a public interpretive exhibit illustrating the archeological and curatorial methods that establish comparative collections. This exhibit area features a "window wall" that looks into the center's curatorial laboratory and collection processing area, allowing the public a seldom seen glimpse of object preservation and cataloging work in progress.

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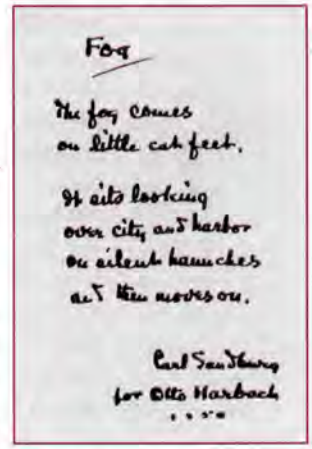
The use of objects, specimens, and artifacts comes with pitfalls as well as rewards. Although the National Park Service has been using collections for years for documentation, research, and exhibits, there are still countless ways that we can continue to use them and learn from the experience of others. Not all of the examples in the following articles can be universally applied, but all can be used as springboards to trigger new ideas, sharing the wealth of experience among museum curators.

Bess Gibbs

A Used Collection Still in Use


Fog

The fog comes
on little cat feet.

It sits looking
over city and harbor
on silent haunches
and then moves on.

Carl Sandburg
for Otto Harbach
1950

Carl Sandburg poem courtesy Carl Sandburg Home National Historic Site.

More than 12,000 books fill the floor-to-ceiling shelves that cover walls in every room of the house, except the kitchen. Magazines and journals are in piles on the floor and table tops, newspaper and magazine clippings overflow cardboard boxes from the grocery store, and letters, papers, and handwritten notes fill drawers and organizers in the writer's upstairs study. It is the lifetime accumulation[1] of writer Carl Sandburg who moved in 1945 to Connemara, an antebellum estate in Flat Rock, North Carolina.

This move was the beginning of a major departure from the past for Carl Sandburg. After a lifetime spent in the midwest and almost 20 years in the Michigan dune country, the "Chicago" poet was moving south. Sandburg was born and grew up in Galesburg,

Illinois, worked in Wisconsin for the Social Democratic Party, and moved to Chicago in 1912 where he worked as a newspaper reporter and later became famous as "The Poet of The People," and biographer of Abraham Lincoln. In 1928, the Sandburgs moved to a "Tom Thumb" size farm in Harbert, Michigan, on the Lake Michigan shore. Mrs. Sandburg began breeding and showing pure bred dairy goats and became active in dairy goat associations. From his home in Harbert, Sandburg commuted to Chicago and his job as a movie critic for the *Chicago Daily News*. He traveled the country lecturing on Abraham Lincoln, reading his poetry, and singing folksongs from his book *The American Songbag*. He resigned from the *Daily News* in the early 1930s and devoted his time exclusively to writing and lecturing.

Carl Sandburg's upstairs study. Photo by Phil Smith, courtesy Carl Sandburg Home National Historic Site.

The Sandburgs were happy in Michigan, but Mrs. Sandburg wanted a place with pastures for the goats, milder winters, and privacy and solitude for her husband. He told her to find the place she wanted and he would go. She found the place in western North Carolina in the village of Flat Rock (named for a granite outcropping where early settlers and Indians met to trade). The move south was begun in late 1945. Forty-two thousand pounds of "cargo" including household goods, books, and papers left Michigan by railroad boxcar bound for Hendersonville, a small town near Flat Rock.

That "cargo" in several buildings on 263 acres is now the Carl Sandburg Home National Historic Site which opened to the public in 1974. Since that time the collection of over 220,000 objects has been used and researched by park staff, volunteers, other museums, domestic and foreign television companies, and publishers of books, magazines, newspapers, and other periodicals.

Each year more than 50,000 visitors tour the Sandburg Home. Most of them are amazed by the collection of books and other documentary material in the home and some are literally captivated by it. One such person was Penelope Niven who first explored Connemara as a visitor in 1976. Following that visit she wrote to Superintendent Benjamin Davis to ask if she could work with the collection offering as credentials a master's degree in American literature and several years of teaching experience. Superintendent Davis responded there was no money to pay her but she was welcome to come as a volunteer. Ms. Niven sorted through thousands of letters, unpublished manuscripts, and journals at Connemara. She came back every summer through 1983, and from this beginning she went on to record an oral history of Carl Sandburg and write *Carl Sandburg A Biography*, published in 1991.

Another volunteer who came to Connemara and later wrote a book using research from the collection was Kathleen Byrne, museum aid at the Sandburg Home in the 1980s and now staff curator in the Museum Management program of the National Park Service at Harpers Ferry, West Virginia. Mrs. Byrne came to Connemara to research Mrs. Sandburg's goat records for a freelance article on her Chikaming herd, one of the finest goat herds in the country. Sandburg had long been famous as a writer but little was known about his brilliant wife, Lilian Paula Sandburg, a Phi Beta Kappa graduate of the University of Chicago. Byrne's book, *Paula Sandburg's Chikaming Goat Herd*, was published in 1991.

Park interpreters, more than anyone else, use the collection everyday as they guide visitors through the home and present programs of Sandburg poetry, biography, and give walking tours of the grounds. Park staff have used material from the collection for the publication of several books and booklets. Former Animal Caretaker Mercedes Weitzen and this author collaborated on *The Carl Sandburg Home Activities Book For Children*, a very popular selection in the park bookstore. It contains crossword puzzles, dot-to-dot, word games, coloring pages, and other activities that relate to Carl Sandburg's works for children such as *The Rootabaga Stories* and *Abe Lincoln Grows Up*. This book is used by elementary school teachers in preparing children for visits to the Carl Sandburg Home.

Another source for school teachers is the Teacher's Packet written by Park Ranger Bill Berry and this author. It contains a teacher preparation sheet, a biography of Sandburg, a vocabulary list, a list of objects for students to look for when they tour the home, and ideas for discussion after the visit.

Park Ranger Dianna Miller researched and published a collection of Sandburg family recipes, *Cooking at Connemara*. She also wrote the *Big Glassy Trail Guide*, a small booklet to use while climbing Big Glassy Mountain, the highest elevation in the Park.

Two extensive uses of the collection were in the preparation of the *Historic Furnishings Report Carl Sandburg Home Main House and Swedish House* and the *Carl Sandburg Home National Historic Site Cultural Landscape Report*. Fortunately for Dr. David Wallace and Ms. Susan Hart, creators of these reports, Mrs. Sandburg did not throw out old receipts, bills, letters, and canceled checks. Dr. Wallace spent months researching thousands of documents and archival photographs. He interviewed members of the Sandburg family who could confirm or correct his speculations. The furnishings report is used by Museum Staff in arranging rooms as they were in the Sandburg years and is studied by staff and volunteer interpreters.

Ms. Hart prepared the *Cultural Landscape Report* as her master's thesis for the School of Environmental Design at the University of Georgia. As Dr. Wallace had done, she thoroughly researched the files in Mrs. Sandburg's farm office and poured over flower catalogs that Mrs. Sandburg had marked. She made use of the thousands of photographs in the collection. The landscape report is now used extensively in restoring and maintaining the gardens and grounds as they were in the Sandburg years.

Through the years the Sandburg Home has loaned objects for exhibition to other museums. The Anderson Art Museum in Anderson, South Carolina, organized an exhibit on Edward Steichen, the famous photographer brother-in-law of Carl Sandburg. Steichen photographs on exhibit at Connemara were loaned along with other objects like Sandburg's eyeshade, his chair, an orange crate (used by Sandburg as furniture), and other personal objects.

At the annual meeting of the Swedish-American Society in Chicago in the early 1990s, objects from the Sandburg Home were displayed in an exhibit honoring Carl Sandburg, a first generation Swedish-American.

The museum staff researches and installs exhibits several times a year in the visitor center located in the basement of the Sandburg Home. The current exhibit centers on Sandburg's involvement in World War II. He was vigorously outspoken in favor of the war effort and believed a writer was obligated to speak to his times; he spoke out in radio speeches and at war bond rallies, wrote a syndicated newspaper column, poems, and the script for "Bomber," a national defense motion picture film on the B-26 medium bomber. He also collaborated in 1942 with his brother-in-law, Edward Steichen on "Road To Victory," a procession of photographs of the nation at war. Sandburg wrote the text for the exhibition.

Since the Sandburgs threw away very few things, the staff has a valuable source of objects to pull from the collection for exhibits. For the World War II exhibit, pages were photocopied from 1940s *Life* magazines, wartime photographs copied, and the Sandburgs' war ration books and Sandburg's books written during the war years were displayed.

Many visitors come to the Carl Sandburg Home because of an article they have read in a newspaper or magazine. Newspapers and magazines throughout the country have featured articles on the site. The Sandburg staff cooperates with and assists the writers and photographers who are preparing articles for publication.

Through the medium of television the story of Carl Sandburg has reached millions of people; two television shows presented by the Public Broadcasting System have explored the life and times of Carl Sandburg shooting much of the footage at the Sandburg Home.

Foreign crews have come from Sweden and Luxembourg to film documentaries using the site for background. A Swedish crew made a documentary on Sandburg to be shown on Swedish television. The crew from Luxembourg worked on a documentary on Edward Steichen who was born in that country. They included the Sandburg Home because of the close relationship between Steichen and Sandburg. They were "Brothers-in-law who became brothers."[2]

One of the most entertaining uses of Sandburg's works are the dramatic presentations given every summer in the park amphitheater by the Vagabond Workshop Theatre of the Flat Rock House Playhouse which is directly across the road from the park. Hundreds of children, most with camp counselors and others with parents, come to watch zany productions of the "Rootabaga Stories," Sandburg's American answer to European fairy tales. Screams and squeals of delight from the children fill the air on "Rootabaga" days. "The World of Carl Sandburg," more sedate but still filled with live action and music, introduces the park visitor to Sandburg's poetry and prose. There are poems about mothers, love poems, witty sayings and advice from *The People, Yes*, and music from *The American Songbag*. And a third summer production, "Sandburg's Lincoln," presents the story of our 16th president through his own words and those of Sandburg. It is a moving portrayal of the man who led this country through a terrible war.

Other miscellaneous items from the bookstore that have made use of the collection are a video, postcards, Carl Sandburg holographic poems, note cards, color slides, and prints of historic buildings in the Park. Other interesting items are a reproduction bookplate that Margaret Sandburg, daughter of Carl Sandburg, used in her books and a leather bookmark with the quote, "The peace of great books be for you" printed on it and on the bookplate.

Just as a carpenter uses tools in his trade, Sandburg used his library as a tool in his writing. In his lifetime, the books, magazines, newspapers, and other materials did not sit idly on shelves or table tops as evidenced by the thousands of bookmarks, dog-eared pages, and notations. The collection is carefully preserved now, so generations to come may use it just as Sandburg used it.

Though it is more than a quarter century since Carl Sandburg died, the Poet of the People, Bard of Democracy, philosopher, historian, biographer, and troubadour still lives in the hearts and minds of the people. They will continue to write about him, read his works, and visit his home Connemara.

Notes

1. Except for several thousand books, manuscripts, journals, and letters sold to the University of Illinois by Sandburg before his death.
2. Edward Steichen, Edited and Introduction, *Sandburg: Photographers View Carl Sandburg.* New York, NY: Harcourt, Brace and World, Inc., 1966.

Bess Gibbs is a museum technician at Carl Sandburg Home National Historic Site, 1928 Little River Road, Flat Rock, NC; 704-693-4178.

Audrey Barnhart

Using the Fort Union Trading Post Collection

Fort Union Trading Post National Historic Site, North Dakota, is the site of an 1850s fur trade post, reconstructed from bare ground to its 1851 heyday. The collection includes historic archeological materials. Archeologists estimate that 1,500,000 objects will be counted when cataloging is completed.

Artifacts from every facet of life tell a side of the Fort Union story that is not recorded in journals and history books. Combs, tools, buttons, and butchered bones reveal daily life at the trading post. A series of pipe bowls from the National Clearinghouse recently filled out the series excavated on site. Prints, beadwork, trader's coats, and beaver hats are just a few of the historic artifacts acquired over the years.

The collection is used formally and informally. After washing and sorting the specimens, the Midwest Archeological Center team began analysis of each major class of artifacts found so far. A series of 10 reports, *The Fort Union Trading Post NHS (32WI17) Material Culture Reports, vol. I-IX,* studies all functional classes of artifacts found during the early excavations. This series is our primary resource for identification and classification.

Many artifacts were used to authenticate the trading post reconstruction. Window glass fragments showed the style of the hand-blown panes, where journals typically do not address such mundane matters. Strap hinges, nails, and locks found by archeologists were used when designing the reproduction.

We pulled samples of trade beads, to produce a new exhibit in our Lobby, Beads of Fort Union Trading Post. A Karl Bodmer print was sent to a photographer, to produce a working transparency. From this, the Fort Union Association will produce a poster for our visitor sales desk.

As catalogers ready the collection for World Wide Web access, we look forward to research requests from far and near.

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R. Scott Stone

Harry S Truman National Historic Site

Harry S Truman National Historic Site was established shortly after the death of former First Lady Bess Wallace Truman in October 1982. The museum collection includes the contents of the Truman Home in Independence, Missouri. Almost 48,000 items remained in the house at the time of Bess' death, most situated as they had been since the Trumans left the White House in 1953. In addition to the president's personal effects, the house contained the belongings of several generations of Bess Truman's family, including an array of household items dating from the 1830s to 1982.

Exhibits

Visitors to the Truman Home often remark on the sense of "homeyness" they experience. This atmosphere results from the thickly-populated interior spaces of the home—tables covered with knickknacks, shelves full of books, and cupboards stacked with dishes—which itself is the result of a rapid transition from private residence to historic house museum. The timeliness of NPS stewardship allowed an opportunity to maintain the home just as the Trumans left it, as though Harry and Bess had stepped out to visit neighbors and might return any minute. Eleven years after commencing public tours, the exhibit areas remain almost exactly as they were found.

The Trumans' 1932 Silver-Marshall radio on display at the Harry S Truman Library and Museum. Photo by Scott Stone, NPS.

Visitors tour only the first floor of the home. The upstairs remains off-limits to the public, according to the terms of Bess Truman's will. Paired with the static nature of exhibits on the first floor, this arrangement leaves the bulk of the collection inaccessible to visitors. That hasn't kept the staff from finding inventive ways to put the collection to use.

The park celebrated its 10th anniversary in May 1994, with an open house at the George Wallace home, next door to the Truman Home. Temporary exhibits allowed visitors a taste of objects not normally on display. One interpreted the importance of games in the Truman's family and social life, using board games, playing cards and poker chips found in the attic. One board game in particular, "Lawmakers," seems to have been well-used in the home of a career politician.

Another display gave visitors a more literal "taste," when park staff baked cookies, breads, and brownies from some of Bess Truman's own recipes. The original recipes, scribbled on index cards or note paper, were placed under plexiglass behind their sweet and chewy manifestations. Visitors received copies of the recipes to try in their own kitchens. More than interactive, this exhibit was edible!

June 1995 marked the 50th anniversary of Truman's first homecoming as president. We used the family's own scrapbooks to produce a poster-size display of newspaper clippings from June 1945. Called "No Pretense in this Man," it showed the nation getting to know its new chief with the help of newspaper editors and columnists.

During the last several years, the NPS staff has developed a cooperative relationship with the Harry S Truman Library and Museum, also in Independence. With increasing frequency, the Library has borrowed items from our collection for use in their own exhibits.

Research

Recently the people of Deming, New Mexico, contacted us while organizing an effort to preserve their old train depot. Truman's famous 1948 "Whistle-stop" campaign stopped in Deming. The town fathers presented him with several gifts, including a hand-tooled leather belt and a jeweled silver buckle with gold longhorn steer having fiery red eyes. In exchange for photos and catalog data of the belt and buckle, we received copies of local newspaper accounts of the visit and presentation ceremony.

A California artist contacted us, curious about the disposition of works he had done for the president in 1951. The two pencil sketches of Bess

and Margaret were located in the attic of the Truman Home. Through the artist we learned that Truman's Secretary of the Air Force had commissioned the work as a birthday present for the president. Again, in exchange for photos of the sketches, we received a copy of Truman's thank-you letter.

Last year the A. Sulka Company of New York began preparing for their company's 100th anniversary. A maker of fine men's apparel, they have made presents to several U.S. presidents, including Truman. To assist their research, we tallied up the number of Sulka items in our collection (39 neckties and bow ties, 2 shirts, 8 collars and a dressing gown) and sent along photos of a sample of them.

Interpretation

Park interpreters guide more than 50,000 people a year through the Truman Home, describing the Trumans' life, and often answering questions about specific objects along the tour route. Curatorial staff help rangers answer frequently-asked questions by sharing catalog data and research findings. Occasionally, rangers are provided with statistical abstracts which detail individual objects or illustrate the diversity of the collection. With these tools, rangers can respond accurately to questions such as "How many hats did Truman have?" or "What kind of toys did the children play with?"

Much of the history we deal with is less than 50 years old, so oral history interviews can provide a lot of grist for the interpretive mill. The collection has been used to spark the memories of several oral history subjects. Margaret Truman was the first, interviewed in the familiar setting of the house where she was born.

Truman sister-in-law and next-door neighbor, May Wallace, walked through the house telling her stories for the tape recorder in 1983. Sister-in-law Christine Wallace, who married Bess' brother Fred in 1933, and lived in the house shortly before Truman became president, did the same in 1991.

Kansas City tailor Sol Stolowy made many of Truman's suits during and after his presidency. Stolowy re-examined his work in 1991 while telling us of the times he brought fabric samples to the Home for Mrs. Truman's selection.

The president's eldest grandson, Clifton Truman Daniel, was the subject of a 1994 interview in the house. On entering the kitchen he said it even smelled exactly as he remembered. He told of exploring the attic, and playing "cops and robbers" with his brothers in the yard. He was amazed to find the toy machine gun he'd last seen almost 30 years before: Grandpa Truman took it away when he caught young Clifton taking target practice in the living room!

Un-tapped Potential

The park recently acquired the Noland House across Delaware Street from the Truman Home, formerly the home of Harry's Aunt Ella and cousins Nellie and Ethel. When the house is restored for adaptive use there will be space for rotating thematic exhibits. Until then, the Truman Library and temporary exhibits will continue to be the primary outlets for "hidden treasures" of the Truman collection. The next eight years will bring a series of 50th anniversary events commemorating the Truman presidency, and sharing unseen parts of the collection with the public will be an integral part of these occasions.

And the collection is not even fully cataloged yet. The completed database will enable us to quickly gather related exhibit materials for ourselves or other institutions, to create finding aids for researchers, and to provide rangers with the most complete and precise information about the site they interpret.

Best of all, on occasion the house still reveals previously undiscovered artifacts. Just last summer, while cleaning Bess Wallace Truman's desk upstairs, the space behind a drawer yielded an 1892 letter to young Bessie Wallace from her grandfather George P. Gates. In it, Grandpa Gates (who built the house now called the Truman Home) tells seven-year-old Bessie about his vacation in New Mexico.

We have only scratched the surface of this collection's usefulness. The potential for thematic exhibits is virtually unlimited, and research opportunities abound for scholars of the Truman era. As a source of interpretive material on the home life of an American president, the collection is unmatched. There will undoubtedly be much more to come.

