



**National Park Service
U.S. Department of the Interior**

**Navajo National Monument
Collection Management Plan
Intermountain Region Cultural Resources**

June 2007




Betatakin Alcove, Navajo National Monument

**NAVAJO NATIONAL MONUMENT
COLLECTION MANAGEMENT PLAN**

JUNE 2007

RECOMMENDED:

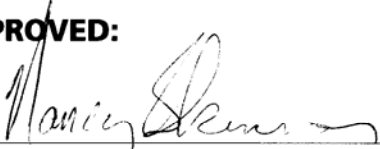


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Navajo National Monument CMP team members from left Gretchen Voeks, Steve Floray, Kevin Harper, Teri DeYoung, Elaine Hughes, Brian Culpepper, and Matthew Wilson

EXECUTIVE SUMMARY

The Navajo National Monument (hereafter referred to as NAVA or the monument) Collections Management Plan (CMP) outlines the issues faced by the monument in the management, care, and use of museum collections at the monument and at two other repositories in Arizona housing monument collections: the Western Archeological and Conservation Center (WACC) and the Museum of Northern Arizona (MNA).

The monument has suffered from staff turnover and is at a point where it is essential to obtain physical and intellectual control over its collections. Deficiencies in Standard Operating Procedures (SOP), policies, facilities, and the preservation and documentation of collections and archives can be resolved but will require dedicated collections management effort. There is a pressing need to resolve issues of National Park Service (NPS) ownership of collections at the monument and other repositories. Curation program responsibilities have been unofficially assigned to various staff positions. This effort is beyond the ability of current collateral duty staff.

WACC is located in a newly constructed NPS facility in Tucson, Arizona and meets the majority of the standards set forth in the NPS *Museum Handbook* and as outlined in the NPS *Checklist for Preservation and Protection of Museum Collections*. Existing deficiencies at the center are primarily related to the development of new SOP based on the move to this new building.

MNA is a private, nonprofit museum based in Flagstaff, Arizona. MNA was closely involved in the creation of NPS parks and monuments in northern Arizona including Sunset Crater, Walnut Canyon, and Wupatki National Monuments and has curated collections from these units for decades. Within the past ten years NPS project funds have been made available to all units for certain collections management activities. NPS funding is not authorized to support operations, staff, or facility improvements to non-NPS sites. Park-identified deficiencies are extensive and NPS staff is addressing them with its own resources and current budgetary and staffing restraints. To date, MNA has raised \$1,214,582 in federal funds (Institute for Museum and Library Services, Save America's Treasures, and the National Endowment for the Humanities) and private foundations to resolve collection management and housing deficiencies.

MNA is in the silent phase of an endowment fund raising campaign and is actively planning for the construction of a new collection center underwritten by private funds within 2007–2008. In addition, the Intermountain Region Museum Collection Facilities Strategy approved in 2005 contains a proposal for a partnership facility. This NPS proposal would construct an addition to MNA's new collection storage facility in the near future with Line Item Construction funds.

Team members visited NAVA, WACC, and MNA sites. The following are the primary recommendations:

- Utilize the services of an NPS circuit rider curator, probably from the Flagstaff area office.
 - Document and resolve the legal status of collections currently in the monument's possession.
 - Accession archives and develop a retention schedule SOP.
 - Relocate collections at the monument to other repositories such as WACC or MNA as appropriate.
 - Develop plans for security, fire, and emergency needs and other curatorial SOP as required.
 - Implement and follow NPS *Museum Handbook* collections management policy and procedures.
 - Plan for the rehabilitation of collections and exhibit areas at the monument.
- Recommendations made by the CMP team in each of these areas are compiled in Appendix A and are grouped under four subheadings. These are:
- Immediate Recommendations that should occur within the next 6 months;
 - Short-term Recommendations that should occur within 6 months and 1 year;
 - Intermediate Recommendations that should occur within 1 to 2 years; and
 - Long-term Recommendations that should occur in the next 2 to 5 years.

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INTRODUCTION

The CMP follows the guidelines set forth in the NPS *Museum Handbook*, Part I, 3:10–13. The purpose of a CMP is to assess the monument's collections management program and to provide specific guidance on improving the care of collections. The CMP evaluates issues, identifies problems, and provides recommendations to improve the management, preservation, and use of collections. This operation-based assessment is focused on the technical aspects of museum collection management activities.

The co-team leaders are Elaine Hughes, Collections Manager, MNA and Teri DeYoung, Museum Specialist, Northeast Museum Services Center. Other team members are Brian Culpepper, Archeologist, Navajo National Monument; Steve Floray, Museum Specialist, Museum Management Program, Washington Office; Kevin Harper, Archeologist, Southern Arizona Group; Gretchen Voeks, Conservator, WACC; and Matthew Wilson, Curator, Intermountain Region. The team addressed the history and significance of the collections (Kevin Harper); documentation and records management (Elaine Hughes); conservation (Gretchen Voeks); exhibits (Gretchen Voeks and Matthew Wilson); collections storage (Matthew Wilson); fire, security, and emergency planning (Steve Floray); archives (Teri DeYoung); staffing and project development (Brian Culpepper); and issues and consultation with affiliated tribes (Brian Culpepper).

This report maintains the individual voices of the authors in the chapters. For this reason the chapter format will vary, particularly in Chapter 7: Archives.

On-site visits by the team began October 25, 2004 at the NPS WACC facility in Tucson, Arizona. Tef Rodeffer, Museum Collections Repository Chief; Gloria Fenner, Curator of Collections; Kim Beckwith, Registrar; Lynn Mitchell, Archivist; and other WACC staff were available to discuss NAVA collection issues and WACC policies and procedures. The visit to NAVA in Kayenta, Arizona occurred October 26–27, 2004. Roger Moder, Superintendent; Bruce Mellberg, Chief of Interpretation; and other monument personnel were available to discuss monument history, policies, procedures, and related museum issues. A close-out briefing with Superintendent Moder occurred on October 27, 2004 to discuss issues raised during the CMP. From October 28 through November 2, 2004 the team converged at MNA as the host institution and was provided housing for the remainder of the CMP visit.

Several NPS format and style guides were used in the layout and design of this report. These include the *Denver Service Center Editing Reference Manual* (January 2005) and the *NPS Editorial Style Guide* (March 2003). The NPS publication, *Communicating the National Park Service Mission*, which provides information about the NPS Message Project, was requested from Harper's Ferry but not provided.

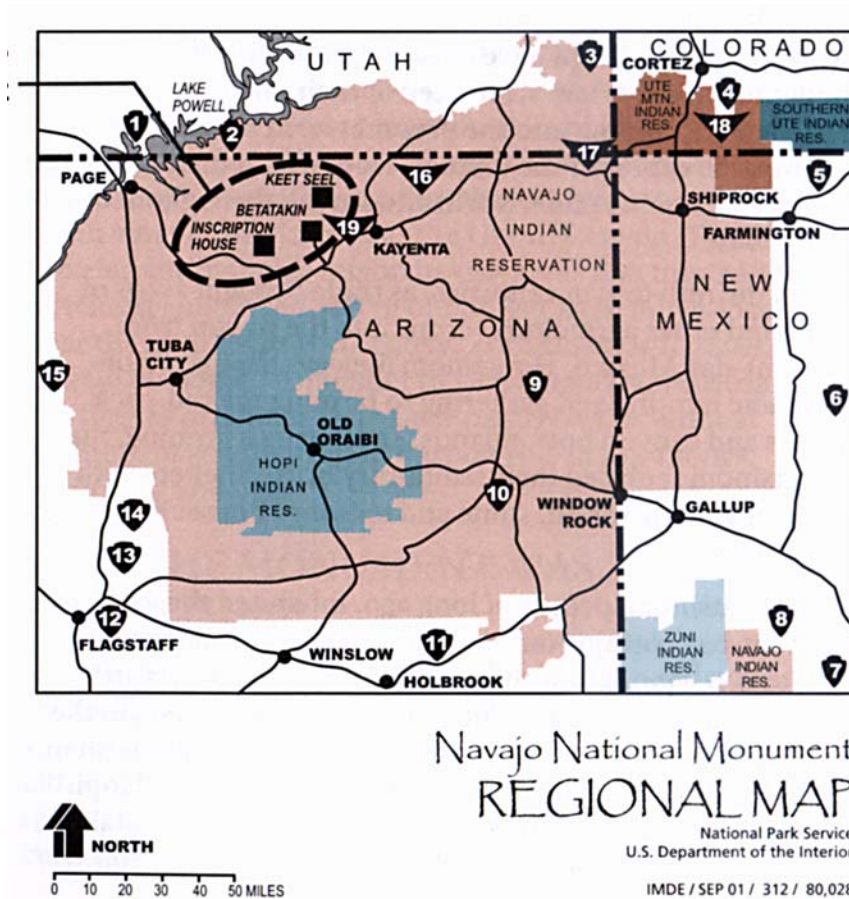
The CMP team extends deep gratitude to NAVA, WACC, and MNA staff for the help, expertise, knowledge, and consideration provided for the team during this

planning effort. Through this combined effort the monument can move forward with plans to ensure that collections are preserved, maintained, and accessible for appropriate use in research and exhibition.



Navajo National Monument Visitor Center November 2005

NAVAJO NATIONAL MONUMENT VICINITY MAP



- | | |
|-----------------------------------|---|
| Other National Park Service Areas | |
| 1 | Glen Canyon National Recreation Area |
| 2 | Rainbow Bridge National Monument |
| 3 | Hovenweep National Monument |
| 4 | Mesa Verde National Park |
| 5 | Aztec Ruins National Monument |
| 6 | Chaco Culture National Historical Park |
| 7 | El Mapais National Monument |
| 8 | El Morro National Monument |
| 9 | Canyon de Chelly National Monument |
| 10 | Hubbell Trading Post National |
| 11 | Petrified Forest National Park |
| 12 | Walnut Canyon National Monument |
| 13 | Sunset Crater Volcano National Monument |
| 14 | Wupatki National Monument |
| 15 | Grand Canyon National Park |
| Tribal Parks | |
| 16 | Monument Valley Navajo Tribal Park |
| 17 | Four Corners Navajo Tribal Park |
| 18 | Ute Mountain Tribal Park |
| 19 | Tsegi Canyon Navajo Tribal Park |

CHAPTER 1: HISTORY AND SIGNIFICANCE

For centuries many of the large prehistoric ruins located on the Colorado Plateau have stood devoid of occupants except for occasional use by local Native Americans, early Spanish explorers, and American settlers. With the opening of the American West in the 1850s, the military, miners, and settlers eventually began to explore the region (Bailey 1963). We are now fairly certain that Captain Walker's military reconnaissance in the late 1850s brought his detachment in contact or within view of many of the prehistoric ruins located near what today is known as Black Mesa, Long Valley, and Marsh Pass.

The Wetherill family moved into the Mancos, Colorado region in the 1890s and began to explore and collect objects from many nearby prehistoric ruins. Late in 1894 Richard Wetherill led an expedition into southern Utah and northeastern Arizona that took them into the Marsh Pass region. Most likely with the assistance of a Navajo guide, Wetherill decided to explore a smaller canyon in the Tsegi Canyon system not knowing that he was about to observe one of the most significant prehistoric ruins on the Colorado Plateau. It is named Keet Seel, which roughly translated from Navajo means "broken pottery scattered around." Wetherill returned to Keet Seel and nearby Turkey Cave in 1897 after an expedition to Grand Gulch sponsored by George Bowles and C. E. Whitmore. Most of the artifact collection eventually made its way to the American Museum of Natural History (AMNH). A portion is housed at the National Museum of the American Indian (NMAI) in Washington, D.C.

In the decades surrounding the 1900s, a gathering fascination among the American public about North America's earliest inhabitants propelled many of the newly formed museums in the United States to launch archeological expeditions to the American Southwest (Snead 2001). The goal of these expeditions was not necessarily archeological research as we know it today, but rather mainly to fill museum shelves and displays with pottery and artifacts. Even though archeologists often were involved, the results were what some archeologists saw as the destruction of vital cultural information central to understanding the past. This, in turn, provided the impetus for the passage of federal legislation designed to prevent the plunder of cultural resources on federal land. The Lacey Act of 1906, commonly referred to as the Antiquities Act, was the first piece of U.S. legislation specifically intended to protect archeological sites from unauthorized excavation. It also gave the president the power to establish national monuments by executive order.

NAVA was created this way in 1909 by President William H. Taft. The new monument encompassed northeastern Arizona stretching from the border with Utah to Black Mesa, past the town of Shonto to the west, and almost to the border with New Mexico. This enormous new monument lasted three years. In 1912 President Taft adjusted the boundary to 360 acres. Since then the NPS manages 160 acres around Betatakin, 160 acres around Keet Seel, and 40 acres around Inscription

House. Each parcel is noncontiguous. Visits to Keet Seel and Inscription House still require extensive and arduous backcountry hiking through rugged canyons.

John Wetherill was hired as the first custodian at NAVA. He served from April 9, 1909 to December 31, 1938. During his tenure, important but generally limited archeological research, including the earliest site stabilization efforts, were conducted. Notable archeologists and scientists such as Byron Cummings, A. E. Douglass, Jesse Walter Fewkes, Samuel J. Guernsey, Irwin Hayden, Neil M. Judd, Alfred V. Kidder, and Charlie Steen visited the monument from 1909–1939. Few of their visits produced substantial collections. The NPS provided Civilian Works Administration (CWA) funds to MNA to conduct excavation and stabilization of Keet Seel in 1934. Then the NPS provided funds directly to MNA to excavate the midden below the site that was quickly eroding. Most of the artifacts and human remains housed at WACC and MNA were generated during projects at Keet Seel in 1934 and at Inscription House in 1966.



Navajo National Monument visitor contact station and museum, July 1952

With America's entry into World War II in 1941 most research in the Tsegi Canyon region came to a halt. However, this changed during 1950–1970 with renewed interest in further defining Puebloan cultures in the Tsegi Canyon region. Some of the field work was related to stabilization treatment led by Roland Richert in 1958 at Betatakin, Keet Seel, and Inscription House; excavation projects led by Keith Anderson in 1964 at Betatakin and Keet Seel; excavation of the midden below Inscription House by Al Ward and George Gumerman in 1966; and further exploration of the same midden by David Breternitz in 1974.

Later in the 1970s and 1980s, most of the efforts at the monument shifted from research and excavation projects to stabilization treatments led by the Navajo Lands

Group and maintenance staff from NAVA. Most of this work was focused on repointing wall surfaces, capping walls, and replacing eroded mortar. This type of research and work was going on throughout most of the Colorado Plateau, where numerous prehistoric ruins had received little attention for 20 years.

The Vanishing Treasures (VT) Initiative, an NPS ruins preservation program, was created in order to better fund and manage projects throughout the Southwest. The main thrust of the initiative is stabilization and preservation treatment in 43 national parks and monuments. Archeologist Larry Nordby and staff from Mesa Verde National Park conducted extensive fieldwork at Inscription House from 1999 to 2003 that generated potential new archival collections with field notes, photography, completed condition assessment records, and other associated records. NAVA archeologists Brian Culpepper and Kenton Acord have started a project at Keet Seel using 3D Light Detection and Ranging (LIDAR) scanning to produce highly accurate 3D models and 2D maps to assist with monitoring archeological research. All of the material associated with the 3D scanning will become part of the NAVA archival collections.

There has been some information collected through field notes, photography, and objects at NAVA; but not as much as many other NPS southwestern cultural resource units. NAVA's natural history collections are not as abundant as the archeological collections. There are a few fossils, mammal skulls, and over 600 herbarium specimens. Nonetheless, this CMP serves as a guide for the monument on how to preserve, protect, and create greater access to its museum collections.

PROJECT COLLECTIONS

This section is divided by each major unit of NAVA with each project listed chronologically. A brief description of the project, those involved, and the location of the collections and associated records, when known, is provided. In many cases very little research or analysis has occurred with the collections. Often earlier collections, like the Wetherill collection at the AMNH, were acquired so a museum could have a sample of cultural material items from around the country or world. These collections likely are undocumented trophies and there could be some use in doing minimal research and analysis.

MNA has several associated collections in the library and archives that are related to NAVA.

Some project collections have scant information related to field notes, photography, or objects collected like the numerous Cummings expeditions into the three units at NAVA. Careful review should be made of particular collections mentioned on the catalogue cards from donors and objects from the Palmer collection on exhibit in the museum from Mesa Verde.

Numerous projects occurred at each of the major sites. However, very little is known about many of the resulting collections. This is not unique to NAVA but is symptomatic of earlier research conducted in the Southwest. Often the collections have been splintered and now reside in several locations.

Betatakin

Between 1909 and 1921, Bryon Cummings, professor at the University of Utah (UU), led excavations at Betatakin as well as Keet Seel, Turkey Cave, Inscription House, Snake House, and Owl House. These investigations produced paper and photographic records as well as object collections eventually housed at UU. Today little is known about what associated records survive or where the collections are located. A small amount of material from these early projects is curated at the Arizona Historical Society (AHS), Arizona State Museum (ASM), MNA, UU, and WACC. Associated record collections are at AHS, MNA, UU, and WACC. Object collections are at UU and ASM. The UU does not have a lot of material according to a visit made to collections by Melissa Memory, NPS Archeological Technician, and archives by Kevin Harper, NPS Archeologist. The NMAI and the AMNH have sizeable collections related to early work conducted by Cummings.

In 1917 Neil M. Judd, an archeologist from the Smithsonian Institution (SI), excavated and stabilized rooms resulting in associated collections that were housed at MNA. An extensive photograph collection exists and provides views of walls, roofs, and ceilings before stabilization. Most of Judd's field notes and associated records are at the SI.

In 1958 Roland Richert, an archeologist with the Ruins Stabilization Unit of the Southwest Archeological Center in Globe, Arizona (now WACC in Tucson) repointed walls and repaired wall caps with unamended mortar in several locations. Associated collections, including photographs, field notes, and his report for this work, are located at WACC.

University of Arizona (UA) graduate student Jeffrey S. Dean collected 240 tree ring specimens in 1962. He was able to date 159 samples (54.5%) from a total of 292 specimens collected throughout the years by him and others. They are all housed at the UA Laboratory of Tree-Ring Research.

Charles Voll, an archeologist from the Ruins Stabilization Unit with the Southwest Archeological Center in Globe, directed stabilization work in 1964 resulting in associated collections of photographs, negatives, and a report housed at WACC.

In 1964 Keith Anderson, the NAVA archeologist at the time, excavated the midden on the talus slope outside the alcove and the midden in the lower section of Keet Seel. Some associated collections related to this work are housed at MNA, WACC, and NAVA. It is possible other collections are with Charles Voll's collections

or those recently transferred to WACC from the Intermountain Regional Office in Santa Fe, New Mexico (IMRO-SF).

The Navajo Lands Group conducted minor stabilization treatment at the site in 1975 under the direction of NPS archeologist Larry Nordby. He produced a report. The original photographs are housed at WACC.

Under the direction of Steve Adams, Navajo Lands Group, John Laughter supervised a crew of four in minor preservation treatment during the latter part of July 1982. Additional repairs were made in 1984 and 1988 with little known about this work.

NPS personnel from IMRO-SF under the direction of Jim Trott conducted minor treatments in 1998. Also that year, conservator Anne Oliver made a condition assessment of approximately 781 sq. ft. of the surviving surface finishes. Oliver returned in 1999 to stabilize plaster in Room 25. Most records for this work were sent to WACC.

