National Park Service U. S. Department of the Interior



Yosemite National Park

Museum Management Plan

Cultural Resources Pacific West Region February 2006

Yosemite National Park

National Park Service U.S. Department of the Interior

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> Department of the Interior National Park Service Pacific West Region 2006

Yosemite National Park

Museum Management Plan

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Executive Summary

The Yosemite National Park Museum Management Plan (MMP) presents a series of issues concerning the management and use of park museum collections, and recommends actions necessary to address each issue.

The Yosemite Museum Program is the oldest in the National Park System. The museum currently holds an estimated 2,369,000 museum objects and specimens, of which 1,165,809 are documented by accession and catalog as required by NPS Policy. Adequate space for the preparation, storage, preservation, and use of the Yosemite Museum collection is not available. A lack of documentation and proper storage space places a large portion of the collections at risk and prevents efficient use of this valuable park resource to its best advantage.

The Yosemite Museum collection is a large and multifaceted collection with complex documentation and preservation needs. Management of this collection clearly requires a number of specialized staff with supporting budget.

Key Recommendations

Key recommendations of the Yosemite MMP planning team are:

- Develop and implement protocols necessary to direct growth of the archival and museum collections to provide the information resources needed and easy access to the collections for future use.
- Provide experienced, trained staff to manage the museum collections to professional standards.
- Develop planning, programming, and funding sources required to adequately fund programs to document and preserve Yosemite National Park's archival, library, and museum collections.

- Provide the work, storage, and study areas necessary to house the park archives, library, and museum collections, and make these resources more accessible to park staff and accredited public users.
- Institute preservation methods required to protect valuable materials against deterioration and loss.
- Promote access to and proper use of the park archives, library, and museum collections by using methods that protect these resources and are safe for the user.

Each section of this MMP contains detailed recommendations that the museum program and the park may use for improving existing conditions and developing new program initiatives.

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Introduction

The Museum Management Plan (MMP) replaces the Collections Management Plan (CMP) referred to in the National Park Service (NPS) publications *Outline for Planning Requirements, DO#28: Cultural Resources Management Guideline* and the *NPS Museum Handbook,* Part I. The MMP evaluates all aspects of museum-related programs within a park, and makes broad recommendations to guide development of parkspecific programs that address a park's identified needs.

The MMP recognizes that specific directions for the technical aspects of archival and collections management exist within the *NPS Museum Handbook* series. It does not, therefore, duplicate that information. Instead, it places museum operations in a holistic context within park operations by focusing on how various collections may be used by park staff to support the goals of this particular park unit. Recognizing that there are many different ways in which archives, libraries, and museum collections may be organized, linked, and used within individual parks, this MMP provides park-specific advice on how this may be accomplished. Where required, technical recommendations not covered in the *NPS Museum Handbook* will appear as appendices in this plan.

In September 2003 an MMP team composed of NPS curators and a conservator came to Yosemite National Park to meet with the Yosemite Museum staff. Over the course of two weeks, museum staff and the MMP team gathered primary information for and developed an initial MMP. Various supporting elements were developed at the same time. The museum staff and MMP team worked together during the team's visit to develop the issue statements contained in this plan. As discussed during the meetings, topics addressed meet the specific needs of Yosemite National Park and thus do not necessarily represent a complete range of museum collection management concerns. Most elements of this plan are developmental in nature. The recommendations are intended to guide the

park through the process of creating and implementing a workable system that supports all aspects of museum operations, while at the same time providing guidelines for growth.

Members of the MMP team were selected for their ability to address the specific needs and concerns of Yosemite National Park.

The team wishes to thank the staff of Yosemite National Park for the courtesy, consideration, and cooperation extended during this planning effort. In particular, we thank David Forgang, Craig Bates, Barbara Beroza, Norma Craig, Linda Eade, James Snyder, and Chris Stein. Their time, effort, and involvement have been very much appreciated and served to make the team's job much easier.

Addendum

In the intervening years since the initial on-site visit to Yosemite National Park and writing of this plan, major changes have occurred that have had a significant impact on the museum program.

At the end of December 2004 a number of key employees retired and several positions were filled. This chart shows staffing changes over a two year period.

September 2003	Summer 2005		
Chief, Museum Management	Chief, Museum Management		
Curator, GS-1015-12 (Forgang)	Curator, GS1015-12 (Bayless)		
Permanent full-time	Permanent full-time		
Curator of Collections	Curator of Collections		
Curator, GS-1015-11 (Beroza)	Curator, GS-1015-11 (Beroza)		
Permanent full-time	Permanent full-time		
Curator of Ethnography	Curator of Ethnography		
Curator, GS-1015-11 (Bates)	Curator, GS-1015-11 (Bates)		
Permanent subject-to-furlough	Permanent subject-to-furlough		
Research Librarian	Research Librarian		
Library Technician, GS-1411-08	Library Technician, GS-1411-08		
(Eade), Permanent full-time	(Eade), Permanent full-time		
Historian/Archivist	Historian/Archivist		
Historian, GS-170-11 (Snyder)	Historian, GS-170-11 (Rogers)		
Permanent full-time	Permanent subject-to-furlough		
Registrar	Registrar		
Museum Specialist, GS-1016-09	Museum Curator, GS-1015-09		
(Vacant)	(Luchans)		
Permanent full-time	Permanent subject-to-furlough		
Museum Technician/Slide	Museum Technician/Slide		
Collection	Collection		
Museum Technician, GS-1016-07	Museum Technician, GS-1016-07		
(Craig), Permanent full-time	Vacant		
	Museum Technicians filled as		
	GS-1016-07 (Cox, Schierup)		
	Term subject-to-furlough		

Although several key positions have been filled, the park has the same number of permanent staff as it did in 2003, although fewer are full-time. The number of subject-to-furlough positions has increased because of the current policy of converting permanent full-time positions to permanent subject-to-furlough positions when rehiring occurs.

The Yosemite Museum collection is one of the larger collections in the National Park Service (according to the 2003 *Collections Management Report*, the collection exceeded 2.3 million items) and contains the largest ethnographic collection, comprised of significant central Sierra baskets. The history, archive, and natural resource collections document one of the first national parks in the United States. The collections are extensively used by the public, and images of museum objects and copies of historic photographs are seen regularly in many publications.

The Yosemite Fund has developed a museum task force to work on implementation of the Yosemite Valley Plan and other museum related projects. They are committed to planning and fund raising to support further development and expansion of the park museum program including a new museum facility.

All these developments have increased the challenges facing Yosemite National Park and the museum program. This plan offers recommendations to assist the park in managing, preserving, and making accessible this incredibly important, and nationally, if not internationally, significant resource.

Museum Philosophy

Museums are vital institutions in America. They are essential for understanding the ways in which our society defines itself. People who work in museums create meaning by developing collections and collection policies, exhibitions, and other forms of public programming. Traditionally, they have found ways for their activities to fit within the grand design of American culture. Today, scholars are examining the philosophies and values that informed the creation of museums, and their assessment is often critical.

Emphasis on public service is one of many currents pushing American museums out of the salvage and warehouse business (Weil 2002, 28). The American Association of Museums (AAM) has consistently made this course obvious by attempting to answer the questions museums of the 21st century should be asking. In *Mastering Civic Engagement: A Challenge to Museums*, the AAM presents a call to action that asks museums to "revisit the power of community and consider what assets museums contribute to the shared enterprise of building and strengthening community bonds" (AAM 2002, ix). This same appeal is found in the National Park System Advisory Board's July 2001 report, *Rethinking the National Parks for the 21st Century*:

As a nation, we are re-examining the effectiveness of our educational institutions. The Park Service should be viewed as such an institution. Parks are places to demonstrate the principles of biology, to illustrate the national experience as history, to engage formal and informal learners throughout their lifetime, and to do these things while challenging them in exciting and motivating settings. Parks are places to stimulate an understanding of history in its larger context, not just as human experience, but as the sum of the interconnection of all living things and forces that shape the earth. The NPS Advisory Board makes clear that National Park Service museums have a vital role to play in bringing America's history alive and in nurturing living cultures and communities associated with national parks.

With collections representing archeology, ethnology, history, archives, biology, and geology, the Yosemite Museum is well suited to pursue a multidisciplinary approach to reach wider audiences. Museum staff must see themselves as "creative generalists," combining different areas of expertise currently found both inside and outside the museum. The ability to work directly with a community and establish productive collaborations with community organizations is vital. Knowledge about how to carry out a multitude of public programs is essential when engaging diverse communities. Making appropriate use of audience research and various forms of program evaluation is indispensable (Weil, 46-49).

A tradition of public service is the foundation for all museums in the United States. Organized as public trusts, museums hold their collections and knowledge as a benefit for the people they were established to serve. The American Association of Museums *Code of Ethics* (AAM 2000) emphasizes that a museum's governing authority, its employees, and volunteers must remain committed to the interests of these beneficiaries.

Taken as a whole, museum collections and exhibition materials represent the world's natural and cultural common wealth. As stewards of that wealth, museums are compelled to advance an understanding of all natural forms and of the human experience. It is incumbent on museums to be resources for humankind and in all their activities to foster an informed appreciation of the rich and diverse world we have inherited. It is also incumbent upon them to preserve that inheritance for posterity.

The Yosemite Museum makes a unique contribution to the public by collecting, preserving, and interpreting the human and natural history of the Yosemite region for future generations. As stewards of this common wealth, the museum faces a serious trial in its efforts to implement standards and procedures for preventive care of its collections and in the

documentation of museum record keeping. It faces equally grave challenges in its efforts to advance an understanding of the natural forms and human experience in Yosemite.

In part, challenges of access—making the Yosemite Museum's collections and knowledge available as a resource for the public and for the park service—result from limited resources and differences of opinion over how best to use them. There is no question that preserving the Yosemite Museum's inheritance for posterity is the prime directive, because without preservation there can be no use. Too often it seems, however, that the public does not benefit from preservation, and the knowledge gained through preservation is not made accessible.

For preservation to be relevant for the public, Yosemite Museum must continue to expand its efforts to foster an informed appreciation of its rich and diverse holdings. Resources are limited and demands are high, so the museum should employ an integrated approach to developing its program and facilities. The museum's approach to ethnography illustrates this integration of collecting, documentation, preservation, exhibitions, interpretation, and publications. The Yosemite Museum houses the largest and best-documented collection of ethnographic materials in the National Park System, including the Schwabacher Collection of Yosemite-area basketry. The museum program has been able to design and build an Indian cultural exhibit, re-create the Indian village of Ahwahnee, and author and publish *Tradition and Innovation: A Basket History of the Indians of the Yosemite-Mono Lake Area.* Demonstrations and interpretive programs increase visitor appreciation of Native peoples and their contributions to American culture.

The strength of the museum programs has enabled the development of strong and significant ties with many support groups. Seven Native American tribal associations are strong supporters of the museum, as well as the Yosemite Association, Yosemite Fund, Yosemite Institute, and Delaware North Corporation. These supporters of the Yosemite Museum are key constituencies for both the park and the service. The support of these various publics would not be strong if the museum based its efforts exclusively on collections management. The museum gains support for its collections by making them relevant and accessible to the public. The museum's hosting and support of the Yosemite Renaissance art exhibit for the past 20 years has also forged links with these and other constituencies. Art exhibits such as this, and involvement with the artist-in-residence program, have had an influence on artistic interpretations of the park, and have encouraged artists to engage with the Sierra landscape. The museum's holdings of photography, paintings and prints, entomology, herbarium and faunal specimens, transportation artifacts, the research library, and slide archive offer rich opportunities for integrated programs benefiting park visitors. The combination of collecting, documentation, and preservation efforts with public access through interpretation, exhibitions, publications, websites, and other means, is strategically important. Accessibility makes collections management relevant and increases opportunities for public education and funding.

This Museum Management Plan for Yosemite National Park rightfully concentrates on a number of collections or asset management issues faced by the Yosemite Museum. Without a doubt, functions related to the collecting, documentation, and preservation of museum collections are fundamental to any museum operation. This plan may lead some to conclude that this work is overwhelming and that the museum cannot possibly consider additional tasks. Yet the National Park Service must support the care and preservation of its museum holdings as well as supporting expanded exhibit and public functions. This requires developing closer working relationships between the resource stewardship aspects of the Yosemite Museum and the park's Interpretive program. It also means including the Yosemite Museum in marketing and public relations planning, and re-making the museum into part of the gateway for public access into the Yosemite region.

In *Rethinking the National Parks for the 21st Century*, the National Park System Advisory Board recognized that many Americans feel museums and historic sites are their most trustworthy sources of historical information. Parks should be not just recreational destinations but springboards for personal journeys of intellectual and cultural enrichment. The Park Service must ensure that the American story is told faithfully, completely, and accurately. The story is often noble, but sometimes shameful and sad. In an age of growing cultural diversity, the Service must continually ask whether the way in which it tells these stories has meaning for all our citizens. The Service must look anew at the process and make improvements.

The Yosemite Museum is well suited to carry out this mandate and will need to look beyond the museum's traditional roles to accomplish these new goals. Forging partnerships, such as the ongoing cooperation of the Yosemite Museum with the Autry National Center on the exhibit 'Yosemite: Art of an American Icon,' is one way to further this goal. The museum's involvement with outside museums and universities can give an important boost to its collecting, documentation, and preservation efforts. Linking the initiatives outlined in this Museum Management Plan to similar projects with new partners, along with other public serviceoriented efforts will assist the museum in helping American citizens to understand the meaning of Yosemite in their personal journeys of intellectual and cultural enrichment.



Figure 1 Museum exhibits in the Jorgensen studio, ca. 1922



Figure 2 Cars outside the museum, ca. 1926

History of Collection Management

Early Beginnings

The construction of the Galen Clark cabin (commonly known as Galen's Hospice) in the Mariposa Grove of Big Trees in 1864 was the earliest attempt to educate visitors about Yosemite's natural resources. The cabin, which was built for both Mariposa Grove administration and as a place for educating visitors, was added to, and completely rebuilt, over the years. By 1930, the cabin was renamed the Mariposa Grove Museum. The displays in this cabin, and the 19th century collections of natural curiosities and Indian baskets used to decorate early photographers' and artists' studios in Yosemite Valley and Wawona were also forerunners of the park's museum exhibits and collections.

In 1904, the U.S. Army, as part of its role as guardian of the federal park, created an arboretum in Wawona near its encampment to bring knowledge of natural history to park visitors. Photographs and a description of these efforts were included in the annual report for that year. The area was not maintained, however, and fell into disrepair.

The Yosemite Museum began operation in 1915 in the crowded Ranger Headquarters in Yosemite Valley, and in 1916 the newly-created National Park Service took over management of this early museum. Displays consisted of natural history specimens, watercolor sketches, and ethnographic materials. The collection grew rapidly, and in 1922 it was moved into the Jorgensen cabin near Sentinel Bridge in Yosemite Valley. Each of the cabin's six rooms was devoted to a different subject. The exhibits interpreted various facets of Yosemite's human and natural history, and included archeological, biological, ethnographic and geological material.

A Big Step Forward

The museum soon received so many items that the Jorgensen cabin did not provide adequate storage or exhibit space for the collection. On September 24, 1922, Chief Naturalist Ansel Hall took the initial step that would ultimately lead to the creation of a new museum. Realizing that the park could not expect an appropriation to help care for the collections or help build a proper museum facility, he wrote to Acting Director of the National Parks Arno B. Cammerer. He suggested creating an association to facilitate the establishment of a museum to spread information about the park's natural history, and to better the living conditions of the few remaining Indians of the Yosemite region, so that their arts, customs, and legends would not be lost.