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Carol J. Dage

Historic Structure Field Collections

The primary collections of the Harry S Truman National Historic Site in Independence, Missouri, are from the Truman home given to the United States government in 1983. The site and associated collections managed by the National Park Service (NPS) primarily include artifacts from the occupation of the Truman home by four generations of the Gates, Wallace, and Truman families, 1867-1982. The site was expanded in 1991 to include the George and Frank Wallace homes (homes once occupied by Bess Wallace Truman's brothers and their wives) and the Noland home, occupied by Harry Truman's aunt and uncle, John and Ella Noland. The Truman farm home located in Grandview, Missouri, was added to the site in 1994. This portion of the site is part of the original farm where Harry Truman worked from 1906 to 1917. According to his mother, the farm was where Harry Truman "got his common sense." Each site provides us the opportunity to share the importance of family and experiences that shaped the life and character of Harry Truman.

Collection acquisitions are few, because the Truman home was given with complete contents and furnishings. The Truman farm home was transferred to the NPS from Jackson County, Missouri, complete with original and period furnishings. The other three homes are slated for adaptive use and do not require collection acquisition. The site's collections policy has been to accept only objects directly associated with the Truman home or farm home or used in these homes during the Truman years. The exceptions to this policy are field collections generated by replacement of deteriorated historic building fabric described in this article. Maintaining this type of field collection and supporting documentation is essential to documenting existing structure condition and to planning and preparing for accurate replacement of historic fabric.

Several site projects have demonstrated the value of field collections and the need to preserve and maintain the collections. In 1985, a major restoration project was begun at the Truman home which included removal of wood brackets from beneath the roof overhangs. Original brackets replaced were documented and placed in the museum storage area as a field collection. Several years later wood rot was found in original brackets still on the house and it became necessary to gather information about the brackets. Information on wood type, measurements, method of construction, and special features of the brackets was readily available for study, and maintenance staff were not required to scale the building to record the details necessary to reproduce the brackets.

In 1990, the re-roofing of the Truman home, by the NPS Williamsport Preservation Training Center (WPTC), prompted the need for data collection and acquisition of field collections related to the structures. The asphalt shingles in place were installed in 1969 when Harry and Bess Truman made the decision to replace the original slate roof. Although asphalt shingles are fairly easy to acquire, the two-tab asphalt shingles on the Truman home were no longer manufactured. A special order was necessary and each of the 35 squares of shingles installed on the Truman roof had to be hand cut to match the historic appearance. During the removal of historic shingles, several items were found and dated to the period of the slate roof. Examples of slate fragments, fasteners, shingles, nails, sheathing boards, felt paper, and valley flashings, including both original and replacement materials, were added to the collection to document technology and material changes.

The two previously described projects were major undertakings for the site; however, many field collections have been generated from smaller projects. In the preparation of a historic home for park housing, several layers of wallpaper had to be removed to prepare wall surfaces for painting. Maintenance staff removed sections of the paper large enough to document wallpaper patterns and colors used by the occupants of the home. This type of field material allows us to document wallpaper patterns, and to consider the changing decorating trends in this structure.

Thorough field collecting is important to show impacts of site projects, but just as important are field notes and written project documentation. In order to make collections accessible and ensure accuracy of written records, site staff should discuss technical terms and information about specific items with project leaders. Valley flashings removed during the roofing project were made of terne coat lead and tin and dated to the original slate roof period. Without WPTC input this information would not likely have been recorded. During the roofing project, drawings of the structures were used by site staff to record locations from which materials were removed. These draw-

ings are especially useful for catalogers and future users of the field collections. In the case of the roofing project, WPTC maintained complete notes that included pre-project planning and records of daily activities. The notes included details on purchasing source information, equipment and materials required to complete the project, notes about the special shingle order, and shingle modifications necessary prior to installation. The next roofing project for the Truman home will certainly run more smoothly as a result of the field collection and supporting materials.

Although the field collections and written project information have primarily been used for on-site study, the visual documentation completed during site projects has been shared in public outreach activities. Slides of restoration projects and associated field collections have been used in public programs to demonstrate the commitment of the NPS to preserving and protecting historic structures. Removed historic fabric compared to replacement materials, such as shingles, presents the opportunity to discuss NPS efforts toward presentation of historically-accurate structures and the challenges faced in acquiring accurate replacement materials. In addition to public programs, special tours of the collection storage area for peers and other museum professionals have offered opportunities to demonstrate how field collections are used and to address the need to retain historic fabric for future research.

It is anticipated that with the recent addition of several structures and grounds to the site, the collections and use of field collections will increase. NPS areas have a responsibility to actively collect, document, and maintain structures and associated field collections, and to make available complete documentation for future study and treatment of historic structures. Documentation provides an opportunity to be knowledgeable about past work and to record history of "a change" for the structure that might make a difference in future project planning and preservation maintenance activity. Developing field collections with forethought and maintaining cooperative relationships with other divisions enhances our ability to preserve, interpret, and maintain the historic structures entrusted to the National Park Service.

Carol J. Dage, museum curator, can be reached at Harry S Truman NHS, 223 North Main Street, Independence, MO 64050, 816-254-2720.

Susan Kraft

Restoring Wolves and Historic Interiors

Yellowstone National Park is known the world over for its spectacular geysers, abundant wildlife, and the rustic charm of its architectural treasures, such as the Old Faithful Inn. But, judging from the hundreds of researchers who clamor for access to it, and the more than one million visitors who enjoy it each year, one of the most beloved and in-demand resources in the park is the museum collection.

Dear Ms. Kraft,
Thank you for showing us around the museum. It was neat to learn what a curator does. I liked all the pictures and paintings. It was very nice of you to take time out of your job to show us the museum. Even though I have been to the museum before I didn't know everything.
—Amanda Kebler
Yellowstone NP Elementary School

The park's museum, library and archives staff has a strong tradition of encouraging and facilitating uses of park collections. In recent years, however, demand for access to these collections has reached unprecedented levels. In 1994, more than 250 researchers sought access to the museum collection alone. The majority of these—about 85%—came in search of historic photographs from the park's collections of nearly 90,000 images for use in books, newspaper articles, and other publications (including the park's own quarterly, *Yellowstone Science*); videos, CD-ROMs, and television shows; and interpretive programs and training sessions. About half of these requests were from outside researchers, and half from park or other NPS staff.

Snapshots of History

Outside requests for copies of photographs from Yellowstone's collection vary greatly. In the last year, for example, a clothing designer wanted to use a historic photograph of a handsome young ranger on a motorcycle as inspiration in her work; a request came in for photographs for a Ken Burns production; and TW Recreational Services, Inc. (TWRS), a park concessionaire, creatively employed copies of historic photos of "gear jammers," "pillow punchers," "pack rats," and other concessions employees of yore in its orientation classes.

Park maintenance staff, landscape architects, and biologists, as well as archeologists, ethnogra-

phers, historic architects, and the TWRS historic preservation crew—among many others—use photos from the collection for determining past conditions of resources in the park, from vegetation and wildlife to historic structures and cultural landscapes. Design guidelines being drafted for the park, for example, draw heavily on the historic photo collection in an effort to ensure design, construction, and maintenance that respects and is in harmony with park resources. Engineering and construction techniques used in the past on park structures and roads, historic visitor use (and abuse) of park resources, details of historic wallpaper, the placement of many historic hotel furnishings, changes in vegetation, the array of vehicles

Photo courtesy Yellowstone National Park.

used in the park in its 123-year history, and the historic occurrence of certain animals in the park, such as the gray wolf, are all in evidence in the photo collection. A deteriorating 1920s glass-plate negative recently donated to the collection features former Yellowstone Chief Ranger Sam Woodring with a lapful of wolf puppies. Notes with the accession file state that the pups had been dug out of their den in the park and were "exterminated" by order of the superintendent a week after the picture was made (per government policy at the time). Such critical documentation of park history and resources is one of the greatest values of the museum collection.

Animal, Vegetable, and Mineral

Well-documented natural science specimens in the museum collection play valuable roles in research and other projects. The park herbarium, for example, receives heavy use by botanists and others seeking information on the types of vegetation in the park and the history of their occurrence. The herbarium is even playing a role in the ethnographic assessment of the park currently underway, as researchers seek information on plants traditionally used by American Indians in the Yellowstone area.

Efforts to gather the scientific data needed to support the proposal to restore wolves to Yellowstone brought researchers to the museum collection, as well. Small tissue samples were taken from the heels of two gray wolf taxidermic mounts on exhibit in the Albright Visitor Center for use in a Montana State University DNA study. Samples from these two mounts were desirable because the specimens were well documented in park museum records as having been taken by "government trapper Anderson" in 1922 at the junction at Pelican and Eagle Creeks in Yellowstone National Park. The study also used samples taken from Yellowstone wolf specimens at the Smithsonian's National Museum of Natural History.

Although Yellowstone is little known for its fossil resources, a 1994 Federal Highway Administration (FHWA) road construction project on the park's East Entrance Road yielded impressive Eocene leaf fossils showing evidence of the park's sub-tropical past. Tentatively identified as belonging to an extinct genus of sycamores with a leaf size not previously seen in the fossil record, specimens collected and accessioned into the park museum collection have proved valuable educational tools to park staff. The park's supervisory landscape architect, who manages the park's FHWA projects, uses several specimens on loan to her and housed in her office to educate VIPs and various officials and visitors on park resources and the importance of protecting resources that may be at risk during park construction projects. Several specimens also went on temporary exhibit in the Albright Visitor Center, in response to intense public and staff interest in the discovery. In addition, specimens are regularly showcased during tours of museum collections storage, where visitors hear the story of their accidental discovery and learn their importance to the Yellowstone paleontological record.

Wearing the Collections

Proposals to use museum collections in interpretive programs can often be accommodated when interpreters and curators work together to ensure that artifacts and specimens receive the care they need while they are in use.

Park ranger Maria Kaim of Zion National Park had an idea for an interpretive program that wound up involving garments from Yellowstone's collection of historic and recent park ranger uniforms. Among Yellowstone's park-ranger-related holdings, assembled for potential use in the Museum of the National Park Ranger, were two examples of a tan and white smock dress worn by female NPS employees in the 1970s. Kaim wanted

to have her picture taken in the uniform that would have been worn by her predecessors around the time of her birth, and to use the photograph in an interpretive program. One of the smocks was lent to Zion, through the curator, along with the bright orange polka dot arrowhead-emblazoned scarf that historically went with it. Kaim arranged to be photographed in the outfit, under the curator's supervision, and has since used the photograph in her evening programs to show visitors how a female ranger would have dressed some 20 years ago.

Stuff and More Stuff

Each year, the fifth-grade class at the Yellowstone National Park Elementary School in Mammoth Hot Springs reads a book that is a childhood favorite of many future curators, *From the Mixed-Up Files of Mrs. Basil E. Frankweiler*. This E.L. Konigsburg 1967 classic, which tells of two children who run away from home and live secretly in the Metropolitan Museum of Art in New York, raises many questions in children's minds about how museums work, and why they have so much "stuff." So teacher Tana Sholly follows up on the book by bringing her students to the Albright Visitor Center for a behind-the-scenes look at the park's museum collection, and a chat with curatorial staff about what curators do and how they pick out objects for their collections. Archeological surface finds and modern souvenirs are used to illustrate how curators decide what they must and should add to their museum's collection. Tours through museum storage and visitor center exhibits provoke discussion about how the park gets the animals that are made into taxidermic mounts, the hazards of working with certain collections, and how and why wealthy individuals like Mrs. Frankweiler—as well as many other types of people—donate their collections to museums like Yellowstone's. The students discover that only a small percentage of what a museum has is on exhibit at one time, but that all of its holdings require and deserve specialized care.

Yellowstone National Park is fortunate to have museum collections and archives that are recognized by many for their national and international significance. The above examples represent merely a sampling of the ways in which Yellowstone's diverse collections are depended upon and creatively used every day to educate, inspire, improve the quality of the visitor experience, entertain, and to make intelligent, informed decisions on the management of park resources.

Susan Kraft is the Supervisory Park Curator, managing the museum program for Yellowstone. Contact her with questions by calling 307-344-2262, cc:Mail by name, or Internet Susan_Kraft@NPS.gov.

Duery Felton and Tony Porco

Mementos and Memories

The Vietnam Veterans Memorial Collection

The public's reaction to the Vietnam Veterans Memorial has led to an incredible collection of "things" that have been left at the Memorial by the visitor. Because many people cannot come to the nation's capital, we have tried to find ways to get this collection out to the public. This article describes some of the ways that we have achieved this.

The exhibition, "Personal Legacy: The Healing of a Nation," represents the first showing of the Vietnam Veterans Memorial Collection (VVMC), as well as a collaboration of the National Park Service, the Smithsonian Institution, and a private foundation that raised money for the exhibition. This temporary exhibit at the Smithsonian National Museum of American History has now been extended indefinitely, allowing us to rotate objects in and out of the exhibit. Rotation of the objects in the exhibit is a tricky undertaking, as objects removed will have to be replaced with like

OFFERINGS AT THE WALL: **Artifacts from the Vietnam Veterans Memorial Collection by Thomas B. Allen Published 1995 by Turner Publishing**

objects as well as objects from specific time periods in order to fit into the theme of the exhibit.

Representatives from the Republic of Germany have requested input concerning the proposal in Germany to convert several of the former WWII concentration camps into museums. This conversation is merely an extension of how the VVMC has become the flagship museum source for other exhibition and memorial projects. Organizations seeking VVMC knowledge has included the Lyndon B. Johnson Presidential Library, the Holocaust Museum, the New York Vietnam Veterans Memorial, the New Hampshire Vietnam Veterans Memorial Commission, and the Gettysburg College special exhibition library.

The Museum of Our National Heritage hosted a Vietnam Veterans Memorial Collection exhibition "Gathered at the Wall: America and the Vietnam Veterans Memorial" for six months. Part of this exhibit included comment books for the visitors to express their thoughts. The museum will forward copies of its "comments book" for the collection. This is significant, as visitors filled three or four books articulating their views on the exhibition.

The VVMC staff is in the final stages of preparation for a project that will result in 1,000 CD-ROM photo images. These images will be used for research and publications.

The interest in the VVMC seems to extend to the youth of the nation as well. The director of the New Jersey Children's Museum has contacted the VVMC with an exhibition request. Visitation at the museum consists of children between 4 and 12 years of age. The VVMC staff has spent time consulting with the director in an effort to understand the mission of the museum and their expectations.

Turner Publishing, Inc. of Atlanta, Georgia, has released the much awaited and heralded, collaborated book of representative images of objects from the VVMC. The highly-touted and well-received *Offerings at the Wall* has met the expectations of both the NPS and Turner. As part of the ongoing promotion campaign, the VVMC staff is still being employed to speak in public forums concerning the significance of the VVMC, the book, and the caretakers of the collection—the NPS. Turner has agreed to put a statement in their advertising of the book about the National Park Service and their role in preserving this collection, and urging the public to aid this important mission with their contributions.

A new exhibit recently opened at the Gerald R. Ford Presidential Library in Grand Rapids, Michigan. The exhibition is entitled "A Place of Tribute: The Vietnam Veterans Memorial." The VVMC exhibition opened in May 1995, and is scheduled to run until January 1996. During the month of May, Curator Duery Felton attended and made a presentation at a teachers' symposium in anticipation of the opening.

A CD-ROM has been developed by Magnet Interactive Studios that will simulate a visit to the memorial. Viewers can walk down the pathway and interact with objects or faces on the memorial. Actual photographs of collection objects are contained in this program. Visitors can also learn about the war itself, the construction of the memorial, look up names on the Wall, and produce a rubbing of any name on the memorial. This product is for both educational purposes and for people who cannot come to the memorial.

VVMC staff members continue to field inquiries for other VVMC associated exhibitions from as far away as the west coast, and it is expected that there will be VVMC exhibitions throughout the country. Owing to the fact that the Vietnam War was a "multi-flag operation" and involved, at least directly, approximately 29 nations, there may be an opportunity and request for foreign collaborated exhibitions. As with the Turner book, exhibitions are an alternative form of physical access that allows the public to partake of the VVMC and to appreciate the efforts of the NPS/NCA to preserve and conserve this epic chapter of U.S.-World history. The publication of books and the exhibitions meet the responsibilities of government museum organizations to display, exhibit, and interpret those collections under its purview.

The VVMC Volunteer-in-the-Parks program is an immense help to the efforts to catalog, store, and interpret the collection. Our volunteers are primarily off-site. They do research, provide expertise and knowledge, and write, call, or fax us back with their information. Often, the objects in the collection are obscure or hard to identify; they have helped us with this time and again. We also have a few volunteers who help us with the physical tasks, such as sorting and storing.

Duery Felton, a Vietnam War veteran from Washington, DC, began working on the Vietnam Veteran's Memorial Collection in 1986 as a volunteer. He is now the curator of this growing collection.

Tony Porco has been the museum technician for the collection since 1990. The VVMC is housed in the Museum and Archeological Research and Support (MARS) facility. The authors can be contacted through cc:Mail.

Christine Ford

From Restoration to Fund-raising

Statue of Cleopatra was a gift to the Kohrs from influential cattle buyers. NPS photo by Jonna Mihalic. Postcard courtesy Grant-Kohrs Ranch NHS.

Museum collections at Grant-Kohrs Ranch National Historic Site in Deer Lodge, Montana, have been used in a variety of ways. They help to recreate an important time period of American history. They have even been used to boost sales of the cooperating association, which in turns benefits the interpretation and preservation of the ranch.

The ranch is the original 1860s trading post of French Canadian trapper/trader John Francis Grant. Conrad Kohrs, a butcher and eventual cattle baron, purchased the operation in 1866. The site became the home ranch for Kohrs and his half-brother and full partner, John Bielenberg. Beginning in the 1930s, the ranch was operated by Kohrs' grandson, Conrad Warren. Warren and his wife were diligent in preserving the buildings and objects in them in hopes it would one day be a museum. In 1972, congress created this National Historic Site to "provide an understanding of the frontier cattle era of the Nation's history, to preserve the Grant-Kohrs Ranch and to interpret the nationally significant values thereof for the benefit of future generations."

The site's cultural resources include an amazingly intact cultural landscape including 90 structures, a museum collection of approximately 20,000 objects (mostly original to the site), and archival materials pertaining to the personal and business papers of Kohrs and Warren.

The focal point of this 1,500-acre site is the ranch house-trading post and home of Grant, home ranch to Kohrs and Warren. It was built in 1862 and, according to Johnny Grant, "Cost me a pretty penny." In 1890, Kohrs added a three-level brick structure to the original log and clapboard building. Over the years, the house was modified. After much debate, the Rocky Mountain Regional Cultural Resource staff decided the ranch house should be restored inside and out to approximately 1900. With this decision, the museum and archival collection came into play. Historic photos in the archives were used to document the appearance of the rooms and were essential in writing the Historic Furnishings Report. Luckily, 90% or more of the original furnishings and accessories were already in the collection and ready for placement.

The dining room and sitting room were in poor condition due to water damage. Research had to be done on the floor, walls, and ceilings to determine what was appropriate for a 1900 room. Again, the historic photos were invaluable. Examples of historic wallpaper, ceiling paper, and cove paper in the museum collection were used with the photos to reproduce exactly the original treatment of the room. The original carpet in the sitting room had been re-used by the family upstairs and was in the museum collection. A sample of it was used to make the closest possible replica available with modern technology. Visitor and staff are amazed when copies of the historic photos of these rooms and a sample of the original carpet are shown. The restoration work, along with original furnishings, recreates almost exactly the turn-of-the-century rooms where the Kohrs lived and entertained.