In 2001 NAVA Archeological Technician Melissa Memory and Archeologist Kevin Harper completed a condition assessment of Kiva Cave near Betatakin. All records from this project have been accessioned by NAVA and are archived at the monument.

Keet Seel

In December 1895 a local Navajo, possibly Jim Joe from Bluff, Utah, guided Richard Wetherill to Keet Seel. Wetherill was accompanied by his brother Al and brother-in-law Charlie Mason and others from his 1893 Grand Gulch expedition. They evidently poked around the ruin for several days and may have made a small collection of artifacts. As part of an expedition sponsored by George Bowles and C. E. Whitmore, Wetherill returned in 1897 and made a collection from Keet Seel and Turkey Cave, but the number of artifacts removed is unknown. An undetermined portion eventually was sold to AMNH in 1898. The Wetherill collection was transferred to NMAI in 1997. The object collection at NMAI has research potential and should be a high priority for future research at the monument.

In 1909, Byron Cummings, archeologist and professor at UU, excavated at Keet Seel with several students. W. B. Douglass, engineer with the Bureau of American Ethnology (BAE), drew a plan view map later used by Jesse Walter Fewkes, an archeologist with BAE, in his 1911 publication. Archival collections for this work are housed at AHS, MNA, and WACC. The Neil M. Judd collection at MNA is a related collection. Archival and object collections may also be located at ASM and UU, as both facilities are associated with Byron Cummings and the students who participated in the excavations.

In 1915 Peabody Museum Archeologists Alfred Kidder and Samuel Guernsey visited and probably did not excavate or collect. Because they mention nothing about

excavations or making collections in their publications, no collections are assumed to exist.

In 1919 Cummings conducted excavations at the ruin but did not keep extensive records. Some documentation existed beyond field notes and sketches but may have perished in a fire when Cummings' garage burned in 1949. AHS and ASM have some of these records, but Cummings didn't record much information about his work. He returned in 1920 and collected three tree ring specimens. There is a small archival collection of student papers related to Cummings and their travels through northeastern Arizona, which might have some information about the 1919 excavations. Other possible locations for archival and object collections for these two projects are UU and UA Dendrochronology Lab.

In 1927 A. E. Douglass collected 26 pieces of wood from the ruin.

Frank "Boss" Pinkley, the superintendent of the southwestern monuments from the inception of the NPS to 1940, planned for the excavation and stabilization of Keet Seel. He acquired funding from the Civil Works Administration (CWA) in December of 1933 and put Harold S. Colton of MNA in charge of securing an archeological party of five individuals for the "mapping of areas for administrative purposes, measurement of ruins including floor and elevation plans, needed repairs to ruin walls, general recording and reconnaissance, the collecting, classification, and storage of surface sherds that might otherwise be carried off by visitors, and general museum preparation that could be used in the general educational work." Colton hired Irwin Hayden to manage the project carried out mainly between January and May of 1934.

The CWA excavation was extraordinarily detailed for its time and generated a sizable collection that has always been housed at MNA. Julian Hayden, Irwin's son, sketched maps and recorded the provenience of many artifacts and supervised the work after his father quit in March, halfway through the project. Hayden's field notes survive as do many photographs. A report was never published.

After the CWA project at Keet Seel, very little work was done anywhere in the monument until 1958. In that year Roland Richert stabilized 46 rooms and two rooms on a talus slope near the ruin. Stabilization records and photographs are archived at WACC.

Keith Anderson excavated a portion of the midden directly below the ladder and uncovered two burials in 1964. His complex stratigraphic exploration recovered pottery diagnostic of the late Pueblo I, early Pueblo II, and early Pueblo III periods. The collection is housed at MNA.

Jeffrey S. Dean collected a total of 460 tree ring specimens in 1963 and drew a detailed map in 1965 based on Hayden's map from 1934. Despite producing only 140 datable specimens, Keet Seel remains one of the most accurately dated Ancestral Puebloan sites. All the specimens are housed at the UA Laboratory of Tree-Ring Research. Copies of his work are at NAVA, MNA, and WACC.

In 1982, Steve Adams, Ruins Preservation Specialist with the Navajo Lands Group, directed seven weeks of preservation treatment during June and July and

placed wall monitors in the ruin. John Laughter supervised masons Nelson Begay and Robert Black and laborers Steve Nez and Douglas J. Dempster. Work consisted of repointing wall surfaces and bases and repairing the cap of the retaining wall. Additional stabilization work in 1984, 1985, 1986, and 1988 was documented only by photographs.

In 1979, an electronic distance measurement (EDM) monitoring system was installed by Todd Rutenbeck to monitor wall movement. Results from this project were reported in 1985. His field notes and reports are archived at WACC.

Jim Trott supervised minor repairs to Keet Seel, Betatakin, and Inscription House in 1998. The photographs and notes have been transferred from IMSO-SF to WACC.

In February 2004, all remaining NAVA archives and collections housed at IMSO-SF were transferred to WACC. There may be original and copied materials located at NAVA.

A 3D LIDAR scanning project that began in 2004 is under the supervision of Brian Culpepper at NAVA. Once the project is completed all records will be accessioned, cataloged, and transferred to WACC to be archived.

Inscription House

In 1909, 1914–1916, and 1930 Byron Cummings excavated a large portion of Inscription House. Most of his field notes, associated records, and possibly objects may have been destroyed in a garage fire in 1949 at his house. Portions of the various project records can be found at MNA and AHS. Related records also could be located at UU and ASM. Another source for archival collections related to this work is the Neil M. Judd collection at MNA.

NPS Archeologist Charlie Steen conducted an extensive stabilization treatment project in 18 rooms and excavated 6 rooms in 1939. His correspondence, photographs, negatives, and report are archived at WACC. Archival collections from IMSO-SF were transferred to WACC in 2004.

In 1958 Roland Richert conducted minor preservation repairs. In 20 rooms he repointed walls, replaced stones, and recapped walls, half of which had been stabilized earlier in 1939 by Steen. He made minor repairs to the cap on the retaining wall. His correspondence, photographs, negatives, and report are archived at WACC. Archival collections formerly at IMSO-SF were transferred to WACC in 2004.

In 1966 Al Ward and George Gumerman, both archeologists with MNA, excavated a large section of the midden located below the site. Archival and object collections are housed and cataloged at MNA. There also are human remains and associated funerary objects housed at MNA related to this project.

David Breternitz, a professor from the University of Colorado, conducted further excavations in 1977 in the midden below. Archival and object collections are housed

at WACC. Human remains and associated funerary objects related to this project also are housed at WACC.

In 1982–1984 Steve Adams directed a mostly Navajo crew in stabilization efforts. Members of Adams' crew included NAVA maintenance staff members John Laughter and Steve Nez. Stabilization work in 1986 and 1988 is known only from photographs. Archival collections for this project were transferred from IMSO-SF to WACC in 2004.

In 1998 Steve Nez supervised the replacement of cottonwood supports that had fallen due to contraction since they were placed at the ruin in 1981. Records from this project have not been archived and should be located for accessioning by NAVA.

Archeologist Cory Breternitz with Soil Systems Inc. redrew a plan map and conducted archival research in preparation for an architectural condition assessment from 1998–1999. In 1999 Ann Oliver prepared a condition assessment of intact plaster. Archival collections generated from these projects eventually were housed at WACC.

Archeological Technician Melissa Memory supervised condition assessments at Turkey Cave, Snake House, and Owl House in 2002. Photogrammetric details were produced as well. All material has been accessioned and is housed at NAVA.

In 1999–2003 Larry Nordby, archeologist with Mesa Verde National Park, directed an architectural documentation and condition assessment at the ruin. The fieldwork was completed in 2003. Nordby is in the process of writing the final report.

Appendix B lists the contact information for institutions with collections from the monument and includes suggestions for further research. The suggestions should be part of another project outlining what research is needed once park staff determines what each institution has in its collections. A phone call to the registrar or a site visit to conduct such a survey before further work can be done may be necessary.

RECOMMENDATIONS

NAVA

Intermediate Recommendations (1–2 years)

- Use project or monument funds to support research at AMNH, NMAI, and UU. There could be useful information related to architectural studies currently being conducted at two of the monument's units.
- Locate as many collections as possible to further the understanding of the material goods, architectural remains, and cultures that once thrived in the Tsegi Canyon region. If NAVA has a third party cooperator, like a support and friends group or Western National Parks Association (WNPA) grants, NPS funding could be

sought to sponsor work with some of these collections. Funding could support VIPs, interns, graduate students, or other interested individuals to take on such work.

Long-term Recommendations (2–5 years)

- Consider using monument funds to hire an archivist to conduct research at MNA to determine what NAVA owned archives are present in MNA holdings and to improve the condition and housing of archives. This could be done in cooperation with other parks with similar needs for collections at MNA. Many of these records were generated early in the history of NAVA and are related to areas managed by the monument.
- Search for field notes and photographs taken by Cummings' students on expeditions. Many of his students went on to careers in archeology and kept their notes with them as they moved. Some of these records could have ended up in their correspondence and memoirs as with Neil M. Judd at the SI.
- Request funding to locate and document the types of collections at various facilities throughout the Southwest. This can be done through surveys. Visiting the repositories will be necessary to determine the extent of each collection. When possible, move toward reuniting collections at one facility. Associated project records (or reference copies) and collected objects should be at the same location for optimal research value and access.

CHAPTER 2: MUSEUM RECORDS AND DOCUMENTATION

All NPS units are required to follow documentation guidelines as established in the NPS *Museum Handbook*, Part II (2000) for accessions, loans, inventories, and deaccessions. The superintendent is directly accountable for NPS museum property, but designates the custodial officer responsible for the physical care and documentation of the collections. The responsibilities of the custodial officer are given to the monument archeologist. The job description does not include collections management as a part of the duties, but the Performance Plan states that the person “arranges for professional collections management assistance.” The standards require that a GS-1015-11 level, or higher, curator oversee each unit’s collection.

ACQUISITIONS AND SCOPE OF COLLECTIONS

The monument’s current Scope of Collections Statement (SOCS) was approved on December 31, 1985. SOCS should be updated every five years. The SOCS guides the monument in acquisition decisions and establishes collecting priorities and limits within each collection category. Archives should be an acknowledged collection in the SOCS. The SOCS also should list pertinent laws and regulations, such as NAGPRA and copyright, which affect collection acquisitions and their use.

The current SOCS includes basic guidance based on interpretive themes and resource management goals and objectives but does not include reference to other related planning documents recently created for use at the monument. The SOCS is very specific about the geographic region and timeframes, but provides insufficient guidance in terms of collecting categories.

As part of the CMP on-site visit, Matthew Wilson reviewed and commented on the monument’s SOCS using the NPS *Checklist for Evaluating Scope of Collection Statements*. This checklist can guide the monument in revising its 20 year old SOCS. Several of the problems identified are format and content based, but the SOCS also should provide information on specific collection categories needed to fill acquisition and interpretive deficiencies in monument collections.

MUSEUM RECORDS STORAGE

NAVA

The monument has two fire-resistant file cabinets (Hercules® and Schwab® 5000) within the collection storage room that are elevated four inches above the floor to facilitate housekeeping and Integrated Pest Management (IPM) activities. These cabinets contain accession, loan, and catalog records as well as conservation reports, correspondence, NAGPRA files, and other documents relating to monument collection holdings.



Navajo National Monument records and collection storage room

Keys to file cabinets are stored in a locked key cabinet in the collections storage room. Another fire-resistant cabinet is in the cultural resource modular building. Staff plans to add a second file as soon as the floor is braced. Monument personnel are uncertain if acid free photocopies have been made of original documents. Magnetic media is not stored in a magnetic media container or in an insert in one of the fire-resistant file drawers. No migration of digital data is underway.

WACC

WACC accession and catalog documentation is stored in locking fire-resistant (FireKing®) file cabinets. These files are elevated four inches above the floor to facilitate housekeeping and IPM activities. Data is backed up daily and stored off-site. Magnetic media are stored in media safes in the Archives Repository. Archive staff has begun the process of migrating and refreshing digital data.



Registrar's workroom at WACC facility

MNA

MNA stores NPS accession, loan, and catalog records in standard file cabinets. Site files are stored in an unidentified brand of fire-resistant file cabinet. None of the file cabinets are elevated four inches from the floor. The accession book is stored in a fire-resistant vault (Vault 5) along with magnetic media and photo documents. All MNA data, including Argus[®] and NPS Automated National Catalog System (ANCS+[®]) databases, are backed up daily and stored off-site.

INCOMING AND OUTGOING LOANS

NAVA

The monument has all loan files in one file drawer, which include incoming and outgoing loans. Monument personnel cannot identify which are current. Effort is required to resolve the status of loans. The monument needs to determine what outgoing loans are current and implement a loan renewal process in line with the *Museum Handbook*. The NPS *Museum Handbook*, Part II, Chapter 5, Section D directs employees to accession incoming loans or deposits for possible acquisition with a duration of more than 30 days.

WACC

WACC documents loans in line with recommendations outlined in the NPS *Museum Handbook*. Incoming loans retained for more than 30 days are accessioned.

MNA

As recommended by the museum profession, MNA has two separate transaction systems to document incoming and outgoing loans. Collections received as potential acquisitions are documented as incoming loans until the legal paperwork documenting them as a gift, purchase, or trustee contract is completed. Then the collections are accessioned.

ACCESSIONS

Accessioning is a legal process to document transactions that establish ownership and custody of permanent collections. The three mandatory fields to record accessions in ANCS+® are the accession number, accession date, and source.

NAVA

The monument has many undocumented archives, photos, objects, and specimens. According to the NPS *Museum Handbook*, these should be accessioned and cataloged as soon as possible after receipt. The monument should follow NPS *Museum Handbook*, Part II, Chapter 2, Section B guidelines to document collections in its possession. These collections may have been received at various time periods and it is likely that most lack appropriate documentation to identify them as NPS museum property. Basic data must be gathered to accession the undocumented collections until legal status can be established.

The accession book is stored in the drawer at the front of the accession files in a fire-resistant file cabinet (Hercules®) in the cultural resources office. The first entry is dated July 1959 with a final entry of September 2005 for a total of 604 accession numbers and 15,464 catalog numbers. Common with older accession books created over several decades, a variety of writing media has been used. NPS standards call for the use of a high quality permanent black carbon (India) Pigma® ink pen. One page detached from the accession book and nested loosely in the book should be

professionally reattached. Post-It Notes[®] are placed sporadically through the book, probably added by previous staff members attempting to document or mark information. The source address rarely was documented. Entry dates jump around and indicate that accessions were not assigned immediately. There is a number gap from 250 to 270 with a corresponding catalog number gap from 460 to 480. An inked note states that these numbers were assigned to the Western Museum Lab in Berkley and another penciled note states “Berkley-Defunct.” This is evidently a block of accession and catalog numbers assigned to this organization that were never used.

Many individual sources are linked with the accessions in a file system. NPS units would often maintain source files until the early 1990s when accession records were computerized in ANCS+[®] making the practice optional. This file is organized in alphabetical order by source name with a cross reference to the accession number. This is stored in a metal card box on top of the accession file. A sample cross check of 20 sources between printed catalog cards and the accession book indicates the source file is accurate.

The monument has a complete accession file system. The accession file folders are acid free with the NPS accession contents checklist pre-printed on the front cover. They are stored in three drawers in a fire-resistant file cabinet. Of 604 accessions, file folders are present for 603 at this time. Some of the checklists on the fronts of folders are filled out but ceased to be used after accession 141. Accession file folders with checklists on the cover (Form 10-95) are no longer produced by NPS. Therefore, many of the newer accessions simply use acid free folders with copies of Form 10-95 placed inside.

NAVA’s accession file system is not without problems. Accession 428 was a purchase from the Navajo Arts and Crafts Guild but there was no accession folder that documented the purchase. Contents within the accession files are variable and sometimes conflict with what is documented in the accession book. For example, accession 425 is noted as “missing on 3/1979” in the accession book. The note in the accession file states it needs to be deaccessioned because it was stolen. Accession 291 possesses only a copy of a catalog record with no other paperwork or data.

Besides lack of legal documentation, there is a problem with group accessions. An accession should document one accession source, not multiple ones. One NAVA accession could cover several different sources. For example, accession 399 is attributed to both Ruth Adakai and Dennison Young. This grouping of accession sources appears to have occurred during a particular time period in the 1970s and 1980s. This is a common problem at other museums during the time period. It should be corrected by assigning new accession numbers to the different sources.

A duplicate accession book was located but it recorded only a few accession entries, all of which were documented in the main accession book. The purpose of the duplicate book is not known, but it appears to document accessions needing further research. This book is at the monument and stored in the drawer with the

accession files. If the monument continues to use the book, its purpose should be clearly labeled so it is not confused with the official accession book.

Because of personnel turnover, confusion exists about the status of many collections at the monument. An Exhibits Reference Notebook created by an interpretive ranger in 1990s includes copies of catalog cards and photos of items, but it is not clear if all this material is accessioned and cataloged into ANCS+®.

WACC

The accession book is kept in a fire-resistant file cabinet. The book has a first entry of September 23, 1955 with the last entry October 19, 2004 for a total of 1,450 accession numbers. The book entries are consecutive and the book is in good shape with no loose pages. Notations in the book are made using the proper ink. Catalog numbers are not maintained in the accession book but they are documented in the accession file. WACC does not maintain a source file but uses accession records computerized in ANCS+® to maintain accession source information. Original documentation, such as a gift agreement, is maintained at the monument and not at WACC. The accession folders are acid free, the front checklist is complete, and each file has the required Accession Receiving Report (Form 10-95).

ANCS+® is configured to accommodate data from more fields than currently are utilized. Additional data beyond the mandated fields should be entered into ANCS+® as funds are made available. Complete entry of NAVA accession and catalog information will make the collections data easily obtainable and save unnecessary wear and tear on paper records.

MNA

The accession book is stored in a fire-resistant vault. The first entry is July 9, 1928 with a final entry of December 3, 2004 for a total of 4,256 accession numbers. The book entries are consecutive. The book is in good shape with no loose pages. However, it is the original accession book and dates to 1928. It is not acid free. This book has been microfilmed and the computer record is stored off-site. Over 76 years, entries have been made in pen, acid free ink, and in pencil. In the past three years an acid free ink has been used. Catalog numbers are recorded in the book on a variable basis depending upon the size of the accession. MNA has traditionally maintained a separate catalog book. MNA maintained a source file until 1990 when accession records were computerized in Argus®. The accession folders are acid free. None of the folders are the NPS type with a checklist. The files contain an Argus® generated accession record. All the monument archeological collections at MNA are marked with NAVA catalog numbers and recorded in ANCS+® and cross referenced in the

Argus[®] computer system. The natural science (botany, zoology, geology, and paleontology) collections are marked as they are identified.

DEACCESSIONS

NAVA

There is ample evidence in the accession files that the monument has deaccessioned objects (prior to having deaccession authority) due to item deterioration, theft from exhibits, and return of items to owners. Collection items also have been reported as missing. Given the size of the collection (60,984 total cataloged objects in FY05) there are a surprising number of deaccessions. However, this information usually is documented only in the accession book or on the catalog card. A deaccession number was not recorded on any of the documentation and paperwork, such as Form 10-644, which was frequently missing from accession folders. No deaccession folders have been created.