On August 4, 1923, the Yosemite Museum Association was established. With the assistance of the American Association of Museums, plans were begun for a museum which would serve as a model for other parks. Fundraising was aided by a generous contribution of \$75,500 from the Laura Spelman Rockefeller Memorial Foundation for the construction, equipment, and maintenance of the museum. On November 16, 1924, the cornerstone was laid for the Yosemite Museum. When construction of the museum building was completed, ownership of the building was transferred to the National Park Service, and the Association changed its name to the Yosemite Natural History Association. The installation of exhibits continued through the winter of 1925/1926, and the new museum opened to the public in May 1926. Constructed of native stone with large wooden beams and split shake siding, the museum's architectural design was one that other parks would emulate. A thick concrete floor divided the two stories, which housed exhibits, a large library, storage cases, a classroom, offices, and caretaker's quarters.

Little is known of the accessioning and operation of the museum prior to about 1926. Record-keeping seems to have improved with the opening of the new building, which had adequate facilities for exhibition, storage, and work space. Although the original museum accession book begins in July 1920, early accessions lack documentation.

Evolution of Museum Programs

From the beginning, public talks and presentations were an important part of the Yosemite Museum's programs. Ranger-naturalists gave presentations in the geology room, pointing out important features of the Yosemite region on the large relief maps. In the wildflower garden outside, Miwok bark houses, a sweathouse, and acorn granaries were constructed by Chris "Chief Lemee" Brown and Maggie "Tabuce" Howard, members of the local Native American community, who also gave demonstrations of Miwok and Paiute culture.

During the 1930s, the federal employment programs of the Roosevelt Administration benefited the Yosemite Museum exhibits. The Works Projects Administration Federal Arts Project at the Southwest Museum created a diorama of a Yosemite Indian village that is still in use. The Civilian Conservation Corps in the Western Museum Laboratory at the Berkeley office of the National Park Service also created new exhibit materials. The ethnography room was one of the major beneficiaries of this work, and Ranger J.E. Cole, who had worked closely with the local Indians, was sent to Berkeley to help with the Yosemite exhibits in 1937.

Over the next 30 years, less attention was focused on the museum. Demonstrations and public presentations increased, and new donations were accepted, but exhibits remained largely unchanged. A report on the preservation of museum objects prepared in 1949 discussed items such as paintings and historic vehicles, but the museum's large collection of baskets and other objects was not mentioned.

A Shift in Philosophy

The Mission 66 program was implemented in 1955 to celebrate the National Park Service's 50th anniversary, and to prepare it for the future. The Mission 66 Program for Yosemite National Park called for a major expansion of the Yosemite Museum through addition of exhibition, storage, and research facilities.

However, these expansion plans never materialized. The decisions leading to this change in direction are not well-documented, but instead of museum additions, the Valley Visitor Center was constructed for general visitor orientation, and the entire museum collection was placed into storage. Former exhibit areas were turned into offices, storage areas, and a courtroom for the U.S. magistrate. The first museum in the National Park Service closed just 40 years after it opened. Regional Curator Ed Jahns assisted in placing the collection into storage. Only the Yosemite Research Library continued to function, and the park librarian was given keys to the museum storage areas.

Although the main museum closed at this time, some historic materials were exhibited in Wawona with the development of the Pioneer Yosemite History Center in the 1960s. Historic buildings from throughout Yosemite were relocated near the covered bridge over the south fork of the Merced River, and were set up as furnished historic structures for public display. The historic furnishings and contents were provided largely through the personal collecting efforts of Margaret Schlichtman, the largest single donor to the Yosemite Museum.

The museum collection received almost no care during the 1960s. The Thomas Moran painting collection, donated to the Yosemite Museum in 1926, was transferred to the Jefferson National Expansion Memorial in St. Louis, Missouri. At the Pioneer Yosemite History Center in Wawona, historic objects were used as part of the new living history program. Not surprisingly, many objects from the museum collection were broken, destroyed, or lost during this period.

The park received frequent letters and complaints about the absence of exhibits displaying Yosemite's human history. In 1972, Jacob L. "Jack" Gyer was hired as the park museum curator. Gyer had experience with photography and historic objects as well as publications, and he was able to make some improvements in collection care. Although he had occasional seasonal employees or volunteers to assist, he had no full-time assistance until the late 1970s.

In 1976, with the receipt of special Bicentennial funding, an Indian Cultural Museum was opened on the lower floor of the Yosemite Museum building. This exhibit, which featured part of the park's extensive collection of ethnographic materials, was planned by Craig Bates and Jack Gyer. It was immediately popular with park visitors. The concurrent development of an Indian cultural program allowed docents in the exhibit area to demonstrate weaving and interpret native culture for visitors.

Museum storage and work areas continued to be inadequate, but beginning in 1983, storage was redesigned to better accommodate the museum and library collections. Spacesaver storage systems and new cabinetry were acquired for the museum vault and collection room, and movable shelving was installed in the library as well. Museum records were placed in fireproof file cabinets, and inventory documentation of the collection was improved.

Museum Renewed

In the mid-1980s, the magistrate's courtroom and office were relocated from the museum building, allowing the reopening of the museum lobby. Removal of book and equipment storage areas allowed the construction of a gallery alongside the Indian cultural exhibit area. This major rehabilitation was accomplished by a donation from the Yosemite Association and resulted in much of the lower floor of the Yosemite Museum building being reclaimed for its original public use. This expansion of exhibit space allowed for the display of historic and contemporary paintings and photographs from the museum collection which had not been exhibited for many years. In addition, a special exhibition was mounted to celebrate Yosemite's centennial in 1990.

In 1973, a large collection of baskets from Yosemite and the surrounding region was placed on loan to the museum by the descendents of James Schwabacher, a long-time park visitor and supporter. The descendents promised they would donate them to the museum if the park would write a publication about the collection. In 1990, Craig Bates and Martha Lee, members of the museum staff, completed *Tradition and Innovation: a Basket History of the Indians of the Yosemite-Mono Lake Area.* This prizewinning and heavily-illustrated book features the museum's collections of baskets and historic photographs, and represents a major contribution to the knowledge about basket weavers and native culture in California.

Between 1985 and 1998, the family donated Schwabacher's Yosemitearea baskets to the National Park Service.

The museum was still in need of adequate storage for its collection. In 1994, a collection storage facility—a Bally building—was constructed within the new maintenance warehouse facility at the El Portal Administrative Site. After construction of a mezzanine, fixed shelving, HVAC system, and compactor storage, the bulk of the archival collections were moved from the attic of the Yosemite Museum building and from Wawona to this structure. The Yosemite Park and Curry Co. archives were moved from temporary storage in the YPCC warehouse building as well.

In 1997, the museum slide archive was also moved to space in El Portal. Starting in 1998, archeological collections were transferred out of museum storage in Yosemite Valley to new cabinets in the El Portal storage building, consolidating collections and giving them proximity to the park archeological staff and to all associated documentation. In 2004, the move of additional collection materials from the attic to El Portal was started, continuing into 2005.

The *Yosemite Valley Plan* (2000) calls for the expansion of the Yosemite Museum to incorporate the Mission 66 Visitor Center complex after the construction of the proposed new Yosemite Valley Visitor Center. The auditoriums would be converted to house the archival and museum collections, and the visitor center would house the research library, new exhibit galleries, and research space. The structures in this complex are currently (2005) undergoing seismic and structural analysis to determine the feasibility of this use.

The Village Developmental Concept Pan, scheduled to begin in 2006, will develop alternatives for museum storage and exhibits and will widen the possibilities of future museum facilities.

Issue A— Growth and Development of Collections

Issue Statement

A multidisciplinary, professional approach is required to direct the growth and development of quality museum collections.

Background

The National Park Service has developed the Yosemite Museum collection in response to a variety of needs and opportunities. Yosemite National Park was a leader in establishing a prototype NPS museum program in the early 20th century. Factors that drove collection acquisition and development included the need to furnish exhibits, provide for visitor education, document resources, and preserve the story of the park. The resulting Yosemite Museum collection is one of the finest in the National Park Service in size, value, depth, and complexity. Over 2 million items are contained in the museum collection, of which half are fully cataloged (see Table 1, page 26.)

One must see the Yosemite Museum collections to truly appreciate their scope and value, with items such as:

- Nineteenth century paintings alongside contemporary art
- Over 60,000 photographs, including some of the earliest known Yosemite images, and images by significant American photographers from the late 19th century to the present
- Historic ranger uniforms and badges
- A substantial collection of Yosemite area Indian baskets and ceremonial regalia
- Notable first editions; rare, out-of-print volumes; and unpublished manuscripts in the Yosemite Research Library and archival collections These examples and many more comprise this world-class collection, which is worthy of inclusion in any of the finest museums in the nation.

Collection Type	Cataloged	Uncataloged	Totals	
Cultural Resources				
Archeology	731,224	369,174	1,100,398	
Ethnography	5,566	452	6,018	
History (including paintings and photographs)	87,172	45,326	132,498	
Archives	329,114	781,340	1,110,454	
Natural Resources				
Biology	12,135	6,835	18,970	
Geology	598	67	665	
TOTALS	1,165,809	1,203,194	2,369,003	

 Table 1
 Yosemite National Park Museum Collections (2003 Data)

Issue A addresses the following questions:

- Does the Yosemite Museum collection have enough items?
- Does the collection need more items, and if so, what type and how many?
- Where should priorities be placed for continuing the growth of the various collections?

Yosemite Museum staff has been asking these questions from the earliest days of the museum, but such questions are worthy of renewed attention as the museum program enters its second century of operation.

The park's Scope of Collection Statement was approved in 1991 and was written by members of the current museum staff. This 23-page statement "...serves to guide the acquisition and preservation of museum objects which contribute to the understanding and interpretation of the park's history and resources." It covers the six disciplines listed in Table 1 and

has been a helpful aid in decision-making when determining what items are appropriate for addition to the Yosemite Museum collection.

However, many of the rationales and decision-guiding principles that have influenced the acquisition of objects, records, specimens, or photographs have not been incorporated into this document. Yosemite Museum staff members, who have developed considerable expertise after years of professional experience, have made professional judgments about these issues. Nevertheless, without written criteria and guidance, the decisions made will not always be understood or recoverable by those outside the process, or by those who will follow in the decades to come.

Discussion

To facilitate the continued development of this significant museum collection, Yosemite National Park must address a number of key areas that will improve the collection and museum program.

Museum Acquisition Committee

A Museum Acquisition Committee should be established to evaluate all proposed accessions for their appropriateness for addition to the collection. In addition, the committee would document the justification, artifact values, and decision-making process involved with each decision. Any split decisions and appeals could be directed to park management for resolution. The members of the committee could be drawn from the park's Division of Interpretation and Education, Resource Management and Science, and include any staff members with interest, expertise, and/or dedication to contribute to the Yosemite Museum Program goals.

The Museum Acquisition Committee would also work on any deaccessions of materials from the collection. Known deaccessioning needs include some of the historic vehicles that were part of the transportation museum concept developed in the 1960s, and many period pieces without park provenance associated with the Pioneer Yosemite History Center in Wawona. The committee would assess these and other items for possible deaccessioning and make documented recommendations that could be reviewed at park and regional levels.

Scope of Collection Statement

Revising and updating the park's 1991 Scope of Collection Statement (SOCS) will improve the document and, in some areas, could generate significant changes. One area that needs significant revision is the natural resource discipline dealing with biological collections. The SOCS sets a taxonomic coverage for most vertebrates as one male and one female, with some inclusion of juvenile and morphological variations. But this model builds a collection for park staff to use in learning identifications and preparing interpretive talks—in other words, a study collection. In addition, the SOCS needs to establish a goal of building quality scientific collections that document the park's biota through research voucher collections, Inventory and Monitoring programs, and other scientific activities.

Scientific protocols and designs for sampling often result in a series of multiple specimens for each species to reflect variation in distribution, time of year, and phenotypical and genetic identities. The Scope of Collection Statement should require that scientific collection specimens include the sampling design, preparation and preservation, and expert locality data be recorded. Expanding the museum's biological collection from a study collection into a research and voucher collection will maximize the park's ability to achieve a greater relevancy to the park's mission of preserving its plant and animal communities.

The discussion of cultural resource collections in the Scope of Collection Statement needs revising, but the needed changes are less substantial than for biological collections. The update needs to incorporate the additions made to the collections since 1991, and to reflect some of the changing emphasis in direction. For example, the section in the statement on "Historic Vehicles and Transportation Equipment" should be updated to reflect an emphasis on not accepting any new additions. A revised Scope of Collection Statement should develop a target or limit well below the current number of vehicles in the collection, thus facilitating the needed deaccession of vehicles that do not have relevancy to the park's mission and are not needed for interpretive purposes.

Coordination with Research Permit and Report System

The museum curatorial staff needs to coordinate with the Division of Resources Management and Science in the planning and compliance associated with permitted research activities. The Research Permit and Reporting System (RPRS) is the NPS Internet-based system used by outside scientists and institutions to apply for permission to perform research projects within the park. The park uses RPRS to issue permits and receive the Investigators Annual Report (IAR) from the researcher.

The applications contain information on whether specimens will be collected, and if so, where specimens will be deposited. The IARs report on what was collected and the disposition of the specimens. It would expedite the research applications and permit process if Yosemite Museum staff had read-only access to the system via the Internet and could work directly with the Resources Management and Science Division staff and outside researchers in assigning any needed accession numbers and subsequent follow-up cataloging and loans. The RPRS system generates paper records in folders that contain documents not always contained in the electronic database. As RPRS files become inactive, the park could retire the files (as recommended in the RPRS guidance) for permanent retention in the park's archives.

Additionally, the park needs to address work which has already been conducted. Yosemite specimens and associated records are scattered throughout various institutions. Information on these past research projects, if not the specimen and document collections themselves, would be a valuable contribution to the park's natural resource collections.

Yosemite National Park is part of the Sierra Nevada network of national parks within the NPS natural resources Inventory and Monitoring Program. The park also generates in-house natural resource collections, so museum staff should coordinate closely with this program to ensure that such voucher collections are documented and well-preserved.

As discussed further in Issue D, Collections and Workspace, there is currently a lack of suitable dedicated storage and work space for natural resource collections at the park. This insufficiency hinders the growth and development of natural resources collections.

Archeological Collections

Archeological collections in the Yosemite Museum have grown primarily in response to compliance activities related to construction projects. In the past 10 years, only one Ph.D. dissertation project generated research materials not related to construction projects. In the 1980s, the Yosemite National Park archeological staff conducted some research investigations that generated artifacts and records, but this type of voluntary or elective research has been reduced because staff time is committed to other activities.

A backlog of up to 42 boxes of artifacts from 137 compliance projects remains incompletely processed. The majority of these projects date from the mid-1980s to the mid-1990s. Park archeologists are assigned to new projects before they have a chance to complete work already undertaken, thereby increasing the backlog. A standard museum cabinet containing human remains and associated artifacts represents 8 years of inadvertent discoveries. More recent work by contract archeologists in the park has placed a greater emphasis on completion of the projects, including full cataloging of all artifacts and processing of all records and reports. Associated and affected tribes are always consulted during these projects.