Outside, the Grant section of the house has many windows framed by green shutters. Over the years, the shutter hardware had deteriorated. A set of the hardware in the museum collection was loaned to a foundry, a copy mold of the original made, and several sets of reproduction hardware produced. The preserved shutters with their reproduction hardware preserves the character of the exterior of the house. The original set remains safely in storage.

On the other end of the house, off the side of the 1890s addition, is a porch. When the park acquired the house, all that was left of the original porch structure was the floor and ceiling. All else

Sitting room of the Kohrs home, Deer Lodge, Montana, 1904. Courtesy Grant-Kohrs Ranch NHS.

had been destroyed while closing in the area with walls and windows. However, historic photos in the archives showed the original was the one expressive element of the addition with its ornamental carpentry of eight columns, low balustrades and grillwork. A decision was made to restore the porch to its original appearance. The historic photo helped, but most important were the original porch balusters found by curatorial staff in outdoor sheds and cataloged into the museum collection. They were used to exactly replicate the decorative railings. Today, the view of the house from the lower yard toward the porch is the most enjoyed and photographed portion of the ranch house.

On display in the house is a reproduction quilt. A group of local quilters, looking for a fun and worthwhile project, selected a quilt from the museum collection and created an exact reproduction. The replica is exhibited on the bed in the master bedroom, enjoyed by thousands of visitors a year, while the original is safe in curatorial storage.

Another museum object was reproduced for use on site. Kohrs' wife, Augusta, raised a beautiful ornamental garden south of the house. It is wonderfully recreated by a 15-year seasonal, who often employed the use of a modern metal and rubber-tired wheelbarrow. A wooden wheelbarrow in the collection was reproduced and now fits nicely into the historic scene. It worked so well, that another was made and used to block the open doorway into the coal shed. It is filled with coal and keeps young visitors from climbing on the mound inside. Finally, museum objects are used to raise funds for our cooperaing association, the Glacier Natural History Association.

Restored sitting room. NPS photo by Jonna Mihalic, 1988. Courtesy Grant-Kohrs Ranch NHS.

Postcards were needed for sale in the visitor contact station. The curator at that time consciously selected an image of the formal parlor showing "Kleopatra." She is a plaster sculpture on an ornate base, given to the Kohrs as a gift by their Chicago cattle broker. Little else was known but through the wide distribution of the postcards (and a similar photograph featured in an article in *Reader's Digest*), information was received from people located all over the country. We not only learned more about our Kleo but the other owners of like statues learned more about theirs.

The biggest selling item at the visitor center is a blueprint for constructing a museum piece exhibited in the ranch house kitchen. The object is a ladder-back chair associated with a nice family story. The family purchased the chair for the 4'10" cook who couldn't reach the kitchen cupboards designed for the 6' Augusta Kohrs. The chair's seat and extended extra legs are hinged and can be tipped up to create a step ladder. A dedicated and talented interpretive park ranger drew up construction plans and over 12,000 copies have been sold to date.

The museum and archival collection at Grant-Kohrs Ranch continues to be used on a daily basis. Some 30,000 visitors a year see approximately 10% of the collection on exhibit in the 1890s ranch house, the 1930s bunkhouse and tack room, and the horse drawn vehicle exhibit. Just this year we have received research requests concerning various furnishings, wallpaper, former employees, historic water uses, and the hydraulic ram system used to get water from the spring to the ranch house. We hope to continue to make our collections available in any number of creative ways in the future.

Christine Ford is the Grant-Kohrs Ranch curator, charged with collection management. She welcomes questions or comments on the article through cc:Mail to Chris_Ford at NP-GRKO, or mailed to Grant-Kohrs Ranch NHS, P.O. Box 790, Deer Lodge, MT 59722, 406-846-3268, Fax 406-846-3962.

Doris Kneuer

Florissant Fossil Beds National Monument

Fossil wasp from the 34 million-year-old Florissant Formation. Specimen placed in collection 10 years ago. Serves as logo for Florissant Fossil Beds National Monument.

In recent years, the monument museum collections have been used in many ways—research, interpretation, training, and association sales.

Exhibits of plant and insect fossils have been designed and installed in the visitor center. These illustrate what the finely detailed fossils look like, and what they teach us about paleoenvironments.

Displays at the Hornbek Homestead, a small early ranching site, illustrate the lifestyle during the Homestead period. Many school groups are given tours of this house, and twice a year an open house is held with living history demonstrations.

Scientific Research has been conducted, both in-house and via loans. Specific requests recently have been to view water beetles (both fossil and modern), rose and other flower fossils, fish fossils, and modern butterflies. Specific institutions requesting loans were the University of Colorado, the Colorado School of Mines, the University of Chicago, and the National Museum of Natural History (Smithsonian).

Archival Research has included the use of historic scientific notes, photos, and maps of Florissant Fossil Beds as a reference for current excavations. Historic plat maps and family photographs have been requested as part of a new book on the history of the Florissant area. Copies of historic photographs have been made for descendants of local families.

The collections are used annually for training summer interns and seasonal rangers in both paleontology and curatorial methods.

Replicas of one plant and one insect fossil have been made for sale in the cooperating association book shop. Post cards and bookmarks have been printed using high quality photographs of the insect and leaf fossils as well as the petrified trees.

Doris Kneuer is a volunteer curator who has taken on full responsibility for the monument's museum collections for the last six years.

Lisbet Collins Bailey and Erica Schoenhals Toland

San Francisco Maritime National Historical Park

San Francisco Maritime National Historical Park preserves America's West Coast maritime heritage. Its collections include a fleet of National Historic Landmark vessels at Hyde Street Pier and the West Coast's largest library of maritime history. Over half of the items in the collection, though, are archival material, including 250,000 photographs, 120,000 vessel plans, and 1,500 linear feet of textual records.

Preparation of archival collections for use is labor-intensive, involving arrangement, preservation, and description. The park's Historic Documents Department first prepares a finding aid, which presents information about the creator and the functions that brought the records into being, provides a description of the scope and nature of the records, and creates a folder title list that outlines the physical arrangement of the materials. The finding aid is then indexed for multiple points of access, such as vessel names, vessel types, names, subjects, and document types. These index terms are then compiled into a master index.

Archival records are kept because they contain information of continuing usefulness for researchers, scholars, artists, film makers, genealogists, historians, model-makers, and legal assistants who access the collections by phone, fax, mail, and in-person.

Less obvious, but even more important than the direct use of archives, is the indirect use of the information that users take away. Researchers do more than take notes; they transform copy prints of historic photographs, large format photocopies of architectural drawings, and microfilm copies of sea journals into books, articles, exhibits, models, films, TV shows, calendars, postcards, and posters. These creative products then take on a life of their own, informing, entertaining, educating, and delighting millions of indirect users around the world.

San Francisco Maritime National Historical Park's archival materials were featured in a handsome book of West Coast maritime history titled, *A Pacific Legacy*, and other photos were reproduced in a stunning portfolio of historic images titled, *San Francisco Views*. Research has resulted

in CD-ROMs, litigation details, scholarly papers, family histories, environmental and hazardous waste reports, TV commercials—even graphic designs for Harley Davidson motorcycle gas tanks!

Park staff use archival collections for visual aids and exhibits. An interpretive video celebrating the 100th birthday of one of the park's larger artifacts, the 1895 schooner *C.A. Thayer*, was recently produced from archival film of her last voyage. Park rangers use material in slide shows and talks. The park produces educational, informational, and promotional material (lesson plans, brochures, ship plans packages, tour guides, posters, postcards, etc.), and the park's supporting association, the National Maritime Museum Association, often features entire collections in its semi-annual history journal, *Sea Letter*. Still another important indirect use is the production of internal planning documents, like historic structure reports and preservation guides, that aid in the management of the historic fleet.

Although access and use of the archival collections presently proceed through personal contact, the park plans to make descriptions of the collections available through an online bibliographic network, and a World Wide Web home page for the park is almost complete. As a wider audience becomes aware of the park's collections, their use (and value) will increase and diversify.

For research questions, please contact the Maritime Library reference staff at 415-556-9870 (Fax 415-556-3540), or mail your queries to: Reference Staff, Maritime Museum Library, San Francisco Maritime National Historical Park, Bldg. E, Fort Mason Center, San Francisco, CA 94123. For more general information, contact the Public Affairs office, at the same address.

Lisbet Collins Bailey manages the park's museum collection of textual records, including manuscripts, business records, and personal papers.

Erica Schoenhals Toland manages and references the park's museum collection of architectural drawings, charts, and maps.

For general questions concerning the Historic Documents Department, contact the archivists at 415-556-9876; cc:Mail address is SAFR Historic Documents, Internet address is SAFR_Historic_Documents@NPS.gov.

Jennifer S. Wolk

Two Hundred and Sixteen Square Feet of Treasure

Denali National Park and Preserve (DENA) was created in 1980, when the original Mount McKinley National Park, established in 1917, was expanded. When most people think of Denali, the things that come to mind are Mount McKinley and the "big five"—moose, caribou, wolf, Dall sheep, and grizzly bear. About 30% will see "The Mountain." Only a handful will be able to see how it all intertwines to define this young and complex park. Researchers, historians, interpreters, and even superintendents have come to appreciate the hidden treasures in the 12'x18' museum storage room.

The Interpretive Division uses copies of the historic photograph collection for seasonal programs and exhibits. The eminent figure files provide information and anecdotes not found elsewhere. Management has used several documents from the archives to deal with current issues. For instance, National Park Service ownership of the park road was supported by a collection of documents from the archives.

Denali has a multitude of researchers continually working within its boundaries. The Long-Term Ecological Monitoring program has brought in even more. Wildlife observations, weather, and human activities mentioned in official reports, private journals, and published stories have assisted researchers with background information. In most cases, the archives have been used more than the prepared specimens, although the prepared specimens have come in handy in training field personnel dealing with plants and small mammals.

It is important for researchers to take an active part in museum collections. In Denali's case, a lot of items were collected with minimal information. Researchers have been beneficial in adding and updating items already cataloged. As our collection continues to expand and gaps are filled in, the more our user group will expand. And the more people that are aware of what is in the collection and what it has to offer, the more complete information the collection will have.

Museum Technician Jennifer Wolk has been working at Denali for 10 years, starting her seventh in this position, and she is the first permanent museum technician in the park. She can be reached at 907-683-9536 or at P.O. Box 9, Denali Park, AK 99755. Her Internet address is jennifer_wolk@NPS.gov or she is on the cc:Mail list.

Jim Popovich and Jennifer Chapman

Mount Rushmore National Memorial

Visitors hear studio talk. Photo by Jim Popovich, Mount Rushmore National Monument.

The Mount Rushmore museum collection consists of historic photographs and film, tools and equipment, oral histories, archives and artifacts from the memorial's construction era (1927-1941), contemporary dedications, and special events.

Objects from the collection are viewed regularly in exhibits by the nearly three million visitors who come to Mount Rushmore each year. Objects from the collection are also on view at Crazy Horse Mountain Memorial and the Rushmore-Borglum Story, located near Mount Rushmore in South Dakota, and at The Western Village/Nikko National Park in Nikko, Japan.

The historic photographs are used frequently by writers, illustrators, advertising companies, filmmakers, publishers, and teachers who are using Mount Rushmore as subject matter in a variety of media.

Within the past year, the newly formed Mount Rushmore History Association used the photographs to produce a series of sepia toned postcards and 8"x10" enlargements under "The Rushmore Collection" trademark, a poster showing Mount Rushmore before and after the construction of the memorial, and a children's book called *A Sculptor's Son—Lincoln Borglum and Mount Rushmore*. Proceeds from the sale of these items will help fund educational projects at the memorial.

This great demand for access to the historic photographs led to the establishment of a photo database which allows researchers to search images by their content. The curatorial staff at Mount Rushmore generated data fields and a key word list based on the collection to make image searches more efficient and rewarding. This demand for historic photos also resulted in the creation of a complimentary photo file.

Over the years, the collection has also provided historic footage and still images for the production of a video for the Mount Rushmore Orientation Center and a film for the Mount Rushmore Evening Program. Information from the collection about the workers and historic structures at Mount Rushmore has been the basis for many site bulletins and interpretive programs as well as the two most comprehensive histories written on the memorial, *The Carving of Mount Rushmore* by Rex Allen Smith and *Mount Rushmore* by Gilbert C. Fite.

Presently, the museum collection is being used to design an extensive new exhibit center in conjunction with a privately-funded redevelopment of facilities at the memorial. It was also the focal point for a museum internship program at the memorial which was offered to undergraduate and graduate students beginning in the fall of 1995.

Jim Popovich is the Chief of Interpretation and Visitor Services at Mount Rushmore.

Jennifer Chapman is the park ranger/curator with collateral duties in the museum program. They can be reached at 605-574-2523, P.O. Box 268, Keystone, South Dakota 57751.

Scott Pawlowski

Little Bighorn National Monument

In 1993, 35 visiting researchers used Little Bighorn National Monument's (LIBI) archival resources, swelling to 55 researchers in 1994. One such researcher was Rick Burns of Steeple Chase Film Inc. While creating the documentary "The Way West," film producer Burns used Little Big Horn's photographic archives for primary source material from 1845-1893. Forty-five minutes of the six-hour documentary used park historic and contemporary images detailing the settlement of western states. The documentary was recently shown on public television.

Scott Pawlowski is a co-op student from the University of Colorado. He is the curator for the Colorado Plateau System Support Office and the archives technician for the Rocky Mountain System Support Office.

Vicki Black Webster

The Southeast Utah Group

The Southeast Utah Group, consisting of Arches National Park, Canyonlands National Park, and Natural Bridges National Monument, holds a museum collection of over 300,000 items. Far from remaining hidden away in storage, many of these items have been used for exhibitry, publications, and research.

Exhibits

Over the past few years, a number of the visitor centers in the Southeast Utah Group have added new exhibits. Each of these has used museum collection items. A temporary exhibit at Arches National Park has displayed biological specimens to explain to visitors the Quaternary studies being conducted in the area. Scientists from Northern Arizona University in Flagstaff have excavated packrat middens to learn about climatic, floral, and faunal conditions of the Quaternary period. New wayside exhibits along the main road at Arches make use of a number of photographs from the park's archives.

Both the Island in the Sky (ISKY) and Needles districts of Canyonlands National Parks have renovated their visitor center exhibits recently. The ISKY exhibits include the coffee pot once used by Superintendent Bates Wilson when showing officials the remote areas of the park in hopes of bringing about the establishment of Canyonlands National Park. The Needles exhibits include an Anasazi mug found by visitors who set the proper example by reporting the find rather than moving the object from its place in the field. Also in the exhibits are objects from the cowboy era such as branding irons and horseshoes.

Natural Bridges National Monument is building new exhibits as well. Photographs from the archives will play a prominent role in these exhibits.

Publications

Three years ago, the Southeast Utah Group (SEUG) began a project to compile archives for the three parks. Since the beginning of that project, the archives have been used by a variety of authors and researchers. Bill Noll of Kansas State University is writing a Master's thesis on Mission 66. His use of Natural Bridges NM as an example of an area completely transformed by the program has brought him to the Group's archives for documents as well as photographs. A distant relative of the Wolfe family (whose former home is preserved at Arches NP) combed the archives for information she is using in a novel. Noted author David Lavender has made use of the Canyonlands archives in researching his upcoming book on the Moab, Utah area.

Information and photographs from the archives have also been used in articles for the quarterly journal of the Dan O'Laurie Museum, a county museum located in Moab. In addition, a locally-published monthly newspaper has begun carrying a "50 years ago" column. Excerpts from the Arches monthly reports of 50 years ago, pulled from the park archives, are used in the column.

Other parks have benefited from the SEUG archives as well. A contractor writing the administrative history of Capitol Reef National Park used the SEUG archives for documentation regarding livestock grazing issues.

Research

The Southeast Utah Group has a very active research program in the natural sciences. Projects range from faunal surveys to an effort to discover how the mysterious geological formation known as Upheaval Dome was created. These projects sometimes generate large collections of specimens that can be used by other scientists as well.

The educational value of the collections was a feature of a win-win arrangement made with Colorado State University entomologists. Arches National Park had an uncatalogued collection of some 350 insects. Without an entomologist on staff, we were unable to make use of the collection. Boris Kondratieff, CSU entomologist, took the collection on loan to use in his teaching. His identification of specimens will greatly facilitate our ability to catalog and use the collection. Meanwhile, his students have an opportunity to see insect specimens collected in the 1950s and 1960s, many of which are of species they have never before studied.

As our collections grow, we continue to try to find ways to use the museum collection to support management efforts to understand and preserve park resources while also expanding public appreciation of them.

Vicki Webster is the archives technician at the Southeast Utah Group.

Mia Monroe

A Rare Spot for an Owl

Nearly 10,000 people visit Muir Woods National Monument each day during daylight hours, thus missing a special nocturnal resident of this old-growth redwood forest, the northern spotted owl. To help people appreciate the value of protecting this forest for rare and endangered species, a spotted owl specimen from the park collections is on public display. Special ultraviolet filtering plexiglass protects the owl and it is behind the one window that does not open.

The specimen was donated to the park with all of the proper permits. It was donated because Muir Woods would be a highly visible location for public education. Some side benefits have included being able to use the specimen when training the volunteer owl-monitoring corps and matching up feathers to confirm owl presence in other areas.

Mia Monroe is a park ranger at Muir Woods. She can be reached at the Monument, Mill Valley, CA 94941, 415-388-2596, cc:Mail address GOGA Muir Woods NM.

Bob Chenoweth and Linda Paisano

Sapatqayn, Nakia's Link to the Past

Nez Perce National Historical Park (NEPE) is centered on the Nez Perce Reservation in North Central Idaho. It is rather unusual in that it consists of 38 disconnected sites scattered though Oregon, Washington, Idaho, and Montana. Sites include traditional Nez Perce campsites, geologic features associated with Nez Perce creation stories and stories of Coyote's many adventures, the old officer's quarters at Ft. Lapwai, battle sites associated with the Nez Perce War of 1877, and sites associated with several missionary enterprises. NEPE's museum collections are as varied as are the sites. They include the herbarium from the Big Hole Battlefield, furnishings from Watson's General Store in Spalding, firearms used by Nez Perce warriors and U.S. Army soldiers, and an extensive collection of ethnographic material and historic photography.

Nakia and Linda with eagle feather bustle. Photo by Bob Chenoweth.

Nakia Williamson, a 20-year-old gifted Nez Perce artist, began researching the Nez Perce National Historical Park photo collection when he was in high school, to inspire his artistic pursuits and better understand his Nez Perce ancestry. He is now a student at the Institute of American Indian Art in Santa Fe, New Mexico. This summer he has an internship from the Museum Studies program to work at Nez Perce National Historical Park. Nakia works in the Cultural Resource Branch getting practical experience with the Park's photo collection, record keeping and the care and storage of artifacts.

While looking at objects in the collection associated with horse use and some ceremonial clothing, Nakia and author Linda Paisano came upon a eagle feather bustle used as part of dance regalia. The bustle had three parts consisting of an inside layer made of tail feathers, a layer where feathers had been trimmed in half to nestle against an outer layer which had been partially trimmed. Attached to each outer feather was a 2"-3" length of fine braided horsehair and attached to the end of this was down fluff.