There were exceptions. Accession numbers 374–375 covered a medicine bag (and contents) purchased by the monument from a relative of a recently deceased Navajo medicine man. The medicine bag was placed on exhibit in May 1971. Beginning in December 1973, family members made frequent requests to buy back this material so it could be turned over to a family member who inherited the medicine man's duties and position. The family reported that the person who sold the medicine bag was not authorized. The bag and contents were returned to the family. This deaccession formally was approved by Acting Regional Director Ed Natay on September 9, 1989. There is a great deal of documentation with this deaccession and a separate deaccession folder should be created for this and other deaccession actions at the monument.

WACC

Deaccessions are completed in line with the NPS *Museum Handbook*, Part II, Chapter 6.

MNA

MNA deaccessions NPS collections upon written request by a unit superintendent. MNA has written policies and procedures for deaccessions and has a separate deaccession system.

OWNERSHIP OF COLLECTIONS

NAVA

The monument has two issues in the realm of ownership. The first is identifying and contacting other non-NPS institutions that have or are suspected to possess collections from the monument. The SOCS lists 15 institutions but also acknowledges that some of these collections may predate the creation of the monument. Contacting these institutions to determine content and legal status of the collections they possess is important. Even before the monument was created, this land was part of the Navajo Reservation and oversight may reside with the Bureau of Indian Affairs (BIA). It would be a professional courtesy for the monument to inform the BIA about collections that predate the monument's creation. All of the known institutions that have collections from within the monument boundary area should be listed in the SOCS.

The second issue is the question of legal ownership of some of the collections accessioned by the monument. Several accessions pertain to gifts of archeological material to the monument from area residents. Group Accession 399 contains several examples. Because the monument is surrounded by Navajo Reservation land, it is uncertain whether individuals, tribal members or not, could give the monument legal ownership of material that falls under the jurisdiction of the BIA.

MNA

MNA houses extensive collections on behalf of other federal (non-NPS) agencies and acknowledges federal ownership of collections and archives from federal lands in line with 36 CFR Part 79. To determine the ownership status of these collections, MNA currently is involved in comprehensive data entry and an extensive inventory of holdings. At this time the only collection group, besides archives, that appears to include undocumented monument holdings resides within the natural science collections. Data entry of these collections into MNA's Argus[®] system is one third complete. While a few specimens are clearly identified as monument holdings, other specimens possess vague geographic information or specific place names not immediately identifiable within monument boundaries. As a part of data cleanup, research into suspected monument holdings needs to proceed in consultation with monument personnel.

Another issue is site collections documented years ago as monument property but that now appear to be from Navajo reservation lands. The monument archeologist

recently informed MNA that most collections recovered during the 1963 monument road project are not owned by the monument. The majority of the sites and materials along the right-of-way for Highway 564 recovered in 1963 by Keith Anderson, the monument archeologist at the time, fall within the Navajo Reservation boundaries and are, therefore, under BIA authority. See Chapter 7: Archives, Archeological Project Files for more information.

The confusion may have resulted when the monument borrowed this shortly after the project was completed and assigned NAVA accession and catalog numbers in line with accession recommendations for incoming loans. The artifacts have since been returned to MNA but are still documented as monument property. This early accession apparently led to the confusion about the ownership of this BIA material which is currently being resolved. None of the sites excavated are on monument property and therefore collections from these sites at MNA need to be deaccessioned. There were some human remains and funerary objects that were found to be outside the monument boundary and are part of this collection as well.

CATALOG RECORDS

The cataloging process documents specimens at an object level. The NPS *Museum Handbook* identifies the catalog number, accession number, object name, object count, and location as mandatory fields. The purpose is to create an immediate record that allows for tracking collections and objects. Complete or full level cataloging of objects beyond these fields includes material type, culture, dimensions, condition, remarks, etc. and maximizes the long-term management of collections and objects.

NAVA

The accession book documents 15,464 catalog numbers assigned to monument holdings and collections at other NPS and non-NPS institutions. WACC reports that there are duplicate catalog numbers between the archives transferred to them from IMRO-SF and the archives at MNA. During the site visit to WACC, MNA provided WACC with a copy of the MNA ANCS+[®] data to determine what duplications exist in the NAVA holdings at MNA.

The blue working copy catalog cards are stored in the bottom drawer of a fire-resistant file cabinet in the storage area. A cross-index box contains catalog cards arranged by object type. At the front of this system are 54 catalog cards marked as deaccessioned. This optional card system has not been maintained in recent years and is not required by the NPS *Museum Handbook*. No catalog files are located in the

fire-resistant file cabinets. These are not required unless the park has specific reasons for creating individual catalog folders or there is a large amount of related information (conservation treatment reports, research information, correspondence, or other materials). If this data is referenced frequently and cannot be kept with the accession folder easily, individual catalog folders should be created.

The monument archeologist is familiar with the ANCS+® database and has received instructions in its use from the FLAG curator. FLAG is a group of NPS units in northeastern Arizona: Sunset Crater National Monument (SUCR); Walnut Canyon National Monument (WACA); and Wupatki National Monument (WUPA). The archeologist may need additional training. The monument recently ordered a new updated set of blue working copy cards from Harpers Ferry Center-National Catalog Office (HFC-NCO). Many of the existing blue cards and other catalog cards possessed Post-It Notes® and handwritten notations. In several cases (NAVA 120 and NAVA 136) the notes contain specific information about the status of the item that is not documented in the accession file. Certain classes of artifacts (such as projectile points) are typically illustrated in pencil on the cards. These drawings and handwritten notes are not duplicated in the new card set. Information and notes on the old copies should be checked for inclusion on the new cards. If not, pertinent data from these sources should be added in ANCS+® for each object. This will ensure the electronic database contains everything known about each item. Following the updates, a new set of working copy cards can be requested from HFC-NCO. Old cards with sketches should be photocopied onto acid free paper and added to the appropriate accession and catalog folders.

WACC

With the exception of the monument archives recently transferred from IMRO-SF to WACC, 100% of the NAVA collections at WACC are cataloged in ANCS+®. Catalog records include the required five fields. An earlier data-entry project focused on this mandatory data. The rest of the data from the cards and the images needs to be entered into the WACC database. Older catalog records may not have the condition of objects noted but recent ones do. Values are not current because this information is provided by the monument. All monument collections at WACC are in ANCS+® which is maintained on the network server. Objects are marked with the monument acronym and the catalog number. Catalog folders contain research information, restrictions, location, status, and catalog history. Conservation or maintenance reports are maintained in the conservator's files and noted on a separation sheet.

MNA

Entry of all catalog data into Argus[®] from archeological catalog cards was completed with a National Science Foundation (NSF) grant in 1990–1991. Transfer of this data into ANCS+[®] has occurred in the intervening years as NPS funding was made available. A NPS funded project will complete the backlog cataloging of archeological collections from the monument by the summer of 2005. Upon completion, no undocumented monument collections will exist in the archeology collections. An unknown number of monument collections reside within the natural science collections. During the CMP visit, the Associate Natural Sciences Collections Manager identified several hundred items within the botany and zoology collections that are either identified to the monument or that could be within the monument boundaries. This project needs to be completed with monument personnel knowledgeable about place names and boundaries.

All of the monument archeological collections at MNA are marked with park acronym and catalog numbers. This information is recorded in ANCS+[®] and is cross referenced in the MNA Argus[®] database.

COLLECTIONS MANAGEMENT REPORT (CMR)

NAVA

Monument and other NPS personnel involved in collections management at the monument are certain that the numbers reported in the monument's FY04 CMR are inaccurate.

WACC

WACC reports that the CMR for NAVA holdings is up to date and accurate.

MNA

MNA is not certain that numbers reported in the CMR are up to date for the NAVA archeology and archives holdings. The report does not document NAVA holdings in the MNA natural science collections.

INVENTORIES

NAVA

The monument conducts random and controlled property inventories and should be completing an accessions inventory. There is a pressing need to perform a comprehensive inventory. An inventory must be conducted due to the possibility of collection items being removed during periods of staff transition. Notes on cards and in ANCS+® should be checked to ensure they agree with each other. Collections cabinetry and drawers have been renumbered and relabeled in the recent past, but this location information is not documented on cards or in files. As a result the current locations do not match what is documented on any list or ANCS+® record. There also are numerous undocumented collections in the storage area and in other monument facilities.

The monument also should reassess what collections is part of the controlled property category, per the NPS *Museum Handbook*; including items valued over \$1,000, firearms, and incoming loans. Ideally this should include items on exhibit or displayed in offices and items whose physical condition needs regular monitoring. A review of the past controlled property inventory did not include items on display in offices.

WACC

WACC conducts random and controlled inventories annually in line with the NPS *Museum Handbook* guidelines. They do not engage in accession inventories that are not required. The locations of NAVA collections are current due to a recent move to a new facility. The uncataloged collections are inventoried randomly. See the NPS *Museum Handbook*, Part II, Chapter 4: Accession Inventory for details on how inventories are conducted on uncataloged items.

MNA

MNA will complete a 100% comprehensive inventory of monument archeological collections by the summer of 2005. MNA completes random inventories as lists are provided by NPS units.

PRIORITY RECOMMENDATION

NAVA

The monument has not had staff dedicated to collections management. Effort has been made to document monument collections by collateral duty staff. A concerted effort is required to ensure that the monument has intellectual and physical control over its collections. Given the recent accountability problems of collection items possibly being removed during staff transition, documenting the status and location of all collections on-site is a top priority.

RECOMMENDATIONS

NAVA

Immediate Recommendations (0–6 months)

- Arrange for a circuit rider curator to aid the monument; hire trained staff from other nearby parks to complete curatorial tasks or revise the position description to make collections management a collateral duty for the NAVA archeologist. This person would immediately:
 - 1) Implement a comprehensive inventory that includes a one-to-one correlation with catalog records/ANCS+®.
 - 2) Label all storage cabinets, drawers, files, and equipment to standardize location information in ANCS+®.
- Immediately create an Acquisition Committee to aid in timely decision making on future gifts, purchases, and other types of acquisitions.
- Update the SOCS within six months using the evaluation checklist and comments provided. See *NPS Museum Handbook*, Part I, Chapter 2.
- Purchase a magnetic media safe or media drawer insert.
- Implement a project to assess outgoing loan files and document them in line with the *NPS Museum Handbook*. Set-up a tracking and loan renewal process in ANCS+®.
- Implement a project to research incoming loans. Link all incoming loans to appropriate accession files and document them in ANCS+® and accession them in line with *NPS Museum Handbook* recommendations.

- Place the single, detached page from the accession book in a labeled, acid free file folder and store it in the front of the accession folders or have the book professionally repaired.
- Implement a project to complete the accession files:
 - 1) Fill out the front of the folders and complete the Accession Receiving Report (Form 10-95) where possible; and
 - 2) Locate original documents and make an acid free copy of these documents for the file.
- Research undocumented collections at the monument.
- Research acquisition sources for undocumented collections to determine ownership.
- Begin a project to identify and document collections that are no longer in the monument's possession. Include deaccessioned items and items reported missing in the past.
- Document deaccessions using the ANCS+[®] deaccession module. Record and cross reference the deaccession number on all related paperwork.
- Use the optional Deaccession Book (Form 10-642). Follow the NPS *Museum Handbook*, Part II recommendations (Chapter 6:16, no. 4).
- Complete relevant deaccession paperwork and file it in a separate deaccession file folder stored after the related accession folder.
- Resolve catalog number duplication problems working with WACC and MNA.
- Complete a 100% inventory of all holdings at the monument. Verify holdings against catalog records, cards, and ANCS+[®].

Short-term Recommendations (6 months–1 year)

- Look for watermarks and use a pH testing pen to determine if the documents (files and storage enclosures) are acid free paper.
- Make copies of original documents on acid free paper or interleave original with acid free blank sheets to prevent acid migration.
- Adopt NPS procedures and policies for digital data migration.
- Contact institutions that possess potential monument collections to begin the ownership assessment process.
- Retain all catalog cards that possess original drawings of artifacts. Place an acid free photocopy of the card in a catalog file after the appropriate accession file.
- Update the next CMR with the results of the comprehensive inventory.
- Define items that are at greatest risk as controlled property per NPS standards.

Intermediate Recommendation (1–2 years)

- Contact non-NPS institutions to obtain information on potential monument holdings in their collections. Provide the founding date of the monument and two maps that show the beginning (1909) and final (1912) boundaries. Also provide the names of researchers who worked on the monument and any significant place names to search their databases. Request copies of data for future reference and research use.
- Implement a project to verify that handwritten notes are duplicated in the ANCS+® database.

Long-term Recommendation (2–5 years)

- Identify and research accessions that contain archeological material donated by or purchased from private individuals. Create the accession records before this step occurs.

WACC

Short-term Recommendation (6 months–1 year)

- Seek data entry funding to complete accession entry beyond the three mandatory fields.
- Seek data entry funding to complete catalog records beyond the five mandatory fields.

Long-term Recommendation (2–5 years)

- Research and determine values for collections items where possible.

MNA

Immediate Recommendations (0–6 months)

- Purchase a media file cabinet for storage of magnetic media in a vault for extra security.
- Move original accession, loan, and catalog records into fire-resistant filing cabinets. (Blue catalog records are copies and need not be maintained. Some contain original information not yet in database or drawings, etc.)

Short-term Recommendation (6 months–1 year)

- Adopt the NPS file folder checklist for NPS accessions.
- Work with MNA to resolve the ownership of potential monument-owned natural science collections.
- Work with MNA and BIA to resolve which of the Highway 564 Project collections reside within the monument boundaries and deaccession collections that are not NPS owned.
- As natural science collections owned by the monument are determined, MNA will enter these records into ANCS+®.
- Work with the monument to ensure that MNA archeology and archives counts are correct in time for the October 2007 submission of the CMR and include any natural science collections that have been documented as NAVA property.

Long-term Recommendation (2–5 years)

- Plan for elevated cabinetry (4 to 6 inches off floor) in the new facility.

CHAPTER 3: MUSEUM CONSERVATION

Museum collections are stored at NAVA in Kayenta, MNA in Flagstaff, and WACC in Tucson. Collections are exhibited only at NAVA and MNA. Ten conservation treatment records are in exhibit files at NAVA for objects treated by the NPS Division of Conservation Harpers Ferry Center (DOC-HFC) for the exhibits installed at the NAVA visitor center in 1981. An additional 10 conservation reports are on file at WACC for objects treated for infestations and for one NAVA ceramic vessel. No conservation treatments have been undertaken at MNA.

Collections in storage and on exhibit at all three sites primarily include archeological objects that are both organic and inorganic. Minor collections of paleontology and zoology are stored at MNA. NAVA has a small entomology and uncataloged herbarium collection on-site. Additional cataloged herbarium specimens are stored at MNA.

A Collection Condition Survey (CCS) was conducted by WACC conservators for archeological objects at MNA in 2003. No other condition information is available for collections at any of the three sites.

NAVA

NAVA collections are exhibited in the visitor center in wood and glass museum cases, in a small storage room off the end of the visitor center, between the mechanical room and a janitorial closet behind the men's restroom, and outdoors behind the visitor center (one wooden Navajo wagon).

Collections on exhibit include a large number of ceramic pots; several cases of organic material including yucca fiber, wood, and woolen objects; a leather saddle; some silver jewelry; and tack. The pots and much of the organic material appear to be in stable condition but a CCS of all collections at NAVA should be conducted to determine if any objects are deteriorating actively and to provide a baseline for condition. A silver headstall and concha belt are tarnished and should be treated to remove corrosion, then coated with a protective lacquer to avoid future need for polishing.

Insect infestations are one of the most damaging forms of deterioration for organic objects. When objects are subjected to infestations the damage cannot be repaired, only halted. Woolen objects are actively infested with insects. At least two partially completed rugs on a loom have been displayed in the visitor center since 1965. The first one was deaccessioned after an infestation was discovered in the 1980s (NAVA catalog number 256). The second one, currently displayed, was removed for freezing in February 2006. It has not been accessioned and cataloged, but the original loom and loom parts have been. A Navajo saddle blanket (NAVA catalog number

2924), a Navajo sash (NAVA catalog number 2868), and hobble with woolen tassel (NAVA catalog number 138) are currently scheduled for freezing and vacuuming treatment on a periodic basis every six months.

The monument does not have an IPM plan. The IPM plan, being written in-house, should include all exhibit and museum storage areas and be implemented as soon as possible. Exhibit cases are not gasketed, and some are not enclosed fully to keep insects from intruding. Neoprene gaskets should be installed in exhibit cases to aid in insect control. Textiles in storage are kept in polyethylene bags to avoid future infestations. The loom case was redesigned to seal the upper and lower ends to exclude insects.

Lighting in the exhibit areas is provided by canned track lights mounted on the ceiling and focused on museum cases. The lighting at NAVA is incandescent and appears to be at low levels in the museum. Light level and ultraviolet (UV) level readings taken in September 2005 and June 2006 show that certain areas of the museum are exposed to too much lux and UV levels. A bare incandescent bulb provides lighting in the storage area.

Light levels must be taken to ensure levels meet the criteria for museum objects. The FLAG office has light monitoring equipment to take these measurements and the personnel to determine the correct levels for museum objects of various material types. Measurements should be taken at least four times a year, once during each season, to ensure that outside light is not a problem. If light levels are too high, measures such as screening with UV filters and using lower wattage bulbs should be implemented to lower UV and incident light levels. UV film is installed on the large, north facing windows in the visitor center. Halogen PAR 30 or 40 spot or flood lamps should be used in the museum area. Test visible and UV light levels within the exhibit area after installation. Light fixtures and bulbs should be moved and readjusted as required to meet preservation and interpretive requirements.

Temperature and relative humidity (RH) levels at the visitor center and in storage areas cannot be controlled. The visitor center is heated by propane and storage areas are not heated directly. There is no cooling. Doors are left open to provide a breeze through the visitor center in the summer months. A data logger placed in the visitor center on display case 3 indicates temperatures in the visitor center range from 65–85°F throughout the year. Ideally, objects on exhibit would be subjected to temperatures no higher than about 76°F. The RH during this period measured from 8% to 20%, which is very low particularly for organic objects. Most of the organic objects on exhibit are from archeological context. At the cellular level they have desiccated over a long period of time and are stable. However, this low level RH is deleterious to objects such as woolen textiles and particularly to paper archives and photographs. Two additional data loggers should be installed in the visitor center—one in the exhibit case containing the Navajo blanket and one in the case containing wooden and yucca fiber objects.

The storage area is monitored using a data logger on the outside of a museum case over a period of 11 months. No monitoring of the microclimate of the interior of the various types of storage equipment has been conducted to determine if the cabinetry is mitigating environmental conditions. Fluctuations of temperature and RH are much greater in this area. Temperatures range between 58–85°F, with fluctuations as great as 13° in a 24 hour period. RH moves between 4% and 43% with swings up to 35% in a 24 hour period. This is unacceptable for most museum collections. Due to the limited number of objects in storage, monument staff should consider transferring collections that are not in use to WACC (as suggested in Gwen Gallenstein's 2001 Curation Trip Report) where conditions are more suitable for long-term storage of museum material. Archival material should never be placed in this storage area. Archives should be copied and originals sent to WACC where RH is controlled at a higher level of optimum humidity for the preservation of paper and photographs. Rare books are tightly packed and in a case buffering them somewhat from changes in RH. A data logger should be introduced to this case for documentation.