With one permanent, full-time archeologist on staff and five term appointments overseeing numerous contracts and projects, it appears that the archeological collections will continue to grow well into the future. Park and contract archeologists will continue to collect artifacts and produce records within the five-year scope of this MMP. Much of the backlog of records and artifacts needs to be incorporated into the Yosemite Museum collection while it awaits processing.

The current archeological laboratory space is unsecured and lacks rudimentary environmental controls. Access to needed archeological field notes and raw data could be made available to researchers and the museum staff by originals being duplicated and copies placed in the park archeology office. Perhaps maps, photographs, and reports could be scanned and digital copies produced to provide fast and efficient access. The Yosemite Museum staff has worked closely with archeologists on a coordinated approach and should continue to do so in the future.

Ethnographic Collection

The Yosemite Museum ethnographic collection has grown to one of the finest collections anywhere. Despite its estimated monetary value of \$24 million, the value of the ethnographic collections in documenting the material cultural of the Yosemite area is perhaps more important. Access and interpretation of this collection was enhanced with the publication of *Tradition and Innovation: A Basket History of the Yosemite-Mono Lake Area* by Bates and Lee in 1990. The ethnographic collection is the most accessible to researchers of all the museum collections because of this book. Yet questions have been raised as to the completeness of the collection: How many more items are appropriate? Should it continue to expand and to what extent?

The Yosemite Museum staff needs to conduct a thorough analysis of the ethnographic collection, and author a white paper characterizing the time periods, makers, owners, types, and styles represented. The use of summary counts and descriptions, graphic representations, and comparisons with the holdings of other institutions could help users gain understanding of the context and intent of the collections.

Involvement and input from American Indian communities could help enrich the relevancy of the park's efforts in this preservation goal. The evaluation and analysis in the proposed white paper should be peerreviewed by NPS and outside experts to evaluate its thoroughness and the merit of its findings. A well-written paper should be easily converted into at least one publication or more. With the addition of photographs and graphic design, it could easily be made available on the Internet and other electronic media such as CD-ROM.

Fine Arts Collection

The Yosemite Museum fine arts collection of paintings, drawings, photographs, and other media includes both historic materials and those collected through the park's Artist-in-Residence program. The Yosemite Museum staff needs to develop a policy for acquiring contemporary art from any and all sources. Yosemite National Park has many rich and direct links to art—one could argue that the park was established by eastern authorities who only knew the park by paintings and photographs and were thus creating the ultimate "art park." The continued exploration and representation of the park by artists and photographers over the years has created a deeply complex history and legacy. Nevertheless, the written policy should define a purpose for acquiring contemporary art and the criteria by which art is selected for addition to the collection.

Museum Strategic Vision

Understanding the forces that have created the current Yosemite Museum is vital for being able to explore the possible future directions of collection development and growth. This museum collection is worthy of a substantial effort in order to create a strategic vision prospectus. There are many different ways that such a vision could be developed. A series of scoping workshops could be held to define objectives and seek input from a wide range of park staff, outside museum professionals, and park partners. But however progress is made toward developing a vision prospectus, the basic need exists to reach beyond the Scope of Collection Statement as the sole influence or guidance for the Yosemite Museum collection. Any strategic planning should address, but not be limited to, the following questions:

- Does the museum collection adequately reflect and document what has been and is going on in the park?
- How well does the museum collection meet the needs of other park divisions and staff such as Interpretation and Education, Resources, Maintenance, planners, and outside researchers?
- What collections need to be located within the park versus what can be maintained in a remote repository?
- What exciting opportunities exist for pursuing new additions to the collection(s)? Are funding sources available for new acquisitions?
- How can the museum program build new links to outside institutions and groups and develop new partnerships? What does the park have to offer and what should it pursue in return?

Recommendations

- Establish a Museum Acquisition Committee composed of park specialists who represent relevant disciplines to review, approve, and document the justifications for all new accessions. Exceptions for required approval would include collections mandated under archeological laws and natural resource collections under permit, as well as acquisitions directed by park management.
- Revise the Scope of Collection Statement. Work with Yosemite Natural Resource Management staff to significantly revise the criteria and scope of biological collections.
- Coordinate with the park's Natural Resource Management program on Research Permit and Reporting System permitted collections and Inventory and Monitoring Program collections. Explore the possibility of developing a policy on what should remain in the park and what is best sent to outside institutions.
- Continue to coordinate with the park's archeological program in the preservation of artifacts and development of associated records. Consider ways to create hard copies and/or digital copies of records, maps, and photographs to expedite ease of access.
- Perform an analysis of the ethnographic collection to determine what type and amount of additional acquisitions are justified, where collection gaps exist, what the priorities for acquisition are, and what the intended vision for the collection is. Publish a peer-reviewed white paper as widely as possible, including posting on the Internet and distributing a CD-ROM version.
- Develop a written policy and procedure for the acquisition of fine arts. Define how artists are selected for acquisition, and define the purposes and intentions for the acquisition of fine art.
- Develop a Museum Strategic Vision Statement for how the Yosemite Museum collection should evolve in the next 20 years. Conduct scoping workshops and use any techniques suitable for widening participation and feedback by park staff, researchers, visitors, and park partners.



Figure 3 Museum Library, 1932
Issue B—

Park Archives and Records Management

Issue Statement

Park archives and records must be consolidated, preserved, and made accessible for all users.

Background

Paper Records

In 1996, the Yosemite Museum staff began consolidating the park archives (paper records) in a Bally building, which was constructed and furnished in 1995/1996 at the El Portal Administrative Site. The archival collections were moved from the museum building attic, Gore house (in Wawona), and the Curry Company Warehouse to the Bally building where they were re-boxed.

The majority of the archival collections has not been fully processed but may be partly accessed through either NPS file codes or basic collection inventories. For example, the Frank Latta collections and the Yosemite Park and Curry Company collections were inventoried, and the inventories are now available at the Yosemite Research Library and at the Bally building in El Portal.

Nearly all cataloging that has been done does not meet professional standards. Many collections that are listed as having been 'cataloged' were not processed, arranged and described, and have not been entered into ANCS+ or the required archives module.

Additional museum staff time is critically needed for processing and preserving the uncataloged archival collections. Currently, hundreds of drawings have been flattened and placed in archival folders. Inventories of the collections have begun, and work has been started on adding items to databases. Limited staff time is available for archival processing, so the backlog has grown by nearly 60,000 items in four years.

Archival collections are currently retrieved by museum staff, brought from El Portal to the Yosemite Research Library for use, and subsequently returned, placing the collections at risk of damage or loss in transport.

Photographic Collections

The photographic collections are currently incorporated into the museum collections, the Yosemite Research Library, and the slide archive. The slide archive grew out of the need by park naturalists and rangers for photographs to use in public programs. There are over 90,000 images dating from 1939 to the present in this collection, with photographs covering every possible subject related to Yosemite. Access to the photographic collection is through a subject classification system.

The photographic collection in the Yosemite Research Library has about 15,000 images and is composed of photos by NPS employees for both park documentation and interpretation. Copies of original photographs from the Yosemite Museum collection and images lent for duplication by park visitors are also in the library. The research library photographic collection can be accessed by a manual search of a subject-indexed reference file of index cards with contact prints of the images.

The photographic collections in the Yosemite Museum consist of original images by both well-known photographers (such as Charles Weed, Carleton Watkins, and Ansel Adams) and original photographic prints by park visitors documenting their Yosemite experiences. In addition to the historic photographs in the collection, there are also images by contemporary fine art photographers, including works by Jerry Uelsmann, Ted Orland, and other significant artists. The museum photographic collection documents park history, culture, resources, the visitor experience, and Yosemite's role in contemporary fine art photography. This collection is accessible through the Automated National Catalog Program (ANCS+) as either single images or as photographic albums.

Researchers from the park staff or the public who want to view the

photographic collections encounter logistical problems. The photographic collections are stored at three facilities in two buildings—the museum slide archive in the El Portal Maintenance building and the Yosemite Museum building 17 miles away in Yosemite Valley. Consolidation of all photographic collections into one location with a single system of retrieval should be a park goal.

Archival Backlog

The archival processing backlog has grown by nearly 60,000 items in four years (see Table 2.) The museum slide archive has not been accessioned into the museum collection. A backlog of 20,000 images has not been categorized, and the majority has not been entered into the database. According to the 1997 final draft Collection Management Plan (CMP), it will take several years to eliminate the research library manual index photograph access system.

Collection Management Report Statistics	Through 1999	2000	2001	2002	Total Increases Between 1999- 2002
Archives accessioned (items)	not available	6,444	49,618	19,952	76,014
Archives de- accessioned (items)	not available	0	0	0	0
Archives cataloged (items)	305,917	0	0	16,477	16,477
Uncataloged archives (items)	614,828	621,272	670,890	674,365	59,537
Total archives (items)	920,745	927,189	976,807	996,759	76,014

Table 2 Yosemite Museum Archival Collection Processing Status

Storage Facilities

At the El Portal Administrative Site, archival collections are stored in two locations: the Bally building within an active, operational warehouse, and the nearby Maintenance building, where the slide archive is maintained. In Yosemite Valley, the museum building houses archives in the vault on the first floor and the research library on the second floor. There is no elevator access in the museum building. This wide distribution of various museum collections has led to a reduced use of park archival resources.

All of these existing storage facilities are limited in a number of ways. The El Portal facilities are remote from the center of visitor activities, and no signs direct visitors interested in accessing the collections. The Yosemite Research Library lacks adequate space for researchers, but records from the El Portal Bally building are taken to the library for research use. Each of these storage spaces is reaching or has reached its storage capacity.

Archival Management

The final draft *Collection Management Plan* (1997) and the Archives Condition Survey (1998) provide detailed information on the museum archives and records. Each of these documents is still relevant and valuable for the details provided on the professional management of these collections. The CMP contains collections-level descriptions of many of the archival collections as well as recommendations for basic management procedures. What is missing but needed is a comprehensive archival management plan outlining the major components of a full professional archives and records program necessary for overall museum collections management.

Park Records Management

Park records are received by the Yosemite Museum primarily on a reactive basis. For example, records may be received if a park staff member's office is relocated, or if the successor to a position turns in his/her predecessor's records. There is currently no file plan for park records. Electronic records are not being printed and sent to the central file, nor are they being managed as electronic records. There is no centralized park storage, permanent or temporary, for non-current records.

Discussion

Specialized Staff Needs

The Yosemite Museum Management Program needs specialized staff to manage archives and records (see Addendum, page 11). The top priority now is to hire a registrar in FY 2004. The second priority is to establish and fill a full-time permanent GS-11 archivist position. This professional can undertake the management of the park archives and records program, including planning its intellectual and physical consolidation and preservation, researching and preparing PMIS statements to request funds to manage the backlog, implementing a comprehensive work plan, and establishing a records management program. To accomplish these goals the archivist will need a budget for supplies, materials, equipment, and training. As the archivist manages these overall tasks, routine work can be accomplished by a GS-7 archives technician. [As of 2006, these positions have been filled as subject-to-furlough.]

Collection Physical and Access Consolidation

The Yosemite Museum, archives, and research library staff need to consolidate the archival collections, intellectually and physically. Too many nonstandard access systems and storage locations fragment the archival collections. This limits effective accountability and use of these unique and historic resources. Each access system needs to be evaluated and documented to clarify methods now in place for access, and efforts should be focused on the development of an interim solution to consolidate the different ways in which the archival collections are accessed. Users can then concentrate on research and not be distracted by the need to navigate multiple access systems. Valuable and limited staff time can also be better spent accomplishing basic collections management tasks. With careful planning and forethought, the archivist and other specialists, (including information technology specialists) can streamline each system into a single means of automated Internet access.

Archival Collection Evaluation

The following summarizes the evaluation of the archival collection:

- The archival collections that have been accessioned but not processed need to be evaluated to ensure that each fits within the park's scope of collections. When a deaccession policy is written, it can be applied if necessary.
- The condition of archival materials received since the Archives Condition Survey (1998) should be evaluated and brief collection-level descriptions drafted. Preliminary arrangement of additions of records from the same series can be determined in writing.
- Archival collections can be prioritized for processing.
- Non-book Yosemite Research Library collections should be evaluated for placement in the archives, particularly when they pertain to the park and are unique or historic.

Archives Management Plan

A comprehensive park archives and records plan needs to be developed. This process could be initiated with an Archives Management Plan, which would include plans for developing program elements such as:

- An integrated access system
- Records management
- Backlog processing
- Valuation and preservation of the current collection
- New formatting to keep up with technology

Additional concerns that need to be addressed include the following:

- Establishing processing priorities
- Identifying major risks to the collection
- Determining supply, equipment, and training needs
- Planning space for storage, work, and access
- Developing procedures and policies specific to Yosemite National Park

Records Management Program

A park-wide records management program needs to be developed and implemented. A records management program will help to guarantee that

adequate documentation is preserved. Some work elements of a records management program should include:

- Conducting a park-wide survey and appraisal of records, including electronic records and staff interviews.
- Developing a file plan and reorganizing the central file using *DO#19* (*Director's Order 19, Records Management and Records Disposition Schedule*) file codes and retention schedule.
- Setting up a vital records program to enable business to be conducted during emergencies.
- Building relationships park-wide to facilitate the overall Records Management Program.
- Contacting the NPS Records Officer in Washington, D. C. The National Archives and Records Administration has a Targeted Assistance Program that may be helpful in this undertaking.

Recommendations

- Hire a permanent GS-7 archives technician to manage the routine program work after the major archives and records management program elements are established.
- Develop and implement a plan to consolidate access and storage of park archives and records to promote use and preservation.
- Evaluate current collections for adequacy of documentation, preservation, and access. Establish priorities to resolve problems.
- Procure funding for an Archives Management Planning Team visit to begin development of museum archives and park records management programs.
- Plan and implement a park-wide records management program. Work with the NPS Records Office in Washington, D. C. and the National Archives and Records Administration Targeted Assistance Program.



Figure 4 Lucy Telles and her famous basket, 1933



Figure 5 Moths in the museum collection, 2003

Issue C—

Collections Documentation

Issue Statement

Updated, written park policies and procedures and improved museum records are required to attain legal accountability and ensure welldocumented collections.

Background

National Park Service museum records document park ownership and legal custody of materials, in addition to identifying, describing, and evaluating collections. The research value of collections derives largely from such records. The Yosemite Museum records document one of the largest and most valuable assemblages of museum property in the NPS. In addition, as one of the oldest museum collections in the system, museum records document the evolution of museum record-keeping.

The Yosemite Museum's earliest accession of museum property dates as far back as 1920. Since then, NPS requirements (and the standards of the greater museum community) have changed profoundly. The types of records kept, and even the types of property included in the park's museum collection, have changed in the intervening years.

Museum records are permanent and must be updated to current standards to provide optimal access to information about the resources in the collection. Staff can then ensure proper preservation and use of the collection. Improving the Yosemite Museum's records will improve accountability for the collection and increase its value for research and exhibition.

Discussion

Cataloging Backlogs

The large volume of uncataloged museum property at the Yosemite Museum is a major issue of concern. The lack of documentation causes accountability problems and affects whether and how the collection can be used for research. Undocumented collections cannot be properly inventoried, treated, or accessed. Although the Yosemite Museum has made progress in backlog cataloging with the assistance of the NPS Backlog Catalog Program (BACCAT) funding, and has submitted over 8,200 records to the National Catalog in the past 5 years, the collection's rate of growth continues to outpace the cataloging effort. Approximately half of the Yosemite Museum collection is currently not cataloged.