Nakia admired the craftmanship and explained how parts were assembled, why certain materials were used, and why this was characteristically Nez Perce. He had the practical knowledge of how things are assembled but also an artist's perception, an appreciation of design quality and beauty of the pieces in the collection. Nakia explained that being able to examine our collection meant a great deal to him, not only for artistic inspiration but for the deepening understanding of his own cultural roots, for a better appreciation of the talents and sense of aesthetic that defines being Nez Perce.

This represents the primary reason why we keep and preserve collections, at least from the cultural point of view. People are able to see the past through the object, to understand how things were done, and to deepen their appreciation for why they were done. When these objects are examined by someone who is Nez Perce, with family stories, with cultural ties, the link to the past is strengthened, the vision of the future is made more clear. Non-Indian visitors are able to see the richness and creativity of another culture. The window of understanding can be opened and a greater appreciation gained for the diversity of American life.

* Sapatquayn in Nez Perce is "a showing of objects."

Bob Chenoweth wrote this article from an idea that came from Linda Paisano. Bob is Curator and Cultural Resource Manager for Nez Perce National Historical Park in Spalding, Idaho. Linda is a Museum Technician who is also a member of the Makah Tribe. They work together caring for a large ethnographic collection, a growing historic photo collection and archives/library, and handle compliance–related issues for the vast and diverse 38-site park.

Felice S. Ciccione

Rediscovering Resources

Pointed projectile, Gateway National Recreation Area. Photo by Klaus A. Schnitzer.

Gateway National Recreation Area is comprised of three units. In New York there is Jamaica Bay/Breezy Point and Staten Island, and in New Jersey there is Sandy Hook. While these sites are used by visitors primarily for their recreation opportunities, they have a diverse military history that binds them together. This history includes coastal defense fortifications, airfields, an anti-aircraft battery, and Nike missile sites. These diverse defensive areas are all tied to the defense of New York.

The unique history of each of the different units of Gateway has given us the opportunity to obtain a diverse museum collection. Our collection is comprised of uniforms, letters, photographs, ordnance, newspapers, structural samples, maps, firearms, and architectural drawings. It is this diversity that has allowed us to use the objects in different formats.

Many types of objects are used within the park for research about the history of the park. Before doing any restoration work, the photographs and architectural drawings are consulted to make certain that work we will be doing is as historically accurate as possible. These drawings are also consulted by the personnel before major work is done on the grounds. This helps the staff to determine if any cables or pipes may be in the area in which they need to work and they can alter their plans accordingly.

Archeologists also consult the blueprints and maps in the collection to assist them in determining where possible archeological sites may be located. These same archeologists have also used the collection to help determine the age and type of sites that have been accidentally uncovered due to work occurring on the grounds.

Our maps and plot plans will become an invaluable tool if and when our GIS program becomes a reality. Due to the shifting coastlines of many of Gateway's sites over time, it is the structures that we will use as our consistent landmarks.

Our three-dimensional objects also play a major role in areas other than exhibitry. Many of our objects teach us about our sites in a way that written history cannot. For example, Sandy Hook was used as the United States Proving Grounds prior to the Proving Grounds being located at Aberdeen, Maryland. As a result of the most recent unexploded ordnance sweep on Sandy Hook (there have been others in the past), we have made several interesting discoveries.

One of these finds was what we initially thought was a Civil War era experimental projectile. Subsequent conservation work and research uncovered that our find was actually an experimental projectile of David Lyle, used to rescue people from sinking ships and bring them to shore via mechanical means. The projectile would be shot

from the shore to a sinking ship with a rope attached. The rope would then have a means of transport attached to it to give shipwreck survivors a way to reach the shore.

This information led to a trip to the National Archives where more intensive research found that our projectile was one of only two of that type made. This investigation helped us to learn why David Lyle made this type of projectile, why it failed, and how he learned from this mistake to move on to his next prototype.

We have made many other finds from this sweep. In general they give us a clearer picture of the different guns and projectiles that were tested at Sandy Hook. We have found that they were testing different details on the same items. In addition, the number of rounds that are found to still be live has taught us to be very careful when doing any work that requires even minor excavation!

These same pieces of ordnance are being used in what we think is a totally new light. For use in an exhibition, our projectiles are being photographed in a way that allows them to be viewed as pieces of sculpture, rather than munitions of war. In fact, a viewer has to look carefully to realize what exactly is in the photograph.

While the objects in the museum collection can be used for exhibit purposes, there is so much more that we can do with our artifacts. At Gateway I believe that we have just begun to discover the information that our objects hold. Our exhibit program may be small at the moment, but that does not mean that the use of our museum collection is insignificant.

Felice S. Ciccione is curator at Gateway National Recreation Area. She is in charge of the artifact collection, as well as being highly involved in the research, preservation, and interpretation of all the cultural resources in Gateway NRA. She can be reached at Gateway, 26 Miller Field, Staten Island, NY 10306.

Pamela Beth West

Memoranda of Understanding Can Be the Way to Go

Museum Services in the National Capital Field Area is using the Memorandum of Understanding (MOU) to work with companies and institutions to promote our museum resources.

So far, we have used these documents to publish a book, a CD-ROM, and several exhibits. In all cases we have required that the NPS name be mentioned in all advertising, brochures, and general publicity for the event. This has given the NPS some great publicity and allowed us to highlight both the collections and the employees that work on them.

These projects have also allowed us to reach the general public as well as provide a vehicle to raise funds for the preservation of collections or to reimburse us for the time we put into the project. In many cases, we have requested monies up front as a reimbursement for staff time. In other cases, we have had as a requirement of the MOU a paragraph that stipulates that the work or project will mention the fact that the public can donate funds to preserve these collections or provide us with information to help identify the objects in the collections.

Pamela Beth West is the curator of the National Capital System Support Office, NPS. Her phone is 202-205-3831; questions can also be directed to her on cc:Mail or on Internet, pam_west@nps.gov.

Servicewide Museum Management Conference

The NPS Museum Management Program Council (MMPC) and the Servicewide Museum Management Program (WASO Museum Management Program) are planning a Servicewide Museum Management conference. The theme of the meeting will be the use of collections for research, exhibits, and heritage education. The NPS meeting will be held in advance of and in conjunction with the Department of the Interior Museum Property conference. The theme of the DOI conference is "Managing Federally Associated Collections." Both meetings are tentatively scheduled to be held in the San Francisco Bay Area in February 1996.

Sessions at the NPS conference may address collections-related publications, visible storage, exhibits, outreach, providing access to collections, copyright and trademark issues, Native American and other traditional uses, collections on the Internet. Other topics for the conference may include site-specific case studies on any aspect of museum collection use. The conference will also be a forum for introduction of the *NPS Museum Handbook, Part III, Collections Use.*

This conference will also be an opportunity for NPS curators, natural and cultural resource managers, and other NPS staff to further the goals of Restructuring the NPS Museum Management Program.

—John Maounis

John Maounis is heading the Museum Management Program Council; he was the Regional Curator of the North Atlantic Region and is now the Chief, Northeast Museum Services Center, Boston.

In order to use more unusual specimens or to provide safeguards for delicate documents, curators may have to use newly developed and innovative techniques, some of which are described in the following articles.

Douglas Stover

Preserving and Exhibiting Wet Specimens

Preserved lotuses on exhibit at the living natural history collection of waterlilies and lotuses, Kenilworth Aquatic Gardens.

Kenilworth Aquatic Gardens, a 12-acre sanctuary located in Washington DC, is the only unit of the national park system devoted to water plants. The pools contain cluster pink-tinged East Indian lotus, descended from ancient plants by way of seeds recovered in 1951 from a dry Manchurian lakebed. The seeds are estimated at 350 to 575 years old. The museum natural history collection included over 32 rare lotus plants of the W.B. Shaw collection. Walter B. Shaw was the founder of the gardens in 1880. He also planted a few native species from his home state of Maine.

Unfortunately, these plants are only available during blooming season, June to September. National Capital Parks-East has decided that it would be useful to preserve plant specimens for year-round display. Exhibiting or preserving natural history collections, however, has made it difficult to preserve plant parts in liquid without having some degree of color loss.

A project funded by a grant from the Albright/Wirth Employee Development Funds allowed me to try a technique to preserve and exhibit water lilies and lotus flowers year around.

After traveling to London, and meeting with the Natural History Museum, the Royal Botanic Gardens Kew and Stapeley Water Gardens, Nantwich, United Kingdom, and looking at exhibits and the use of preservation of natural history collections and working with the National Museum of Natural History, Smithsonian Institution, I found the most difficult question is what fixatives should be used to preserve the natural appearance of the plant and flower.

The methods used to preserve and interpret the techniques of exhibiting wet specimens include the use of embedding in caroplastic. Preparing wet specimens in the preserving solution, selecting the jars and mold, embedding techniques, curing the mount, labeling the specimens, and coloring the plastic, became a team effort of the park staff consisting of the curatorial, natural resource staff, the park rangers, and maintenance. We found the caroplastic a successful solution to preserve the plant pigment of the plant. Below is the techniques of embedding of caroplastic and preserving solution that was used in this year-long experiment.

Kenilworth provides the best opportunity for the National Park Service to provide a major contribution with the addition of wet specimen to the natural history collection to allow researchers and park visitors to view the colors and the full preserved specimen.

PRESERVING SOLUTIONS

1000 Ml – Formalin 10%
20 Ml – Citric Acid
10 Ml – L-Ascorbic Acid
5 Ml – Formalin Odor Suppressant
2 Ml – Fruit Fresh

EMBEDDING: CAROPLASTIC

- Soak in fixation for 24 hours.
- Wash water lily in clean tap water 3 times.
- Air-dry (towel) until surface moisture has evaporated, prevent shrinkage, or discoloration.
- Glass exhibit container, applied thin film of Mold Release.
- Mix 1/4 base layer of Catalyst with Caroplastic together.
- Mix Catalyst with Caroplastic and stir together.
- Pour 1/4" base layer, set aside and cover until Caroplastic is gelled (test by tilting mold).
- Mix second layer and place water lily into jar and pour mix.
- Allow to gel at cool temperatures (below 60%).
- Mix top layer 1/4", set aside and cover overnight.
- Curing, 3-5 days set aside at cool temperatures
- After hardened thoroughly, ready to sanding/buffing outer surface with wet sandpaper.

Doug Stover is the Park Curator, National Capital Parks-East. He has assisted institutions in the United Kingdom and Germany with the preservation of wet specimens. If you have questions, call him at 202-690-5185, Fax 202-690-0862.

Bruce A. Weisman

Integrated Pest Management and Preserving Exhibit Items

Pest Management is defined in different ways by many different professions. In the broadest sense, Integrated Pest Management is primarily an agricultural intervention technique to reduce cost and increase profit. However, lately it has become a concept within the museum community and appears to have taken a rather simple concept and turned it into a rather cumbersome addition to the workload. This perception may have some basis in fact, but the purpose of this article is to elucidate how far a little thought on IPM can go toward the preservation of our collections on exhibit. Pest Management programs can be as simple or as complex as time permits at the site, but the three basic elements of exclusion, identification, and monitoring within an exhibit context will add to the overall preservation program.

In agriculture, pest management typically involves the use of predatory species to exclude the pest species from a specific area. Within the museum context, our specific area is the exhibit and our exclusion device is tight seals instead of predatory insects. The obvious really does not need to be stated, but the protection afforded by tight seals on the cases is heightened by each level of exclusion created. A useful strategy to create for your exhibit area is to use a line of inductive reasoning starting with an evaluation of the artifact itself and determine the effectiveness of this first protective layer. It is from this point that the zones of exclusion will be created.

All situations will be different and obviously a historic house will differ markedly from a formal exhibit area. Historic items within the house context will not typically be exhibited with cases. Therefore, the first zone of protection will be the room itself and then the perimeter of the house. Insect-sensitive objects are going to be more at risk than objects in cases. That is always going to be true and with that in consideration, the seals on the building take on considerable importance to the collection housed inside. Common sense will guide you here: doors without sweeps, open windows without screens are obvious. Less apparent will be unsealed old pipes running into the structure or cracks or spaces leading to the outdoor world.

The above discussion applies equally to the typical exhibit situation. In fact, we may be a little more lax in the analysis of the exhibit environment due to the perceived security assumed by the protection of the display case. One specific example illustrates this point dramatically. Insect collections, for example, are frequently housed in specially designed insect drawers supposedly resistant to intrusion. I have seen several drawers with specimens totally destroyed by Dermestids and ask how this could have been averted. It is very important to analyze your particular situation from the inside to the outside and then take the action with the most impact. Perhaps the addition of a seal on the drawers, cabinets, doors, or windows could have prevented this damage. In this case, an additional seal on the drawer might have prevented the damage.

The second element of the pest management thinking for the exhibit area is identification of the suspected museum pests. As stewards of cultural resources, we often feel frustrated by the seemingly endless parade of insects invading our exhibit areas. At first glance, it appears to be an unsurmountable task to identify each species and our inclination is to panic and assume that the collections are in imminent danger. Frequently, this is not going to be the case. Structures, no matter how well sealed, will not keep out all insects! However, it is important to remember that the vast majority of insects are not destructive to museum objects and pest species are, in fact, very finite in numbers confined to specific families within an order. In the museum field, very few of us are also accomplished entomologists. It is, however, relatively easy to familiarize oneself with the major pests that affect collections.

Members of the Family Dermestidae comprise the vast majority of the museum pest species and are relatively easy to identify on the basis of morphology. Species in the Family of Lyctidae (Powder Post) are a little more challenging, but not difficult when the suspected Lyctid is evaluated by the primary morphological feature that places that species within the family. An element to accomplishing this easily, though, is not to resort to an Entomology text complete with a morphological key. This can be intimidating, frustrating, and certainly not an efficient way of making an identification. There are many wonderful field guides that you will find more useful, not only in terms of museum pest identification, but also for identification of the innocuous invaders. By being able to concentrate on those target species, you will be spot a pest species easily and efficiently. This is critical in the exhibit situation since the staff who are responsible for an exhibit are going to be the same staff monitoring the exhibit.

That brings us to the third element mentioned in the introduction, the process of monitor-

ing. This can take many forms, and individual needs and time constraints will determine the level of activity. There are indeed many approaches and articles in this area and need not be addressed here. The most important aspect of monitoring is consistency. Whatever level of monitoring is selected, it is critical that a written routine be developed to provide continuity. If you examine cases, do so on at regular intervals. Hopefully, the exhibit will be set up to facilitate this, but frequently will not. Of course, it is ideal to have every artifact against a white background, but in most exhibit situations you will have to adjust to the prevailing conditions. The emphasis in monitoring is on inspection and taking preventative action in the form of adding additional pest barriers or increased housekeeping.

Additionally, monitoring against a time frame will prove to be a valuable predictive tool in your exhibit pest management. If possible, collect your observations for data entry at a later time. Although this can involve a significant time commitment, it can really add to your overall efforts to protect exhibit items on display for long periods. For instance, the emergence of the adult form of Anthrenus verbasci can be reliably predicted at the MARS facility. Consequently, proactive decisions can be made. Cabinets are not opened during that period unless it is absolutely necessary. This type of action will help minimize the risk of adults laying their eggs directly on attractive materials. Perhaps cleaning the exhibits can be avoided or minimized during the emergent cycle at your locale. This may not make a large difference overall, but small actions add up and potentially protect collections in the long run.

The final point—related to monitoring—is perhaps one of the most neglected. Many times staff at sites are under considerable time constraints with many other assigned duties. It is very easy to fall behind on inspection when other concerns take precedence.

One solution is creating a list of those items on exhibit that are made or composed of materials that are most prone to insect attack. These are the items that absolutely should be checked habitually for indications of infestations. Clearly, there are types of collections that require more frequent inspection than others. Natural History collections are extremely vulnerable and by the time an infestation is detected, it is entirely too late. Other artifacts may be of materials particularly attractive to specific pest species common in your area. Thus, being aware of the material types within your exhibit will enable you to make a special effort toward those items when time is at a premium. This is not to say replace regular inspection with a shortened version, but to have an available abbreviated item list when circumstances prevent the full routine. Alternative procedures will add to the protection of the collection by providing options when the situation dictates otherwise.

Alternatives are the key to pest management and following procedures developed at some other site could be a mistake. Your exhibit is unique, and therefore deserves its own specialized plan developed by the people who know it best. Integrated Pest Management is not some mysterious science; it is straightforward and will over time be instrumental in preserving your exhibit items.

Bruce A. Weisman is a museum technician at the Museum and Archeology Repository Services (MARS). He can be contacted at 301-344-3602, cc:Mail address Bruce Weisman at NP-MARS, e-mail address Bruce_Weisman@NPS.gov.

Doug Stover and Mike Antonioni

Exhibiting Color Copies

There is an increasing need to exhibit museum documents within visitor centers that don't have an HVAC system, security system, museum integrated pest management plan, and ultra violet light protection. After experimenting with different copying machines, we discovered that the Canon CJ10 color copier works the best.

We experimented using uv film to protect the document on the copier. Most black and white copiers have cloth bottoms under the lid that it can tear the document when it is placed on the glass for copying. The color copier has a plastic bottom on the lid. The plastic lid has a solid, smooth surface so that it will not tear the document when it is placed on the glass for copying.

Recently, we were asked to find some documents for a new visitor center in Williamsport, Maryland. We found that the copies looked so realistic, even the stains from the original were showing up.

Even the park rangers thought the copies were original documents, until they were told that they were only color photocopies.

Placing color copies of original documents on exhibit does not require the day-to-day care of exhibiting a rare piece.

It is also a good idea to obtain a rubber stamp that marks it as a reproduction.

Doug Stover is acting curator for C&O Canal NHP. Mike Antonioni, is acting museum technician for C&O Canal NHP.

Louise Samson

Replicating Historic Collections in the NPS

It seems to be unanimous that "cloning" is becoming the most significant use of some museum collections; not only in a "for profit situation," but for other purposes as well. The use of accurate reproductions in living history programs and reenactments, where consumptive use negates the use of original materials, has long necessitated the need for reproductions of original items. This practice is becoming increasingly more common to provide appropriate items for use in exhibits where original materials would be subjected to damage or loss, have not survived over time, or significant numbers of like objects are not available (i.e. barracks furnishings).

The use of reproductions for exhibit purposes at Fort Laramie National Historic Site began, on a large scale, with the furnishing of the 1874 Cavalry Barracks. This project has generated some interesting uses of materials from Fort Laramie collections, as well as many Park Service sites and other museums with 19th-century military and civilian collections. A vast amount of drawings of product packages and furniture and equipment, labels, and stencils have been produced using collection materials for use in the production of replicated items for exhibit. An active network among 19th-century military posts, such as Fort Davis, Fort Larned, Fort Hartsuff, Fort Union, and many others, has developed to share these materials for similar exhibit projects. One example of sharing ideas and materials is a mug created from an original from the Fort Bridger museum collection and an insignia copied from an original in the Fort Laramie collection. These collection materials were replicated for use in the Cavalry Barracks. The mug bearing the 2nd Cavalry Company K insignia is on exhibit in the barracks messroom and is also a "hot" sales item through our co-operating association.

In 1988, the enlisted men's bar at Fort Laramie was opened to the public for the sale of soft drinks. This new function created a need for the removal of original objects from the exhibit and the addition of replicated or reproduction furnishings. Private enterprise has even been bitten by the reproduction bug. Anheuser-Busch generously donated documented replicas of artifacts from their collections to this project.