A Museum Housekeeping Plan (MHP) was finalized in September 2006. The interiors of museum display cases in exhibits and storage cabinets do not appear to have been cleaned for years, perhaps not since installation. Some dust is present but not in great quantities. Both the cases and cabinets should be opened and cleaned. Smudging is visible on the interior of the cases. This can be removed during housekeeping. Plexiglas® exhibit cases can be cleaned and polished with Brillianzie® found at <http://www.brillianize.com>. Dust and rubbish (peanuts, gum wrappers, sunflower seed shells, etc.) has built up in the Family Home exhibit. These two reproduction rooms of Betatakin are accessible only through small doorways that are barred with iron and Plexiglas® to prevent theft of exhibited objects. The security mechanisms should be changed to enable access for cleaning on at least an annual basis. An MHP for all of the exhibits and storage areas should be written and implemented. The plan should include the Navajo wagon on exhibit outside of the visitor center to ensure this macro object is routinely cleaned of juniper and pine needles that retain water and encourage wood rot and corrosion.

WACC

The new WACC facility completed in 2003 is a state-of-the-art storage facility meeting all current federal standards. Storage at WACC ensures museum collections are kept in optimal temperature and RH conditions with minimal dust intrusion. The WACC facility is staffed with museum professionals including two conservators. The facility, however, is not fully funded and relies to some extent on project funding for object conservation and storage upgrades. It is not yet fully compliant with NPS

museum standards, mainly because planning documents are outdated by the recent move to a new facility.



Storage room at WACC facility

NAVA collections at WACC primarily include objects from archeological sites. These collections are both organic and inorganic. In a 2004 attempt to centralize NAVA collections, and as part of the *Intermountain Regional Office (IMRO) Museum Collections Facilities Strategy*, WACC received all NAVA museum collections stored at IMRO-SF for long-term storage. The condition of these collections is assumed to be stable but due to a lack of a CCS this is not certain. A CCS is needed and could be combined with a CCS on-site at NAVA.

The writing of an IPM plan for the center's new multi-park facility is in progress and is expected to be completed in February 2005. Currently IPM is provided by a local company as a condition of the lease. The company has not provided adequate services to date and WACC staff do not know the extent of insect intrusion into the building. Exclusionary methods such as a dedicated incoming collections holding space with a sub-zero freezer and door sweeps are in place, and the exterior of the building is chemically treated, but insects are present in the building. If adequate services cannot be provided under the lease, WACC should hire an entomology student in 2005 to conduct IPM tasks following the IPM plan for the facility. Maintenance staff is available to install additional exclusion equipment, traps, or additional monitoring if needed.

All object storage and workroom spaces at WACC have UV filters installed. Some incident lighting was found to be slightly above ideal levels for museum collections during a recent survey for UV and incident light. Staff is working with the building

owner to correct these deficiencies. Lights are turned off when staff is not working in collections storage areas so exposure to light is minimal.

The temperature and RH in the WACC facility are strictly controlled and are operated using a chiller system. The media repository is not yet functional but all other storage areas are set at optimum levels for the preservation of museum collections. For much of the past year this system has operated at a high level, but there have been almost monthly incidents of the chiller turning off without warning. This fault is being investigated and will be remedied in the next year. The building automation system records RH and temperature data which are then provided to the senior museum staff on a monthly basis for review. In addition, the registrar operates a hygrothermograph to view temperature and RH daily and ensures that the building automation system is providing accurate readings.

The WACC repositories are protected from dust by a 95% filtration system. Dust is not a major problem in the building. Cleaning of workspaces is done by building staff through the lease and is monitored by WACC staff. The same staff completes quarterly cleaning of the repositories. All cleaning material and equipment should be approved by the senior conservator to ensure they are safe to use in collections areas.

MNA

NAVA collections at MNA are stored in six buildings. Archeology is stored in two new museum wardrobe cabinets in the anthropology wing of administration. Some associated funerary objects on open shelving are positioned in the Butler building and other associated funerary objects are in a walk-in vault in the Administration building. Several paleontology specimens are in museum cabinets in the Brady geology building; mammals, rodents, birds, insects, and wet specimens are in the Marcou building, and herbarium specimens are in 1930s metal herbarium cabinets in the Pollack building. Several textiles, a basketry fragment, a ceramic pipe, and two miniature ceramics are on exhibit in the museum.

MNA currently has no MHP, no IPM plan, and no temperature or RH control, although the latter are monitored in storage areas. Heating is provided by forced air but no cooling is available. Over the past 14 years numerous conservation professionals from various institutions, including the NPS, have visited the museum and produced reports with similar recommendations on preventive preservation methods (Denton 1988, Brako 1989, Weintraub 1991, Jessup 1992, Southward 2003, and Voeks 2003). Few of these recommendations have been implemented and continue to be reiterated in subsequent plans, including this CMP. Preventive conservation methods, including IPM, environmental control, and housekeeping, are crucial to the long-term preservation of museum collections. MNA is not currently meeting these needs due to budget and staff shortages.

One of the most pressing concerns at MNA is the lack of appropriate storage. Current buildings are outdated and cannot maintain a range of temperature and RH suited to the long-term preservation of collections. The buildings also are not sealed well to exclude rodent and insect pests. The extent of the pest problem is difficult to ascertain because MNA staff does not maintain thorough or consistent records of pests found in traps and methods used to exclude them, if any. The Collections Management Assessment (CMAP, American Association of Museums) self-study of 2004 indicates that no IPM plan has been implemented at MNA since 1992. While the CMP team was on-site, large sticky traps were found to include a mass of crickets and other insects, and the collections manager reported several mice had been trapped in the past week. While conducting the CCS in 2003, conservators found insect traps overflowing and evidence of rodent droppings on and under shelving.

If MNA continues to operate without a comprehensive IPM plan, the NPS will never know the actual pest risks to the collections. Sticky trap locations should be mapped. MNA maps created for lighting level measurements are suitable, some of which are located in the IPM folder, with placement and inspection dates of the traps noted. Rodent traps should be checked daily (MNA does have a Hantavirus protocol) and insect traps checked monthly and replaced at least bi-monthly. All insects caught in traps should be identified and recorded. Analysis of the types of insects found should include information as to whether or not they are a threat to museum collections.

A good sample IPM pest recording program is available from Barbara Cumberland at the DOC-HFC. This program allows data entry of museum pests and summarizes monthly and yearly numbers of pests in an easy to read format. This is a good tool to be used in conjunction with an IPM plan. Every effort should be made to trace entry points and install exclusionary devices such as steel wool, caulking, door sweeps, and other methods to ensure that insect pests are kept to a minimum. MNA does have a freezer used to treat infestations, but preventive measures are not being carried out on a regular basis.

Florescent lighting in all storage and exhibit areas is covered with UV filters except in the Butler building. NAVA collections stored in the Butler building are ceramic and most are not light sensitive. Some pots are being reunited with human remains and will be kept in darkness. The lights in the Butler building seldom remain turned on for long periods of time and light levels are not an issue.

The Archeology Gallery contains NAVA items. Incandescent and natural light are used in this area. While UV and incident lux readings are high, these objects are not sensitive to light damage.

MNA has installed the Preservation Environment Monitoring (PEM) system from the Image Permanence Institute in Rochester, New York and is involved with the test program for this system. Temperature and RH are measured in all collections storage areas but not in the exhibits. Data is printed and kept in chart form in the ACR data logger and PEM logger notebook. Trends in the environment of most collections

areas are disturbing. Temperatures and humidity fluctuate wildly in some of the storage areas. The analysis of the PEM data indicates that in the Powell storage area temperature remains only in the safe tolerance range for collections 12% of the time and in the herbaria only 17% of the time. In the Brady building RH safe tolerance ranges are only met 37% of the time and only 43% of the time in the Butler building. This is a generous assessment considering the safe RH range for these areas is measured at 20%–50% and does not take into consideration fluctuations.

RH and temperature measurements of the interiors of display cases and storage cabinets indicate much less fluctuation of the environment. This is in part due to the fact that organic materials are stored in these cases, or the cases themselves contain wooden liners that absorb and release depending on actual conditions outside of the case. Wooden liners may be of benefit in this way but these still tend to off-gas and harm collections. Allowing museum textiles and other organic objects to buffer RH inside a case may be contributing to their deterioration. These conditions cannot be remedied in the current buildings with available equipment. MNA is seeking funding to create a new museum storage facility. PEM information should be very important in justifying the need for this facility. Current conditions are unsuitable for museum storage. Exhibit spaces should be added to the monitoring list.

Collections storage areas appear neat and clean on the surface. However, a great deal of dust and debris has collected beneath and on top of cabinets and on shelving in all collection storage spaces. These areas must be cleaned to avoid providing food and bedding for insect growth and maintenance.

MNA must write and implement a regular MHP. This is required of both NPS units and repositories housing NPS collections. The NPS *Museum Handbook*, Part I, Chapter 13 include instructions on writing a MHP. The museum staff must ensure that it is followed.

WACC conservators completed a CCS of all NAVA collections in the Anthropology and Butler buildings in September 2003. The CCS lists IPM, environmental, and housekeeping concerns, in addition to individual recommendations for treatment and storage upgrade for collections in the anthropology wing. Natural history and paleontology collections were not surveyed because they could not be located. During this CMP team members were able to inspect some of these collections. Natural history specimens should be tested for the presence of arsenic. NPS funding may be available for this project after all the NPS specimens are located. Herbarium folders had been upgraded recently. Paleontology specimens require acid free containers.

Ceramics on exhibit are in stable condition. The textiles have been on exhibit for over 20 years and should be changed out with other NAVA textiles available from this collection as a preservation measure.

The MNA Preservation Plan written in 2003 with a National Endowment for the Humanities (NEH) grant mentions a long-range conservation plan is in progress. This plan was not made available to the team while on-site. The few objects listed in

need of conservation in the 2003 CCS should be sent to WACC for treatment after CCS are conducted for NAVA collections at the monument, MNA, and WACC. This would enable conservators to treat all NAVA objects at the same time. Ceramic vessels stored at MNA and listed as requiring treatment are NAGPRA associated funerary objects and cannot be conserved without permission from the culturally affiliated tribes.

RECOMMENDATIONS

NAVA

Immediate Recommendations (0–6 months)

- Write an IPM and a MHP for NAVA and implement.
- Label, date, and place insect monitoring traps along the walls, near doors, and other locations of known pest access or past infestations.

Short-term Recommendations (6 months–1 year)

- Measure UV and visible light levels at NAVA storage areas and exhibits every three months. Record and maintain files. Implement measures to reduce light levels where necessary.
- Conduct a CCS for NAVA collections at the monument. Integrate these with the CCS for NAVA collections at MNA. Apply for funding to stabilize and upgrade storage for objects requiring treatment.
- Move collections not in use at NAVA to WACC for long-term storage.
- Transfer all NAVA and MNA collections to WACC until a new facility is built at MNA.
- Obtain copies of NAVA conservation treatment reports on file at WACC for accession and catalog files at NAVA.

WACC

Immediate Recommendations (0–6 months)

- Complete the IPM plan for WACC.

Short-term Recommendations (6 months–1 year)

- Conduct a CCS for NAVA collections at WACC. Integrate these with the CCS for NAVA collections at MNA. Apply for funding to stabilize and upgrade storage for objects requiring treatment.

MNA

Immediate Recommendations (0–6 months)

- Write an IPM and a MHP for MNA and implement.
- Create a Trap Map using existing floor plans for this and all other MNA facilities that hold collections in storage or on exhibit.
- Begin monitoring the traps on a monthly basis, recording and filing baseline IPM data by location and replacing traps as required.
- Create an IPM Pest Identification Collection (non-museum property and training aid). Place sample museum pests in glass vials for use in orientation and training of MNA staff. Use an entomologist to collect and identify known museum pests.

Short-term Recommendations (6 months–1 year)

- Install PEM equipment in the textile exhibit case at MNA.
- Download data regularly and analyze it to determine trends and plan for necessary corrective actions.
- Measure UV and visible light levels at MNA storage areas and exhibits every three months. Record and maintain files. Implement measures to reduce light levels where necessary.
- Conduct a CCS for NAVA collections at the monument and at WACC and integrate these with the CCS for NAVA collections at MNA. Apply for funding to stabilize and upgrade storage for objects requiring treatment.
- Change textiles on exhibit at MNA.
- Move collections stored at MNA to WACC if corrections to identified deficiencies such as the lack of housekeeping, fire protection, security, environment, storage, and an IPM plan have not occurred in one year.
- Transfer all NAVA and MNA collections to WACC until a new facility is built at MNA.
- Identify and test all NPS natural history specimens at MNA for arsenic and document results in accession and catalog files.

- Upgrade storage containers to acid free materials for paleontology collections at MNA.

CHAPTER 4: EXHIBITS

Exhibited NAVA objects are located at the monument visitor center and at MNA. The visitor center exhibits focus entirely on NAVA and include cases with archeological and historical objects, photographs, and reproduction rooms of the Betatakin site. Exhibits at MNA are not site-specific, but material specific, and focus on ceramics, textiles, and basketry. WACC does not have exhibits and is not included in this section.

NAVA

NAVA exhibits are housed in the Mission 66 era visitor center at the monument. The original exhibits dating from 1956 no longer exist. New exhibits were updated and installed by HFC in 1981.



Navajo textile loom display at the Navajo National Monument Visitor Center

The auditorium includes three exhibit cases containing a saddle, tack, textiles, silver jewelry, and a set of six framed photographs. NAVA staff does not know if these objects have been accessioned and catalogued. If not, this should be done as soon as possible after the SOCS is revised. The lobby includes two exhibit cases

containing pottery, one wall mounted case with a loom exhibit, three olla shelves, a dendrochronology case, and space for local artisans to demonstrate weaving and pottery making. The museum includes five exhibit cases with archeological objects and a reproduction family home representing two typical rooms from the Betatakin site. A Navajo wagon, hogan, and sweat lodge are located outside to the rear of the visitor center.

Probably 95% of visitors to NAVA do not visit the sites due to the difficulty reaching them. Keet Seel and Betatakin are remote sites requiring strenuous back-country hikes. Inscription House has been closed to the public since 1968. Interpreting monument resources through exhibits, waysides, and verbal communication by interpreters is crucial. A walkway to a canyon overlook allows viewing Betatakin from a distance and provides some interpretation. An orientation film on DVD is available on a regular schedule in the auditorium and the archeologist is currently working on a computer generated 3D program of Betatakin that will be available on-demand at a computer terminal in the lobby. Current exhibits include minimal information and visitors are left not knowing what the exhibits actually demonstrate or their relationship to the sites. For instance, one of the pottery cases contains multiple ceramic vessels with very tiny labels stating they are Tusayan or Kayenta, but no information is available to interpret the vessel styles, construction methods, or time periods.

Most exhibit cases are mounted against rough-hewn wooden wall panels which function as the back of the case. Cases incorporate Formica® and glass panels mounted in metal frames. The cases are very simple and add to the beauty of the objects. However, the cases are not sealed against dust and insect intrusion and some woolen objects are infested.

The exhibit cases have not been cleaned since installation. The interiors of many cases include a fine layer of dust. Some inside surfaces of the glass or Plexiglas® have a white bloom which may be a residual cleaning agent clouding the surface. A comprehensive MHP would ensure that these problems are remedied and would promote routine inspections of woolen objects for infestations. Neoprene gaskets should be installed in the cases to deter insect pests and dust.

Insect infestations of woolen textiles are a continual problem at NAVA. See the discussion in Chapter 3: Museum Conservation. These textiles should be removed from exhibition until they can be placed in insect free cases. These exhibits may be consolidated into a single exhibit on weaving so all woolen objects (except the hobble) could be monitored easily on a monthly basis. The current weaving exhibit at the entrance to the auditorium is heavily infested. The loom must be removed for treatment and should not be replaced until both ends of the Plexiglas® are sealed forming a barrier to insect intrusion. Any case exhibiting wool must be easy for staff to access due to the need for constant monitoring. Access should be considered when sealing the loom case and designing future exhibits.



Navajo National Monument exhibit area

Five large ollas are exhibited on three wooden shelves with metal brackets above the visitor entrance into the lobby. The modern shelving is not aesthetically compatible with the exhibit's overall NPS and southwestern design. The shelves are mounted so high that many visitors may miss seeing these vessels. There are no exhibit labels for these objects and they appear in storage, crowded together on the shelf. In addition, they are at risk from theft and falling (i.e., earthquakes) while on open shelving. The ollas should be placed into a new exhibit case, preferably on ground level. The ollas should be placed in secure exhibit cases on the ground level or on the roof of the Family Home, both are appropriate to the overall context of the exhibit.

The Family Home exhibit should be upgraded with interpretive paneling that discusses historic construction techniques and use of the rooms. The handout for this exhibit includes a wealth of information that could be presented on the panel. Other problems with this exhibit include inaccessibility for those with mobility impairments, an inability to enter the rooms for housekeeping, and the possibility of theft of objects from the rooms. Ceramic vessels were stolen from the larger sleeping room in the late 1980s.

Possibilities for redesigning this exhibit include inserting viewing panels into the sides of the rooms from the museum floor and adding Plexiglas[®] panels with hinges and locking mechanisms to allow access for cleaning and the protection of objects. Additional objects such as a reproduction turkey feather blanket, food, clothing, cooking utensils, tools, weapons, or other items could be added to the sleeping room, or where appropriate, to make it more interesting and educational for the visitor.

Plexiglas[®] rings with Velcro[®] hooks lining the rims are used as pot mounts in all exhibits. This is not distracting in exhibit cases but is in the Family Home. Pot rings in this location should be replaced with natural fiber pot rings for a more authentic appearance.

Natural light from the lobby windows and glass doors lights the exhibits. Additional light is provided in the museum and auditorium by a ceiling-mounted track light system of canned incandescent bulbs. The low lighting in these areas is probably within the range recommended for museum objects, but this could not be determined due to the absence of measurements. Museum staff should borrow UV and incident light meters from the FLAG, the IMRO-SF, or Denver office. Measuring and documenting the light levels will assist in determining whether or not lighting requires upgrading or filtering to prevent damage to collections. Completing this task is a Government Results in Performance Act (GRPA) Checklist item reported in PMDS software for performance management goal Ia6.

The hogan, wagon, and sweat lodge exhibit at the rear of the visitor center is outdoors in a group of juniper and pine trees. The hogan and sweat lodge are interpreted adequately, although with limited and outdated panels, but the wagon is not. Additional removable or new wayside interpretation panels should be provided. The wagon is moved indoors to a garage during the winter for protection from severe weathering and the interpretation of it should be removed and stored as well.

The 1999 General Management Plan (GMP) recommended new exhibits that interpret the primary themes at the monument. New exhibits would allow illustration of cultural continuity and change, as well as present connections that Hopi, Navajo, San Juan Paiute, Zuni, and other Puebloan tribes continue to have with the cliff dwellings and natural resources of the area. They also would allow the addition of information about the remote sites of Inscription House and Keet Seel. The story and significance of the cliff dwellings are not included in the exhibits. In addition, an exhibit designer may be able to determine how the museum could be made more accessible for persons with disabilities by enlarging the size of the typeface and raising the height and locations of the exhibit artifact labels. Interpretation for foreign visitors could be added and exhibits could be more child-friendly by adding a hands-on section and activities for interpreting natural and cultural resource materials.