Since 1987, NPS museum records have been incorporated into a computerized national cataloging system (ANCS+). Over 70,000 catalog records from the Yosemite Museum have been entered into ANCS+ but approximately 33,000 catalog records created prior to ANCS+ exist only in manual form. The National Catalog office in Harpers Ferry, West Virginia, which is the central repository for records from all national parks, is planning to input these records for the Yosemite Museum in FY 2004. However, these 33,000 older records will still need to be updated and revised by the park staff to provide an appropriate level of documentation for the artifacts they represent.

Material that should be accessioned into the museum collection is located in the Bally building at the El Portal Administrative Site, the archeology laboratory, and possibly in the Wawona area at the Gore House and historic structures at the Pioneer Yosemite History Center. These items should be recorded as soon as possible to provide baseline accountability, and to more accurately quantify the cataloging backlog for the park.

Cataloging In-House Reference Manual

To ensure catalog documentation consistency within Yosemite National Park, the park should develop an in-house reference manual for catalogers to use as a supplement to the *National Park Service Museum Handbook*. The in-house reference manual will provide guidelines as understood by current staff members, standardize data entry, aid in record retrieval, and help train new staff to produce high-quality records.

Complete Inventory Submissions

Required inventories have not been submitted to the regional office for four of the past six years. As a partial response to the recent review of Yosemite Museum operations by the Office of the Inspector General, it is critical that the park continue to make complete submissions.

Deaccessioning Policy

The Yosemite Museum collection contains a number of items that are outof-scope for the park, should never have been added to the collection, or have become inappropriate for continued inclusion. For many years, the park lacked the flexibility to place these items in other non-NPS facilities. An amendment to the 1955 Museum Act, implemented in 1997, increased national park authority to remove items from museum collections and to find more suitable repositories.

Although this can be a time-consuming process, unneeded collections use valuable storage space, staff time, and other park resources. Therefore, they should be removed from the park's holdings. This process can be controversial, so the park should develop specific written policies and procedures for making deaccession decisions and preparing associated documentation with peer and regional input. Approval of these procedures should be secured at the regional level.

Listing of Controlled Property

The park's listing of controlled property should be reviewed. Following the recommendations in the recent Inspector General's report, an attempt was made in FY 2004 to assemble a more complete listing of controlled property in the Yosemite Museum's art and photography collection. However, because of the low threshold of controlled property designation guidelines in the *Museum Handbook*, the park should obtain written authorization to raise the minimum value for this property to adjust for inflation. The museum's current list of controlled property includes 788 items. If the ethnographic update is completed in FY 2005 as planned with the current \$1,000 value threshold, 200 to 300 items could easily be added to this list. Conducting such a large inventory annually, in addition to the two required random sample inventories, consumes a great deal of staff time that could be spent on other priorities.

Recommendations

- Continue backlog cataloging effort to reduce the large quantity of collections that are poorly documented. This will improve accountability and provide research and interpretive value to park holdings.
- Upgrade inadequate older catalog records and input into ANCS+ catalog database.
- Write Yosemite National Park-specific manual for accessioning and cataloging incoming museum materials.
- Accession all undocumented material (particularly archives), unprocessed archeological collections, and material at outlying storage areas.
- Continue to complete all required annual inventories.
- Write Yosemite National Park-specific deaccession policies and procedures, and ensure regional and peer review.
- Begin implementing deaccession policy by removing out-of-scope material from the Yosemite Museum collection for placement elsewhere.
- Raise the minimum value of holdings that are required to be listed as controlled property, with peer review, and approval of the superintendent and region.

Issue D—

Collections and Workspace

Issue Statement

Integrated storage, study, and work areas are essential to foster the development, preservation, and use of park archives and collections.

Background

Museum operations present some unique challenges to planning for required space needs. Although the Yosemite Museum is a public institution dependent on public access and use, it is tasked with protecting its contents from too much public use as well as from other environmental threats to the safety and preservation of its collections.

All museums share this three-part mission to collect, preserve, and use collections. These mission components greatly impact facility planning, development, and operation. For museums that include history and science collections (such as the Yosemite Museum), this is exacerbated by the need to continue collecting materials, the need for more space, and the need for resources to manage both space and contents. These needs may decrease the longer a museum is in operation, but they will never be completely met.

While the Yosemite Museum may be considered mature by some standards, the park has never thoroughly addressed the need for adequate storage space and collections access. The 1997 final draft Collection Management Plan (CMP) determined that only some of the available spaces met commonly accepted museum standards, either for space required or environmental controls.

Existing Storage Facilities

Since the 1997 CMP was drafted, a 4,100 square foot Bally building was erected inside the warehouse storage building at the El Portal

Administrative Site. This structure provides improved storage for the Yosemite Museum's archival and archeological collections. However, the Bally building lacks a wet/dry laboratory and sufficient space and facilities for collections processing, as well as adequate space for access and study of the collections, particularly by the public. To provide access to these collections, park employees transport individual boxes of records 17 miles to the Yosemite Museum in Yosemite Valley, then carry each box up a flight of stairs to the Yosemite Research Library, then return them to El Portal after use. Obviously this system is expensive, inefficient, and could result in the possible loss of or damage to the archival resource being transported.

Photographic Collection

Photographic resources are generally associated with archival collections. However, the Yosemite Museum has previously classified original photographs and negatives as historic objects. Slides, duplicate or copy photographs, agency-caused photographs, recent documentary photographs, motion picture films, and electronic media were often placed in the library collections, although these too are typically archival in nature. See Issue B for recommendations on managing photographic collections.

The Yosemite Museum's photographic resources are currently stored in three locations. The slide archive was moved to El Portal in 1997 and is housed in an area originally built as an exhibit preparation shop. The majority of other photographs is stored in the Yosemite Museum building in either the first floor storage area or the Yosemite Research Library. Primarily nitrate negatives and motion picture film are located with the archives in the Bally building.

Access to the Yosemite Museum's photographic collections is provided at each of the storage locations, but these are 17 miles apart. Three different documentation systems are used for resource retrieval. The NPS ANCS+ program is used for the historic photographs, a subject-based file of index cards with contact prints is used for the Yosemite Research Library, and a Yosemite-specific manual subject file is used for the slide files. The problems associated with this system are discussed in the Issue B section of this MMP.

Archeological Collections

The majority of the park's archeological collections are currently located in the Bally building along with the archives. The archeological collections have recently expanded because of compliance-driven excavations associated with the Yosemite Valley Plan. In addition to the ongoing excavations in the park, the Archeology Branch is holding a number of boxes of excavated material that have not been completely processed or documented. There is some room to accommodate the growth of archeological collections, but the current configuration of the Bally building is inadequate for the processing and study of these collections. As with the archives, elements of the archeological collections must occasionally be removed from the building for study and then returned. This is an inefficient, expensive process and places these resources at risk.

Ethnographic Collections

The ethnographic collections are located in the Yosemite Museum building. Storage space for these collections is overcrowded. There is very little room for study or research access. Some improvements for preservation are discussed below.

Natural Resource Collections

The natural resources collections are located in the Yosemite Museum building. Storage space is cramped, and elements of these collections (such as the insects) are exceptionally difficult to access. Access is complicated because the collections are not organized by genus and species (which would require significantly more space). The lack of wet or dry laboratory facilities generally associated with working collections also hinders access for study and research. The current composition and anticipated growth of the natural resources collections are discussed in Issue A of this MMP.

Historic Objects

Historic objects are housed in several locations and are stored somewhat according to the type of materials. The storage locations include the gray barn, pole shed, machine corral, and Gore House at Wawona; the Yosemite Museum building and maintenance facility in Yosemite Valley; and another pole shed at El Portal. A discussion follows of historic objects, which are grouped as vehicles and machinery, and smaller objects.

Vehicles and Machinery

Historic vehicles and machinery are located in the gray barn, pole shed, and machinery corral at Wawona; in garage units behind the Valley Maintenance facility; and in a vehicle storage shed in El Portal. This collection includes 28 vehicles (23 at Wawona, two in the Valley, and three in El Portal) and approximately 12 pieces of farm and road equipment at Wawona. In addition, a locomotive, tender, and round table machinery are in open, covered storage at El Portal. All the vehicles and machinery are in fair to poor condition and are stored in open or poor storage conditions, with little security and protection and no environmental controls. The storage conditions make preservation or study of these objects extremely difficult, and they are not interpreted to the public in any meaningful way.

Smaller Historic Objects

The Yosemite Museum's collection of smaller historic objects is located at the Gore House in Wawona and at the Yosemite Museum building in Yosemite Valley. The Gore House is an approximately 1,000 square foot, framed structure with four main rooms. It is crowded with furniture, saddles and tack, household goods, tools, and personal items such as clothing. This site has limited storage equipment and no security or environmental controls. Some of these items relate directly to Yosemite history, and some items were purchased from surrounding communities for exhibit and use in the Pioneer Yosemite History Center at Wawona. The documentation and preservation challenges at the Gore House have not appreciably changed since it was described in the 1997 draft CMP, with the exception of the removal of archival records that were stored there until 1997.

The rest of the smaller historic objects are located in the Yosemite Museum building storage area and attic. Conditions are cramped in the storage area, which has led to poor storage techniques and a lack of access to individual items. Conditions in the attic are unacceptable for both storage and access at this time. The museum staff has begun to move the items in the attic to the Bally building in El Portal and should finish the task by the end of FY 2006.

Fine Art Collection

The Yosemite Museum collection of fine art consists mainly of paintings (various media) and photographs but also includes a few pieces of sculpture. Storage for most of these objects is in the Yosemite Museum building storage area. Storage for fine art is cramped, with no space for detailed study or preservation work.

Discussion

The Yosemite Museum must work to balance the needs of its growing and developing collections with the limited resources available for their preparation, storage, preservation, and use. Central to this discussion is an understanding of the basic role and function of archives, museum collections, and library resources.

Different Forms of Information

Archives, museum collections, and libraries all contain different forms of information—in the case of Yosemite, information critical to the management of the park. Listed below are the primary distinctions among these types of resources.

• The archives should include written reports, maps, photographs, and plans that result from maintenance, resource management, research activities, park planning, and environmental compliance. Manuscript collections related to the history, ethnology, and other resources of the park should also be included.

- The museum collections contain specimens and objects collected during maintenance, research, resource management, and compliance activities, as well as those items acquired for interpretive exhibits.
- The Yosemite Research Library should be the repository for published materials related to the topics represented in the archives and museum collections, and general related literature that promotes understanding of the park and its activities.

Space Requirements

Primary objectives of the Yosemite Museum Management Program are to foster documentation and preservation of its archives and collections, and to facilitate user access to the information contained in the archival, museum, and library collections. These objectives can be satisfied with sufficient storage space and meeting basic preservation requirements. However, to facilitate access to the collections, Yosemite National Park also needs to dedicate space for preparing, recording, studying, preserving, and exhibiting collections.



Figure 6 Museum workroom, Rett and Maier, ca. 1928

Additional space is also needed for the administrative functions required to manage the collections as well as for other specialized space needs such as restrooms, meeting and conference rooms, mechanical rooms, and storage of supplies. Some of these spaces could be shared with other park or public functions, depending on the overall use and configuration of the building. See Appendix A (Museum Facilities Standards) for a discussion of NPS requirements for archival and museum collections.

Depending upon location and other circumstances, it may also be desirable for the study, storage, and work areas to be adjacent to public areas such as exhibits and meeting rooms. Providing a public view into the specimen preparation and preservation laboratories has proven effective and popular at locations such as Dinosaur National Monument and Fort Vancouver National Historic Site.

At most museums, the preparation and preservation space is typically isolated from the storage and use space. The preparation and preservation of various objects can at times be noisy, dirty, messy, and smelly and pose health and safety concerns; therefore, it is best to keep this space away from storage and study areas. In addition, some materials require fairly rigid environmental controls for storage that are difficult to maintain in areas also used for preparation and preservation work.

The Yosemite Research Library and Yosemite Museum collections currently occupy an estimated 9,000 square feet of storage space (except for the railroad engine and related equipment, and the machinery corral). Of this total amount of space, only the Bally building (4,100 square feet), the slide archive storage (500 square feet), the Yosemite Museum Collection Room (1,200 square feet), and Yosemite Research Library (800 square feet) meet minimal storage and preservation requirements. The Gore House (1,000 square feet), all vehicle storage (1,500 square feet), and the museum attic (400 square feet) do not meet minimal storage requirements. Yosemite National Park is lacking 2,900 square feet of minimally acceptable space just to meet the basic, necessary storage requirements outlined above. This does not take into account overcrowded conditions in the storage areas, the need for future growth, or the space requirements needed for preparation, preservation, and use of collections.

The collections are currently widely scattered and separated by up to 45 miles road distance. This distance compounds the problems of limited

staff with complex demands on their time and the poor working conditions with limited space and resources in the various collection storage areas.

Storage Options to Consider

To prevent significant deterioration and loss of primary park resources, Yosemite National Park must provide a minimum of 3,000 square feet of additional minimally acceptable storage in the near future.

In addition, the park should consider consolidating these resources into one or two locations to maximize museum staff time and effectiveness. Not many viable options that meet the needs of location, space, and environmental conditions are available to solve these deficiencies. No centralized space is available that will serve all of the museum's needs. Also, this need for large amounts of space probably will further complicate the insufficient space problems the park already has in other operations. Some possible suggestions are presented below for short- and long-term solutions to the current Yosemite Museum Management Program space needs.

Short-Term Solutions

The items currently stored in the Gore House are not secure from theft, fire, or the full spectrum of environmental threats. Much work needs to be done to determine possible deaccession actions for these collections. These needs cannot be met at the Gore House or any other location in the Wawona area. One short-term option would be to box this collection and move it to the overflow shelving currently available in the Commissary Warehouse in El Portal. Some minor security and workspace arrangements would have to be made with the Division of Administration concerning use of this space. This temporary arrangement would allow basic documentation, cleaning, and preservation to occur under improved (but not fully acceptable) security and environmental standards until more permanent arrangements can be made.

The historic objects and geology collection from the Yosemite Museum building attic need to be moved to provide improved storage and preservation. The objects in the attic would fit within the current storage capabilities of the Bally building, and this movement of collections should be expedited.

The vehicle and machinery collection is rapidly deteriorating under current conditions, and major loss of items in this collection may occur over the next few years. There is also no security or fire protection for these items in their present locations. This collection requires about 2,500 square feet of space (exclusive of the railroad-related items) for minimal storage and preservation workspace.

Two locations that may be able to provide this amount of space are the overflow storage space at the El Portal Warehouse or the storage building (the location of the Bally building) at the El Portal Administrative Site. Of these two locations, the warehouse would provide better environmental controls and working conditions for the documentation and preservation activities associated with this collection. The vehicles and machinery collection will probably need this space for a longer time than collection items at the Gore House.

Long-Term Solutions

The Yosemite Valley Plan calls for an expansion of the Yosemite Museum to incorporate the existing Mission 66 Valley Visitor Center and auditorium complex. This move would also consolidate the collections into one location and increase visitor and researcher access.

The Valley Visitor Center would house the Yosemite Research Library, photographic holdings, and possibly a learning center. The auditoriums would house the archives, museum collections, research space, laboratory, and curatorial offices.