The escalating use of reproductions in exhibits presents some interesting challenges for the curator/collection manager and many issues will need to be addressed. How will this change our park specific acquisition policies? How will this affect preservation of original materials (less original objects on exhibit and more in storage)? How do we account for these items which are used in a multi-purpose fashion, both as exhibit items and for living history programs?

Louise Samson, museum specialist, has been at Fort Laramie through 16 years of evolving museum philosophy in the care and use of collections.

NPS Natural History Working Group Meeting

The National Park Service (NPS) Natural History Working Group met in July 1995. The group was established by the Associate Director, Cultural Resource Stewardship and Partnerships. It advises the NPS Museum Management Program on matters related to curation and documentation of NPS natural history collections.

The group made recommendations and developed functional requirements and data elements for the Biology, Geology, and Paleontology components of a new automated collection management system. The group proposed modifications to the current Automated National Catalog System natural history data fields. ANCS data will be migrated into the auto updated system.

Some requirements the working group felt the new system must have include:

- quick and efficient searching and indexing on a windows-based platform
- use of standard data tables (X based)
- capability for additional expansion: for example, adding subdiscipline modules
- public access capability for research and interpretive use
- the ability to easily convert old Automated National Catalog System records
- capability for selective and incremental backups
- support for visual imaging
- network-ready and multi-user capability

The working group recommends separate locality, treatment, and people modules. These will allow parks to track additional information on specimen preparation and treatment, threatened and endangered species, preparator, source of accession, and cataloger.

Group members are currently working on defining new data elements for on-line help.

For more information, contact Joan Bacharach at 202-343-8140 or Kandace J. Muller, Museum Management Program, National Park Service, Harpers Ferry, WV, 304-535-6201.

Sooner or later, anniversaries become major events. The entire staff becomes involved and every facility, road, trail, overlook, historic building—and the museum collection—is impacted. The following articles illustrate how some units of the national park system are meeting the challenge.

Deirdre Shaw

Exhibit Celebrates Glacier's 85th Anniversary

On May 11, 1910, Congress set aside Glacier National Park as a "public pleasuring ground' that was to be preserved in "a state of nature". This summer, Glacier National Park, the Glacier Natural History Association, and the Hockaday Center for the Arts in Kalispell, Montana cooperated on a photographic exhibit celebrating the 85th anniversary of the establishment of Glacier National Park. Sixteen historic images chosen from the nearly 10,000 in the park's collection as well as accompanying captions and text interpret the colorful history of the park's early years; the relationship of the Blackfeet, Salish, and Kootenai to the region; the role of the Great Northern Railway in the development of visitor facilities; and the National Park Service.

Touring car on the Going-to-the-Sun Road, Glacier National Park. Photo by T.J. Hileman, c. 1930, courtesy Glacier National Park.

The work of several photographers is featured in the exhibit: Morton J. Elrod, a biologist who traveled in the area prior to its establishment as a park; Fred Kiser, R.E. Marble, and T.J. Hileman, photographers working for the Great Northern Railway; and George Grant, a well-known National Park Service photographer.

Several contemporary black and white photographic images of the park by landscape photographer Marshall Noice complemented the work of the featured historic photographers.

The Hockaday Center staff planned to use the exhibit as a focal point for visiting school groups this fall using resource materials, park publications, and environmental education curricula produced by the park staff and funded by the cooperating association and the NPS Parks As Classrooms program.

Under the supervision of Chief Park Naturalist Cindy Nielsen, cultural resource and interpretive staff members worked together to produce the historic component of the exhibit. The author selected the images, wrote the interpretive text, and assisted Hockaday staff in the installation of the exhibit. George McFarland, Photographic Technician, printed the high-quality exhibit images in the park's darkroom and Interpretive Specialist Bill Hayden produced exhibit labels and text using the park's desktop publishing capabilities.

The Glacier Natural History Association sponsored the exhibit through a donation to the Hockaday Center for the Arts. In a separate but complementary project earlier in the year, GNHA and the museum staff worked together to produce a series of five interpretive postcards featuring historic images from the collection that were offered for sale by the association beginning this summer.

Deirdre Shaw is the Museum Curator at Glacier National Park, managing the museum and archival collections. Her address is West Glacier, MT 59936, phone 406-888-5441, ext. 314.

Steve Harrison

Another First for the Wright Brothers

We are approaching the 100th anniversary of the first powered flight. On December 17, 1903, near Kitty Hawk, North Carolina, Orville and Wilbur Wright alternately manned the controls of their airplane and made four powered flights. The amazing and wonderful story of the brothers, the plane, and the flight is well documented. However, the history of the 1903 Wright Flyer and its many components is rather checkered.

As the centennial approaches, we expect increasing questions about the authenticity of many objects related to the Wrights' first flight. The many values and uses of our collections are based on our understanding and knowledge of the objects in our trust. Establishing authenticity is therefore critical to our mission.

At Wright Brothers National Memorial at Kill Devil Hills, the museum displays a broken crankcase (catalog number WRBR-345) purported to be from the 1903 Wright Flyer. The park received the crankcase in 1960 from Orville Wright's estate. It appeared to be authentic. The fact that it was broken was significant because the brothers did record that following the fourth flight, a gust of wind toppled the Flyer and damaged the engine. The four legs cast into the crankcase to mount the engine to the airframe were broken off. However, based on a 1906 statement by Orville Wright, historians had assumed that the original crankcase had been destroyed.

The Smithsonian Institution in Washington, DC, had exhibited the 1903 Wright Flyer, including an engine, since 1948. When restoration of the airplane began in 1985, National Air and Space Museum staff, led by Rick Leyes, began research to determine if the engine in the Smithsonian's Flyer was the original engine.

Crankcase from the 1903 Wright Flyer on exhibit at Wright Brothers National Memorial, Kill Devil Hills, North Carolina. Photo courtesy The National Air and Space Museum, Smithsonian Institution.

The Wrights cast engines in 1903, 1904, and 1905. In their typical methodical, no-nonsense style, they referred to the engines respectively as engine one, engine two, and engine three. Over the years, parts were replaced, lost, damaged, and moved from one engine to another.

Questions remained following the Smithsonian's initial research. Knowing that the National Park Service had a Wright crankcase, the Smithsonian asked the Service to lend them the crankcase at Wright Brothers National Memorial. The Smithsonian staff needed to take measurements, examine the two crankcases alongside each other, and compare the crankcases with the Wright brothers' copious notes and drawings. Only by doing this could they determine the authenticity, dates of manufacture, and uses of the crankcases.

The questions and uncertainty were so great that simply examining and comparing the written records and the crankcases were not enough. The Smithsonian requested permission to "scientifically analyze the chemical composition and the precise color of the exterior crankcase paint ... and thread sealant deposited on the interior of the case." The analysis required the removal of minute samples of paint and sealant from inconspicuous places which are not visible when the crankcase is exhibited.

By summer 1985, the park staff was excited to hear from Rick Leyes that "... the evidence suggests that the broken crankcase was part of the original engine that made the first flight." (The fascinating and detailed story of the Smithsonian research is presented in Rick Leyes' article, "The 1903 Wright Flyer Engine: A Summary of Research" published in the *National Air and Space Museum Research Report, 1986.*)

Having identified the original first flight crankcase, the Smithsonian recommended additional study of the metal. The Smithsonian wanted to take samples to determine the metal's microstructure. With permission from the park superintendent, the Smithsonian staff took samples from three inconspicuous locations on the fractured surface of the crankcase. Martha Goodway, a metallurgist with the Smithsonian's Conservation Analytical Laboratory, using x-ray emission in a scanning electron microscope, determined that the metal was an aluminum-copper alloy as described in the Wrights' notes.

Beyond authentication of the crankcase, the scientific analysis and findings add to our knowledge of both aviation and metallurgic history. Ms. Goodway determined that, metallurgically, the crankcase had been precipitation-hardened. That

is meaningless to most of us, but here is how she explained it: "The precipitation hardening in the Wright Flyer's crankcase occurred earlier than the experiments of Wilm in 1909, when such hardening was first discovered, and predates the accepted first aerospace application of precipitation-hardened aluminum in 1910." (See Ms. Goodway's articles listed below.) Historically, the findings add another first for the Wright brothers. Powered flight required a power source. The Wrights knew they needed a metal engine which was strong but lightweight. Unable to use the heavy engines being manufactured for such uses as automobiles, they had an engine custom made at a foundry in Dayton, Ohio. They did not realize that the engine was precipitation-hardened. However, they were the first aviators to use precipitation-hardened aluminum-copper alloy. Today, more than 90 years later, it is a standard for the aerospace industry and is even used to make the space shuttle.

The loan of this museum object to the Smithsonian and their detailed historic and scientific analysis of it has helped both institutions and the public. We now know that the crankcase exhibited at the Wright Brothers National Memorial museum is the crankcase which powered the first flight. The interpretive and museum staffs know a great deal more about the crankcase than we could ever have imagined. This knowledge adds to our awe and respect for the brothers' tenacity and ingenuity to accomplish what so many had attempted and failed: powered flight.

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David F. Riggs

Jamestown Prepares for Quadricentennial in 2007

Commemorations of historical events often are accompanied by what might be called "anniversary frenzy." Just before the celebration there is a belated outpouring of funds for hurried research and special events, sometimes with positive results and occasionally with results that are less than desired. At Colonial National Historical Park a different approach is being taken at Jamestown, Virginia. The town site already is preparing for the year 2007 to commemorate its founding as the first permanent English settlement in America 400 years ago.

In 1992, 15 years before the Jamestown quadricentennial, the National Park Service entered into a cooperative agreement with the Colonial Williamsburg Foundation and the College of William and Mary. Generally referred to as the Jamestown Archeological Assessment, it is a multidisciplinary study of Jamestown Island's history, archeological record, and environmental reconstruction, plus a comprehensive survey of historic and prehistoric sites. It was determined from the project's inception that the park museum collection would play an integral role in the assessment.

A solid foundation was established for the assessment five years earlier. In 1987 special funds were provided by the Mid-Atlantic Regional Office to begin cataloging the backlog of more than 500,000 Jamestown artifacts. During subsequent years this commitment was extended when the Washington Office provided funding for the same purpose. By the time the assessment started, more than 50% of the collection was cataloged, and that figure approached 100% before the assessment was concluded. Without this special funding it would have been impossible to locate archival material and artifacts or provide data needed by research teams.

It was the Jamestown archives which provided information for the first major study. Coincidentally, this research started during the same year as the cataloging project, five years prior to the assessment's formal beginning. Historians and historical architects from Colonial Williamsburg joined with an anthropologist from William and Mary to re-examine Jamestown's archeological archives. Included were reports, field books, notes, photographs, maps, and drawings from preceding excavations during the years 1934-

1941 and 1954-1956. The team's objective was to reinterpret these records by incorporating knowledge acquired about Chesapeake sites during the past three decades. When the assessment began in 1992, this architectural survey was well on its way to providing a new understanding of the town's physical layout, the date and function of its buildings, and each structure's appearance.

To complement the architectural study, which continued as part of the assessment, an artifact assessment team was established. This consisted of two material culture specialists with 17th-century expertise who were contracted by Colonial Williamsburg. This team assists members of the architectural survey in interpreting artifact assemblages for structures of particular interest. It also has conducted independent studies of wells at Jamestown, using both the archeologists' records and the artifacts. Cross-mending of ceramics and identification of vessel types manufactured at Jamestown is yet another project.

Archeologists from Colonial Williamsburg used the museum collection and archives for still other purposes. The first excavations at Jamestown in the 1990s were small in scale and were intended to answer specific questions. Many of these questions were raised by the architectural study team regarding architecture and the town's history. Since Jamestown's previous excavators scrupulously left many acres undisturbed, it was possible for archeologists to examine adjacent areas, even in the main townsite. For other inquiries it was beneficial to relocate foundations that were left buried. Prior to making these incisions into the earth, archeologists had staff members examine the archival records of their predecessors. An interesting sidelight of these investigations was that they confirmed the accuracy of previous archeologists' reports and drawings.

Jamestown Island comprises over 1,500 acres. An objective of the assessment was to conduct a comprehensive survey to locate all of the island's historic and prehistoric sites. This was accomplished by archeologists from William and Mary who first examined maps in the archives. Once the survey began, archeologists visited the archives to examine reports, maps, and photographs which corresponded with points under examination. One result of the survey was that it confirmed the belief that there were more Native American sites at Jamestown than hitherto reported. Consequently, one of the college's anthropology students compared Native American ceramics found in the survey, in earlier excavations at Jamestown, and at three other sites along the James River. The survey was better able to determine the period of Native American occupation at Jamestown, the dominant ceramic type, and which type it resembled elsewhere along the James.

A survey of Jamestown Island was complemented by research in the museum collection and archives. NPS photo courtesy Colonial National Historical Park.

Additional artifact studies have been conducted which provide information for the assessment. Colonial Williamsburg performed acid extraction tests upon roofing tiles from Jamestown and Williamsburg to determine their composition and their relationship to the three 17th-century tile kilns found thus far at both towns. Using GIS (Geographic Information Systems) and the park's ANCS (Automated National Catalog System) records, patterns of artifact distribution have been placed on computerized maps for analysis by Colonial Williamsburg and a consultant. GIS also has been used to study colonial land boundaries. In yet another endeavor, Colonial Williamsburg's archeologists and material culture specialists have guided a graduate student from the Winterthur Museum in a study of tableware.

A bibliographer is using Pro-Cite to list Jamestown's archives and manuscript collections in a guide to both published and unpublished Jamestown source material. This work coincides with that of the assessment's historian who made extensive use of the park's documentary material. These two studies complement each other, with the bibliographer and historian advising one another of sources discovered at other institutions.

Park staff members have used the museum collection as well. Persons who work with the assessment teams have made frequent use of the archives. Visitors likewise have benefitted, thanks to the creativity of the interpretation staff which has set up several temporary exhibits to explain the assessment.

In Jamestown's case, it always has been a misnomer that the bulk of a museum collection rests idly in storage, virtually forgotten until used for rotating exhibits, loans, and researchers. Because of Jamestown's proximity to other colonial sites, the museum collection and archives receive hundreds of researchers and inquiries annually. The archeological assessment merely has increased the collection's usage in the effort to have a more comprehensive understanding of Jamestown by the year 2007.

David F. Riggs is museum curator of the Jamestown museum collection and archives at Colonial National Historical Park.

NPS collections document the units of the Park Service themselves—the people, the plants, the past, the present—for reference and use in the future. We must use the data that has been recorded over the years; we must share as much information as we can with as many disciplines and institutions as we can. The following articles illustrate the importance of documentation.

Connie Hudson Backlund

It's a Matter of Time
The Value of Documentation

It's a tall bookcase reaching from the floor to the ceiling typical of bookcases at the Carl Sandburg Home. It, like the others, is brimming with books. These books are, however, different from the usual literary works associated with the site. They are the catalog records for Carl Sandburg Home NHS, and this particular bookcase stands in the corner of the curatorial office at the park.

The years between 1988 and 1991 were especially productive for the catalogers of the Sandburg collection. It was a period of concentrated effort to properly catalog the 220,000 objects donated by Mrs. Sandburg.

Photo of Carl Sandburg oil painting exhibited in the main house at the Carl Sandburg National Historic Site. Photo by Barry E. Madjerich. Eastern National Park & Monument Association postcard.

So the questions are asked—is it worth it and what value does it serve? What value does it serve as we constantly juggle so many important preservation and visitor needs? All those records, from floor to ceiling, are duplicated on the computer database. Worth the investment?

I suspect Garrison Keillor, of Prairie Home Companion fame, best answered those questions in a broadcast from the Mark Twain Home in Hartford, Connecticut. While handling a cue ball, Keillor inadvertently broke it. The site's curator standing nearby thoughtfully commented, "It was just a matter of time? Keillor noted, "Those are hard words for a curator to say!"

Hard but true! Our best efforts to monitor and preserve will gain us longer **temporary** control. In the preface to her biography of Carl Sandburg, Penelope Niven describes "sweltering weeks on hands and knees at Connemara searching for Sandburg papers under the eaves, in the attic, in the cellar," and "day after day battling mold, mildew, mice, and time for custody? Time will ultimately win. When it does, we hope to be ready."

A catalog of museum objects is much like an inventory of plant and animal species in a natural area. Whether it follows a national event like the Valdez Oil Spill in Alaska or is conducted locally on a county-wide basis, it makes good sense to know what we have.

The museum records are an important part of what we in the National Park Service preserve at a site. What we know of our past and the interpretive stories we tell tomorrow are supported by our documentation today, for ... it is just a matter of time.

Connie Hudson Backlund is the Superintendent of Carl Sandburg Home National Historic Site. Prior to her present position, she coordinated many of the servicewide curatorial services courses at Mather Employee Development Center. For questions, contact her at Carl Sandburg Home NHS, 1928 Little River Road, Flat Rock, NC 28731, 704-693-4178, or cc:Mail CARL Superintendent.

Eileen Devinney

ANCS Provides Access to Alaska Museum Collections

The Alaska Field Area is home to 16 NPS units, including the largest national park in the nation, Wrangell-St. Elias National Park and Preserve. Many units are young, having been established in 1980, so there remains much to be done in the way of research and resource documentation. Curatorial Services in the region plays a vital role in terms of cataloging and storage of specimens collected for myriad resource management projects. The Automated National Catalog System (ANCS) facilitates documentation, data retrieval, and storage information for specimens of a given project while centralized storage provides a safe, secure repository for natural and cultural resource specimens.

Important as the curator's role may be, few parks have been able to establish permanent or even temporary curatorial positions. This makes it more difficult to document collections, as well as making our role and services less visible to park staff and researchers. In order to boost visibility, the Alaska Regional Curator diligently promoted the use of collections and ANCS databases as tools for research and project planning. Staff are often surprised to learn what types of specimens have been cataloged, the numbers of items, and where they are stored. Through this "mini campaign," Jean Rodeck (Swearingen) and her staff brought the value and breadth of Alaskan park collections to the attention of NPS employees and outside researchers.

For a recent meeting of Alaska national park resource managers, regional curatorial staff compiled packets of natural history information specifically for each park unit. Each packet included a "unique" listing of specimens represented in the collections, lists of outside repositories, and synopses of currently identified, uncataloged specimens resulting from collecting under permit.

Other examples of ANCS data compilation and information sharing from the region include in-house publications such as *Flora of Alaska National Parks, Checklist of Animalia Specimens in Collections of National Park Units in Alaska,* and contributions to Dr. Vincent Santucci's national park paleontological documentation publication. It is hoped that updated versions of the flora and fauna checklists can be produced in fiscal year 1995 or 1996. Staff limitations have prevented such a project thus far, but new computer software may greatly facilitate the process.

Some advances have been made in the area of standardization of data entry for natural history specimens in the region. Seven years ago, museum technician and botanist Dr. Garry Davies developed a standardized entry format for vascular plants and moss/lichens, as well as a 23-page guide to specimen preparation and documentation entitled "Herbarium Hints." In 1993, this was revised and expanded to address all biological, geological, and paleontological specimens. Titled "Natural History Collections Documentation Guidebook," the spiral bound packet is provided to researchers who plan to collect under permit in order to inform them of their documentation responsibilities.

It has been gratifying to receive positive feedback from park resource staff regarding museum specimens and to have them recognize the value of collections in terms of resource documentation. We have found that it is critical for curatorial staff to develop a dialog with other branches and divisions as a means to share information. Once established, these connections prove invaluable for all involved.