The 1981 exhibits are aesthetically pleasing but label text is minimal and uninformative. Some labeling is too small to read. Exhibits should be upgraded with new larger text and expanded labels relevant to the rest of the exhibits. Cases and mounts can be retained but would need to be sealed against insect and dust intrusion.

New exhibits are costly and funding may be difficult to obtain. Upgrading the text in the exhibits in-house may be the best short-term solution. Computerized graphic programs allow much to be done on-site. Panels of information with new label text and graphics could be created for exhibit cases requiring more interpretation.

Appropriate environmental monitoring is not occurring in the visitor center and is discussed in Chapter 3: Museum Conservation.

MNA

NAVA objects are on exhibit at MNA in the Archeology Gallery and in the hallway between the Ethnology and Archeology Galleries.



MNA exhibit showing display of NAVA textiles

All of the objects appear to be stable. The ceramics lay on glass or Plexiglas[®] shelving with adequate mounts and are not in danger of movement or temperature and RH fluctuations. The organic objects in the hallway are exhibited on slanted, cloth-covered panels. These panels are inserted into oak exhibit cases with glass tops. Oak off-gasses acetic acid that can be detrimental to museum objects. The cases appear to be well coated with a clear lacquer that may reduce off-gassing. Acetic acid test strips, A-D Strips available from Conservation Resources, should be inserted into the cases to ensure that the objects are not being subjected to harmful vapors. If the test strip is positive, removal of these objects from the exhibit may be necessary.

RECOMMENDATIONS

NAVA

Immediate Recommendation (0–6 months)

- Add light filters on light fixtures, windows, and doors if necessary.

Short-term Recommendation (6 months–1 year)

- Upgrade text for NAVA exhibits in-house.

Intermediate Recommendations (1–2 years)

- Redesign and remodel of the Family Home exhibit should include historic pot rings and reproduction artifacts (foods, turkey feather blanket, tools, hunting equipment, etc.), and all items that might be found in a typical family dwelling of the time as well as access, viewing panels, and text panels.
- Construct and install floor level exhibit cases for shelved pots in the lobby or consider the Family Home option.
- Remove loom and fully enclose loom exhibit case.

Long-term Recommendations (2–5 years)

- Submit a project to an interpretive repair and rehab funding source to update and remodel existing visitor center exhibits.
- Consider redesigning the weaving exhibit to include all woolen textiles in the entrance to and inside the auditorium.

MNA

Immediate Recommendations (0–6 months)

- Measure light levels in the hallway and add or remove light fixtures if necessary. Retire objects currently on exhibit and place similar items in cases.
- Insert detection strips for acetic acid in oak cases. Remove objects and retire to storage if acetic acid is detected.

CHAPTER 5: COLLECTION STORAGE

The majority of NPS museum collections are maintained in storage. Providing proper storage access, environment, and equipment is essential to ensuring the long-term preservation of collections. Once an object is damaged, it can never be repaired fully, even using the most costly conservation procedures. In a well-designed storage facility, the effects of deterioration agents can be reduced or, in some cases, eliminated. The design, long-term preventative maintenance, storage techniques, policies, and procedures are a critical part of each park's collection management program responsibilities.

A well-designed storage area should be dedicated solely to museum collections. Curatorial workspace should be separate and storage space for museum supplies, tools, equipment, and reference materials should be located nearby, but not within the same space.

The storage space should be:

- secure with access restricted to staff members with a written designated responsibility for collection management from the superintendent.
- well insulated and capable of maintaining a stable environment.
- adequately protected from fire and intrusion.
- free of water and sewer pipes, junction boxes, utility meters, or other hazards.
- darkened when unoccupied.
- large enough to permit the safe handling and storage of the collection.
- equipped with the proper type and range of equipment to meet collection-specific storage requirements.
- well designed allowing easy access to the stored collections for study, exhibition, research, and accountability.

The *Statement for Management* (NAVA 1987) notes: "The collection storage area is extremely limited at the monument. Because of this, it is likely that additional artifacts will be sent to WACC in the future. Artifacts remaining in storage at the monument will most likely include type collections, inorganic objects, and some objects valuable for local education or interpretive purposes." The monument's new GMP, approved in 2001, states on page 49: "There would be beneficial major long-term impacts from consolidating most of the collections at the NPS Western Archeological and Conservation Center (WACC) or the Museum of Northern Arizona (MNA)." The monument's GMP goal for resource stewardship is to "Ensure . . . museum collection artifacts and archives are properly inventoried, cataloged, stored and secured, and through consultation with affiliated American Indian Tribes, appropriate items are repatriated." The GMP also outlines the primary interpretive themes and points to the needs to update the 1985 SOCS and on page 36 recommends that the monument "develop a Comprehensive Interpretive Plan (CIP)

in order to understand the purpose of the site and how the museum collections fit in with the overall interpretive mission.”

COLLECTION STORAGE AT NAVA

A wide variety of objects are stored in the storage room in the visitor center in various museum storage cabinets, fire-resistant files, and other equipment (see Appendix C). Herbarium, entomology, one geologic specimen, and other possible biology specimens, as well as history, ethnography, and archival materials, are stored there. The majority of the monument’s perishable prehistoric archeological materials, prehistoric and historic ceramics, stone objects, basketry, ethnographic material, and archives are stored off-site at WACC or MNA. Based on the monument’s FY04 CMR, approximately 45% of the monument’s known collection is at WACC; 45% at MNA, and +/- 10% is in storage at the park.

Storage is an odd shaped room located between the utility room and the janitorial closet. The room is small (less than 100 sq. ft.) and rectangular in shape until a corner was walled off to make room for the re-creation of a historic room block in the adjacent exhibit area. The room has doors at both ends; a wooden hollow-core door (not used) with a latch lock leads to the monument’s gift shop and a metal door with a deadbolt lock leads into the other room from a small hallway. An exterior door with a standard lock is the access point to the visitor center utility room, janitorial closet, and museum storage. The storage room is not just devoted to the storage of museum objects, but also serves as a workspace. No dedicated curatorial workspace is available and the park staff uses a small hallway outside the storage area.

The monument’s museum records and some archives and resource management records are stored in two fire-resistant filing cabinets in the storage area. Collections are stored in three standard museum storage cabinets: one half-height herbarium cabinet, one half-height entomology cabinet, and two new visual storage cabinets. Two glass front GSA bookcase sections are located inside the storage area and are used to store curatorial supplies and the curatorial reference library. Cabinets and drawers are not labeled.

A wooden map case with five drawers, located in the Resource Management Office in a modular building in the headquarters area, contains some archival materials (i.e., maps, plans, large format photographs, etc.). The monument should conduct an Archival Survey and Assessment to determine which documents need to be accessioned, cataloged, and stored as museum property. All archeology maps containing sensitive site location data should be secured. Refer to the Trip Report completed by Gwenn Gallenstein, FLAG Curator to NAVA on January 3–5, 2001 for additional background on the collection, storage area, and curatorial recommendations.

The collection storage area is in a hazardous location between the janitorial closet and visitor center heating, ventilating, and air-conditioning (HVAC) room, both of which have potential pipe leaks, fire threats, IPM, and housekeeping issues. The tops of the storage cabinets and files are dusty. The floor and wall edges, corners, and areas under the wooden pallets are dusty and dirty.

Some archeology, ethnography, history, archives, and entomology collections located in storage have not been evaluated for possible accessioning and cataloging.

Many of the individual objects in the monument's collection are properly stored inside padded specimen trays in the standard cabinets, indicating the staff spent time maintaining the collection. A previous seasonal employee completed a drawer-by-drawer inventory. If the inventory locations can be verified, they can be used to update and change the locations on the blue working copies and in ANCS+®.

The artwork has numerous storage and preservation problems. The pencil drawing, *Betatakin*, Sept. 8, 1947 by H. J. Summers located on the wall in the Ranger Interpretation Office, is hung on a pushpin with string and is framed in a non-historic, black wooden frame with regular glass and an acidic mat. The fragile paper is brittle and yellow and has a small tear in the lower right corner. The area has high UV and visible light levels and little security.

The color print, *Navajo*, copyright 1953, by Gerard Curtis Delano, Denver, Colorado, Poertner Lithographers, is framed in a non-historic wood frame (22 in. x 19 in.) with glass, no mats, improper hangers, and string, not picture wire. The print is hung on a finishing nail in the Library/Break room. Six more framed Delano prints in the collection, including *Navajo Boy* and *Navajo Shepherders*, are in the storage area at the bottom of one of the visual storage cabinets. One print, without glass and subject to surface damage, needs to be unframed or have the glass replaced.

A framed 3-D *Navajo Dye Sources* containing real plant material is located in storage. The glass is broken and needs to be removed carefully and replaced with UV filtering glass to prevent fading of the plant material before it is returned to storage or exhibit.

The NAVA *Checklist* needs to be corrected to include administrative art. *Checklist* questions 1–13 should account for the collections materials in these non-exhibit locations.



Wagon outside Navajo National Monument Visitor Center

The wagon exhibited outside the visitor center (during the summer months) next to the replica hogan and sweat lodge needs periodic maintenance and on-going preventative conservation and care. The tongue tip was buried in the dirt and the original wheel beds (meant to protect the wheels from deterioration) have filled with dirt.

COLLECTION STORAGE AT WACC

The center needs to update the facility-wide MHP, the facility-wide IPM plan, and complete an Emergency Operations Plan (EOP).

COLLECTION STORAGE AT MNA

The collections from the monument in storage at MNA are located in nine different buildings. Collections from 15 other NPS sites are located in seven of these facilities, with the exceptions being fine art, history, and library holdings. For specific storage findings and recommendations for the various collection types, refer to the following sections. Work and research areas are not separated from the actual storage rooms in most of the facilities. Some narrow doors and steps exist in the Anthropology building and some storage rooms are created only by rows of cabinetry, not actual walls and doors. Water pipes, utility panels, meters, and, in one case, a hot water heater are located within the various storage facilities. This creates

some hazards to collections and requires maintenance personnel to access restricted storage locations at certain times.

The MNA storage cabinets were constructed of wood and sheet metal in-house and do not meet current museum standards. Many have broken locks, inadequate gaskets, wooden drawers, and runners that stick. The cabinets are not on risers, but rest directly on the floor with a one-inch base. All cabinets need to be replaced. Some cabinet drawers are overloaded making them difficult to open and close. Burrs, splinters, and rough edges exist on a few cabinets which may endanger both collection items and staff members.

Much of the open steel shelving in various MNA facilities is fixed or braced to each other, but the units are not attached to the building's walls to provide extra earthquake protection. Much of the open shelving does not have dust covers to protect collections from dust and minor roof leaks. Vital records and magnetic media containing critical data are not stored in fire-resistant filing cabinets or media vaults to protect this material in case of structural fire. Since none of the MNA storage facilities have fire suppression systems, this is a critical storage issue. Secure, off-site storage at another location in Flagstaff for these vital records and data backups is highly recommended.

In the summer 2004 issue of *MNA Notes*, new Director Robert Breunig states: "Today our magnificent collections—and those of our federal, state, and tribal partners—are stored in aging facilities that no longer meet current museum standards. To delay in addressing this problem will put our collections at risk and undermine our 75 years of collection effort. We must begin immediately the task of building a new Collections Center that will provide for the safe, clean, and environmentally controlled storage of our collections while providing appropriate access to scholars, tribal constituents, and the public."

Numerous surveys and reports dating back to 1988 through the Collections Management Assessment (MAP II) Report for MNA, by Jane MacKnight, May 21, 2004 on behalf of the American Association of Museums (AAM) and other museum professional and conservation organizations have been completed at MNA. An on-site visit by IMR Curatorial Review Team was completed at the request of the regional director in the fall of 2003 after MNA was threatened with the loss of AAM accreditation due to the sale of items from collections to meet operational expenses.

All of these reports have a common theme: MNA is failing to meet professional museum standards allowing the agents-of-deterioration to damage or destroy the collections. A new collections storage facility is needed. All the reports provided information to improve the level of curatorial care at MNA and recommendations for solving or mitigating the problems.

For more detailed information on storage conditions at MNA refer to the draft copies of the NPS *Checklist for the Preservation and Protection of Museum Property* completed by the team for the seven facilities containing NPS collections.

The following summary presents some of the team's major storage issue findings for MNA facilities:

- No fire suppression systems.
- No humidity control.
- No temperature control, other than heating.
- No IPM plan.
- No MHP.
- Obsolete wooden or metal museum storage cabinets that are not raised 4–6 inches on risers or on sanitary bases to facilitate museum housekeeping, IPM efforts, and protect the contents in case of minor flooding.
- The herbarium collection is located in the Pollock building. Currently, there is no IPM monitoring in this location.
- Not all storage materials are archival and some items lack specialized storage mounts.
- Ceiling leaks exist in the Butler building (pottery and bulk archeological collections).
- Ceiling leaks and a potential mold and housekeeping problem exist in the Powell building (ground stone collection).

Since the NPS review last fall MNA has used the NPS *Checklist* to begin prioritizing and correcting identified deficiencies. The windows in storage areas of some buildings are now blocked to eliminate UV light, help stabilize environmental conditions, and increase security. Deadbolt locks have been installed on some doors to enhance controlled access and accountability of collections. Some collections previously located in hallways and other non-traditional storage locations have been moved inside designated storage areas. Cabinets for flammables have been purchased to house liquids and materials used in the paleontology and biology labs.

The review visit identified potential NPS archives, including documents and photographic materials in the MNA Library Manuscript and Photograph Collection. There is no archivist on staff at MNA and there is only a part-time librarian to manage these important collections. MNA currently does not consider these library materials museum collections and they are not catalogued like associated archeological field records in the site files. Many of the materials reviewed by the NPS team contain associated field documentation from projects and activities that may have been completed under federal contracts or other agreements. The Manuscript and Photograph Collection should be surveyed to identify documentation of all NPS projects. The findings should be compared with the holdings of individual parks like NAVA, WACC, and the MNA Anthropology Research Center. Copies should be clearly marked so they are not confused with originals. NPS records are separated from the site files and are stored in a locking fire-resistant cabinet.

All non-archival folders containing archival material need to be replaced with archival folders in the library and in the site file room in the Anthropology Research

Center. Photographic materials need to be interleaved or placed in archival enclosures. Maps, drawings, and other large format materials are folded and should be removed, a separation sheet put in their place, flattened, and stored by production process (blueprints, diazo, cyanotypes, etc.). Mixed storage of these items is not conducive to long-term preservation due to off gassing. After flattening, oversized materials should be placed in appropriate sized acid free folders and stored inside stacking flat and map cabinets. The current library does not have the space required to accommodate this type of storage equipment, so space at another location is needed. Nitrate negatives have been identified and separated from the rest of the collection in a freezer. However, due to a lack of funds, these 8,800 items have not been duplicated onto safety film.

Anthropology Building

Archeological collections from NAVA are stored in the Anthropology building. Two Jumbo GLX cabinets were purchased by the NPS in FY04 as part of a rehousing and storage upgrade of the collection. The cabinets lack leveling feet and are designed to use steel shims to compensate for uneven floors. Shims were placed on each corner but not under the center of the cabinet, which may be cause for the unlevel doors. The factory-installed drawer glides came unglued during shipping and had to be replaced by MNA. Improper alignment of these glides can cause drawers to stick in place.



NPS storage cabinet drawer at MNA showing storage of sandals

A drawer on Cabinet 3 (containing collections from Wupatki National Monument) was stuck and unable to be opened safely. The drawer was labeled so that its glides can be realigned and any excess glue removed by NPS or MNA staff. In

the future, cabinets which have adjustable leveling feet and better doors, glides, handles, and locks can be purchased. MNA has no loading dock and the large, heavy cabinets were difficult to unload using limited staff and volunteer labor.

Cabinet 1 contains 48 drawers and Cabinet 2 contains 42 drawers. All drawers have drawer liners, specimen trays, and artifacts that have been properly bagged and tagged using archival materials. Some paper drawer labels fall out of their holders when the drawers or cabinets are opened. Copies of cabinet and drawer inventories printed on acid free paper are placed in polyethylene page protectors to facilitate object accountability and retrieval. MNA Object Removal Cards are printed on white paper that is difficult to see among the similar paper labels in the drawers.

Generally, the rehousing project was a success, but some drawers are overcrowded and a few items are stacked on top of each other. A few fragile and valuable items have been cavity packed and had polyethylene foam strips placed between or around items to help protect them. In other cases, acid free cardboard strips have been cut to size to subdivide the trays. Some dividers were cut too short and tend to fall over when the drawers are opened or the tray is removed. The placement of some trays, however, allows round objects to roll back and forth when drawers are opened and closed, causing abrasion and minor surface damage. In some cases, objects are larger than the available specimen trays. To alleviate this problem two trays have been cut apart and then refastened to form a larger tray using metal binder clips.

Two tiny white beads, each removed from separate glass vials, have been tied to white string on acid free tags and placed in cavity packed small specimen trays in Cabinet 1, Drawer 3. The beads are so tiny they are extremely difficult to see, especially against the white string.

There is no janitorial closet in the primary storage facility (Anthropology and attached Butler building). A small wooden supply cabinet is used to hold all supplies and small equipment. The site is a possible IPM infestation problem and is a possible health, life, and safety issue since it is located in the hallway next to an emergency exit.

For additional detailed storage recommendations for the NAVA archeological collections refer to the CCS completed by WACC Conservators Gretchen Voeks and J. Brynn Bender in September 2003. See pages 6–11 and 20 in this report on file at NAVA, WACC, and MNA.

Ceramics Repository

The Ceramics Repository is a separate locked room within the Anthropology building. The Ceramics Repository contains the sherd type collection for MNA. The accession records for the entire MNA sherd type collection, including past loans dating back to the 1970s, ceramic research and analysis reports, data, and problem

sherds (unidentified, missing catalog numbers, etc.), also are kept here on an open shelving unit. A four-drawer, standard filing cabinet contains Colton-era files and type descriptions for the entire collection. None of these one-of-a-kind records has been copied and all are located in non-locking, non-fire-resistant cabinets.

Cabinets 3 and 6 contain the type collections associated with NAVA. The cabinets are old wooden and sheet metal design, many of which have lost or broken latches.

Many drawers are overloaded and have sherds stacked on top of each other. The rough wooden side walls stick on the runners and some drawers are difficult to open and close. The bottoms of some drawers are loose and will require additional screws installed into the sides in order to hold their contents safely.

One long-term loan from the NAVA collection was found in a box on a shelf. The shelf contained clay samples that were not in this box and that were not related to the loan. The loan dated from 1995 and had been sent back to MNA from UA in 1998. The box also contained copies of the analysis report, which was also sent to the monument. The sherds on loan were not returned to their proper storage location.

NAGPRA Storage

NPS funded a project in FY05 to relocate the monument's NAGPRA related collections, to reunite human remains and associated funerary objects, and upgrade storage. All NAVA human remains have been transferred to a locked vault located in the MNA Administration building. Existing polyethylene boxes will be replaced with acid free boxes, tissue, and muslin as appropriate. Burial items will be reintegrated with the associated individual remains. Currently the NAGPRA collections are stored on fixed wooden and metal shelving units, which are to be replaced as part of the project.