The 1925 Yosemite Museum building would be rehabilitated and brought to current code, including universal access standards. The MMP team considers the preservation of the current Yosemite Museum building to be especially important considering that the NPS Museum Management Program started in this building in 1926. The existing Valley Visitor Center and auditoriums could be adapted as a permanent home for the Yosemite Museum collection. This will require structural engineering studies and careful planning based on the results of those studies. The first of these studies will be started in FY 2004 with funds made available through the Museum Collections Protection and Preservation Program fund. The park estimates that it will be between 10 and 15 years before the park archives, collections, and library operations are consolidated into a central location that meets the Yosemite Museum's functional needs and space requirements.

Recommendations

- Develop an interim Collections Storage Plan based on the information provided in this MMP.
- Move collections from the attic of the Yosemite Museum building to the Bally building in El Portal.
- Determine a short-term location for secure storage and processing of the Gore House material. Pack and move the Gore House material, then document and process for preservation or deaccession.
- Determine a semi-permanent location for the vehicle and machinery collection. Pack and move the vehicle and machinery collection, then document and process for preservation or deaccession.
- Develop a long-term museum facilities plan for implementation as part of the overall Yosemite Valley Plan, with defensible cost elements.



Figure 7 Ranger training school in the museum, 1939

Issue E— Preservation

Issue Statement

A strong, demonstrable commitment to an aggressive preservation program is required for museum resource protection and access.

Background

Recent Improvements

In the past decade, Yosemite National Park has made progress in improving the level of physical collections care by providing upgraded museum spaces for storage, exhibit, and research of the Yosemite Museum collection.

In 1994, the park installed a prefabricated, insulated, climate-controlled Bally building in the storage building at the El Portal Administrative Site to relocate both climate-sensitive, paper-based collections and archeological collections. Both collections at that time were most at risk due to substandard storage areas.

New conservation-level lighting was installed in the museum gallery in Yosemite Valley, and new conservation-approved exhibit cases were installed in the Indian cultural exhibit, both within the last four years. New powder-coated, enclosed museum storage cabinets were purchased to house archeological material, natural history specimens, and historical and ethnographic objects in the museum collections room in 2004.

The museum slide collection was relocated in 1997 from the Yosemite Museum building to the exhibit workshop at the El Portal Administrative Site. For over two years, the museum curator has not been able to visit the Gore House, which contains historic objects used to interpret the Pioneer Yosemite History Center cabins at Wawona, because of other park assignments. But the Interpretation staff made an effort shortly before the MMP team visit to organize the contents at the Gore House and place objects on shelves and in coherent clusters on the floor.

At the time of the MMP team site visit, all park facilities housing museum functions failed to meet NPS and professional museum standards for collections preservation in one or more areas, including fire detection and suppression, security, and/or environmental control. These deficiencies were noted in the 1997 final draft CMP, and more recently in the *Advisory Report* of the Office of Inspector General, Western Region, published in March 2003. Adequate and appropriate space for storage and curatorial activities remains a critical need at Yosemite National Park.

Discussion

Conditions in the following Yosemite Museum areas were assessed and evaluated during the MMP team site visit. The observations made in the 1997 CMP and Office of the Inspector General *Advisory Report* were used as baseline data during the evaluation.

Yosemite Valley

- Yosemite Museum Indian cultural exhibit and gallery
- Museum collections room and vault
- Yosemite Research Library
- Yosemite Museum attic
- Two garages in the Yosemite Valley Maintenance Area

El Portal

- Bally building
- Slide archive
- Vehicle storage shed

Wawona

- Gore House
- Gray barn
- Pioneer Yosemite History Center wagon exhibit shed
- Pioneer Yosemite History Center cabins
- Historic farm machinery corral

Environmental Preservation Requirements of Yosemite National Park Collections

Ethnographic Collection

Target range: The ethnographic collection requires tighter controls than the general history collection. Structurally complex composite objects, objects under tension, and objects with secondary decorative elements such as paint, embroidery, beadwork, etc. have a moderate tolerance range between 55 to 72° Fahrenheit (°F). Within this range, sudden changes should be avoided and daily temperature drifts should ideally not exceed 5 degrees. Acceptable Relative Humidity (RH) range is 45 to 55% with no more than 5% daily drift. Slow seasonal drifts of 10% RH and 10°F are acceptable.

The ethnographic collection consists of an enormously valuable and world-class American Indian basket collection and other significant ethnographic material collected from the Yosemite area from the early days of the park to the present. This collection includes cultural material from the Miwok, Paiute, Western Mono, Chukchansi, and Yokuts people. The collection is exhibited and stored in the Yosemite Museum building in Yosemite Valley. Individual baskets were conserved by the Harpers Ferry Center in the late 1970s and early 1980s and, more recently, by contract conservators in the San Francisco Bay Area in the 1990s. No systematic survey has been done to assess the condition and treatment needs of the ethnographic collection.

Fine Arts Collection

Target range: With their stretched canvas supports, easel paintings have a narrow tolerance range between 55° to 70°F. Within this range, sudden changes should be avoided and daily drifts should ideally not exceed 5°F. Acceptable RH range is 45 to 55% with no more than 3 to 5% daily drift. Slow seasonal drifts of 10% RH and 10°F are acceptable. Unframed art on paper such as watercolors and other paint media, prints, lithographs, etc., have a similar tolerance range. Paintings on rigid supports like canvas board and pressboard panels and framed and glazed works of art on paper are less sensitive to fluctuating temperature and RH and can tolerate a slightly wider drift in RH and temperature if slowly achieved.

Yosemite National Park owns a fairly large collection of paintings from both purchase and donation and a considerable amount of contemporary art from the Artist-in-Residence program that has been in operation for several decades. The collection includes significant works by Chris Jorgensen, Albert Bierstadt, Thomas Hill, and Thomas Moran. Framed paintings are stored on painting racks and bins in the Yosemite Museum collection room. Matted, unframed works are stored in drawers in museum cabinets. Paintings are also frequently used in temporary exhibits in the museum gallery. At the time of the MMP team site visit, a four-month exhibit of historic paintings was installed in the gallery.

Since the late 1970s, Yosemite Museum has had a long-term program of conservation surveys and treatment of fine arts for both the most at-risk pieces as well as those needed for the exhibition program.

Archeological and Geological Collections

Target range: General material - Moderate to wide tolerance range between 40° to 75°F. Human comfort usually dictates the ideal range of 65° to 72°F. Seasonal temperature drift should be as gradual as possible. Relative Humidity should be below the mold threshold of 65 to 70 RH%.

Much of the inorganic archeological and all of the geological material in the museum collection are virtually climate-insensitive and require minimal climate control for long-term preservation. Exceptions are unstable archeological metal, unstable glass, and porous material infused with soluble salts during burial, which undergo hydration cycles with resulting efflorescence and surface spalling. The range of climate tolerance for certain unstable materials can be very narrow (for example, below 30% RH for unstable metal). If the amount of vulnerable material is relatively small, microclimate storage enclosures can be used to provide customized preservation environments for specific materials.

Organic archeological material such as wood and leather, and composite materials may be more climate-sensitive depending on its burial context, dimensional characteristics, and archeological processing techniques. Often, however, unconstrained archeological wood and other organic material no longer have the hygroscopic ability to be significantly and continuously affected by fluctuating relative humidity. Cracking, splitting, and other dimensional distortions of organic archeological material usually occurs shortly after excavation when the material must adjust to ambient conditions of cycling temperature and relative humidity. After any initial distortion, the hygroscopic response of organic archeological material to fluctuating conditions is often insignificant.

The *NPS Museum Handbook*, Part I, Appendix I, discusses the general and specific climate needs of archeological collections. But diagnostic artifacts, significant research material, and complex composite objects should be evaluated on a case-by-case basis by a conservator through an Archeological Collections Conservation Survey. Meanwhile, vulnerable materials should be visually monitored for increased corrosion activity, efflorescence, and separation of elements or layers to determine if the objects would benefit from storage in a microclimate enclosure.

History Collection

Target range: General material – Moderate to wide tolerance range between 40° to 70°F. Human comfort usually dictates the ideal range of 65° and 72°F. Within this range, sudden changes should be avoided and daily drifts should ideally not exceed 5°F. Seasonal temperature drift should be as gradual as possible. The rate of swelling of wood and other anisotropic materials is accelerated over 70% RH and most damage will occur in the high range of 70% to 90%. RH should be below the mold threshold of 65%. For most historical and utilitarian objects in temperate climate zones, a slow 20% RH drift between seasons is acceptable.

Historic Furnishings

The history collection includes furniture and household furnishings, most of which were collected in the 1960s for use in interpreting the Pioneer Yosemite History Center cabins in Wawona. Although most of this material is generic and has no particular association with the historic cabins, the collection also includes several items directly associated with both the Thomas Hill Studio (Wawona Hotel) and the Jorgensen Cabin.

The furniture collection consists primarily of robust vernacular pieces, and most damage to the wood probably occurred long ago during its original use. Pronounced fluctuations in relative humidity, and to a lesser degree in temperature, cause structural damage to furniture. The damage can include cracking, warping, and detachment of component parts in composite objects. For a general historic collection, cycles of a 40% drift in relative humidity for the total duration of 1 day to a month are considered the most damaging. However, the history of objects is important in determining which objects are most likely to be damaged by a single event of more extreme RH change. Research indicates that continued fatigue damage (crack growth) to a collection that has occupied a static building through many years of local climate is slow enough to be virtually inconsequential.

General historic furniture and furnishings that include glass components (such as dressers with mirrors or clocks with glass doors) are vulnerable to moisture damage from condensation on cool, non-porous surfaces when temperatures drop below the dew point. These materials should not be stored in areas subject to moderate to high percentage of relative humidity and significant daily cycles of temperature changes.

Most of the historic furnishings were acquired for exhibit in the Pioneer Yosemite History Center cabins in the 1960s without specific historic furnishings plans. The furnishings were consumptively used and were later removed from the program. The majority of the furnishings have been stored for at least a decade in the Gore House in Wawona. At the time of the MMP team's site visit, the cabins were only minimally furnished and little of the material was cataloged because the park is moving toward using only reproductions in this interpretive program.

Historic Objects

To document and interpret the history of the park, historic objects such as souvenirs, hotel registers, firearms, and uniforms, as well as early recreational items such as skis and camping equipment, have been collected. Beginning in 1976 with the reopening of the Yosemite Museum, ethnographic and historic objects were installed in the Indian cultural exhibit and museum gallery. Until the status of the collection in the Gore House (Wawona) is determined, a conservation survey of historical material is not practical.

Wagons and Motorized Vehicles

Target range: None beyond physical protection from weather, direct sunlight, and airborne dust and dirt.

The wagons and vehicles in the Yosemite Museum collection are fairly acclimatized to exterior climate conditions. Most of the wagons and carriages were aggressively restored (one might even say reconstructed or reproduced) from the 1960s to the late 1980s and are quite sturdy. What must be avoided is their exposure to rain, snow, and direct sun. The vehicle storage shed in the El Portal area and the wagon shed in Wawona, and several garages in Yosemite Valley provide this basic protection, but dust is a substantial problem in all of these partially open areas.

The deteriorating and vandalized vehicles at El Portal have received the most concern in past documents. The *Collection Preservation Guide* (1980) observed that "all vehicles are in poor condition, deteriorating through neglect" and recommended moving them to an enclosed building. This document also states that the regional curator (who at the time was Dave Forgang), the chief of the Division of Museum Services, and the chief curator of the National Park Service all observed the dismal condition of these historically significant vehicles and expressed concern about the vehicles' deterioration. This document was prepared as a result of the acting superintendent's request to the regional director for a curatorial operations evaluation and evaluation team.

The vehicle storage shed at El Portal had been interpreted from 1965 to 1981, but visitor interpretation stopped when the Maintenance Division needed some of the space. Of the vehicles in the museum collection, the 1929 Dodge roadster (auto caravan car), the 1937 Cadillac stretch-out formerly used by the Yosemite Transportation Company, and possibly the snowplow are particularly significant to park interpretation. Other vehicles located elsewhere in the park and significant to park history are the 1920s White motor bus and the Indian motorcycle.

Regular maintenance for both the motorized vehicles and wagons ended in 1989 because of loss of funding and seasonal positions.

The farm equipment in the corral at the Pioneer Yosemite History Center has not been placed on concrete slabs, blocks, quarry gravel, or other barrier protection from the damp soil. The wood elements of this equipment are in poor condition due to weather exposure and termites. The corrosion layer on the ferrous metal elements is dense and compact in many areas. Information contained in the Canadian Conservation Institute's *CCI Notes* series can be useful in guiding preservation of this equipment, unless it is decided to deaccession it. The park curator should determine whether this material should be retained by the park.

Printed and Holographic Manuscript Material and Rare Books

Target range: Chemical deterioration of paper-based material accelerates as temperature rises. Ideal temperature conditions for exhibiting and storing paper and photographs should be as cool as achievable. This means conditions below human comfort temperature range for long-term storage, in the range of 45° to 55° with RH at 30 to-40%.

The documentary and historic photographic collection includes biographical material, equipment, records, and photographs relating to photography in Yosemite, and includes significant work by renowned photographers such as Ansel Adams, George Fiske, Julius T. Boysen, Charles Weed, Carleton Watkins, Eadweard Muybridge, and others. The photographic collection contains both prints stored in the museum collections room and vault, and sheet film negatives (including nitrates) now stored in freezers in the Bally building at El Portal. It is important to note that safety film from the 1940s through the 1960s is often acetatebased and is also unstable. The museum should undergo a notch code survey of acetate sheet film to identify and isolate unstable media. Contemporary photographs are also collected as part of the Artist-in-Residence program and other sources. Documentary photographs and slides of park cultural and natural features are also maintained. The slide archive is maintained in the exhibit workroom in El Portal in ambient office conditions, which are brightly lit and warm from heat gain through a large skylight. If the original slides are as important as their images, the park may want to copy them digitally for easy and safe research use and archive the originals in a more appropriate environment.

Rare books are located in a room adjacent to the Yosemite Research Library in the Yosemite Museum building. Many of the bindings are fragmented, broken, and torn. Each book should be placed in a phase box enclosure to protect the deteriorating physical structure and provide more protective buffering for climate stability. A data logger is placed in this room, but printouts of data were not available during the site visit.

Plans, Maps, Blueprints, Diazoprints, and Park Records

Target range: Park records and institutional archives have a fairly wide range of tolerance to general conditions in normal ambient office conditions. Most damage to paper and other organic materials is incurred from conditions above the threshold for mold development of 65% RH with elevated temperatures above 75° F. Cold temperatures in the absence of RH control can create unacceptably high RH.

Although plans, maps, blueprints, diazoprints, and park records are paperbased, they are usually densely packed and therefore self-buffering to help maintain moisture equilibrium. The biggest threat to these resources is biological (from mold and insect/rodent infestation). Their long-term preservation depends primarily on the prevention of biological problems through Integrated Pest Management Program (IPM) strategies and very basic climate control to discourage mold growth.

Magnetic and Digital Media

Target range: Archival audiotape, videotape and electronic (digital) magnetic tape, CDs, and DVDs are best stored in cool dry conditions.

Conserve O Gram 19/20 recommends long-term storage conditions of 40°F and 20% RH.

As technology progresses, the collection will acquire an increasing amount of magnetic and digital media. Plans should be made to provide a storage space with the necessary microclimate to ensure long-term preservation of these media.

Natural Resources Collections

Target range: A fairly stable point between 35 and 65% RH should be acceptable if short-term fluctuations of temperature and relative humidity are not excessive.