Eileen Devinney was the Alaska Region Curatorial Center Museum Technician (Registrar) for four years, in Anchorage. She is now a Master's degree student in Anthropology and Museum Studies at the University of British Columbia. Her Internet address is Yukonbean@aol.com.

Increasing Visibility and Access

The Museum Management Program Council is exploring ways to make use of National Park Service natural and cultural museum collections. A committee has been formed to identify innovative ways of using our collections, not only for our own research and to educate the public, but to provoke further interest in NPS collections in general. The committee's task is to develop and distribute a strategy for such uses as publications, and other methods to assure that NPS collections are more accessible and visible to researchers and to the general public.

If you have any new ideas on how to use our collections, send them to Pam West on cc:Mail, pam_west@NPS.gov on the Internet, or to National Capitol Field Area, 1100 Ohio Drive, SW, Room 134, Washington, DC 20242.

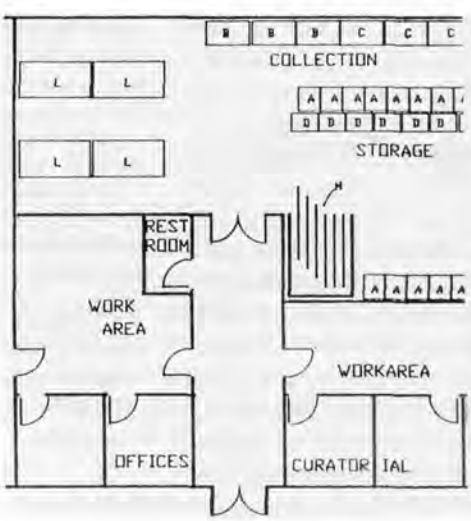
The use of museum collections is facilitated by proper preservation and protection, provided by more new and innovative methods, including the use of part of the collections themselves—the buildings. The following articles describe museum storage facilities.

Jonathan Bayless

Designing Critical Habitat for Collections Use

Critical habitat contains the space and resources needed for the long-term survival of populations. Museum space, whether for storage or exhibit, is a critical habitat essential for the survival of populations of museum objects. Without such habitats, museum objects suffer population losses and cannot survive over time. The space must provide a controlled environment for temperature, humidity, and light, and be as secure against human intrusions and natural forces as possible. In the struggle to create the most secure space, we have been regularly forgetting that museum objects must be accessible for public use. Why? Because human interactions with museum objects are a necessary activity contributing to their continued existence.

We generally speak of a fundamental difference between the storage and protection of collections and their use and enjoyment. We think of these two goals as happening in separate locations to different objects, such as a prehistoric Zuni bowl on exhibit and a historic Springfield rifle in storage. This perceived difference helps perpetuate the problem when we design new storage space. As funding becomes available for construction we tend only to think of larger, more protected versions of existing storage space, too often closed to all but the few staff with access. This view has led to the label "back-room curator," as someone who spends all his time locked up and out of sight.



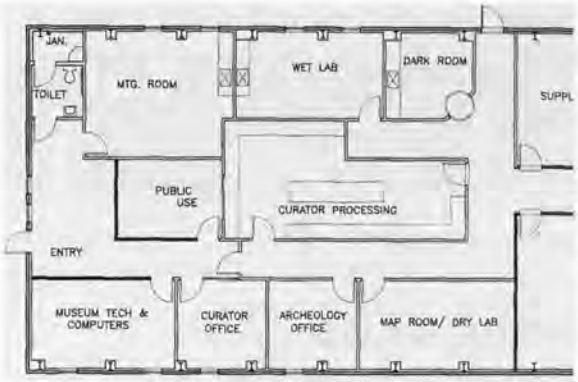
Original layout for Grand Canyon Museum facility where the hallway was the sole public use space, leading into secured areas.

At Grand Canyon National Park, a large and diverse museum collection containing historic river boats, biological specimens, photographs, and historic and prehistoric artifacts are stored in a variety of locations whose quality ranges from "acceptable" to down right "miserable." In the late 1980s, a Collection Storage Plan was completed that laid out the design for a new 7,000-square-foot facility. As shown in the layout, the initial design for the building had a single hallway leading into storage areas and offices. The sole public use space envisioned was the hallway and restroom. Otherwise, the visitor would enter directly into the "inner sanctum" of the museum storage and work areas. As happens now in most park sites, this would lead to a conflict between providing the greatest security for the artifacts and encouraging research, tours, and other regular public access.

The solution is to incorporate the need for public access and use into museum storage facilities during the design process. While museum facilities in parks nationwide are designed to fit a variety of collection types, environments, and local conditions, most design criteria for access and use have widespread applicability.

One design element is perhaps obvious, or should be. Dedicated space must be set aside for public research use of the collections. This may be a separate room adjacent to museum storage, or a space within the storage room for a work station or simple table and chairs. This latter approach assumes that all the collections within storage can be securely locked up in cabinets or screened shelves. A separate room is the best solution, as it allows the visitor to have space designed and maintained for a specific purpose, and not be cluttered with other uses that may be conflicting. A dedicated room can contain work surfaces, area lighting, electrical outlets, and other equipment that enhance the user's experience and increase safety and object security. Extensive use of glass partitions in walls allows for visual observation of visitors by staff and meets the need to provide direct supervision of object use. Otherwise, this security concern is achievable only by remaining in the room or literally guarding the door.

Another important design criterion, often overlooked, is the first impression visitors receive upon entering the facility. First impressions may



Revised Grand Canyon floorplan showing foyer, research room, and multi-use meeting room.

not be vital, but this decides where they will wait, even during short periods, and what kind of orientation they will receive. All too often, our visitors enter crowded and narrow corridors without receiving any orientation as to the purpose or layout of the facility they've entered. Curators, often struggling with overcrowded storage spaces, may see entrance areas as the lowest priority for space, forgetting that a successful museum facility will be one that is more frequently visited. An entrance foyer with chairs, bulletin boards, signage for orientation, and a professional layout sets the tone for the facility's users and recognizes their importance. In addition, it contributes to the "zone" approach to security by providing the least secure area, which is open to everyone, as the outermost zone.

At Grand Canyon, a meeting room for 20 people was designed that doubles as a lunch room, emergency project room, and creates the ability to provide lectures, hold business meetings, and train staff. It also provides an orientation space for tour groups. Meeting rooms provide vital space for park managers to meet with their staffs and outside experts and planners, and a variety of park partners. Amazingly, many important discussions occur with limited- or non-participation by resource professionals because of the lack of simple meeting space in parks.

With the assistance of professional architects and engineers, the museum staff developed a completely new layout for the Grand Canyon museum facility. A large foyer, glass partitioned research room, and meeting room totaling 800–square–feet have been incorporated. The rest room was expanded from the original design to provide for access for individuals with disabilities, an important component of access throughout any public facility. If additional space had been available, we would have added a "project room" that could have provided space for researchers working on major projects for months or even years. Of course, one must never forget that a general purpose room can serve many different purposes, whether as an office, a dry lab, or a research room. This knowledge can lead to an evolutionary understanding of building design, and how space can be adapted to new functions or needs over time. Thus, we should recognize a certain level of flexibility in our planning when we designate a room's uses.

Most parks will not be building a facility as large as that at Grand Canyon National Park, but the use criteria discussed here should still be relevant. Plan to dedicate at least 10% of the available space to visitor use. In a 250-square-foot building this may only amount to a 4'x5' work station by the door. But large or small, a museum facility without such space is creating a guaranteed conflict between preservation and use. As resource managers, we depend upon the backing of management and the support of an informed and concerned public. We know many of the physical needs of the critical habitat needed for the protection of our collections. The challenge is to provide for their use and enjoyment within this secure and controlled environment. Only careful design and planning, from the very beginning, can ensure that these potential conflicts are avoided and successful partnerships between protection and use are assured.

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Anna von Lunz

High Technology in Civil War Era Storage Facility

The 1864 Civil War Powder Magazine at Fort McHenry National Monument and Historic Shrine in Baltimore, Maryland houses important collections of both the Fort and Hampton National Historic Site (Towson, Md). This impressive rectangular structure has high vaulted ceilings and 6'-thick exterior brick walls, surrounded by a 8'x147' exterior courtyard wall.

In the early 1970s the park made the decision to use the structure as a storage facility for museum services. Shelving, cabinets, heating, air conditioning, and alarm systems were installed. For over 20 years this facility has accommodated thousands of artifacts from both sites. For the most part the collections are stored on separate sides of the building or on different aisles. Hampton's artifacts include books, furniture, por-

traits, household items, and weapons. Fort McHenry's collections include weapons, flags, furniture, archives, rare books, photographs, uniforms, and a sizable archeology collection.

At the present time, there is one museum technician responsible for monitoring these collections, an estimated 30,000 items. To expedite and facilitate monitoring the relative humidity and temperature in the building, a computerized remote data logger system was installed recently using monies from the Museum Collection Preservation Program. With this new modem system, staff can dial the phone number in the Civil War Powder Magazine, access the remote data loggers and obtain temperature and relative humidity levels. The data is then communicated to the computer and charts can be printed from the museum technician's office at another location in the park. This technique avoids unnecessary traffic in the inner room, assuring a cleaner, more stable environment for the collections.

This unique structure, built primarily to protect valuable powder from the ravages of war, today has a more productive and creative function preserving irreplaceable museum collections from the ravages of time and an urban industrial environment.

It is fortunate that the park chose to convert a Civil War era structure to a bombproof, stable, secure storage facility with a "high tech" monitoring system to preserve and protect important collections of two national parks.

Anna von Lunz is the museum technician with the primary duty of caring for the museum collections of both Fort McHenry NMHS and Hampton NHS. Her job has evolved to include broader resource management issues for McHenry and the Northeast Field Area as a whole. She also serves on the Director's Task Force for the Conservation Study Institute.

This article was previously published in the Northeast Museum Services Quarterly.

Behind the many uses to which we put collections are the curators who care for and research all of the materials. Who are the people who do the research that makes it possible to use the collections properly and wisely? The following article discusses the curator as an important resource.

Doris D. Fanelli

The Curator as Social Historian

City Tavern, c. 1976. Eighteenth century dining and drinking customs, foodways, and social dancing were some of the research topics curators undertook to assemble an accurate reference guide to furnishing this working restaurant. Contemporary prints were a rich source of detail for the bar enclosure pictured here.

As national parks face an era of dwindling financial support and shrinking staff, it is beneficial to regard present staffing in new ways. This article argues that curators of history collections in national parks are an overlooked resource of historical data and research. Examples given are based on the history of curation at Independence National Historical Park. The curators at Independence have strong interdisciplinary backgrounds which have included advanced study in historical methods. This training is evident in their vision of their collections as simultaneously objects deserving of the highest standards of care and a body of data that can yield historical information and inspire questions. This approach isn't new among the community of material culture scholars. As early as 1978, Thomas J. Schlereth discussed the interstices of social history and history curation in "Historic Houses as Learning Laboratories." However, within the National Park Service, the curator's identity as a social historian is sometimes overlooked. The history collection curator must, per force, be a social historian in order to competently execute her/his work. National Park Service curators and their research are a rich resource of social history studies and should be included in the current discourse among historians within and outside of the agency. [1]

Among the cultural resources that historical parks are charged to preserve are collections of material culture in the broadest sense : archeological remains, fine and decorative arts, architectural fragments, relics, curiosities, natural history specimens, and their attendant documentation. The very rationale for such holdings requires a curator to exercise the skills of a social historian in order to understand and optimally manage his charges. A curator must have an intimate knowledge of the context in which the collections were produced, used, and assembled in order to perform her job. The necessity of this knowledge is paramount for

the preparation of a scope of collections statement that governs the collection's development; for the description of the collection for accountability purposes; for the prioritization of conservation needs and the expenditure of funds; for the evaluation of prospective accessions; for the determination of security requirements; for the preparation of furnishings studies; and for the accurate installation of historic interiors and exhibitions. Although Independence National Historical Park wasn't authorized until 1948, its collections date to 1824 when the City of Philadelphia converted the Assembly Room of Independence Hall into a public shrine in honor of the return visit of the Marquis de Lafayette.

Bishop William White's Study *by John Sartain, oil/canvas (1836). This painting, now exhibited in the Second Bank of the United States, provided the wealth of detail needed to accurately recreate the study during the 1960s.*

Photos courtesy Independence National Historical Park.

The shrine immediately attracted donations of works of art and historic memorabilia. With the exception of two outstanding collections of portraits by members of the Peale and Sharples families, collections development was serendipitous. Through donations, the committee that governed the museum acquired an antiquarian miscellany that symbolically chronicled America's origins. The resulting display of some 3,100 relics, statues, portraits, household furnishings, autographs, costumes, and military memorabilia exemplified the Victorian habit of adopting the vocabulary elements of various styles of ornament and re-combining them into a new language that relied upon familiar forms to communicate new thoughts.

It wasn't until the first quarter of the 20th century that a curator, Wilfred Jordan, described the formal characteristics of the collections when he developed a taxonomy and an organizational framework for them. The rationale for his categories of classifications and their accompanying numeric system was lost long ago. National Park Service curators, upon their arrival in 1951, began cataloging the collection into NPS format and now are re-configuring it into the Automated National Catalog System (ANCS) format as funds permit. But the earlier record file system has its own archival integrity which we've maintained because of its value as a social artifact. It demonstrates how the collections' former keepers regarded it. The Liberty Bell, for example, was classified as a "musical instrument." The original catalog entries are equally baffling in their logic and incurious about their subject—quite opposite from our contemporary desire for detailed description and research.

Today, Independence uses refurnished historic interiors to interpret the past. To succeed in these recreations, curators have used their training in history as much as their training in curation. Curatorial concerns echo academic trends in historiography that inquire into discrete aspects of everyday life. Curators can contribute to this inquiry. Because what is collections and furnishings research but an inquiry into social practices, customs, mores, organizations, and institutions as reflected by their material products. This proposition is demonstrated by the body of research curators at Independence Park who have produced over some 40 years in order to properly document, manage, and install the collections.

Even those rare cases where there is an apparent abundance of surviving furnishings can be frustrating for the curator assigned to install them in a historically accurate manner. The Bishop White house is a good example. Assigned in the 1960s to produce the furnishings plan for the house, curator Charles Dorman was able to acquire for the park a great deal of the household furnishings of William White, the first consecrated bishop of the Protestant Episcopal Church in America and chaplain of the Second Continental Congress. White's descendants had preserved his possessions, including an oil painting of the Bishop's study , made shortly after his death in July 1836, that permits the accurate recreation of that room. The painting is a documentary treasure of household management practices such as the substitution of canton straw matting for wool carpets during the summer. Even the bishop's idiosyncratic habit of extinguishing his cigar on the chair rail behind his desk is visible in artist John Sartain's exquisite portrayal of the room. Unfortunately, there is not a similar degree of documentation for the remainder of the Bishop's town house, an eight level, 13-room structure that should convey to visitors the tastes and habits of the colonial and early republic upperclass. To mitigate the lack of detail, Mr. Dorman undertook a comparative study of household inventories in order to discern room use and typical furnishings. This data, combined with an investigation of other primary sources such as letters and diaries of the White family's friends and contemporaries, contributed not only to the accuracy of the house's installation, but also to the accuracy of the catalog records of this unique collection and to our knowledge of Philadelphia social history.

Working under time pressures, the curatorial staff was able to install only five rooms of the Bishop White House before it opened to the public. Subsequently, in 1989, the curatorial staff

undertook a re-study of the third floor as part of a continuing effort to make more areas of the house available. This work built upon the furnishings issues raised 20 years earlier; but during the intervening years, social historians were asking new questions and the third floor installation provided an opportunity to contribute to the discourse. The Bishop's five granddaughters occupied the two rooms of the third floor at the time of his death. Refurnishing the spaces to that era permitted the curators to discuss the roles of upper-class, single young women in the early republic. How did they fill their days? What roles did they have in the management of their widowed grandfather's household? What was acceptable deportment both in the home and outside of it? And, how could all this information be portrayed in the furnishings and their arrangement in the two rooms on the third floor? The responses to the questions formed the basis of the refurnishing plan. The curator in charge of the project, Anne Verplanck, subtly offered answers through her recommendations for furnishings. She analyzed biographical information about the White granddaughters and their peers. From that data, eight categories of activities emerged that could be portrayed in the installation: household management, participation in benevolent associations, reading, correspondence, sewing, music, drawing and painting, and visiting. Archeological evidence from the Bishop White house site helped confirm these categories and direct acquisitions. Like most scholars of the 18th century, Ms. Verplanck soon discovered that the numerous occupants and staffs of extended-family households had far different expectations of personal living space and privacy than their modern counterparts. She successfully conveyed this information by the skillful placement of collections in a manner both cramped and careful of the objects. The visitor is able to comprehend the tensions among five young women sharing these two rooms. The degree of civility this proximity necessitated is evidenced in the perfectly set tea table, the sewing table, and furniture groupings intended to convey the standards of ritual politesse the occupants maintained at all times. This functional methodology yielded equally detailed results at the Declaration house where an analysis of Thomas Jefferson's consumer habits formed the basis of the recommended furnishings list and the arrangement of the installation.

When the curators began their work at Independence, the bibliography on 18th-century urban life was surprisingly small. In fact, conventional wisdom in historical installations didn't always distinguish urban practices from rural. During the mid-19th century, "colonial kitchen" became a euphemism for an open hearth crammed with every conceivable implement for food preparation, laundry, housecleaning, and even personal hygiene. The staffs of historic sites as well as their visitors unquestioningly accepted many of the objects associated with recreated kitchens. Spinning wheels, wash tubs, bread peels, and innumerable oddly-shaped ceramics were considered essential furnishings and had become icons, rather than vehicles for interpretation. The situation was exacerbated in urban areas where a lack of available space prompted the conclusion that city cooks performed the same range of tasks as their rural counterparts, but in smaller spaces. In 1982, the park's curatorial intern, Jane Busch, undertook a special topics study on urban kitchens with the goal of improving the installations in the Todd and Bishop White houses. The resultant report indicated that contrary to popular thought, urban dwellers did not practice the same range of culinary tasks to the same degree as their rural counterparts. The Philadelphia household manager maximized the convenience of her location and purchased pre-cooked items or sent baking and roasting to established bake houses outside the home. A second important result of this report was the careful study of 18th-century nomenclature for cooking apparatus in order to distinguish the variety of forms of cookware. serving vessels, and utensils. Curatorially, this report prompted the reidentification and the select removal of anomalous equipment from the exhibits; ceramics and wooden containers, properly shaped for the tasks portrayed, were added. Interpretively, the report permitted a redefinition of the kitchen in urban households.

Studies of spaces for food preparation inevitably provoke questions about foodways. The task of properly installing the kitchens and areas of food and beverage consumption in 20 different spaces in the park, forced curators to discover what foods were seasonally available in Philadelphia, and how those foods were prepared and served. Implements for boning and serving shad, for example, should only be in evidence during late winter and early spring when the fish is spawning in the Delaware River. Oyster shucking knives should be removed from the kitchens from May through August. The curatorial staff is about to embark on another foodways study during the coming year with the goal of improving our installations.