Natural History Collections

There may be as many as 231 or more natural history specimens from lands belonging to the monument located at MNA. Refer to the database search on locality description. The database searches are preliminary drafts completed by MNA staff and include data from other NPS sites including intermountain and other regions. The collections are stored in three buildings.

Zoological collections are stored in the Marcou building, a poured concrete structure dating to the 1930s and renovated in 1990–1991 as a collections storage area. It is divided into two storage rooms, one that contains fluid preserved collections. The fluid preserved room does not have an exhaust fan to disperse alcohol fumes. Many of the containers have bakelite lids that have cracked. The

remaining zoological specimens (skins and skeletons) are stored in closed wood and metal cabinets.

The herbarium collections are stored in the Pollack building. This building is constructed of cinderblock and divided into two rooms, one for collection storage and one for processing. Herbarium specimens are stored in acid free folders in old metal museum herbarium cabinets and in wood and wood and metal cabinets.

Paleontology specimens are stored in the Brady building, a cinderblock structure constructed in 1966 with NSF funding. The building contains offices, labs, and processing areas and the paleontology collections are in a dedicated storage room. Paleontology specimens are stored in wood and metal cabinets, on polyethylene covered open shelving, or in new metal museum cabinets. Potential NAVA collections contain 2 amphibians, 2 reptiles, 25 birds, 34 mammals, 23 invertebrates, 7 paleontology specimens, 1 geology specimen, and 137 botany (herbarium) specimens.

Currently only portions of the natural science catalog records at MNA have been entered into a computer database. None of the zoology catalog records have been entered, making identification of potential collection specimens from the monument difficult. As of this report, approximately half of the 19,000 paleontology collection specimens have been entered and all of the biology (herbarium) collections are entered. A preliminary search tentatively identified 35 herbarium specimens as NAVA specimens, but research into catalog and associated records will be required to confirm that the site locations are (or were at the time) within the monument's boundaries.



Herbarium cabinet at MNA

The cabinets containing bird skins are overcrowded causing damage to the specimens when drawers are not carefully opened and closed. The windows in the building have been blocked to enhance security and improve housekeeping efforts to reduce windblown dust. The herbarium collection is located in the Pollock building but currently, there is no IPM monitoring taking place in this location.

Complete arsenic testing is needed for all NAVA and potential NPS specimens. This is an important health, life, and safety issue.

RECOMMENDATIONS

NAVA

Immediate Recommendations (0–6 months)

- Establish a short (1–5 page) MHP, with a schedule for who, where, when, how, and what type of cleaning is completed for both the museum storage and exhibit areas. Include a list of required housekeeping equipment, supplies, and vendors.
- Thoroughly clean the storage room according to museum housekeeping standards. Use the existing museum vacuum to clean the floor. Use a crevice tool to clean the hard-to-reach areas behind and beneath the cabinets and in corners where dirt accumulates and potential pest infestations can occur. Dust the tops of the cabinets with soft cotton dust rags. Wash all cotton gloves used when handling collections items. Dispose of those with holes or stains.
- Carefully clean out two-by-four wheel pads for the wagon display located outside the visitor center to remove the wind borne sand and dirt and replace it with pea-sized gravel to ensure proper drainage and to help prevent deterioration of the wagon's wooden wheels and metal rims from excess moisture.
- Always place the wagon's wooden tongue, rod, and shaft on a flat rock to keep it out of direct contact with the soil and moisture.
- Use padlocks to secure the wagon wheels to prevent theft and vandalism.

Short-term Recommendations (6 months–1 year)

- Transfer all museum collections at the park to other repositories as soon as possible for long-term storage (except for exhibit items and incoming acquisitions).
- Transfer all natural history collection specimens to MNA and all cultural collections to WACC.
- Create and store interpretive hands-on collection (non-museum property), type collections, incoming acquisitions, and duplicate research materials and the monument's vertical files in the existing storage space.
- Install dated and labeled insect monitoring traps in the corners of the storage area along the walls near the door where most insect activity occurs. Create a Trap Map for the locations of trap placement within the storage and exhibit areas so that traps can be checked and replaced as required. Inspect and record the types of insects

captured. Remove full traps to prevent them from becoming attractants for other pests or infestations. Place all IPM baseline data into an IPM file.

- Consolidate all existing history and ethnography collections in the two newest (tan) standard museum storage cabinets and use existing drawer-by-drawer 100% inventories to identify the location changes for the items on the working copies and in ANCS+[®]. Consolidate all cultural and ethnography collections into the empty spaces within the existing drawers. Relocate, readjust, or add drawers to fill up the two new and one old (gray) cabinet. Surplus standard drawers may be available from the museum program at FLAG. Reorganize the cabinet contents by separating the archeology and ethnography objects into two groups. Store these two disciplines according to their material type. Place empty specimen trays in drawers to keep contents from shifting.
- Label all cabinets, files, and drawers.
- Return the unused half-height herbarium cabinet in Residence 3 to the storage area and replace the deteriorated felt gasket with a new neoprene gasket. Place both herbarium cabinets stacked on top of each other at the end of the storage area in front of the hollow-core wooden door to the Gift Shop to enhance security of the storage space.
- Loan the herbarium collection, entomology collection, and one geology specimen to MNA for evaluation, identification, and if justified, accessioning and cataloging or possible disposal.
- Purchase a small folding table, pad the top with a polyethylene foam sheet for working with collection items, and use the metal folding chair. Purchase a task light to provide adequate lighting until the collections can be transferred to MNA and WACC.
- Carefully unframe the Summers drawing and Delano prints and place them inside one of the existing acid free map and flat folders. Place acid free interleaving sheets between each print and drawing to help protect them. Place the map and flat folder containing the prints and drawing inside the acid free storage box and store it horizontally in one of the museum storage cabinets.
- Make a high quality Xerox[®] of the Summers drawing, place it back in the frame, and hang it in the same location, if desired. Mark it as a copy and note on the back of the frame that it is “Not Museum Property.”
- Correct the *Checklist* to include administrative art.
- Replace the broken glass with UV filtering glass on the *Navajo Dye Sources*.
- Vacuum the wagon bed before storing it in the garage for winter.
- Cover the wagon with a plastic or canvas dust cover (drop cloth) to protect it while in storage.

- Place the wagon harness trees (currently located in the Pink Hogan) in museum storage until they can be determined to not be museum property (i.e., component parts of this wagon).
- Remove loose wagon parts, including the damaged wooden seat and loose board with nails on the undercarriage, to museum storage. Document their original locations on the wagon. Establish a written policy for the date when the wagon is placed outside the visitor center and returned to storage each year.
- Use appropriate wagon nomenclature to improve catalog data and interpretive efforts.
- Use wheel chocks on the wagon when it is in storage.

WACC

Long-term Recommendations (2–5 years)

- Work with the other northern Arizona parks and monuments to submit a multi-park Project Management Information System (PMIS) project to complete the projects at WACC for the benefit of all the sites with collections at the center.
- Secure the following equipment and supplies:
 - Tables for the conservation labs.
 - Restraining bars or cords for open pottery shelving.
 - Specialized storage containers and mounts. See WACC CCS Item 26.
 - Specialized archival storage equipment and inert containers for re-housing collections from parks.
 - Storage rack for rolled archives supplies
 - Conservation carts for use in the archives workroom.

MNA

Immediate Recommendation (0–6 months)

- Repair ceiling leaks in the Butler building near heating units. Insulate the overhead garage door.
- Reinstate IPM for the Pollock building.
- Secure the following equipment and supplies:
 - Specialized storage containers and mounts. See CCS, G. Voeks 2004.
 - A janitorial cart and cleaning tool organizer.
 - A high-efficiency particulate air (HEPA) vacuum.

- Task lights and microscope for herbarium study area.

Short-term Recommendations (6 months–1 year)

- Replace any existing non-archival brown paper and plastic bags (sandwich bags with twist ties) with inert polyethylene Ziploc® type bags. Record field data written on the outside of paper bags onto acid free paper, place inside with artifacts, and record on the catalog records in ANCS+®.
- Brace all open shelving to the facility walls and columns to improve earthquake protection.
- Survey the nitrate images to determine which negatives from NPS areas need to be duplicated including a transfer to WACC. Funding for duplication of NPS nitrates is available from the Museum Management Program, Washington Office (MMP-WASO).
- Replace the non-archival folders and other improper storage enclosures with NPS museum approved materials.
- Remove, flatten, and re-house all oversized documents.
- Add a rubber gasket seal to the bottom of the overhead door or install a sill on the ground and fill and recaulk all ground level openings to help prevent pest and dirt entry into the storage space.
- Replace polyethylene dust covers on open shelving and use magnets to secure them in place and prevent false alarms to the security system caused by blowing dust covers. Heaters also could be equipped with sheet metal fins or vents to redirect the hot air away from the shelving.
- For more information see the Jobmaster website at: <http://www.jobmaster.com/index.html> regarding BH-500 black badge magnets.
- Purchase media vault or store vital records and database information in a secure, off-site location.
- Consider stapling the corners of the foam to the bottom of the wooden drawers to prevent it from slipping and bunching up inside the drawers due to frequent use.
- Install polyethylene drawer liners in the right half of Cabinet 3, Drawer 11 to pad the sherds from the rough surface and edges of the wooden drawers.
- Consider using specimen trays or bags for sherds that have glued-on NPS paper labels to prevent wear and tear in the over-crowded drawers.
- Return the sherds from UA to their proper storage location and file the destructive analysis report with the appropriate site records.
- Consider microfiche or creating archival paper copies of one-of-a-kind records in the Ceramics Repository and store off-site.

- Remove surplus and obsolete or unused equipment stored in the Ceramics Repository. Pad the tops of the researcher work tables with polyethylene foam or quilted furniture pads to help protect collections while in use.
- Place all natural history specimens in specimen trays, where practical, to facilitate safe handling. Purchase additional cabinets to alleviate overcrowding.
- Transfer the wet specimen bat (MNA Z9.513) from the monument, currently stored inside an old olive jar, to an approved glass specimen jar with the appropriate lid and seal.
- Move the wet specimen insect collection located in the zoology area into a wet specimen storage area.
- Replace old green felt gaskets on the herbarium cabinets with new neoprene or silicone gaskets.
- Purchase a HEPA vacuum and accessories for use in collections management tasks and to clean the tops of cabinets, corners, floors, cracks, and under storage cabinets effectively. Use a crevice tool to get at hard to reach places.
- Develop Handling Guidelines for the other natural history specimens similar to the existing Herbarium Handling Guideline.
- Complete arsenic testing for all NAVA and potential NPS specimens.

Intermediate Recommendations (1–2 years)

- Upgrade the specific storage containers, beginning with the natural history specimens, known to be from the monument.
- Replace the non-archival folders, bags, plastic vials, twist ties, and other improper storage enclosures with NPS museum approved materials.
- Replace the wooden stretcher bars in the wet specimen storage facility (Marcou building) with high-density polyethylene planks.
- Transfer all other NPS wet specimens to appropriate containers and install a ventilation system in the facility.
- Add acid free covers to identify genus and species organized alphabetically by family for each bin inside herbarium cabinets. Cut them to the size of the bins (width only and 1–2 inches longer than depth and fold down over the bin edge) to help staff and researchers access and retrieve fragile specimens. This will also protect fragile specimens from unnecessary and improper handling. This would be a good project for a supervised and experienced herbarium volunteer.
- Purchase drop-front herbarium boxes for use in the cabinets or sheets of quarter-inch thick polyethylene or acid free cardboard to support herbarium folders. These can be used in storage and when moving them to and from the storage cabinets and the study area tables or workroom. Cut sheets to the bin size (width and depth) to help protect fragile specimens from improper handling.

Long-term Recommendations (2–5 years)

- Survey and inventory Library Manuscript and Photograph Collection holdings for NPS records related to the archeological site files. Make copies for MNA (if required) and transfer original materials to sites files, especially materials containing NAGPRA information with restricted access.
- Purchase map and flat files and acid free folders to properly store these materials by production type. Determine a secure storage location for oversized materials that cannot be kept in the library.
- Consider installing additional lighting to enhance collections related activities (inventory, housekeeping, IPM duties, etc.) in the Butler building. Purchase a motorized scissor-lift, ladder, or platform for working with collection boxes located high on the shelving units.
- Purchase mobile, caster-based chrome plated carbon or stainless steel metal shelving for the small vault.
- Follow the draft IMR Guidelines for Handling and Storing Human Remains.
- Submit a PMIS project to research the locality and collection data related to specimens possibly from the monument and confirm those proven to be NPS property. Purchase the required inert materials to properly store these natural history collections.

CHAPTER 6: FIRE, SECURITY, AND EMERGENCY PLANNING

Due to the sensitive nature of the information contained in this chapter it has been removed from the plan and appendices. If you require this information please contact: Superintendent, Navajo National Monument, HC 71 Box 3, Tonalea, AZ 86044.

CHAPTER 7: ARCHIVES

The documentary records at all NPS units are indispensable historical materials. Documentary materials are divided into two broad categories: museum archival and manuscript collections (non-official records) and official NPS records. Official NPS records are managed according to NPS-19 *Records Management Guideline*. The non-official records of a monument are managed as part of the museum collection.

This section summarizes the current status of NAVA Museum Archival and Manuscript Collections and official NPS records at NAVA, WACC, and MNA and provides recommendations for their management.

RECORDS MANAGEMENT PROCESS

NPS Records Management Guidelines designate the original (Central File copy) of specific Official Records to have permanent value to the U.S. federal government. Some have temporary value, with the retention specified by file code in NPS-19, Appendix B. Only permanent Official Records in the monument central files should be transferred to the Federal Records Center. There should be no need to create duplicate copies if the copies created earlier with the originals have been well managed and protected in monument division files or the monument archive. NPS-19 directs parks and monuments to start new file-coded file folders every three years. Older files can be boxed for review by a staff committee to determine retention, transfer, or disposal. Choices would include transfer to museum storage, transfer to the Federal Records Center, duplicates to a vertical or reference file, or disposal.

If all phases of records management are accomplished, separating folders of permanent central files (Official Records) from temporary monument central files (Non-official/Sub-official Records) should become straightforward.

NAVA

The monument currently does not use standard processes for the transfer or disposition of monument records.

Staff members assigned records management responsibilities should be experienced with NPS standards for records management as outlined in NPS-19. SOP should be established to ensure the proper culling, retention, disposition, and transfer of records and:

- officially designate a Records Manager.

- define who will be involved in the review process (archeologist, collateral duty curator, administrative officer, or superintendent).
- define resource management records.
- outline a path of transfer from central files to museum collections.

Records should be evaluated for transfer to the central files or museum collections upon project completion, staff attrition, and scheduled annual transfer or disposition.

Project completion. At the completion of any project (report, exhibit, rehabilitation, program, demolition, research, or documentation), official copies of records (final product plus documents of decision) go to central files; one copy of the final product is deposited with the monument's reports collection, and a copy of the entire project record including the final report is transferred to the museum collections.

Staff attrition. At a staff member's departure, records are evaluated by a Records Management Review team for transfer to central files, transfer to the museum collection, or for retention or a disposition schedule.

Scheduled annual transfer or disposition. Once a year, division offices with the assistance of the Records Management Review team should cull their files for inactive records to be transferred to central files (official copies of records) or to monument archives (for non-official/resource management records). This effort should prevent an accumulation of backlog, saving space in divisions, and ensuring that materials are accessioned promptly into the museum collection. October to January is an ideal period to schedule this review.

MUSEUM ARCHIVAL AND MANUSCRIPT COLLECTIONS (NON-OFFICIAL RECORDS)

These include all types of documentary records that contribute substantially to understanding, interpreting, and managing the monument's cultural and natural resources. These non-official records are managed as part of the museum collection.

Personal Papers

Personal papers are defined as "...the records that have been created or accumulated by an individual or a family. Personal papers or papers associated with the history of a park (e.g., with a park's founders, formative staff, or eminent

associated individuals) may be acquired for the museum collection.” Items from the MNA library and manuscript collections that likely contain material owned by NAVA include:

- Milton Snow Collection
- Byron E. Cummings Collection (transcriptions at MNA, originals at ASM or AHS)
- William Miller Collection
- John G. McGregor Collection
- Colton Family Papers
- Lyndon Hargrave Papers (unprocessed)

Organizational Archives (Acquired Archives)

Organizational archives are defined as “...organic collections created by an organization as a routine part of doing business, such as correspondence, fiscal, and personnel records. A park may acquire organizational records that are related to or associated with its mission or history before its establishment (e.g., the Edison Archives at Edison National Historic Site).” Material includes:

- General Land Office Records (A. E. Douglas)
- CWA Records (possibly)
- MNA Records (possibly)

Assembled Manuscript Collections

Assembled manuscript collections are ephemeral collections, both locally associated and without local association, such as trading posts in the Southwest and Navajo sheep and farming practices in the early 1900s. No records were identified.

Resource Management Records

Resource Management Records are made or acquired by a park or monument to record information on cultural and natural resources. Records include superintendent, curatorial, interpreter slides and reference, natural resource management and wildlife observation, maintenance (building, landscape, utility), research and project planning files, and historic photograph collections. They also include the documentary project records of archeological surveys and excavations, natural resource surveys, historic structure and cultural landscape research, scientific projects and various natural and cultural resource maintenance projects. These

records document monument resources and serve as information bases for their continuing management.

The following contain archeological project records:

- Transverse Survey, 1909 (A. E. Douglas)
- Northeast Arizona Expedition
- Turkey Cave, 1929 (Gladwin)
- Rainbow Bridge Monument Valley Expedition, 1933–1938
- Keet Seel (CWA), 1933–1934
- Inscription House, 1939 (C. Steen)
- Excavation of Turkey Cave, 1963 (David Breternitz)
- Inscription House, 1966 (Gummerman, Ward)
- Archeology on the Shonto Plateau (Keith Anderson)
- Survey of Rock Art (Polly Schaafsma)
- Chronological Analysis of Tsegi Phase (J. Dean)
- Midden Excavation, Keet Seel, 1964 (Keith Anderson)
- Navajo Archeological Survey, 1988

Research and project planning files include associated records (master plan, GMP, and monument projects). The following contains these types of records:

- Betatakin Stabilization, 1939 (James Brewer)
- Inscription House Ruins Stabilization, 1958 (Roland Richert)
- Stabilization of Inscription House, 1966
- Betatakin Trail Study, 1985

The historic photograph collection, 1911–1989, also contains resource management records.

Sub-official Records

Sub-Official Records are copies or duplicate documents (e.g., carbon copies, copies of internal policies and procedures, desk files, reports, or subject files of individuals or offices) that are useful for reference, administrative histories, interpretation, research, and other informational purposes.

OFFICIAL NPS RECORDS

Records created for purposes other than reference or exhibition are considered official records. After official records are judged to be non-current, they must be disposed of in accordance with the records schedule provided in NPS-19 *Records Management Guideline*.

- Inactive records should be maintained by NAVA or transferred to an appropriate NPS repository such as WACC, DSC TIC, etc.
- Active records include museum records such as accession books and documentation and should be maintained by NAVA.