Botanical Specimens

Herbarium specimens are mounted to allow for some movement in terms of expansion and contraction from changing temperatures and humidity levels, but the plant material has already been desiccated in processing and has lost significant ability to physically react to ambient RH fluctuations. The most significant threats to dried plant specimens are mold, insect infestation, excessive light, and high temperatures, which promote chemical and molecular deterioration of the mounted specimens.

Faunal Collections

Chitin, the major biological material of insects, is very resilient to climate variations, but protein-eating insects pose serious problems to the long-term preservation of these specimens. The vertebrate and skeletal materials are negligibly climate-sensitive but vulnerable to insect attack, depending on how they were prepared. Wet specimens (specimens in alcohol) require moderate climate conditions, but most importantly, safety from mishandling and impact breakage. The wet specimens are stored in stationary museum cabinetry in the museum collection room.

Evaluation of Yosemite Museum Areas

Museum collection room - Collections stored in the museum collection room and vault include:

- A large collection of Miwok and other California American Indian baskets on both open shelves and in museum cabinets on compact storage units
- A large collection of ethnographic ceremonial objects, clothing, and other cultural items stored in closed cabinets
- A large collection of historic photographs, scrapbooks, and glass plate negatives enclosed in boxes and drawers within cabinets and on open shelves
- Paintings, watercolors, and other media hung on racks, stored in bins, and stored in drawers within cabinets.
- A small collection of natural history specimens in alcohol, and study skins in stationary museum cabinets and movable storage cabinets
- Historic objects in both museum cabinets and open shelving in compact storage units

Climate: The Yosemite Museum building areas used for museum and library storage are served by four separate systems designed from 1976 to 1986. Until the mid-1980s there was no provision for the drainage of condensation in the museum collection room, which resulted in water release and limited flooding about 10 years ago. As a result of this event, the drain line was rerouted to the exterior of the building. A water release and flooding episode in July, 2003, occurred about two months before the MMP team's site visit because of a lack of programmed maintenance and a plugged drainage line.

Although the storage room has no heat in the winter, old hygrothermograph charts and recent data logger information show fairly stable climate conditions in this room year-round, which fall within a moderate fluctuation range.

The Yosemite Museum follows the guidelines for the environmental monitoring system developed by the Image Permanence Institute, Rochester Institute of Technology (RIT), and maintains data loggers in four locations in the museum building. Records for the period of one year (September 2002 to September 2003) in the museum vault show a temperature range from a winter low of 48°F to a summer high of 67°F. The average temperatures ranged from 55° to 65°F. Relative humidity ranged from 42% to 56%. Although the Temperature Performance Target recommended by RIT of 68°F (+/-4°F) was achieved only 3% of the time and the Relative Humidity Performance Target of 35% (+/-10%) was achieved only 26% of the time, conditions are generally within the range of tolerance for the material contained in the collection. However, the park should modify the record charts for different time intervals to look at daily, weekly, and monthly changes over time to understand the rate of fluctuation of temperature and relative humidity. These fluctuations are an important consideration in the preservation of hygroscopic materials, particularly those under constraint like paintings and woven baskets. Photographs in the vault may benefit from lower RH for long-term storage.

Storage techniques: The museum collection room and vault are too small to effectively house all of the collections. Many baskets are stacked within each other, which is necessary due to space constraints but not ideal because of the potential for pressure damage and abrasion to basket walls and compression of their bases. If stacking is unavoidable, soft, non-snagging material such as drapable Tyvek, GoreTex, or similar material should be used to separate the baskets to avoid potential damage.

The shelving units in the vault are too narrow to contain large baskets, which now hang over the edge of the shelves. Ideally, all materials on shelves should be completely protected within the shelf perimeter.

Ragged scrapbooks with torn bindings should also be supported and protected dimensionally by being enclosed in individually measured phase boxes. Bits and pieces of these fragile books often detach. The drawers now containing these important resources must be cleaned to provide a benchmark for assessing the rate of continued deterioration.

Fire protection and security systems: The halon fire-suppression system installed in the late 1970s was operational until July 2004, when one of the zones failed. Both systems are now individually shut down and will be converted to a fire detection system in 2006. The halon gas tanks throughout the building and at the Thomas Hill Studio will be removed,

and a fire suppression system will be planned for the future. The museum collection room and vault has an electronic intrusion security system.

Space use: In addition to collection storage, a workspace for researchers and curatorial staff is also provided in the museum collection room. The overall space is very limited and crowded with this shared use, making it difficult to safely access the collections. Having the curatorial and research activities within the storage room also requires higher levels of interior lighting than is recommended for collection storage. Although the majority of the collections are enclosed in cabinets and on shelves in closed blocks of Spacesaver units, the paintings on racks and some baskets are on open shelving, albeit in fairly low light levels.

The mezzanine above the picture rack storage is both inconvenient and dangerous in terms of access and safe storage practices. Contents on the mezzanine should be sorted, and non-collection items such as packing supplies should be removed, allowing the mezzanine area to be reorganized. Ideally, no museum collections should be stored there.

Summary: With the installation of a reliable fire detection/suppression system, the museum collection room and vault will be marginally acceptable for storage, but the climate control should be improved. The ability of the current HVAC system to provide the optimum stable environment for climate-sensitive materials is limited. The park might consider installing a stand-alone climate-control system such as the Leibert Challenger 3000. This system is designed primarily for computer rooms and provides full-service heating, cooling, dehumidification (chilled water reheat), and humidification (infrared). The system audibly alarms when conditions beyond the set-point range occur. Leibert units have been used with success in several parks in the Northeast region.

Museum Attic

The uninsulated and unsecured attic in the Yosemite Museum building served as a primary museum and archival collection area for decades before most of the material was moved to the Bally building at the El Portal Administrative Site in 1997. [As of 2006 the rest of the material has been removed.] *Climate:* Climate record charts for August to November 2002 show attic temperatures over 90°F in the summer and as low as 36°F in the winter. A review of the charts show that RH generally ranges from 20% to 30%, with fluctuations down to 17% and up to 40%. Not only is the climate completely unacceptable for the preservation of museum collections, but the attic has a serious rodent problem.

Fire and intrusion security systems: There is a fire detection system in the attic. The former halon system installed in 1976 failed and was disconnected. The attic has no electronic security system.

Summary: The attic is unacceptable for museum storage. Objects should be moved out as soon as possible to other secure locations.

Indian Cultural Exhibit

Climate: Climate-control problems in the Indian cultural exhibit are similar to the conditions in the museum collections room because of the inadequately designed system built in 1976. The massive stone walls and the high thermal insulation capacity of the 1925 Yosemite Museum building help stabilize the interior climate regardless of the inadequate climate-control system.

Climate record charts for the six-month period from April until November 2002 show temperatures ranging from 64° to 78°F and RH as low as 19% and as high as 58%. Within these ranges, environmental conditions were within the Temperature Performance Target set by RIT of 68°F (+/-4°F) for 62% of the time and within the Relative Humidity Performance Target of 35% (+/- 10%) for 87% of the time. The charts show a strong daytime fluctuation of both temperature and RH. The museum staff should experiment with different time intervals to see the rate of daily, weekly, and monthly variation of temperatures and RH fluctuation. However, the exhibits are enclosed in new conservation-approved exhibit cases, which provide added buffering against fluctuating climate conditions.

Light: Although ultra-violet (UV) light levels are acceptable in this exhibit, visible light levels are too high for the light-sensitive ethnographic objects and historic objects on display. The conservation standard for
light-sensitive organic materials (such as feathers, textiles, and paper) is five foot-candles. Light levels measured as high as 48 foot-candles on the flicker quill headband and 20 foot-candles on the magpie feather headdress on exhibit in this room. Since this visit, visible light levels have been lowered by directing light away from highly sensitive objects.

Fire protection and security systems: The Indian cultural exhibit has a fire detection system and security system, but no fire suppression system. A halon system in this room was discharged by human error several years ago and damaged a valuable basket (which has since been conserved). Halon manufacture has since been banned by the U. S. Environmental Protection Agency (EPA) because of its contribution to ozone depletion. The park is not committed to installing a gas-type fire suppression system, as opposed to a standard dry-pipe or water-mist system, which may be more appropriate to the museum setting. The former halon system tanks, which have been discharged, will be removed.

Summary: The Indian cultural exhibit would be acceptable for exhibition of museum collections if fire suppression and improved security systems were installed and visible light levels were lowered to meet conservation standards for light-sensitive organic material.

Museum Gallery

Climate: The museum gallery has the most stable climate on the ground floor of the museum building. The HVAC system serving this space was the last to be designed and added in 1986, and climate conditions are fairly stable. However, the outdated system is still inadequate and subject to breakdowns.

Fire and intrusion security systems: The museum gallery has a fire detection system and security system, but no fire suppression system.

Light: The lighting system is well designed and meets all conservation standards for visible and invisible light (ultraviolet and infrared).

Summary: If a fire suppression system were installed, the museum gallery would acceptably meet NPS standards for exhibition of museum

collections. The walls, floor, and ceiling are all noncombustible materials, and fire danger is a minimal threat in this room.

Yosemite Research Library

Climate: Similar to the museum spaces on the ground floor of the Yosemite Museum building, the climate-control system in the secondfloor Yosemite Research Library is poorly designed and only marginally meets the preservation requirements for library material. The adjacent narrow rare book room is served by a window-type air conditioning (AC) unit that operates thermostatically 24 hours a day to help provide the cool and fairly dry conditions optimum for the preservation of rare books and negatives stored in this location.

Climate record charts from August to December 2002, show temperatures ranging from 59° to 76°F in the rare book room, and RH in the lower 30% range, with periodic fluctuations as high as 45% and below 30%. The Performance Target for Relative Humidity is 35% (+/-10%); therefore, conditions in this room are within the target range 100% of the time. The rate and extent of fluctuations do not appear to be a significant problem for the collections stored in this room. Books and stacked hygroscopic material in general tend to be self-buffering due to their mass.

Although the desired climate conditions are being met with the present AC units in the rare book room, the operating cost of running these window-type units 24 hours a day is costly. Climate should be controlled more efficiently and less expensively by another means such as a dedicated Leibert system or similar stand-alone unit.

Mice are a problem in both the library and the rare book room.

Space use: The space is small and therefore crowded by necessity rather than by poor configuration.

Fire protection and security systems: The Yosemite Research Library has a fire detection system but no current fire suppression or security systems. The halon system was part of the 1976 system that failed.

Summary: With installation of fire suppression and security systems, the Yosemite Research Library would acceptably meet NPS standards for preservation of rare books. For cost purposes, the climate control system must be improved.

Yosemite Valley Garages

The historic White motorbus and the chief naturalist's vehicle (1929 Dodge roadster) are stored in two garage bays at the Yosemite Valley Maintenance Area with no climate control, no fire suppression, and no security system.

Summary: The Yosemite Valley garage is unacceptable for storage, and the vehicles should be removed to a secure and appropriate location.

Bally Building

The Bally building was erected in the covered storage building at the El Portal Warehouse complex in 1994 as a temporary facility to house archeological collections and archival material.

Climate: The system is essentially a commercial, thermostatic-controlled air conditioner with reheat capability to control RH levels. The system includes HEPA filtration. A humidification unit was part of the HVAC package, and ice-damming caused by an external burst pipe recently caused significant flooding inside the Bally building. The humidifier has since been disconnected.

Climate record charts for the period from April to September 2002 show very stable temperatures ranging from 64° to 68°F. The RH range for the same period is far less stable, with conditions ranging from early spring lows of 29% and 30% to highs approaching 70% in early August.

Space use: Because the Bally building was configured in stages, the air ducts, plenums, and pipes interfere with the layout and traffic pattern on the mezzanine addition, thus making access somewhat difficult to this area. A workroom and a smaller storeroom holding archival and curatorial supplies are located at the front of the Bally building. Both of these spaces are cluttered with material not needed for the intended curatorial activities. Both areas must be cleaned out and organized for optimum use.

Fire protection and security: The Bally building has smoke detectors and a dry-pipe sprinkler system. In addition, the building is equipped with a security system with both perimeter and internal motion detection systems.

Summary: The Bally building is acceptable as a temporary structure to house museum material. The combination of archives and archeological storage under one roof is unusual because of the different preservation requirements for paper-based and archeological material. In the absence of a fully conservation-compliant, dedicated museum structure, the Bally building must continue to serve this function.

Wawona Structures

The current wagon exhibit shed is unacceptable for summer storage or interpretation of museum material. Wagons are moved into the gray barn during the winter.

The Pioneer Yosemite History Center cabins are not acceptable for interpretation of cataloged museum material.

The current storage of collections in the Gore House is unacceptable. Material should be removed, sorted, and accession status determined as soon as possible. Future storage should be provided in another location within the park.

Integrated Pest Management Issues

The museum collection storage areas are not addressed in the Park Integrated Pest Management (IPM) Plan, and given the level of vermin activity, this is not acceptable. A museum-specific IPM should be developed and implemented by museum staff.

Museum Preventive and Maintenance Issues

Museum collection storage areas and workrooms are not cleaned on any scheduled, reliable basis. Ordered cleanliness is essential when spaces are small. A major sorting and cleaning effort in the collection storage and work areas is long overdue, and the museum should start a program of routine scheduled housekeeping. A Museum Preventive Maintenance Plan should be written tailored to specific museum areas, including areas that are scheduled to be removed from museum use, such as the Gore House. The Pioneer Yosemite History Center cabins and the vehicle exhibit shed at Wawona have a neglected appearance that does not reflect well on the NPS to the visitor. A basic cleanup effort followed by routine maintenance is essential, not just for preservation, but for public relations as well.

Historic Structures Preservation and Architectural Collections

Architectural fragments from various historic buildings within the park are randomly stored in various locations. The architectural remains are not a coherent reference or documentary collection and are taking up room. A purposeful collection must be made from the random assortment of bits and pieces. A historical architect should work closely with the museum curator to review the material and direct collection and proper documentation of appropriate material to establish the architectural collection.

Archeological Collections and Laboratory Activities

Archeological collections turned over to the Yosemite Museum for curation must be accompanied by written accounts of all treatments done to the material during processing. These treatments influence the preservation needs of the collection and must be recorded. When the collections are within the museum system, further treatments should be done only as approved by the curator.

The condition and preservation needs of the archeological collections should be assessed by an archeological objects conservator, including a review of laboratory processing techniques previously and currently used by archeologists.

Conservation Planning

The museum staff has developed a thorough, 10-year plan to address conservation needs of the collections. This plan ranks and prioritizes collection conservation needs by the potential risk of loss of specific materials. For example, sound recordings, cellulose nitrate film, paintings, and archives have already been surveyed by conservation specialists with specific expertise to identify areas of critical conservation need. Based on these surveys, Project Management Information System (PMIS) statements have been developed to secure actual conservation treatment of at-risk items.

The museum's conservation planning is well-organized but should include projects specific to preventive care of collections and climate upgrade and upgraded storage systems. Preparation of museum plan documents such as a Museum Preventive Maintenance Plan, a Storage Plan, and a Museum IPM Plan for integration within the park's overall IPM Plan is also fundable through the Museum Collections Protection and Preservation Program (MCPPP). However, although these plans are fundable, preventive maintenance achieved by thoughtful and purposeful housekeeping and the IPM practices can't wait for external funding to be initiated. The park should proceed with its current resources to develop and implement these necessary plans to minimize ongoing deterioration of the museum collection.