Food service is the focus of City Tavern, a recreated, operating concession. When curator Constance V. Hershey researched the furnishings study for the tavern and then recommended period and reproduction furnishings for its installation, she was struck by the changing norms in the consumption of alcohol over time. Bills for fashionable

parties held in taverns considered genteel eating establishments detailed quantities of alcohol that would be considered excessive, even dangerous today. Curatorially, this information prompted increasing the portrayal of the role of alcohol in 18th-century daily life by adding bottles, barrels, measuring, sifting and stirring utensils, glassware and ceramics—the material culture of drinking—to all of our installations. I was reminded of Ms. Hershey's work at a 1993 conference when David Brion Davis commented that historians have been remiss in considering the effects of the social construction of alcohol on history.[2]

Who was serving the food? And washing the dishes? Where were the comestibles stored, the linens kept? How did a linen press work, a goffering iron? Responding to trends in social history, curators had grown dissatisfied with historic houses that only presented the public areas of the domestic installations. In order to fully portray a household's dynamics, curators at Independence recognized the necessity of examining servitude in 18th-century Philadelphia. Karie Diethorn's inquiry describes the uniqueness of the master/servant relationship, one of simultaneous denial and dependence manifested by the householder's expectations of invisibility and ubiquity. Ms. Diethorn's study portrays this tension in tangible ways through such recommended additions to the domestic installations as a bell system, a bedstead in a moiety or garret with no accompanying bedchamber furnishings such as a chest of drawers. Rather, storage boxes and equipment for ironing should be arranged in the same area, thereby emphasizing the servant's lack of personal space, time, and individualized identity. This critique also permitted broadening our interpretation to include the presence of African Americans who we know resided in the installations as slaves or servants. For example, Bishop White employed free blacks as resident servants. Jefferson's slave, Bob Hemmings, was in Philadelphia during the Second Continental Congress. Shoe blacking and laundry bundles in the refurnished bedchamber of the Declaration House signify Hemmings' duties and permit discussion of his status.

The servitude study was class-centered; however, it prompted a series of equally provocative questions about the household spaces that class frequented. Curatorial intern, John Bacon, examined the ancillary spaces in homes, basements, attics, and backyards to recommend ways to make them vital parts of the installations. He studied the architecture of these spaces as well as extant primary evidence of their uses and furnishings. The report demonstrates that the ancillary spaces of homes were both storage and staging areas for the social performances in the public spaces. Simultaneously, cellars, garrets, and attics were used as dining areas or sleeping quarters for servants or even members of the householder's family. The furnishings in these areas should reflect these shifting uses. Seasonal storage of carpets or matting; traveler's trunks, a corner chair for invalids, extra dishes and glassware should share the limited spaces with temporary bedsteads. In addition to an area for serving meals to boarders as in the example of the Kosciuszko house in the early-19th century, cellars provided a cool environment for food and beverage storage, additional space for seasonal food preparation activities such as pickling or salting, and for laundry. Every square foot of the 18th-century home was active on a daily basis. Mr. Bacon describes the transformation of basements and attics from their status as important service areas integral to 18th-century domestic life into drafty, dank, foreboding places of evil in 19th-century literature where murderers concealed their victims, families hid their worst secrets, or discarded objects underwent a transition from useless to antique. Such a curatorial space study is social history at its most powerful.

Curators also use the data these studies generate to solve collections care issues. One troubling problem at Independence is the adverse effect of sunlight on collections in refurnished rooms. Competing preservation interests between historic structures and installations have made the standard solutions of filtering films and interior filtering storm windows impractical. Faced with the dilemma between historical accuracy and optimal collections care, we determined to adopt the viewpoint of the 18th-century household manager and assume as many light-reduction techniques as possible. This has included the introduction of operable window hangings that can be adjusted to reduce direct sunlight and the accurate and effective use of reproduction textiles in the forms of table and case piece coverings, bed hangings, and slipcovers. Currently, Amy Newell is completing a study on textiles in Philadelphia homes which we hope will yield even more evidence for the introduction of reproduction textiles.

The foregoing isn't intended to be an exhaustive list of the many ways the curatorial staff at Independence Park practices social history. Rather, I've attempted to demonstrate the essential link between curatorial work and social history in a setting such as Independence. The installation of collections into recreated historical environments requires original research that can have value for the park's interpreters and for the scholarly community. The information generated can have application to every aspect of the curatorial program. The concerns about the accurate portrayal of the past that curatorial work generates should be con-

sidered in the development of the park's research program. By presenting examples of this thesis in the above examples in a sequential order, I've tried to show that the best answers are sometimes those that provoke more questions.

Notes

[1]Thomas J. Schlereth, "Historic Houses as Learning Laboratories: Seven Teaching Strategies," Technical Leaflet 105, American Association for State and Local History (1978). Written as a brief for teachers, the author suggests the variety of inquiries into the past afforded by historic houses. Furnishings and collections ultimately figure at the center of most of the approaches which include spatial concepts, household artifacts, literary and symbolic interpretation.

[2]Davis' comments were made during the conference, "Through a Glass Darkly: Defining Self in Early America," sponsored by the Institute of Early American History and Culture, Williamsburg, Virginia.

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This list is a sampling of publications and other items that have used National Park Service collections. It was compiled in February 1995 largely from citations submitted by individuals from about 50 National Park Service units across the country, and by members of cooperating associations. In most cases it was compiled without seeing the publication. Please send any comments, corrections, or additions to Martha Lee, Yosemite Museum, National Park Service, P.O. Box 577, Yosemite National Park, California 95389 or via email to Martha_Lee@nps.gov.

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Lee, Martha J.

1987 The Start of a Museum Collection at Kalaupapa National Historic Park. ***Courier,*** Winter. [artifacts from Kalaupapa NHP collection]

1990 1990 Donations to the Yosemite Museum. ***Yosemite,*** Spring. [artifacts from Yosemite NP collection]

1992a Schwabacher Family Gifts Museum. ***Mariposa Tribune.*** Feb. 12. [baskets, historic photos from Yosemite NP collection]

1992b Indian Basket Collection Donated to Park. ***Mountain Life,*** Feb. 18. [baskets from Yosemite NP collection]

1992c Schwabacher Basket Collection Donated to Yosemite National Park. ***Yosemite,*** Winter. [baskets from Yosemite NP]

Lewis, Ralph H.

1993 ***Museum Curatorship in the National Park Service, 1904-1982.*** Washington DC: Curatorial Services Division, National Park Service, United States Department of the Interior. [photographs from the National Park Service Historic Photograph Collection at Harpers Ferry Center]

Life

1991 Our National Parks: a 75th Anniversary Celebration. ***Life,*** Summer Special. [photographs from the National Park Service Historic Photograph Collection at Harpers Ferry Center]

Ligature (Pub.)

1993 ***To See a World: World Cultures.*** Boston, MA: Ligature. [artifacts, photos from Statue of Liberty/Ellis Island]

Lister, Florence C. and Robert H. Lister

1968 ***Earl Morris and Southwest Archeology.*** Albuquerque: University of New Mexico Press (reprinted 1993, Tucson: Southwest Parks and Monuments Association). [National Park Service archival and historic photograph collections]

Lister, Robert H. and Florence C. Lister

1983 ***Those Who Came Before: Southwestern Archeology in the National Parks.*** Southwest Parks and Monuments Association and the University of Arizona Press. [photos from the George Grant collection, National Park Service Historic Photograph Collection at Harpers Ferry Center]

Loendorf, Lawrence L. and Stuart W. Conner

1993 The Pectol Shields and the Shield-Bearing Warrior Rock Art Motif. ***Journal of California and Great Basin Anthropology*** 15(2):216-224. [archeological shields from Capitol Reef NP]

Machlis, Gary E.

1992 ***National Parks for the 21st Century: The Vail Agenda.*** Report and Recommendations to the Director of the National Park Service. [photographs from the National Park Service Historic Photograph Collection at Harpers Ferry Center]

Manchester, Albert and Ann Manchester

1993 ***Hubbell Trading Post National Historic Site: An Administrative History.*** Santa Fe: National Park Service, Southwest Cultural Resources Center Professional Paper No. 46. [archival and historic photograph collections; art works and artifacts illustrated, all from the museum collections of Hubbell Trading Post NHS]

Martin, David L.

1991 Population Census of a Species of Special Concern: the Yosemite Toad ***(Bufo canorus).*** Fourth Biennial Conference of Research in California's National Parks. University of California at Davis, Set. 10-12, 1991 (abstract). [museum records and natural history specimens from Yosemite NP]

Martin, Kenneth R.

1991 ***"Some Very Handsome Work:" Scrimshaw at the Cape Cod National Seashore.*** Eastham, MA: Eastern National Park and Monument Association. [scrimshaw and artifacts from the Cape Cod collection; the idea for the project was park curator's]

Martini, John A.

1991 ***Fort Point: Sentry at the Golden Gate.*** San Francisco: Golden Gate National Park Association. [Historic photos, objects and plans from Golden Gate NRA]

McChristian, Douglas

1995 ***The U. S. Army in the West, 1870-1880: Uniforms, Weapons and Equipment.*** Norman: University of Oklahoma Press. [Written by National Park Service historian; 6-8 weapons from Chickamauga and Chattanooga NMP used as illustrations]

McClelland, Linda Flint

1993 ***Presenting Nature: The Historic Landscape Design of the National Park Service, 1916-1942.*** National Register of Historic Places, Interagency Resources Division, National Park Service. [photographs from the National Park Service Historic Photograph Collection at Harpers Ferry Center]

McCoy, Ron

1984 Circles of Power. ***Plateau*** 55(4):1-32. [photos of archeologically recovered shields from Capitol Reef NP, credited to National Park Service]

Meade, Dorothy Cook

1994 ***Heart Bags & Hand Shakes, The Story of the Cook Collection.*** Lake Ann, MI: National Woodlands Publishing Company. [a guide to collections consisting of personal reminiscences by the grand-daughter of the original collector and photos of objects in the Agate Fossil Beds collection]

Medley, Steven P.

1991 ***The Complete Guide to Yosemite National Park.*** Yosemite: Yosemite Association. [historic photographs, drawings, ephemera from Yosemite NP]

Merritt, Ralph P. "Pete", Jr.

1987 ***Death Valley—Its Impounded Americans.*** Death Valley: Death Valley '49ers. [Death Valley NP historic photographs]

Miller, Elena Diana

n.d. ***Cooking at Commemara.*** Privately published. [by a National Park Service staff member who used cookbooks in the Carl Sandburg Home NHS collection]

Milley, John C. (ed.)

1980 ***Treasures of Independence: Independence National Historical Park and Its Collections.*** New York: Main Street Press, Mayflower Books. [objects, photos, furniture from Independence NHP collection]

Morris, Don P. (ed.)

1986 ***Archeological Investigations at Antelope House.*** Washington, DC: National Park Service, United States Department of the Interior. [many photos of artifacts now in Canyon de Chelly collections]

Morrow, John Anderson

1989 ***The Confederate Whitworth Sharpshooters.*** John Morrow, Publisher. [objects from the Chickamauga and Chattanooga NMP collection]

Murphy, John M. (with Howard Michael Madaus)

1995 ***Confederate Rifles and Muskets: Infantry Small Arms Manufactured in the Southern Confederacy, 1861-1865.*** La Jolla: John M. Murphy, M.D. [includes weapons/objects from Chickamauga and Chattanooga National Military Park collection]

Myers, Thomas P.

1993 The Cook Collection: A Turn of the Century Collection from the Nebraska Frontier. ***American Indian Art Magazine*** 19(1):60-67, 102. [clothing, beadwork and other artifacts from the Cook Collection at Agate Fossil Beds National Monument]

National Parks

1991 Special Issue: 75th Anniversary of the National Park Service. ***National Parks: The Magazine of the National Parks and Conservation Association*** 65(5-6). [photographs from the National Park Service Historic Photograph Collection at Harpers Ferry Center]

National Park Service

1982 ***Carl Sandburg Home Official National Park Handbook.*** [historic photos from Carl Sandburg Home NHS, and interior & exterior photos of the house]

1983 ***Nez Perce Country: A Handbook for Nez Perce National Historical Park, Idaho.*** Washington, D.C. Division of Publications, National Park Service, U.S. Department of the Interior. [variety of Nez Perce artifacts from Nez Perce National Historical Park]

1989 ***Yosemite: A Guide to Yosemite National Park, California.*** Washington, D.C.: Division of Publications, National Park Service, U.S. Department of the Interior. [baskets, historic photographs and ephemera from Yosemite NP]

1993a ***Crissy Field: The Last Word in Airfields, A Summary of Its Significance and Historic Integrity.*** San

Francisco: National Park Service, Golden Gate NRA. [photos from Golden Gate NRA collection]

1993b ***Charles Pinckney National Historic Site.*** National Park Service, U.S. Dept. of the Interior. [artifacts, historic photo from Southeast Archeology and Conservation Center]

Neill, Peter and Barbara Ehrenwald Krohn (editors)

1991 ***Great Maritime Museums of the World.*** New York: Balsam Press. [objects and historic photos from San Francisco Maritime NHP]

Niven, Penelope

1991 ***Carl Sandburg, A Biography.*** Macmillan Publishing. [National Park Service long-time volunteer wrote the book using archives, oral histories and photos from the Carl Sandburg Home NHP collection]

Nordernskiöld, Gustaf and Liz Bauer

1991 ***Gustaf Nordenskiöld: Pioneer Archeologist of Mesa Verde.*** National Park Service. [artifacts and historic photographs from Mesa Verde]

Nykamp, Chad

1994 ***The Bishop William White Collection*** (working title). Independence NHP. [synopsis of letters in an extensive manuscript collection at Independence NHP]

Omni-Photo Communications, Inc. (Pub.)

1993 ***The American Nation.*** New York. [artifacts, archives from Statue of Liberty/Ellis Island]

Orland, Ted

1985 ***Man and Yosemite: A Photographer's View of the Early Years.*** Santa Cruz: Image Continuum Press. [historic photos from Yosemite NP]

Orsi, Richard J., Alfred Runte and Marlene Smith-Baranzini (eds.)

1993 ***Yosemite and Sequoia: A Century of California National Parks.*** Berkeley: U.C. Press and the California Historical Society. [historic photos from Yosemite NP and Sequoia Kings NP]

Ortiz, Bev

1991 ***It Will Live Forever: Traditional Yosemite Indian Acorn Preparation.*** Berkeley: Heyday Books. [historic photographs from Yosemite NP]

Palm Springs Desert Museum

1986 ***California's Western Heritage.*** Palm Springs: Palm Springs Desert Museum. [oil painting from the Yosemite NP collection]

Parks and History Association

1995 ***Frederick Douglass at Home.*** [historic furnishings and photos from FRDO collection]

Penniman, Betsey Augusta

1988 ***Augusta Penniman: Journal of a Whaling Voyage, 1864-1868.*** Eastham, MA: Eastern National Park and Monument Association. [original journal is in collection at Cape Cod National Seashore; was transcribed by former curator, Dorinda Partsch, who also wrote foreword]

Peterson, Harold L.

1967 ***The Fuller Collection of American Firearms: America's Military Long Arms.*** Eastern National Park and Monument Association. [objects from the Chickamauga and Chattanooga NMP collection]

Petrie, William L. and Douglas E. Stover

1995 ***Bibliography of the Frederick Douglass Library at Cedar Hill.*** Silesian Companies, Inc. [books from Frederick Douglass Collection]

Pfefferle, Kristina

1993 ***Benjamin Hawkins Letterbook, 1798-1801, A Catalog.*** Independence NHP. [Independence NHP archival collections]

Pickens, Buford, ed.

1993 ***The Missions of Northern Sonora: A 1935 Field Documentation.*** Tucson: The University of Arizona Press. [reproduction of the 1935 study, with photographs. The study was done to design the visitor center at Tumacacori National Monument; the visitor center is now also a National Historic Landmark. Original study now located in the Tumacacori NHP collection.]

Pirani, Federica and Maria Elisa Tittoni

1993 ***The American West: l'arte della frontiera americana, 1830-1920.*** Venezia: Marsilio Editori. [oil painting from the Yosemite NP collection]

Randall, John Moore

1991 ***The Ecology of an Invasive Biennial, Cirsium vulgare, in California*** [PhD dissertation]. University of California at Davis. [made extensive use of Yosemite NP herbarium, archival materials and historic photos]

Ranney, Victoria Post (ed.)

1990 ***The Papers of Frederick Law Olmsted, Vol. V, The California Frontier, 1863-1865.*** Baltimore and London: The Johns Hopkins University Press. [historic photos, stereos from Yosemite NP; plans, photos from Frederick Law Olmsted NHS]

Ripley, Warren

1970 ***Artillery and Ammunition of the Civil War.*** New York: Promontory Press. [objects from the collection at Petersburg National Battlefield]

Robertson, David

1984 ***West of Eden: A History of the Art and Literature of Yosemite.*** Yosemite Association and the Wilderness Press. [photos, paintings, archives, rare books from Yosemite NP]

1990 ***Yosemite As We Saw It: A Century's Collection of Early Writings and Art.*** Yosemite: Yosemite Association. [paintings, drawings, lithographs from Yosemite NP]

Ross, Lester A.

1976 ***Fort Vancouver 1829-1860: An Historical Archeological Investigations of the Goods Imported and Manufactured by the Hudsons Bay Company.*** Washington, DC: National Park Service, United States Department of the Interior. [archeological artifacts from Fort Vancouver]

Rubissow, Ariel

1990 ***Golden Gate National Recreation Area Park Guide.*** San Francisco: Golden Gate National Park Association. [historic photos, ships from Golden Gate NRA and San Francisco Maritime NHP]

1993 ***Cliff House and Lands End: San Francisco's Seaside Retreat.*** San Francisco: Golden Gate National Park Association. [historic photos, objects, documents from Golden Gate NRA]

Runte, Alfred

1979 ***The National Parks: The American Experience*** (also 1987 edition). Lincoln: University of Nebraska Press. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

1984 ***Trains of Discovery: Western Railroads and the National Parks*** (also 1990 edition). Flagstaff: Northland Press. [photos from National Park Service park collections, including Yosemite NP]

1990 ***Yosemite: The Embattled Wilderness.*** Lincoln and London: University of Nebraska Press. [historic photographs, ephemera (brochures, fruit labels), lithograph from the Yosemite NP collection]

Sargent, Shirley

1977 ***The Ahwahnee: Yosemite's Classic Hotel.*** Yosemite: Yosemite Park and Curry Co. [historic photographs, original plans and drawings from the Yosemite NP collection]

1983 ***Foresta, Big Meadow: Yosemite's Rustic Outpost.*** Yosemite: Flying Spur Press. [historic photographs]

1988 ***Yosemite, 1890-1990: The First 100 Years.*** Yosemite: Yosemite Park and Curry Co. [historic photos, drawings, paintings, documents from the Yosemite NP collection]

Sawyer, Mark

1986 ***Early Days: Photographer George Alexander Grant and the Western National Parks.*** Northland Press. [photos from National Park Service Historic Photo Collection at Harpers Ferry Center]

Schmidt, Jeremy and Lanie Thom

1994 ***In the Spirit of Mother Earth: Nature in Native American Art.*** Chronicle Books, San Francisco. [p. 90 & 91 show Crow shield, Sioux roach and an Apache (incorrectly labeled Plains or Plateau) parfleche bag from the Coulter Bay Indian Arts Museum, Grand Teton]

Schonewald-Cox, C.M., J.W. Bayless and J. Schonewald

1985 Cranial Morphometry of Pacific Coast Elk. ***Journal of Mammalogy*** 66(2):63-74. [analysis included 2 skulls from Point Reyes NS]

Schreier, Barbara (ed.)