LIBRARY

In general, the library is made up of books and serials that are not rare or other published reference materials. These are housed in park and office libraries and managed according to *Special Directive 94-1 National Park Service Library Program* and NPS-84 *Library Management Guideline*, not as part of the museum collection. Books and other library materials used in exhibits or as furnishings in historic structures, retained for their physical properties, their associated value, or considered rare, are always managed as part of the museum collection. These materials may be cross-referenced to other research resources including museum archive and library finding aids (indices and card catalogs).

NPS RECORDS

Records created by and for NPS during the course of business are federal government records. Published regulations govern the creation, care, and preservation or disposal of federal records to ensure these records are managed effectively and available when needed. The resource management records are critical to ongoing monument management and retain permanent value, whatever their age. In contrast, most of the administrative records document more routine aspects of monument management, such as personnel and finance. NPS file codes, as defined by NPS-19 *Records Management Guideline*, outline both Resource Management Records and Administrative Records.

Retaining the monument NPS records within file-coded folders provides important historical context. If these files are broken up, rearranged, or items pulled out, the historical context for understanding decisions and sequence of events is lost. The informational value is complete only when the records are left intact. Thus, part of the information and evidential value of records is derived from the association of groups of records, as well as the information contained in each document.

NAVA Resource Management Records

Superintendent's Records. These consist of reference files, current project files, interpretation and lands files, case incident reports, stabilization reports, and central files located in a three-drawer file cabinet. Original planning documents (1964 Master Plan), project records, the original land appraisal report for the monument, an outline of the Austin family tree, and central files were found in a bookcase in the office. Case incident reports need to be consolidated with the Chief Law Enforcement Officer under restricted access in a locked cabinet.

Maintenance Division Records. Park maintenance records include resource management records for preservation and construction projects. Records that may appear to be resource management records are often resource related. For example, plans for buried utility lines hold important information for an archeologist who needs to document where the ground has been disturbed.

A surprisingly small number of maintenance records were found at the monument. Four garbage bags of rolled maps, plans, and drawings were found in the maintenance shop along with a box of project reports, central files, and a small box of photographs. The maps, for the most part, are original project drawings and plans. These records should be checked against those held at DSC TIC and WACC. They may represent the only original drawings for a project. The monument archeologist removed these to the Cultural Resource Office to ensure their safety. Original blue prints, diazo prints, and some copies of maps and plans were found in a map case in the Chief of Maintenance's office, many that were rolled or folded. These records include archeological project and resource management maps, exhibit plans, photographs, and over-size aerial photographs on Mylar®. General reference material, IPM information, procurement, and current and non-current project files relating to new construction and stabilization were found in two, two-drawer file cabinets. Copies of a power plant project on the Colorado River were found in the Transa® unit located in the bone yard.

Interpretation Records. Interpretation records are stored in the Chief of Interpretation's office in a five-drawer file cabinet. The files include copies of old interpretive programs, reference files, visitation statistics, first aid information, education program documentation, and weather recordings for 2003 and 2004. An access study for persons with disabilities was found in Drawer 2. General management planning documents were found in Drawer 4. Drawer 5 consisted entirely of central file records. The Betatakin Fire Trail Report, a monument resource management record, was identified in Drawer 3. One drawer of interpretive files located in a five-drawer filing cabinet in the closet could not be accessed because the drawer could not be opened. Drawer 1 of this filing cabinet contains case incident

reports and ranger protection files. (Case incident reports need to be consolidated with the Chief Law Enforcement Officer with restricted access in a locked cabinet.) Drawer 2 contained records from the central file, Drawer 4 contains law enforcement manuals and handbooks, and Drawer 5 contained central file records and general reference information.

Natural Resource Management Records. The Chief of Interpretation has oversight of the monument's natural resource management program. Resource management assessment program profile documents and threatened and endangered species research materials and requests were found in the office in the fourth drawer of the five-drawer file cabinet located in the main part of the office. Copies of natural research reports and the monument's back-country management plan were located in the top drawer of a lateral file.

Visitor Protection Records. Visitor protection records were found in a file cabinet in the closet of the Chief of Interpretation's office and in a lateral file in the Superintendent's office. Records in the Superintendent's office consist of current case incidents, training, and general law enforcement information. Records in the first drawer of the file cabinet in the closet of the Chief of Interpretation's office consist of general protection files and case incident reports. Protection records also were found in Drawer 4 that contain law enforcement handbooks, memoranda, and manuals. Some case incident reports and law enforcement records were found in Drawer 3 of the five-drawer filing cabinet located in the main part of the Chief of Interpretation's office.

Cultural Resource Records. Records in the Cultural Resource office were found in a five-drawer map case; two, two-drawer filing cabinets; and on the desk of the monument's archeologist who has collateral curatorial duties. Drawer 1 of the map case contains a diazo print of the Keet Seel floor plan, USGS quadrangle maps, copies of maps with rock art, and a map of drainages in the monument with site location information. Drawer 2 contains diazo prints of Glen Canyon and archeological base maps. Drawer 3 is full of aerial photographs from 1952, 1958, 1961, and 1987. These aerial photographs should be checked against those at WACC to see if they are duplicates. Copies of geological maps annotated with site locations were found in Drawer 4. Drawer 5 contains copies of pages from the monument's Master Plan and a rendered drawing of the NAVA entrance sign. The drawer also contains a linen-backed NAVA index sheet (associated drawings 2 and 3 were found in the map case at the maintenance office).

File Cabinet 1 contains compliance-related and project information. This cabinet also has building files the archeologist gathered from around the monument. The Building files contain recent information added by the archeologist and important historical data. Many have photographs or drawings and provide details of each

building. For example, documents detailing the construction of the visitor center (resource management project records) are located here. These records are a significant resource for the monument and should be separated from the new material and moved to museum storage. File Cabinet 2 also contains a mix of records. Drawer 2 research files contain copies of articles, original project reports, and records from the central files arranged geographically and therein alphabetically by author. The research file is composed of original reports, bulletins, and journal articles. Some of these records have been removed from the library. The records in both file cabinets have been rehoused into acid free folders, but many of the items should be separated and moved to museum storage.

Two book shelves at the far end of the Cultural Resource office hold manuals and handbooks, copies of project reports, and books from the library. Two project folders were found on the archeologist's desk

Museum Storage

Museum storage is located on the west side of the visitor center and is situated between the building's heating system and the main water pipes. The small storage area is not climate controlled. Archeological objects, herbarium materials, project records, central file records, accession records, photographic material, and library items (i.e., rare books) are held here.

Accession Records. The accession log, accession files, catalog book, inventories, and the accession card file are located in two locking file cabinets. All accession documentation should be removed from File Cabinet 1 and placed in the Accession Files created by the monument's archeologist in Drawers 3 and 4 of File Cabinet 2. Print-outs of catalog records from MNA and WACC (formerly Southwest Archeological Center) are located behind accession folders in Drawer 4 of File Cabinet 2. Blue working copy print-outs of ANCS+® records are stored in File Cabinet 1, Drawer 4. The accession card file and the museum and special collections catalog file are located on top of File Cabinet 2. A rare book listing, a library accession book, and information on a stolen pot were found on top of File Cabinet 1. These items should be moved to the appropriate folder in the accession drawer.

Archeological Project Files. Archeology project records are currently arranged by author in File Cabinet 2, Drawer 1. The records have been placed in acid free folders and are labeled with NPS-19 file codes (although not the appropriate code). The project information should be arranged by project. The records consist of field notes, photos, and documentation associated with archeological excavations. Some resource management project records are filed here (water quality data).

Photo-documentation and Electronic Media. Photographs and electronic media are located in a glass front File Cabinet 1 at the rear of the storage area. Twenty boxes of photographs and negatives of various sizes documenting stabilization projects, maintenance projects, collections, dedication ceremonies, archeological projects, staff activities, and general reference are on the second shelf of the cabinet. The photographs and negatives should be cross-checked for duplicates with the photographs at WACC and MNA. In some instances the photographs and negatives in Museum Storage may be the only ones that exist for a particular project. The box of photographs removed from the maintenance shop can now be found on the first shelf of this cabinet. The black and white photographs are primarily 3 x 4 inch and document stabilization and archeological excavations. Four canisters of a 16 mm film of the dedication ceremony for the visitor center and a 6.5 mm copy are located on the same shelf. One box of oversized black and white photographs of the ruins, possibly used for exhibits, is on the top shelf. Two scrapbooks of photographs and newspaper clippings, a historic reference of *Navajo Language Monthly* (1947–1950) and a rare book, *Portraits from North American Indian Life*, are located in the cabinet. Most of the photographs have been rehoused into acid free folders and boxes. The scrapbooks and the rare book need rehousing. Many of the book pages are detached and may be displaced from the binding.

Rare Books and Library Material. Glass front File Cabinet 2 in Museum Storage contains the rare book collection and library material that monument staff consider valuable for research. Many rare books are actually original project reports (stabilization and excavation) that are part of the monument's resource management records (archeological and research project files). These should be stored by provenience, if possible, with the associated documentation. Rare books that are not project documentation should be, according to NPS policy (NPS-19, NPS-28, etc.), considered museum property, accessioned and cataloged into the museum collections, and stored separately from the library material (see library section). The Southwest National Monuments Monthly Reports are an important resource as is the information held in a green binder titled Southwest. These items should be accessioned into the museum collection. A binder of central files was found sitting on top of the Southwest National Monuments Monthly Reports. This group of records should be moved to File Cabinet 1 with other central files. Project stabilization reports and excavation records for Inscription House were found on the third shelf of this cabinet. These items should be processed with corresponding project files.

Other. A small green cabinet situated on a built-in shelf in Museum Storage contained card files with information about the monument's buildings and some herbarium references. The cards with building information should be cross-checked with the building files located in the Cultural Resource Office. The cards with

herbarium data could not be associated with the herbarium collection. NAVA and Daniela Roth at MNA have catalog data for the herbarium collection.

The green binder, Museum Exhibit Plan, details the exhibit and items used in the exhibit. A receipt for property lists the items. A copy of this receipt should be placed in the accession file for reference. Zip disks containing backup ANCS+® data should be moved from the open shelf to a file or media cabinet.

Sub-official Records. Sub-official records include administrative division records. These files are copies or duplicate documents (e.g., carbon copies of internal policies and procedures, desk files, reports, or subject files of individuals or offices) that are useful for reference, administrative histories, interpretation, research, and other informational purposes. (NPS-28, 141)

Central Files. Central files are separate from project files and general reference files. For example, monument general reference files and library vertical files are (or should be) comprised of photocopies rather than originals of other files, articles, etc., to prevent the destruction of the monument central files and resource management project files. Monument central files were found in two buildings.

Current active and non-current files (1979–present) are located in the administrative offices in the visitor center. A box of current (1998–2002) files were located in the visitor center storage annex next to the Library. Inactive files were found in the Chief of Interpretation’s office and the Superintendent’s office. Some non-current files (1970–1980s) were found in the Pink Hogan near the bone yard.

Most of the older monument records are in Museum Storage in the second drawer of File Cabinet 2. These records have been rehoused into archival folders arranged chronologically, labeled correspondence and monthly narrative reports.

Personnel Records. Current personnel records are kept in locked cabinets according to NPS policies for privacy-restricted records. Personnel records were found in the locked Tuff Shed® behind the Cultural Resources office. Personnel files should be managed according to NPS-19 and with guidance from the Regional Office personnel staff.

Museum Management Records (Official Active Records)

Museum management files are permanent records that are kept at the monument no matter what their age. Park museum records should never be sent to the Federal Records Center and should remain in close association with the museum collections that they document.

Casual management of the monument accession records has resulted in multiple accession and catalog numbers assigned to single projects for records owned by

NAVA and held at MNA and WACC. The accession book and accession files are legal documents that prove the monument owns specific objects, archival collections, etc. or that specific items are on loan. The monument's archeologist recently created accession folders (found in Drawers 3 and 4, File Cabinet 2, Museum Storage) for many of the accession numbers found in the accession log book. At present each folder contains little or no information. Accession documentation (receipts for property, collection inventories, loan documentation, etc.) was found in File Cabinet 1, Drawers 1 and 2 in Museum Storage. This documentation should be placed in a corresponding accession folder. Accession files, log books, catalog books, museum exhibit inventory, and annual inventories should be kept in a locked cabinet or drawers specifically designated for accession documentation.

Use and Access

Archival materials should not be signed out of Museum Storage to employees or outside researchers. Archives use should be supervised by curatorial or museum staff or designated volunteers. All researchers, including monument and NPS staff, should sign a form agreeing to the restrictions of use and listing the materials examined. Researchers should use an assigned area outside of collection storage to view materials.

According to NPS policy (NPS-19, NPS-28, etc.) the monument has a responsibility to process and manage monument records so they are readily available for staff and other researchers. Researchers should use copies of originals, available in the library, maintenance drawing files, vertical files, slide cabinets, etc., whenever possible. Storing originals or older copies in Museum Storage assures the monument has a protected copy. Restricting use of the original or preservation copy increases the longevity of these materials.

The NAVA Museum, Archives, and Library Collections Survey conducted with NAVA staff in August 2004 suggests that the fragmented and unprocessed condition of the archival collections at the monument limits research by staff and outside researchers. Survey respondents indicate that a list of holdings for conducting research would be beneficial. Most repositories restrict access to unprocessed records to prevent disorganization of undocumented records in box and folder lists and finding aids. Until the records at NAVA are processed and cataloged, access should be controlled and limited to ensure longevity and safeguard original order.

Library

Approximately 1,100 books are cataloged and organized by the Library of Congress classification system in the monument library. The library materials are well

organized and cataloged into the NPS Library Program's standard system, Procite. The library is located in the conference/lunch room of the visitor center. Library material is stored in glass-front shelving units behind the conference table. The published material includes project reports, regional archeology, general area references, and native culture and history. There are a number of significant project reports in the library. These should be examined, inventoried, and potentially removed to the museum collection. In some cases they may be the only examples in existence. Four shelves of library books and the monument's rare book collections have been moved to museum storage.

The Library Operating Policy for the monument includes rare books as library material. According to NPS policy (NPS-28, NPS-84, Special Directive 94-1), library materials are books and serials that are not rare and other published reference materials that are housed in monument and office libraries. Rare books should be considered part of the museum collection. The monument's rare books should be separated from the library material now in museum storage and accessioned and cataloged into the museum collection.

The Wildlife Card File and the Fact File are stored on top of one of the library shelving units. The Wildlife Card File is a chronological list of wildlife sightings around the monument from the 1930s through 1990s. The Fact File is from the 1920s and contains interesting facts, antidotes, and tidbits about the monument, people, and places of the Colorado Plateau, and general trends in the field of archeology. Both card catalogs contain important and irreplaceable data and should be moved to Museum Storage. These card catalogs can still be used for research and preserved in the archives.

A slide photograph cabinet in the library holds slides for interpretation. Interpretive rangers assembled the collection in the 1980s. The slides date from the 1960s. A Transa[®] unit in the bone yard had a slide cabinet full of interpretive slides that may be duplicates. Slides should be reviewed to determine which have archeological field documentation that need to be cataloged with the associated field record. Many slides document historic landscapes and historic buildings. These important documentary images are irreplaceable. Copies of slides which document monument resources should be cross-referenced with the slides in the Transa[®] unit in the bone yard and then duplicated if necessary. Archeological slides should be given a high priority.

A media cabinet contains five audio cassette tapes of staff training new NAVA interpreters. There are approximately 50 training and general information video tapes plus the superintendent's budget address in 1996.

WACC

Archives. NAVA archives are located in archival storage at WACC. Archival records from the monument encompass ruins stabilization, projects, excavations, and resource management records from 1930–1984 (accession 552, miscellaneous correspondence, and the 1933–1984 master plan). Records are housed in archival folders and acid free boxes on compact storage units. Oversize maps and plans have been separated and housed into archival folders in the map drawers. Separation sheets are used to associate the oversize records intellectually. Blueprints are housed separately from diazo prints. Photographs are housed into archival photo folders and placed in acid free boxes. Approximately 6,700 items have been processed and cataloged (86 ANCS+[®] catalog records). The monument's historic photograph collection has been inventoried at the item level and digitized. A CD should be sent to the monument containing the catalog records and the scanned images. A survey of negatives held at WACC is complete and the nitrate negatives are separated and duplicated.

WACC recently received approximately five linear feet of NAVA archeological project records and resource management records (1981 visitor center exhibit) from IMRO-SF. During processing, archive technicians noted duplicate accession and catalog numbers had been assigned to some of the records. At the time of the CMP visit, MNA Collections Manager and CMP team leader Elaine Hughes provided WACC with a copy of the NAVA ANCS+[®] database from MNA. NAVA Archeologist Brian Culpepper also provided an updated version of the monument's ANCS+[®] database to WACC archivists. The archives team at WACC is in the process of reconciling duplicate accession and catalog numbers assigned to NAVA archives at WACC and MNA.

Library. The library has an extensive collection of books, journals, and reports about the state and region with an emphasis on NPS publications. Materials are well organized and are cataloged in the Library of Congress system and available through Voyager. The scope of the library is to collect all publications from regional parks and monuments or contractors working on NPS sites. The library is a repository for copies of final project reports, which in some instances may be the only copy. Eighty-two project reports dating from 1911–2003 were found in the library database.

MNA

MNA has long been associated with NAVA. The relationship began with scientific oversight by MNA of excavations undertaken by the CWA at Keet Seel Ruin in 1934.

Since that time, MNA has sponsored projects at NAVA and functioned as a repository for many NPS collections from around the Colorado Plateau.

The associated project documentation in the MNA Site File is of particular importance to NAVA. The records housed at MNA represent a significant portion of NAVA's archival collections and date from the time the monument was established in 1909 until the mid-1970s. Currently, work is underway at MNA to inventory and catalog all NAVA collections. Much work remains to bring the records up to NPS standards outlined in NPS-28 and *Museum Handbook*, Part II, Museum Records, Appendix D.

MNA has approximately 582 linear feet of unprocessed archival records that may contain information relating to NAVA (collections, geology, library, geology library, zoology, and biology contracts associated documentation).

Harold S. Colton Memorial Library. Manuscript Collections, part of MNA's collection, are housed in the library archives which is not a climate controlled building. A review of the manuscript indices reveals a number of collections that may have associated documents from projects conducted under federal permit at NAVA. Federal Register 36 CFR part 79 states, "Data that are generated as a result of a prehistoric or historic resource survey, excavation, or other study are recorded in associated records. . . .Associated records that are prepared or assembled in connection with a federal or federally authorized prehistoric or historic resource survey, excavation, or other study are the property of the U.S. government regardless of the location of the resource. . . . The regulations. . .apply to preexisting and new collections."

Manuscript (MS) collections (including photographs) at MNA that may relate to this ruling are:

- MS 11, Alexander J. Lindsey Collection
- MS 17, Byron Cummings Collection (originals reside at AHS)
- MS 93, Dean Cummins Collection (also includes Neil Judd)
- MS 115, Neil Judd Collection
- MS 122, Rainbow Bridge Monument Valley Expedition (includes Ansel F. Hall and C. G. Crampton)
- MS 144, Weatherill Collection
- MS 179 and 192, Albert Ward Collection
- MS 255, Jessie W. Fewkes Collection
- MS 285, Bill Miller Collection
- MS 304, John G. McGregor Collection
- MS 315, Milton Snow Collection

A thorough inventory of the Manuscript Collection by MNA and NAVA site number will determine which records belong to NAVA.