Recommendations

Immediate

- Remove wagons and vehicles from shed storage at Wawona and El Portal and store in a secure, enclosed location such as the warehouse.
- Lower visible light levels in the Indian cultural exhibit. Light damage is cumulative.
- Include museum areas in overall park IPM Plan, and develop a museum-specific IPM Plan for museum staff to implement.
- Organize and clean all museum workroom areas. Remove material not relevant to museum tasks.
- Remove interpretive material and any non-collection material from storage rooms.
- Develop a written Museum Preventive Maintenance Plan for each museum area.
- Develop PMIS project statement for specialized conservation survey of archeological collections.

Short-Term

- Improve climate control in Bally building and Yosemite Museum building.
- Install full fire protection and security systems in all museum areas.
- Seek funding and begin making digital copies of all historic photos and other photos often requested by researchers and staff.
- Complete feasibility planning studies and begin planning for a consolidated museum area (see page 68: Evaluation of Yosemite Museum Areas).
- Work with an historical architect to identify a purposeful and documented architectural collection.

5-Year Goal

• Complete planning for new Yosemite Museum facilities.



Figure 8 Painting racks in storage

Issue F—

Museum Planning, Programming, and Budgeting

Issue Statement

Successful management of a well-defined museum program requires appropriate staffing and budget.

Background

The Yosemite Museum collection was the first organized museum collection in the National Park Service and, according to the FY 2003 Collection Management Report, now consists of about 2.4 million natural and cultural items.

Approximately 5,000 objects are in the ethnographic collection, which is the largest in the NPS. Strengths of this collection are its examples of Miwok dance regalia dating from 1920 to 1950 and its "made-for-sale" Miwok and Mono Lake Paiute baskets dating from 1910 to 1960. The collection contains the largest extant group of documented Miwok and Paiute materials from the Yosemite region, and it is the only such collection to contain materials dating from the 1880s to the present day.

These collections, along with historic documentary materials, have been extensively researched. A scholarly book about the collection, *Tradition and Innovation: A Basket History of the Indians of the Yosemite-Mono Lake Area* (Bates and Lee, 1990), was authored by two museum staff members. The museum's archeological collection is also of considerable significance and includes assemblages central to establishing a regional chronological sequence for the history of human habitation, as well as some of the earliest archeological materials found in the Sierra Nevada region.

Photographs of the Yosemite area constitute a large and important part of the park's collection of historical material. The photographs provide an invaluable documentary record of the landscapes, populations, historic structures, and activities of the park. The museum collection has over 50,000 photographs, albums, photographically-illustrated books, stereographs, negatives, and lantern slides that range from some of the earliest photographs taken of the park to the work of contemporary visitors and artists.

The Yosemite Museum collection also contains unique and important manuscript materials related to Yosemite's history, including personal papers of James Mason Hutchings and Galen Clark, park administrative records, early concessionaire records, and numerous hotel registers. The Yosemite Park and Curry Company donated its archives of records, photographs, and other documentary items to the collection. Additional paper materials include historical brochures and maps, chromolithographs and engravings, and other mass-produced publications related to the history of the park. Other historical artifacts in the collection range from early firearms to wagons and vehicles and early souvenir items. The fine arts holdings include significant works by Albert Bierstadt, Thomas Hill, Thomas Moran, Thomas Ayres, and William Keith, as well as contemporary pieces.

A large herbarium of approximately 5,000 specimens is maintained by the museum, as are vertebrate study skins, skeletal material, mounted entomological specimens, and specimens preserved in alcohol. Most of these biological collections were made by park naturalists during the early years of NPS administration of Yosemite.

The Yosemite Research Library also focuses on the human and natural history of Yosemite. In addition to its circulating collections, the library holdings include 700 linear feet of rare book and pamphlet material, including early accounts of visits to the region; maps, pamphlets, and ephemera related to park promotion and activities; dissertations, monographs, and unpublished studies on park-related topics; oral history tapes and transcripts; and news clippings and articles on Yosemite topics. The library also administers a collection of over 18,000 negatives and

copy photographs. Additional visual resources are maintained in the slide archive, which administers a collection of over 90,000 slides of parkrelated subjects.

The Branch of Museum Services, organizationally within the Division of Interpretation and Education, also manages a changing exhibit gallery in the Yosemite Museum. Museum curators have designed and assembled exhibits on art, history, and anthropology from the collections. The museum gallery is served by a dedicated group of volunteers who act as gallery guides and provide security for the materials on display.

Despite the Yosemite Museum's incredibly important resources, the park has seen many ups and downs in its administration of the Yosemite Museum collections. Although the museum has had dedicated, full-time and part-time staff since the early 1970s, support for the museum program has varied over the years. During the 1980s, much of the permanent staff was funded out of Regional Cultural Cyclic Maintenance funds and in the 1990s finally converted to base funds or operational funds (ONPS). Some of these positions were also converted from the museum specialist series (GS-1016) to the professional museum curator series (GS-1015). In the 1990s, professionalization funds were received by Yosemite National Park for the registrar position (GS-1016-07) and then lost when the incumbent registrar left for another job. During the planning efforts after the January 1997 flood, the museum branch chief was detailed to cultural compliance for two and one-half years. During the branch chief's assignment to compliance duties, no other staff filled his position, and funds were not available for the museum program.

Over the years, a number of temporary museum technicians have cataloged the collection and performed other museum duties. Unfortunately, this has resulted in a lack of staff continuity, and the permanent staff must spend a great deal of time hiring and training new staff.

Over the past 25 years, several planning efforts have been conducted, including two CMPs (one approved in 1980 and a draft in 1997). In 1997, three professional curators reviewed the Yosemite Museum Management

Program, provided the superintendent with a review of the program, and made additional recommendations. In 1998, the museum staff and then chief, Division of Interpretation, developed a preliminary workload analysis for the museum program. Since these planning efforts (begun in 1980 with the earlier approved CMP), the museum staff has:

- Added three new permanent museum staff positions: historian, registrar, and curator of collection.
- Acquired museum branch office space.
- Rehabilitated Indian cultural museum exhibits twice.
- Acquired and rehabilitated the space now housing the museum gallery.
- Rehabilitated the collection storage area in the Yosemite Museum building.
- Rehabilitated the Yosemite Research Library.
- Rehabilitated the slide archive (slide library) system.
- Published *Tradition and Innovation: A Basket History of the Indians of the Yosemite-Mono Lake Area*, and completed many other research projects.
- Installed the Bally building for storage of collections at the El Portal administrative site.
- Produced over 70,000 catalog records.
- Completed conservation of major elements of the museum collection.
- Rehabilitated the lobby of the Yosemite Museum.
- Planned and assembled more than 50 exhibits for the museum gallery.

In FY 2003, the operational budget of the Branch of Museum Services was about \$375,000, with the majority of the funds earmarked for personnel costs (support costs total just \$7,300 for all aspects of the program). The park also received Backlog Cataloging funds and MCPPP project funds for the museum program. The museum also receives support from the Yosemite Association and Yosemite Fund for purchasing materials for the library, objects for the museum collection, and funding

for preservation of collections. Requests have also been made for the support of special exhibitions.

Discussion

Given the size of the Yosemite Museum collection and the amount of use (over 700 research requests per year according to the 2002 Collection Management Report), the current number of permanent museum staff is inadequate to provide appropriate management. Numerous required core duties are not being addressed or are being inadequately addressed.

Workload Analysis

An analysis should be undertaken to determine the complete workload of the Branch of Museum Services. This analysis should be completed by the park staff and peer-reviewed by the Pacific West Regional program lead for museum management. This analysis should be broken down by the following areas:

- Core work elements that are basic requirements and responsibilities for managing the museum program
- Current hours and full-time equivalent positions (currently being expended)
- Additional hours and full-time equivalent needed to meet all basic requirements
- Needed support costs to administer museum program beyond salary requirements. Funds would cover contracting for specialized services, transportation, supplies, and material.

Appendix B includes a suggested workload analysis spreadsheet that has been used for museum planning at other NPS museums. Data in the spreadsheet should be used to support additional funding requests and the *Yosemite National Park Business Plan.* It also provides the foundation for developing other Branch of Museum Services planning.

When the workload analysis has been completed, the Branch of Museum Services should complete an annual work plan that addresses the core work elements, the annual reports required, and the park's strategic plan. At the end of the fiscal year, a report should be prepared for park management that outlines what elements of the annual museum work plan have been completed, what have not, and why. Based on the MMP team's analysis and earlier planning, including the Yosemite National Park Resource Management Plan (1993), the museum management program needs nine full-time employees. Table 3 outlines the current and target staffing for the Branch of Museum Services, including appropriate upgrades and professionalization. Many of the current staff positions are under-graded, in the incorrect series, or in a technical series rather than a professional series. These staffing level targets should be reevaluated when the workload analysis has been completed to ensure that it adequately addresses all the needs of the park's museum program.

Current	FTE	Target	FTE
Chief, Museum Management Curator, GS-1015-12 (Bayless)	1	Chief, Museum Management Curator, GS-1015-13	1
Curator of Collections Curator, GS-1015-11 (Beroza)	1	Curator of Collections Curator, GS-1015-12	1
Curator of Ethnography Curator, GS-1015-11 (Bates)	.96	Curator of Ethnography Curator, GS-1015-11	1
Research Librarian Library Technician, GS-1411-08 (Eade)	1	Research Librarian Librarian, GS-1410-11	1
Historian/Archivist Historian, GS-170-11 (Rogers)	.96	Archivist Curator of Historic Documents, GS-1015-11	1
Registrar Museum Curator, GS-1015-09 (Luchans)	.5	Registrar Museum Curator GS-1015-09/11	1
Museum Technician/Slide Collection Museum Technician, GS-1016-07 (vacant)	0	Archives Technician Archives Technician GS-1016-07	1
		Technicians Museum Technician, GS- 1016-07 Archives Technician, GS-1421-07	2
TOTAL	5.42		9

 Table 3. Yosemite Museum Target Staffing Levels/Grades

Staffing Changes and Upgrades

The museum technician (now retired) who formerly managed the slide archive also provided support to the branch chief for exhibits fabrication and installation. In the past, other than the curator of collections and the curator of ethnography, there was little participation in exhibits by staff in the Division of Interpretation and Education or in other divisions in the park, such as Natural Resources or Cultural Resources. Since the team's site visit, there has been a significant increase in involvement in exhibits by other interpreters, especially the Division Chief.

Given the heavy workload of the Yosemite Museum staff, increased interactions should be sought with the Interpretive Media Services and Natural and Cultural Resources Branches. This would allow the Yosemite Museum Management Program to broaden and cover other themes within the park and lessen the workload on museum staff so they can focus on developing exhibits for the gallery. The gallery is well situated in Yosemite Valley to draw many visitors, and the park should take advantage of this location to expand interpretive programming.

At the time of the team's site visit, several of the museum's permanent staff were close to retiring. Among those who have since retired are the chief of the Branch of Museum Services, the slide archivist, and the historian. The key position of branch chief has since been refilled. At a GS-12, this position is also under-graded, given the importance and value of the collections, the complexity of the program, and comparison with other large parks such as Golden Gate NRA and San Francisco Maritime NHP.

Although the museum program has benefited by having a historian on staff, the position that it critically needed was an archivist. The archival collections are the largest and most often used of the Yosemite Museum collection. These collections need the attention of professional archival staff to process and make them accessible to users. Thus, in 2005 the historian vacancy was used to hire, on subject-to-furlough status, Paul Rogers, a professional archivist from the southeast region. At the time of the team's site visit, all of the Yosemite Museum staff members had cultural resource backgrounds. This was a concern because the park has significant biological collections, with the possibility that large additions will be made under the Sierra Nevada Network Inventory and Monitoring Program. Biological collections need specialized care, so collaboration with the park natural resources staff, Biological Resource Division of the U.S. Geological Survey staff, and outside scientists working in the park would provide the expertise necessary to preserve these important collections. As the University of California at Merced becomes a physical reality, partnering with appropriate science departments for the care and documentation of these collections would support the ongoing Sierra Nevada Network Inventory and Monitoring Program. In 2005, both the newly hired registrar and the branch chief had experience and expertise in managing natural history collections.

Budget constraints and the source of project funds has caused the Museum Management Program to employ several seasonal or temporary GS-5 museum technicians over the years rather than permanent staff for cataloging projects. This substantial turnover and lack of continuity of personnel forces the permanent museum staff members into a regular cycle of advertising, selecting, and training new staff.

The Pacific West Region has developed three-year programs for the various cultural resources special funding such as MCPPP and Backlog Cataloging. Yosemite is programmed to receive cataloging funding in future years. For efficiency and cost-effectiveness, the park should establish term positions for this cataloging work. In addition, the park should upgrade the museum technicians to GS-7 to attract more qualified candidates. Implementing these recommendations will increase the cataloging project cost, but in the long term the park and the museum collections will benefit from the continuity and higher qualifications of longer-term staff.

To adequately manage the Yosemite Museum collection, additional staff (as discussed above) and support costs are needed. The park has developed an operating increase request through Operation Formulation System (OFS) "Preserve Cultural Resources and Museum Collections" (5269A), which includes three additional FTE and some support costs. This request is park priority 16 and regional priority 301. The funding levels are not adequate for the grades recommended above in Table 3, and should be updated to ensure that the request is adequate to the needs of the park. In addition, the number of additional staff may need to be increased based on the workload analysis.

Funding Sources

Yosemite National Park has been fairly successful in receiving project funds for the museum collection from the Cultural Cyclic Maintenance (CCM), MCPPP, and Backlog Catalog Program. As the park has other cultural resource needs, it has not been as successful in receiving Cultural Resource Preservation Program Base (CRPP-BASE) funds. However, that fund source has about \$90,000 for cataloging museum collections. The park would compete fairly favorably for it, and so should consider requesting additional funds through this program.

About 30 project requests related to the museum program have been requested in PMIS. Some of these requests are outdated and some are completed. Using this MMP as well as the workload analysis, all PMIS project statements need to be reviewed and revised. In addition, new project statements need to be completed. Taken as a whole, the museum project statements should support a 5-year program for the preservation, protection, and access of museum collections.

The Checklist for Preservation and Protection of Museum Collections (Checklist) is an important document from several different viewpoints.

- It establishes the standards under which park museum collections are to be maintained and against which a park evaluates itself.
- It documents the preservation of the park museum collections at a particular point in time.
- It determines the funding needed to bring a museum collection to standard.

It is critical that Yosemite National Park completes and/or updates this document on an annual basis. MCPPP funding is based on the data

received from the park's Checklist. Therefore, a carefully completed updated Checklist is necessary for adequately estimating the needs of the park. Service-wide funding for this program is divided by a formula based on total needs for each of the seven NPS regions. Projects requested under MCPPP that are not listed in a park's Checklist will not be funded, no matter how great the need.

The Backlog Cataloging Program fund distribution is based on the Collection Management Report, so it is critical that this report accurately reflects the total museum collection—especially with regard to uncataloged backlog. The distribution of backlog cataloging funds is based on the backlog reported on the Collection Management Report. As noted above for MCPPP, cataloging funds will only be distributed to those parks that show an uncataloged backlog.

Other sources of funding are available for the museum collection. The Save America's Treasures program provides grants for the preservation and/or conservation work on nationally significant intellectual and cultural artifacts and nationally significant historic structures and sites. This program requires a dollar-for-dollar non-federal match for all projects. The non-federal match can be cash or donated services and does not have to be "in the bank" at the beginning of the grant. The Yosemite Association or the Yosemite Fund could provide assistance in securing the non-federal match. The National Park Foundation can also provide similar assistance.