1993 ***Becoming American Women.*** Chicago: Chicago Historical Society. [objects and oral histories from Statue of Liberty/Ellis Island]

Schullery, Paul and Lee Whittlesey

1992 ***The Documentary Record of Wolves and Related Wildlife Species in the Yellowstone National Park Area Prior to 1882, Vol. 4, Wolves for Yellowstone.*** Yellowstone National Park, National Park Service, United States Department of the Interior.

Schulz, Paul E.

1988 ***Indians of Lassen Volcanic National Park and Vicinity.*** Mineral, CA: Loomis Museum Association. Lassen Volcanic National Park. [historic photos, artifacts from Lassen Volcanic NP]

Shenandoah Natural History Assn.

1989 ***Undying Past of Shenandoah National Park.*** Shenandoah Natural History Association and Roberts-Rinehart. [historic photos from Shenandoah NP collection]

Silva, Stephen W. and Michael J. O'Donnell

1978 ***The Illustrated History of American Civil War Relics.*** Orange, VA: Moss Publications. [objects for the collection at Petersburg National Battlefield]

Silverberg, Robert

1986 ***The Mound Builders.*** Athens, Ohio: Ohio University Press. [drawings and photos of several objects from Hopewell Culture NHP]

Smith, Barbara Sweetland and Redmond J. Barnett (eds.)

nd ***Russian America: The Forgotten Frontier.*** Anchorage Museum of History and Art and the Washington State Historical Society. [2 objects and a painting from Sitka NHP]

Sommer, Robin Langley

1994 ***Native American Art.*** New York, New York. Smithmark. [various Plains and Prairie artifacts from the Coulter Bay Indian Arts Museum, Grand Teton]

Sontag, William H. (ed.)

1990 ***The National Park Service. The First 75 Years. Preserving Our Past for the Future.*** Eastern National Park and Monument Association in cooperation with the George Wright Society. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

Sontag, William H. and Linda Griffin (eds.)

1991 ***The National Park Service: A Seventh-Fifth Anniversary Album.*** Robert Rinehart Publishers. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

Southwest Ad Ventures

1987 ***Mesa Verde Museum Exhibit Guide, Chapin Mesa Archeological Museum, Mesa Verde National Park, Colorado.*** Published for the Mesa Verde Museum Association. [artifacts, paintings from Mesa Verde]

Snow, Dean

1989 ***The Archaeology of North America*** (part of the Indians of North America series). Broomall, PA: Chelsea House Publishers. [photos of objects in Hopewell Culture NHP]

Stover, Douglas

1994 The Preservation and Exhibiting of Wet Specimens. ***International Water Lily Society, Inc.*** X(3), Autumn. [wet specimens from Kenilworth Aquatic Gardens, National Park Service]

Thompson, Erwin N.

1979 ***Historic Resources Study: Seacoast Fortifications, San Francisco Harbor, Golden Gate National Recreation Area, San Francisco.*** Denver: Denver Service Center, Historic Preservation Team, National Park Service, United States Department of the Interior. [historic pho-

tographs, plans, and manuscript collections from the Golden Gate NRA museum collections]

Thybony, Scott

1988 ***Walnut Canyon National Monument.*** Tucson: Southwest Parks and Monuments Association. [historic photographs from the Walnut Canyon NM collection]

Tilden, Freeman

1951 ***The National Parks: What They Mean to You and Me.*** New York: Knopf. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

1957 ***Interpreting Our Heritage: Principals and Practices for Visitor Services in Parks, Museums, and Historic Places.*** Chapel Hill, NC: University of North Carolina. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

1968 ***The National Parks.*** New York: A.A. Knopf. [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

Time-Life Books (the Editors of)

1991 ***Echoes of Glory.*** Three volume set on the Civil War includes "Arms and Equipment of the Union," "Arms and Equipment of the Confederacy," and "Illustrated Atlas of the Civil War." [Civil War objects from several parks' collections including Fort Pulaski and Gettysburg]

1992a ***The European Challenge: The American Indians.*** Alexandria, Virginia. Time-Life Books. [pottery from Pecos National Historical Park]

1992b ***The First Americans: The American Indians.*** Alexandria, Virginia. Time-Life Books. [various archeological materials, Mesa Verde National Park]

1992c ***The Spirit World: The American Indians.*** Alexandria, Virginia. Time-Life Books. [artifacts from the Coulter Bay Indian Arts Museum, Grand Teton NP]

1993a ***The People of the Desert: The American Indians.*** Alexandria, Virginia. Time-Life Books. [eagle feathers from the Coulter Bay Indian Arts Museum. Grand Teton NP]

1993b ***The Buffalo Hunters: The American Indians.*** Alexandria, Virginia. Time-Life Books. [historic photograph, Little Bighorn Battlefield NM]

1993c ***The Way of the Warriors: The American Indians.*** Alexandria, Virginia. Time-Life Books. [artifacts from the Coulter Bay Indian Arts Museum, Grand Teton NP]

1993d ***War for the Plains: The American Indians.*** Alexandria, Virginia. Time-Life Books. [historic painting from Scotts Bluff NM; historic photograph from unidentified National Park Service area]

1994 ***Cycles of Life: The American Indians.*** Alexandria, Virginia. Time-Life Books. [artifacts from Coulter Bay Indian Arts Museum, Grand Teton NP; Anasazi cradleboard from WACC]

Toogood, Anna Coxe, Deirdre Gibson, Mary Konieczny and Kathy Sclegal

1994 ***Cultural Landscape Report, Independence Mall. Independence NHP.*** [based largely on Independence NHP archives]

Truettner, William H. (ed.)

1991 ***The West As America: Reinterpreting Images of the Frontier, 1820-1920.*** Washington: National Museum of American Art, Smithsonian Institution. [painting from the Yosemite NP collection; drawing from Jefferson National Expansion Memorial]

Wallace, David

1992 ***Historic Furnishings Report: North and South Lobbies, Main Interior Building.*** Harpers Ferry Center: Division of Historic Furnishings, National Park Service, United States Department of the Interior. [photos from the National Park Service Historic Photo Collection at Harpers Ferry Center]

Wallace, William J.

1978 Southern Valley Yokuts. pp. 448-461 in ***Handbook of North American Indians, Volume 8, California,*** Robert F. Heizer, Volume Editor. Washington. Smithsonian Institution. [Tachi Yokuts water bottle basket from Yosemite NP]

Walters, Anna Lee

1989 ***The Spirit of Native America: Beauty and Mysticism in American Indian Art.*** San Francisco: Chronicle Books. [numerous artifacts from Coulter Bay Indian Arts Museum, Grand Teton]

Watson, Don

1961 ***Indians of Mesa Verde.*** Mesa Verde NP, CO: Mesa Verde Museum Association. [objects from the Mesa Verde NP collection]

Weeks, Nicholas, Carey Feierabend, and Michael Boland

1992 ***Sutro Heights Park: Cultural Landscape Analysis and Management Recommendations, Golden Gate National Recreation Area.*** San Francisco: Golden Gate National Recreation Area, National Park Service, United States Department of the Interior. [historic photographs, plans, and manuscript collection from Golden Gate NRA]

Whittlesey, Lee

1988 ***Yellowstone Place Names.*** Helena: Montana Historical Society. [historic photos and objects from Yellowstone NP]

1995a ***Death in Yellowstone: Accidents and Foolhardiness in the First National Park.*** Niwot, CO: Roberts Rinehart. [historic photos and objects from Yellowstone NP]

1995b ***Lost in the Yellowstone.*** Salt Lake City: University of Utah Press. [objects and historic photos from Yellowstone NP]

pending ***Touring in Old Yellowstone: Interpretations and Visitor Education in the National Park During Stagecoach Days, 1872-1920.*** (Will probably be published by the Rocky Mountain Regional Office, National Park Service).

Wirth, Conrad L.

1980 ***Parks, Politics, and the People.*** [photos from the National Park Service Historic Photographic Collection at Harpers Ferry Center]

Wright, George M., Joseph S. Dixon and Ben Thompson

1932 ***Fauna of the National Parks of the United States: a Preliminary Survey of Faunal Relations in National Parks.*** Fauna Series.

Young, Harold, Steve Walker and David F. Riggs

1984 ***Vicksburg Battlefield Monuments.*** Jackson: University Press of Mississippi. [text based on park archives from Vicksburg NMP]

Zaitlin, Joyce

1989 ***Gilbert Stanley Underwood: His Rustic, Art Deco, and Federal Architecture.*** Malibu: Pangloss Press. [photos from Grand Canyon and Yosemite]

OTHER PUBLICATIONS

BLUEPRINTS AND PLANS

Grant-Kohrs NHS

1980 Chair plan traced from original ladder chair in GRKO collection. Plans were made by a firm in Missoula and thousands of chair plans are sold through the cooperating association at the Visitor Center (it's the most popular item they carry).

BOOKMARKS

Carl Sandburg Home NHS

Bookmark that is a reproduction of one used by Margaret Sandburg, Carl Sandburg's daughter [was this from the Carl Sandburg Home NHS collection?]

CALENDARS

Frederick Douglas National Historic Site

1995 ***Frederick Douglas Calendar: A Centennial Tribute to the Life and Accomplishments of an American Hero.*** Washington, DC: National Capital Parks-East, National Park Service, United States Department of the Interior; Parks and History Association; and The Caring Institute. [historic photographs from the park museum collection]

Hoofnagle, Keith

1991 ***The 1991 Rangeroons' Calendar, featuring the Little People of the National Parks Celebrating the 75th Anniversary of the National Park Service.*** [photographs from the National Park Service Historic Photograph Collection]

U.S. West

1991 ***Celebrating the 75th Anniversary of the National Park Service, US West 1991 Calendar.*** [photographs from the National Park Service Historic Photograph Collection]

CD-ROM TITLES

Farrier, Mark

1993 ***Ellis Island.*** New York Library for the Performing Arts. [photos from the Sherman Collection at STLI/Ellis Island Immigration Museum]

I.B.M.

1992 ***A Corporate Guide to National Parks.*** [photographs from National Park Service Historic Photograph Collection]

Microsoft

1995 ***Encarta 1995,*** Ellis Island. Eric Rait, Program Manager and Ann Fenner, Ed. [photos from Sherman Collection and oral history interviews from STLI/Ellis Island]

Oracle

1995 ***Hidden Yosemite.*** Eileen Buge, Project Coordinator. [extensive use of objects, photos, movie footage, oral history tapes and archives from Yosemite NP]

COLORING BOOKS

Carl Sandburg Home NHS

Gibbs, Bessie T. (text) and Mercedes Weitzen (illus.)

n.d. ***The Carl Sandburg Home Activities Book for Children*** [drawings are based on the Carl Sandburg Home NHS home and historic photos]

MUGS AND OTHER DISHWARE

Bent's Old Fort

nd Reproductions of ceramic pieces, including bowls, pitchers, mugs and washbowls from archeological collection at BEOL.

Fort Frederica NM

Accurate duplicates made by the Williamsburg Pottery of different styles of colonial dishes, plates and mugs that were found in archeological excavations at Fort Frederica. Sold by the Fort Frederica Association.

Yosemite Concession Services Corp.

1993 Ceramic plates, coasters and mugs with depictions of baskets from the Yosemite NP collection screened on them

1995 Mugs with reproductions of paintings and historic photos from the Yosemite NP collection and interpretive information on the back of the mug

NOTECARDS

Bain, Lynn

nd Series of notecards based on original watercolors of Indian artifacts in collection of Agate Fossil Beds NM (including moccasins, war club, pipe bag, smoking pipe) painted by great-granddaughter of the original collector. Sold by the Oregon Trail Museum Association.

Yosemite Association

1991 Series of four notecards, each a color photograph of a different Indian basket from the Yosemite Museum collection. They are sold as a boxed set and individually.

Yosemite Concession Services Corp.

1993 ***The Yosemite Series, A Collection of Eight Classic Yosemite Paintings, 8 Note Cards with Envelopes*** [color note cards with reproductions of paintings from the Yosemite NP collection]

POSTCARDS

Beautyway

nd Series of postcards using historic photos and paintings from collection of Hubbell Trading Post National Historic Site. The series includes, "Mail Deliver on the Reservation," ca. 1920; "Historic Hubbell Trading Post Bullpen," (painting by E.A. Burbank, 1908); "John Lorenzo Hubbell Examining Rug by Navajo Weaver, 1880s."

Bonnett, Wayne

1993 ***A Seafaring Heritage: San Francisco Maritime National Historical Park, A Book of Postcards.*** Rohnert Park, CA: Pomegranate Art Books. [postcard reproductions of historic photographs from the museum collections of San Francisco Maritime NHP]

Dobie Graphics

1979 Color postcard of the Sinagua Room at the Tuzigoot museum, including artifacts recovered from the Tuzigoot Pueblo, Tuzigoot National Monument.

Eastern National Parks and Monument Association

nd Postcard of a scrimshaw piece from the Cape Cod collection

nd Photo of copper falcon found at Mound City, from Hopewell Culture NHP

Glacier Natural History Association

nd Postcards featuring figurine and furnished historic rooms from Grant-Kohrs NHS.

Golden Gate National Park Association

nd Set of postcards reproducing historic photographs of maritime scenes from the museum collections of Golden Gate NRA (now San Francisco Maritime NHP).

nd Set of six postcards reproducing historic photographs and wanted posters from the Alcatraz collections of the Golden Gate NRA museum collections.

Grand Canyon Natural History Association

nd Color postcard of a split-twig figurine from the Grand Canyon collection

Impact

1988 "First Custodian Reverend Isaac T. Whittemore..." Historic photo from Casa Grande Ruins National Monument.

1989 ***Pottery of the Ancient Southwest.*** A set of 12 color postcards of archeological pottery specimens from various National Park Service collections. Printed by Impact for the Southwest Parks and Monuments Association.

1992 ***Native American Baskets of the Yosemite and Mono Lake Region.*** A set of 12 color postcard-like cards of baskets from the Yosemite NP collection with a historic photo and biographical information about the weaver on the back of each card.

1993 ***Chief Lemee and Suzie and Sadie McGowan.*** Two postcards, reproduced from, respectively, a 1940 35mm color transparency and a glass plate negative in the Yosemite NP collection.

J & H Sales (Portland, OR)

nd Postcard with reproduction of an original painting of John McLoughlin, from the NPS collection at Fort Vancouver National Historic Site

Mesa Verde Museum Association (Artifact Series)

n.d. Color postcards of baskets, pottery and other artifacts from the Mesa Verde National Park collections

Shenandoah Natural History Association

1986 Postcard packet commemorating the 50th anniversary of Shenandoah NP. Six historic photos from park collection were reproduced.

POSTERS AND PRINTS

Agate Fossil Beds NM

nd Poster commemorating the 25th anniversary of the park, features 2 museum artifacts (Red Cloud painting and war shirt)

Eastern National Park and Monument Association

1984 "Apostle Islands National Lakeshore: A Portfolio of Frameable Lighthouse Prints, Five Watercolor Prints by Clem Olsen." [original paintings in Apostle Islands collection]

Society for California Archeology

1993 Poster to commemorate California Archeology Week, May 10-16, 1993. Produced with assistance of the Department of Anthropology, California State University, Fullerton. John Lytle, artist. [artifacts and historic photos from Yosemite NP]

Southwest Parks and Monuments Association

Poster for John Muir National Historic Site; photo of John Muir's writing desk (desk is from museum collection at JOMU)

Yosemite Association

1989 Poster to publicize conference. Natural Areas and Yosemite: Prospects for the Future, Oct. 13-19, 1990.

nd Color poster of a watercolor painting from the Yosemite collection—"Half Dome" by Christian Jorgensen.

Yosemite Park and Curry Co.

n.d. "The Yosemite Archive Series."

(c 1985) Four color posters made from original paintings in the Yosemite NP collections.

REPRODUCTION ITEMS

Alcatraz (Golden Gate NRA)

A key to a cellblock of the prison was reproduced by a private vendor and is sold.

Bent's Old Fort Historical Association

nd Reproductions of items from Bent's Old Fort archeological collection, including beads, metal arrowheads, clay pipes and ceramic pieces.

Cabrillo National Monument

Lighthouse keepers' buttons were reproduced by the cooperating association and are offered for sale.

Eastern National Park and Monument Association

"Jamestown Hand-Blown Glass." Reproduction glass and ceramic objects produced at Jamestown Glasshouse, part of Colonial NHP, and sold in park museum store.

Fort Frederica NM

nd Reproduction coins and colonial buttons made by local jewelry store from wax casting of originals in FOFR collection.

Hopewell Culture National Historical Park

nd Series of reproductions have been made of the carved stone pipes from the site. Also they have had a reproduction of a Hopewell spear point made from plastic resins.

Hubbell Trading Post NHS

"Trader Token" reproduction with historic information produced by Southwest Parks and Monuments Association.

Independence NHP

The Key and Quill Shop in Philadelphia make 18th-century colonial furniture reproductions, one of which is of the "Rising Sun chair" from the Independence NHP collection.

SLIDES

Eastern National Park and Monument Association

nd Set of four slides showing individual objects from the collection at Hopewell Culture National Historical Park, including copper falcon, obsidian blade, pottery bowl and carved stone pipe.

SOUVENIRS

A.R.T., Inc.

1995 Ceramic tiles with reproductions of paintings from the Yosemite NP collection on them.

Yosemite Concession Services Corp.

1995 Ceramic mugs with reproductions of paintings and historic photographs from the Yosemite NP collection.

Yosemite Park and Curry Co.

nd Refrigerator magnets with reproductions of paintings from the Yosemite NP collection

T-SHIRTS

Dolphin Shirt Co.

1991 T-shirts with designs on them derived from Indian baskets (by Carrie Bethel and Lucy Telles) in the Yosemite NP collection

Yosemite Concession Services Corp.

c 1993 T-shirt with Chief Lemee on it [from photo and artifacts in Yosemite NP collection]

c 1994 Sweatshirts with appliqued patches that have basket designs (from baskets in the Yosemite NP collection) screened on them. Interpretive/informational labels which tell about the weavers and the National Park Service collection are sold with the shirts.

VIDEOS, TV PRODUCTIONS

Bob Roney Productions

1991 ***Forever Wild: The Bears of the Sierra Nevada.*** [historic photos and film footage from Yosemite NP]

Camera One Video

nd ***Ancient America - the Eastern Woodlands.*** Hour-long video, includes objects from Hopewell National Historical Park.

nd ***Legacy of the Mound Builders.*** 17-minute video produced for National Park Service; includes objects from collection at Hopewell Culture National Historical Park. Video is sold in the park.

Golden Gate National Park Association.

1993 ***Fort Point: Guardian of the Golden Gate***

Panorama International Productions

1990 ***Yosemite: The First 100 Years, 1890-1990.*** Includes historic photos from the Yosemite NP collection.

Presidio of San Francisco: Guardian of Golden Gate

1994 Produced by the 6th US Army and Presidio of San Francisco and US Army Corps of Engineers, Sacramento District, in association with David Donnenfield Productions and Jones and Stokes Associates, Inc.

Readers Digest

1988 ***Yosemite: A Gift of Creation.*** Includes photos from Yosemite NP collection.

Sundance Institute and the Yosemite Association

1989 ***Yosemite: The Fate of Heaven.*** Includes historic photos from Yosemite NP.

Martha Lee is involved in all aspects of acquisition, record-keeping, and interpretation (including writing for publication) of museum collections for Yosemite National Park. She can be reached at 209-372-0281.

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