The National Endowment for the Humanities (NEH), the National Endowment for the Arts (NEA), and other granting agencies and institutions might also provide funding for museum projects. The NPS cannot receive grants directly from NEA and NEH. The NPS can, however, be a full partner with other institutions such as the Autry Museum of Western History, the Getty Museum, the Yosemite Fund, or the Yosemite Association to develop other programs that would further the preservation, protection, and use of the Yosemite Museum collection.

Possible Intern and Student Assistance

A number of graduate programs may provide interns to do professionallevel museum project work under the direction of museum professionals. The American Association of Museums has a list of such accredited programs, and two of them are in the San Francisco Bay Area: John F. Kennedy University and San Francisco State University. The University of Nevada at Las Vegas has a public history program that is developing an internship program that might also provide students for museum support work. The Western Washington State University has an archives management program. The NPS has a cooperative agreement with the National Council for Preservation Education that provides a clearinghouse for interns from appropriate college and university programs for parks.

The American Institute for Conservation has a list of conservation programs. As park housing is available during the fall, winter, and spring, it might be possible to find lower cost staff with professional training to work on specific museum projects at the park. Funding for stipends from the Yosemite Association and Yosemite Fund, and NPS Volunteers-in-Parks would also provide an excellent opportunity for students to work with a premier museum collection and learn about the NPS museum program, while the park museum program benefits from trained people.

Park Organization

Yosemite's museum branch is organizationally located in the Division of Interpretation and Education. For the museum program to obtain maximum benefit from this arrangement, museum staff need to have a close working relationship with the staff and programs of the other branches, including education, interpretive services, and field operations.

For the last 20 years, parks in general have been moving their museum collections into Resource Management (primarily for programmatic and funding reasons) and for the most part this type of organizational structure has proven beneficial to the individual parks. It is not the prerogative of this plan to recommend this type of organizational change. However, it is suggested that the park critically evaluate the programmatic benefits to be realized in several organizational scenarios, and base any decisions upon expected benefits to the park as a whole.

Recommendations

- Complete a workload analysis of Branch of Museum Services.
- Based on the workload analysis and appropriate museum staff grade levels, revise the OFS programming form (budget increase request).
- Upgrade under-graded positions.
- Upgrade GS-5 temporary museum technician positions to GS-7 term positions.
- Fill museum positions with appropriate series and grades as current staff retire or leave.
- Create additional staff positions as required by workload analysis.
- Establish working relationships with agency and non-NPS biologists who can provide consultation on biological collections.
- Complete an annual work plan for the Museum Management Program that should be included in the park's annual work plan. At the end of the fiscal year, complete an accomplishment report that indicates what has and has not been completed.
- Continue to update and create PMIS statements to meet the needs of the museum program as well as add new ones based on this MMP to support a 5-year museum program.
- Identify other funding sources (such as Save America's Treasures, Yosemite Association, and Yosemite Fund) from which funds can be requested to accomplish the goals of the program.
- Create partnerships with organizations such as the Autry Museum of Western Heritage to further the goals of the museum program.
- Revise the MMP and include appropriate project statements when the NPS issues new guidance on Resource Management Plans.
- Establish an internship program and contact graduate programs for candidates to assist in accomplishing the goals of the Yosemite Museum Management Program.

Appendix A—

Museum Facilities Standards

Any museum facility must meet the applicable standards for museum collections and public use. Standards are contained in a number of NPS documents:

• *NPS Management Policies* (2001): Chapter 5: Cultural Resource Management:

Section 5.3.1.2 – Fire Detection, Suppression, and Post-fire Rehabilitation and Protection Section 5.3.1.4 – Environmental Monitoring and Control Section 5.3.5.5.1 – Museum Collections: Preservation Section 9.4.2 – Museum Collections Management Facilities

- DO#24: NPS Museum Collections Management
- DO#28: NPS Cultural Resources Management Guideline
- NPS Museum Handbook, Part I: Museum Collections, Chapter 7: Museum Collection Storage; Appendix F: NPS Museum Collection Management Checklists; Appendix G: Protection of NPS Museum Collections
- 36 CFR Part 79, "Curation of Federally-Owned and Administered Archeological Collections"
- DO#58: Structural Fire Management.
- NPS Floodplain Management and Wetland Protection Guidelines

In addition, a museum facility should meet current National Archives and Records Administration (NARA) standards for archival collections. Environmental standards are codified by ASHRAE and museum collections should meet Class B at a minimum and preferably Class A standards. Finally, *NFPA 101: Life Safety Code* and *NFPA 909: Standard* for the Protection of Cultural Resources including Museums, Libraries, Places of Worship, and Historic Properties should be consulted.

A museum facility such as this will provide the park staff and public with the opportunity to view and study tangible elements representing park resources and the history of National Park Service stewardship and management of those resources. It must have access built into every element of its design and operation. It should include a dry/wet laboratory to process incoming objects, a library that will be accessible for those interested in park-related studies, and space for research and education. The library will provide an archive for all documentary material related to the park geographical area, and will house published support material related to the park. Any museum facility should also consider the following for inclusion:

- Administrative areas
- Researcher areas
- Work/processing areas
- Offices
- Collections isolation
- Conference/classroom
- Lobby exhibits and reception
- General storage
- Bathrooms/shower
- Staff break room
- Mechanical
- Receiving/loading dock

In addition to a PMIS statement for the construction of the facility, appropriate programming documents must be completed in order to implement this program (See Issue A). The OFS requests for a base increase to operate the facility, including staffing, maintenance, and utilities, need to be completed. PMIS requests need to be made for additional project-related needs such as supplies and equipment.

Appendix B—

Suggested Workload Analysis

Core Work Elements	Current	Current	Needed	Needed	Non-Pers.
	(Hours)	(FTE)	(Hours)	(FTE)	\$
Acquisition of Collections					
Plan strategy for acquisition					
Identify sources of collections					
Survey for inclusion in park collections					
Appraisal and evaluation of proposed acquisitions					
Manage acquisition committee					
Manage park records					
Acquire rights and permission					
Subtotal					
Documentation of collections					
Accession new acquisitions within two (2) weeks					
Process archival collections including completion of ANCS+ catalog records					
Catalog museum objects					
Catalog library materials					
Photograph museum collections					
Maintain museum documentation					
Manage databases/knowledge systems					
Maintain documentation of treatment, use, etc.					
Maintain NAGPRA information					
Subtotal					

Preservation and protection			
of collections			
Maintain facility			
Provide for physical and operation security			
Ensure fire protection			
Monitor environment			
Monitor pests			
Ensure disaster preparedness			
Conduct housekeeping			
Ensure proper storage, including organization, equipment, and housing			
Conduct conservation program by assessing collection condition			
Treat items in need			
Subtotal			
Access and use of collections			
Provide for public and park access including reference services			
Develop and maintain exhibits			
Participate in curriculum-based education programs			
Conduct public program			
Produce publications			
Conduct research and obtain legal rights and permissions			
Loan collections for appropriate use by other institutions			
Develop and maintain internet/intranet access and website(s)			
Participate in NPS planning and compliance			
Conduct research			

Г	-	-		
Support appropriate reproduction of collections				
Subtotal				
Program administration and management				
Maintain up-to-date Scope of Collection Statement				
Complete annual reporting: Collection Management Report; Annual Inventory; ANCS+ Database				
Manage annual budget				
Provide for future programming: PMIS and OFS				
Supervise paid and unpaid staff				
Develop and maintain up-to- date museum plans and policies				
Manage contracts				
Maintain information technology/management				
Provide administrative support				
Participate in park management and administrative issues				
Subtotal				
Total				
			1	ı

Source: D, Nicholson, GOGA



Figure 9 Library and Moran Room, 1938

Appendix C— Research Library

On November 18, 2002, Regional Librarian Nancy Hori traveled to Yosemite at the invitation of Museum Curator Dave Forgang to survey the library and discuss ways to automate various collections within the library.

They agreed that two main categories of material should be dealt with first: books and the "separates." The book collection also includes the reserve/rare book collection located in a secured room. The separates includes the reserve separates and the circulating separates file sometimes called the vertical file. This material is mostly non-book material ranging from pamphlets, photocopied journal articles, reprints, reports, and documents to hand-written notes.

Work on these two types of materials could progress simultaneously depending on staff, money, and other issues.

Recommendations for Cataloging the Book Collection

Background: There are approximately 10,000 to 12,000 books cataloged according to the Dewey classification on catalog cards. The cards are shelved in two sections, author title and subject. *The Cutter-Sanborn: Three-figure Author Table* (Swanson-Swift Revision, 1969) has been used to assign Cutter numbers.

The library should be cataloged directly to a MARC bibliographic standard, which can be uploaded into Voyager, the combined catalog of NPS Libraries maintained by the NPS Library Program.

Original cataloging, creating a MARC record for an object from "scratch," requires specialized knowledge and professional experience. However, for the majority of commercially published books, MARC records already exist and can be downloaded to local automated catalogs. The use of existing records is commonly referred to as copy cataloging.

Copy cataloging, while not as specialized or technical as original cataloging, does require some specialized knowledge and skills. Searching appropriate library catalogs in order to find records that match the materials in the collection is critical. Library catalogs may be searched over the Internet or through proprietary database systems.

The Pacific West Regional Library maintains a local catalog system, called Alicat, to facilitate cataloging the library collections of NPS libraries to the MARC standard. The Regional Library staff continues to add new material to cataloged collections as well as work on projects to catalog new libraries. The records created in the Alicat system are uploaded into Voyager, the service-wide library catalog which is accessible through the NPS Intranet to all NPS employees.

The Cataloging Process

The collection should be cataloged according to the MARC standard through the catalog system in the Regional Library. Various steps are involved in getting the entire collection cataloged and various ways used for achieving each step.

Step one: Add holdings and check each item against Alicat; add the Yosemite Library Holdings symbol (YOSE) to the existing record.

Step two: Begin copy cataloging by searching Voyager and the catalogs of the Library of Congress and the University of California libraries; download the records into Alicat, and add the YOSE holdings symbol.

Step three: Continue copy cataloging by searching other library catalogs through Lasercat and OCLC (two proprietary database systems which contain millions of library records); download matching records and add the holdings symbol.

Step four: Produce original cataloging by creating MARC records for the remaining items. These items should be assessed before this labor intensive step is performed to make sure that they are best suited for the book collection and not the separates files.

The two most practical approaches follow:

1) The Regional Library staff performs all steps in the Regional

Library. In this approach, library staff must send the shelf list or a photocopy of it to the Regional Library. In some cases, the entire item may have to be sent for original cataloging. This will take longer because the staff in the Regional Library will have to work this project into an existing workload. The bulk of the cataloging will be accomplished during steps one and two (noted above) of the process.

2) Someone is hired on a temporary basis to perform step one and possibly step two at the park. This would have less of an impact on the library personnel, for the shelf list would not need to be copied and shipped. But extensive interaction would still occur between the cataloger and the research library technician, most likely a necessary interaction whether the cataloger is in Seattle or Yosemite.

Steps three and four would be performed by the regional library staff in Seattle for items that need further cataloging. The person located in the Yosemite Library would photocopy the shelf list or title page (and verso) for the staff in Seattle to work with as the project progresses. Simultaneous work in Yosemite and in Seattle would speed up the cataloging process considerably with minimal impact on the Yosemite Library staff.

Advantages and Issues Common to Both Approaches

A local copy of the automated catalog containing only the Yosemite Library's holdings can be created almost immediately. The program allows lists or data to be downloaded and printed or imported into other software.

A label set containing a label for the pocket, book card, and spine can be provided for any book that has not been cataloged before, or for a book that needs its call number changed.

During the last steps of the cataloging process, quirks, idiosyncrasies, and problems will arise. Regional library catalogers may need to visit the research library to fully resolve these problems.

Possible Budget items:

• Position: GS 1411-6/1 library technician (\$12.14/hour + 7.65%)

Estimated time to accomplish steps 1 and 2: 22 weeks Estimated time to complete Step 1 adding holdings: 8 weeks Estimated time to complete Step 2 copy cataloging (Voyager, LC, UC Libraries): 14 weeks

- Room and board: dependent on hiring circumstances.
- Travel: Yosemite to Seattle and back if hired locally; Seattle to Yosemite and back if hired in Seattle. At some point it might be necessary for two librarians from the Regional Library to come to Yosemite to help with cataloging problems or in transitioning to the new system. It would be advantageous for the research library technician to visit the Regional Library for further training in library automation, indexing techniques, and library management.
- Database searching: OCLC is an online cataloging database which is used to locate catalog records to download to local systems. This database is a pay-as-you-go system. The Regional Library subscribes to the service but must limit the use because of budgetary constraints. The library staff searches all free sources before resorting to the costly database; this takes more time. If \$500-\$1000 can be budgeted for searching this database, it will simplify and speed up the cataloging process and make the copy cataloger more efficient.
- Supplies: Processing supplies for new books and for mending old books, such as cards, pockets, book-tape, book covers: \$100.
 Specialized labels for use by the regional office for creating cataloging label sets for new books and books that require a classification change. (Approximately \$50.00 for 1000 labels): \$50.
- Equipment: If a computer is not available in the library, a laptop is available for the Yosemite cataloger. Internet access is necessary for cataloging steps 2-4.
- Computer for public use: Once the cataloging process has started, a local catalog can be created and made available for the library staff and library users. This catalog can be printed or accessed by computer. Once the data is uploaded to the Voyager catalog, it will be available through the Internet. By the end of the cataloging project, a computer dedicated to library users would be advantageous.

Recommendations for Cataloging the Separates Collection

The separates collection includes the reserve separates and the circulating separates file, sometimes called the vertical file.

Background: The separates contains materials that are non-book in nature or reports and documents that were not considered significant enough for the book collection. The reserve separates collection contains material that is specifically about the park and is often unique or historic.

The NRBIB/NatureBib (Natural Resources Database) that was created in the 1990s has material of a similar nature. ProCite, the local software used for NRBIB, can also used for the separates material. When indexing the material in the separates files, the NRBIB database should be checked for existing records.

A goal of the Resource Management Division is to have an information delivery system which would allow access to all the different areas of information that is collected and maintained in the park. This includes the library and museum collections, archives, GIS, and resource management material. Although the final product is years away, now would be a good time to lay the foundations for such a system by creating a list of terms to use when indexing material. An agreement should be reached among all parties creating or indexing data on which terms will be used to describe specific concepts, geographic areas, people, topics and species. This controlled vocabulary can be used for keywords, subject headings, descriptors, or indexing terms no matter what software or system is used. This list can be created from existing databases, LS subject headings, geographic and historic names, and other significant works.

Steps to Indexing the Separates

- Create a list of indexing terms to be used.
- Clarify the scope of collection for each of the separates files as well as the relationship of these files to the existing NRBIB files (if any).
- Determine if the material will be filed in the existing manner under modified Dewey subject headings.

- Cull the existing files for material that is out of date, out of scope, or is no longer pertinent to the collection.
- Sort material that is waiting to be indexed to see if it should be included or is out of the scope of the collection.
- Search the existing NRBIB database to see if the item has already been indexed.
- Index the item.
- Make sure the item has been property stamped and is marked with the location in the files.
- File the item.

Once the list of indexing terms has been created, portions of the separates project can be bundled to create projects for volunteers, Yosemite Institute instructions, or special funding opportunities.

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