The Manuscript Collections are located in the manuscript vault in the Library Archive on eight shelving units and in eight filing cabinets. Four binders of indices, one arranged alphabetically, the others by MS number, can be found near the circulation desk in the Library. Some discrepancies were noted between the index references and record arrangement. For MS 285, Bill Miller Collection, the index reference listed the material by folder. Examination of the records revealed that the folders lacked any sort of labeling except the MNA site number.

The photographs and negatives have been separated from the associated documentation and placed in acid free folders in archival boxes on the shelving units. Most of the photographs were rehoused into Mylar[®] photo sleeves and acid free folders. In some instances, multiple photographs or negatives were grouped together in one sleeve. The associated documentation has been placed in archival folders. The MNA site number and the MS number are written on the folder.

Photographic Archive. Approximately 700 NAVA photographic prints and negatives are cataloged in ANCS+[®]. Photographs and negatives are stored in the manuscript vault in the Library Archive. The photographs are arranged by MNA site number and therein by subject. Most of the photographs are stapled to acidic catalog cards some have been placed under Mylar[®]. In a few instances, negatives were found with prints. The MNA site number and NAVA accession and catalog numbers are written on the edge of each print and negative. The photographic prints have been scanned and linked to ANCS+[®] records. A CD with the records and scanned images was sent to the monument.

Library. Approximately 86,000 books, magazine, and journals make up the library at MNA. The library card catalog is also a reference for the manuscript collection. The library is organized under the Library of Congress catalog system. Library materials focus on the archeology, history, and culture of the Colorado Plateau (and are a great secondary source for things that have happened in the region, such as an article in *Desert* by Frank Pinkley).

Anthropology Building

Archeological Project Files. NAVA archives at MNA are primarily archeological project files that are part of the monument's resource management records. These records document archeological excavations at the monument between 1909 and the mid-1970s. All NPS project information (except for the photographs) is housed in a lateral file cabinet in the Anthropology building and in the site file room. Associated field documentation includes field notes, maps, photographic prints and negatives, inventories, and reports. The project data is arranged by MNA site number and therein alphabetically.

Of all the records held in repository at MNA, the site files are the most problematic. Excavation material relating to a particular site at the monument is housed in folders by site and therein by subject headings such as field notes, maps, reports, etc. For example, Keet Seel records are in nine folders in the top drawer. Records from various projects over a number of years can be found in any of the folders. Folder 1 of 9, Site File/Field Notes has unidentified and undated field notes and drawings, copies of correspondence from John Wetherill to Frank Pinkley in 1934, a listing of room numbers from 1952, a report of trail work on the Tsegi trail (undated), a half sheet of paper listing MNA site numbers associated with a paleopathology study conducted in 1977 and two sheets of yellow paper from 1963 giving a brief overview of Turkey Cave and Turkey House. In addition, photographs and folded maps and drawings were found in the site files.

Over the years numerous excavations have taken place at Betatakin, Inscription House, and Keet Seel. The data in the folders reflects that fact. However, organizing the records by site number rather than by project discounts original provenience (NPS standards, see *Museum Handbook*, Part II) and makes it harder to understand the overall meaning of the project records. In addition, the folders have not been labeled with NAVA accession numbers leaving a gap between the monument's records and records at MNA. Over the past year, MNA has been cataloging NAVA collections into ANCS+® database by folder rather than project. If associated documentation from a project is not cataloged together, project documentation is likely to end up with multiple accession or catalog numbers. Moreover, if related accession numbers are not recorded in ANCS+®, researchers will have a difficult time finding the associated documentation. A CD with the records was sent to the monument in October 2004. The site files were duplicated and sent to the monument in September 2004.

The Anthropology building also houses a bank of 17 four-drawer file cabinets of Project Files. The records are arranged by project number with an internal file reference to the MNA site number. An inventory by MNA staff should be undertaken to determine if records exist for any projects carried out under federal permit at NAVA.

Herbarium, Zoology, and Paleontology. The herbarium in the Pollock building, zoology in Marcou, and paleontology in Brady at MNA are a small part of NAVA collections. The associated documentation for the collections includes card catalogs (zoology, herbarium), locality forms, photographs, slides, and paleontology maps. The MNA herbarium collection, NAVA specimens, and other NPS specimen collections have been cataloged into Argus®. A small number of specimens from each collection can be identified specifically as belonging to NAVA. Many early recordings provide vague location information (i.e. east of Inscription House) leaving doubt of ownership. Most of the catalog cards indicate who recorded or collected an item and when it was collected. MNA can use this information to identify NAVA collections.

Being familiar with the names of individuals involved in administration and archeological excavations at NAVA should help MNA identify specimens that belong to the monument. A copy of NAVA's Administrative History should be referred to when natural history specimens are cataloged.

RECOMMENDATIONS

The retention and preservation of the monument's resource management records is imperative. These records detail the development of the monument and outline the management and preservation practices that have shaped NAVA. They provide critical information concerning cultural and natural resource projects which can provide invaluable information and help guide the monument through this century.

NAVA

Short-term Recommendations (6 months–1 year)

- Prepare a project statement for an archival survey to locate NAVA project records at WACC, MNA, and Denver Federal Records Center (1941–1967 textual records and subject correspondence files, DSC TIC 1938–2003 maps).
- List by archeology project documentation at MNA and NAVA (Inscription House 1966 at each institution) to identify record duplication.
- Correct discrepancies in accession and catalog numbers at WACC and MNA.
- Compare aerial photos at NAVA and WACC to determine duplicates.
- Prepare a research application and use form. Address restrictions on research use of archeological documents which are exempt from the Freedom of Information Act. Communicate with WACC and MNA about research use and access to NAVA collections, especially as it relates to NAGPRA. Communicate and initiate a plan to address the concerns.
- Provide MNA staff with the monument's administrative history *Navajo National Monument: A Place and Its People*.
- Develop a project statement for a backlog cataloging project to process and catalog archeology records by provenience held at MNA.
- Prioritize current NAVA archival projects.
- Use pencil to write on archival folders and envelopes.
- Consolidate case incident reports under restricted access with the Chief Law Enforcement Officer.
- Move loose accession information into appropriate folders.

- Evaluate slides in the Transa[®] unit to originals and duplicates.
- Crosscheck photos for duplicates at WACC and MNA.
- Compare original project drawings and maps with those held by DSC TIC and WACC.
- Separate historic building files from current materials and move to museum storage.

Intermediate Recommendations (1–2 years)

- Conduct records management training for monument staff.
- Assign responsibility for the monument's archival and manuscript collections and establish a Records Management Review team.
- Inform monument staff about the nature of the monument's archival collections and about the monument's procedures for management of the material. Develop SOP for monument staff and researchers on how to handle archival and manuscript materials.
- Develop a general guide to the monument's archival and manuscript materials after finding aids have been developed.
- Survey all archival and manuscript holdings and develop project proposals for cataloging and rehousing the materials. Prepare PMIS project statement(s) to request backlog cataloging funds to process and catalog archival collections.
- Improve the storage of archival and manuscript materials and consolidate collections in museum storage rehousing into archival boxes and folders.
- Document use of the archival and manuscript collection (i.e. log book).
- Establish a use and access policy for the monument's archival collection.
- Establish a reference and research area separate from collection storage.
- List all NPS and site specific reports. Compare this list with existing lists at the monument, WACC, MNA, DSC TIC, NARA, and the IMRO. A complete copy of monument research reports should be accessioned into the museum collections for research needs. Make a box and folder list to support efficient research access and accurate filing. Once a set of monument cultural and natural research and planning reports has been protected in the museum collection, duplicate use copies may be made for reference.
- Accession and catalog monument resource management files, reports, and any remaining materials.
- Accession the monument's rare book collection into the museum collection.
- Work with monument staff and divisions to schedule periodic record reviews utilizing guidelines in NPS-19, NPS-28 and the NPS *Museum Handbook*, Part II, Appendix D. Transfer non-current official records to the Federal Records Center. As

much as possible, keep NPS files stored with their NPS file coded folders and in file code order.

- Develop SOP for listing folders and boxes of older monument resource management files in preparation for transfer to repositories. This will keep records organized by division and function as they were created and used, as well as support current and future research access.
- Rehouse oversize maps, drawings, and plans into labeled archival protective folders (10 per folder) that are the same size as the map drawer.
- Create a drawer and folder listing for oversize material located in map cases.
- Rehouse scrapbooks and the rare books.

Long-term Recommendations (2–5 years)

- Consider using monument funds to hire an archivist to conduct research at MNA for NAVA and improve the condition and housing of archives there.

WACC

Short-term Recommendations (6 months–1 year)

- Assist NAVA staff and develop project statements for archival surveys to determine the location and ownership of original project records (created as a result of federal permitting).
- Assist NAVA staff and develop project statements for backlog cataloging projects to process and catalog site files by provenience held at MNA.
- Assist NAVA staff to resolve duplicate accession and catalog number by project.
- Coordinate with NAVA staff to use a research application and use form to address restrictions on research use of archeological documents which are exempt from the Freedom of Information Act. Communicate with NAVA and MNA about research use and access to NAVA collections, especially as it relates to NAGPRA.
- Send a CD to the monument with catalog records and scanned images.

MNA

Immediate Recommendations (0–6 months)

- Resolve duplicate MNA site numbers on NAVA records.

Short-term Recommendations (6 months–1 year)

- Conduct a survey of archival records at MNA (MS collections, photographic images, project records, and unprocessed archival collections) to identify NAVA resource management records. Resolve any ownership issues.
- Coordinate with NAVA staff and use a research application and use form to address restrictions on research use of archeological documents which are exempt from the Freedom of Information Act. Communicate with NAVA and WACC about research use and access to NAVA collections, especially as it relates to NAGPRA.

CHAPTER 8: STAFFING AND PROJECT DEVELOPMENT

As the NPS museum management program has developed by defining and refining its procedures and regulations, NAVA's museum management program has tried to keep pace with the changes. NAVA's 2004 GMP and the 1996 Resource Management Plan specifically mention museum collections as important resources to be preserved and protected. The recommended actions and preferred alternatives regarding collections management and related programmatic issues are addressed in this chapter.

STAFFING

NAVA has never had a professionally trained, full-time curator or collections manager on its staff. Historically, this responsibility has fallen to a staff member as collateral duty. Often the person is not trained and is forced to seek frequent advice and assistance from professional curation staff from other NPS units. The responsibilities are neglected due to different administrative priorities, shortages and turnover of staff personnel, and the necessary fulfillment of primary duties. In fact, not until the 1960s is it clear exactly who is responsible for collections management at the monument or who is willing to assume that role.

Little information exists regarding collections management activity at NAVA during the early period between 1909 and 1938 under the stewardship of John Wetherill. During his tenure, whatever collections management activities he undertook were of his own design because he served prior to the establishment of service-wide NPS guidelines. The first service-wide museum policy statement was issued in 1940. The following year the first NPS field manual for collections was distributed (Lewis 1993:292). Without physical infrastructure at the monument for housing archeological collections or related documentation, Wetherill likely kept official NPS museum related correspondence and collected artifacts at his home in Kayenta. The disposition of such records or artifacts, if any, has not been determined and probably never will.

Many archeologists associated with universities, private institutions, and the NPS carried out archeological excavation, research, and preservation activities at the monument during the first five decades of its existence (see Chapter 1: History and Significance). Archeologists from various offices and institutions assumed the responsibility for caring for the artifacts and associated records. The collected artifacts and associated documentation produced was housed in private institutions, universities, and other NPS facilities. Without service-wide NPS policies, guidelines, and procedures for collection management during most of that period, and until the

monument had established basic infrastructure and office space by the 1960s, NAVA had to rely on outside places and individuals for the care of its collections.

In 1938, James and Sallie Brewer were the first NPS trained professionals to manage the monument. They lived nearby in Shonto until the construction of a new stone residence was completed in 1939. The residence, which burned in 1970, served as the monument's main office. In the spring of 1940, the Brewers had the cook shack moved to a new stone foundation in the middle of the turn-around circle at the end of the road from Shonto. A museum exhibit occupied one corner and the objects are known only from photographs and a few documents. In 1954, Superintendent John Aubuchon added an extension to accommodate a diorama of Keet Seel and revamped the old exhibit display. The diorama is currently on loan to the Hopi Cultural Center (HCC).

The collection of natural history specimens began in the 1930s. Milton Wetherill was issued permits to collect live birds in Tsegi Canyon, primarily for MNA. That permit, or a copy of one of his annual renewals, still exists. Whether they were collected on monument property is unknown. Accurate provenience and possible NPS ownership would be difficult to establish. James Brewer collected numerous plant specimens for NAVA that were identified by Alfred Whiting of MNA. More than 600 hundred are mounted and stored in a herbarium cabinet in NAVA's collection storage room, only recently cataloged.

In 1939, according to MNA's accessioning and cataloging system, Sallie Brewer cataloged artifacts recovered during the 1934 CWA excavation of Keet Seel. The first known accession of a NAVA cultural collection occurred on March 17, 1954 when the Southwest Archeological Center in Globe, Arizona (now WACC in Tucson) accepted archeological material and archives from Inscription House stabilization work conducted by Charlie Steen in August 1939. The first entry in NAVA's accession book occurred in July 1959 for a corrugated vessel received from Ruth Adakai.

Coincident with Mission 66 construction and a period of intensive archeological research at NAVA (see Rothman 1991) the monument experienced its first regular and organized effort at collections management. In 1963 archeologist Keith Anderson collaterally assumed collections management duties for the monument either by design or default. His job was made easier with the construction of the visitor center in 1964 that provided office space to maintain collections documentation. Anderson made a concerted effort to catalog items into the collection, track loans, and research the location of NAVA's collections in various institutions, notably Byron Cumming's collections at the UU, the AHS, and ASM. Upon his departure in 1966, collateral collections management duty fell to his replacement, Archeologist Gary Matlock. Matlock continued accessioning, cataloging, and tracking loan agreements.

For most of the next two decades, numerous individuals took on the role of collections manager. They included archeologists and personnel within the Interpretation Division. Whether the duty was assigned officially or simply

undertaken when the situation required the accomplishment of a specific task is unclear. Nevertheless, inconsistent care of the collections and documentation resulted in numerous problems such as the dissemination of museum records among various offices, the assignment of duplicate catalog numbers to objects, incorrect accessioning procedures, unauthorized deaccessioning, and a deficiency in general SOP. The monument was understaffed yet experiencing an ever-increasing number of visitors. Collections management had less priority than yielding to the visitor experience.

From 1988 through 1998, interpretive ranger Bruce Mellberg was delegated official responsibility for collections management. He inherited a program in disarray. With only limited museum management training and experience gained through two basic museum management courses at HFC, and despite a general lack of time, Mellberg still managed to follow through with most NAGPRA compliance, began defining accession and catalog problems, created a useful visitor center exhibit information guide for interpreters that is still in use, and completed the required annual reports. Mellberg frequently sought assistance from regional curators. He called attention to the numerous problems that he alone could not address and soon personnel from the monument and other NPS organizations began to take notice.

Following Mellberg's departure through the present, monument personnel and other NPS staff have attempted to correct deficiencies with NAVA's collections management. In 1999, Patricia Miller, a seasonal museum technician, cataloged objects and photos, made appropriate entries in the ANCS+[®] database, and placed numerous archival documents into acid free folders. In 2000, Kevin Harper filled the VT permanent archeologist position created in that year. Melissa Memory was hired as an archeological technician in the additional VT position created that year. Harper and Memory, over the next two and one-half years, developed plans designed to deal with many of the deficiencies. Some of these plans include projects that addressed backlog cataloging of photo archives and archeological material, the issue of outdated storage at MNA, and corrections needed in the ANCS+[®] database. They were instrumental in securing funding for the current CMP. Harper and Memory also sought help from professionally trained curators in the region.

After a vacancy of more than a year and a half, archeologist Brian Culpepper filled Harper's position in the summer of 2003; and archeological technician Kenny Acord replaced Memory nearly one year following her departure in February 2003. Culpepper unofficially was delegated the responsibility for collections management as a collateral duty, although the duties have not been included in his current position description. He and Acord (deceased) spent many hours collating museum collection files and archival material that had been dispersed among various offices during the six month hiatus of permanent management in 2003. The organization was aimed at providing sufficient information to prepare the present document.

Since the spring of 2006, Curlinda Holiday, NAVA Interpretive Ranger, has assisted Culpepper on a part-time basis. Her duties entail basic management of the

ANCS+® database, a modest amount of cataloging, and completion of NAVA's annual museum collections reporting requirements. Because of her primary responsibilities as an Interpretive Ranger, she can only afford to devote four to eight hours a week to collections management.

The need for a curator at the monument is illustrated by the problems identified in the history of collections management. Establishment of a curator position at the monument is one of the preferred staffing alternatives in the GMP to improve the resource stewardship. Plans were developed to create a shared curator (circuit rider position) for the three geographically close NPS units known the FLAG group in northeastern Arizona before the current GMP was finalized in 2004.

In 2001, the superintendents of NAVA, Canyon de Chelly National Monument (CACH), and Glen Canyon National Recreation Area (GLCA) collaborated to submit a FY02 Operations Formulation System (OFS) funding request for a shared curator. This full-time circuit rider, to be funded equally from all three NPS units, would have directed their full attention to the cultural, natural, and archival needs of each of the units.

The OFS request is unfunded and the need still exists. Each unit no longer expresses interest in the shared circuit rider position. Continued collaboration and cooperation between GLCA and NAVA is needed. Additional units with similar concerns and requirements should be sought in order to revive the request and make it a viable option for parks and monuments with collateral duty curators. The need for such a position has been defined in the original request. New funding for NAVA for this position is unlikely since the monument received base funding increases in 1998, 2000, and 2005.

Volunteers are a valuable asset in managing collections. With sufficient training, they can assist with cataloging archives and objects at the monument and MNA, as well as basic file management. Because NAVA is remote and housing is limited, housing may not be available for volunteers. NAVA's campground is the most reliable option and would require an RV or similar mobile housing.

PROJECT DEVELOPMENT

In the past decade, numerous project proposals intended to improve collections have been submitted through various funding sources. Some include proposals to inventory NAVA collections held by other institutions, accession and catalog objects and archives, conduct collection condition surveys, and rehouse objects and upgrade storage cabinets. Between FY79 and FY04, at least \$959,288 was requested by NAVA through NPS funding sources. The monument has received less than 9.5% of the amount requested, only \$90,300, since FY98.

Several projects in recent years have inventoried, cataloged, and rehoused objects and archives. A project to inventory and catalog NAVA objects and archives at all institutions with NAVA collections has been proposed in one form or another beginning in 1979 but has never been funded.

Personnel from FLAG rehoused NAVA objects stored at MNA in 2003 and 2004 to meet standards and relocated them into new metal storage cabinets. The project was made possible by VT funds. WACC currently is in the process of rehousing NAVA photographs and negatives and scanning both photographs and archival documentation onto CD for the monument's use. MNA is performing a complete inventory of NAVA collections. The project is rehousing the objects and archives, including photographs, according to current standards, catalog objects and archives, providing appropriate information to update ANCS+[®], and creating finding aids.

Adhering to storage, security, conservation, and environmental control standards are the primary concerns for NAVA's collections. Aside from the \$3,000 base increase for ANCS+[®], numerous opportunities exist for funding support that will allow NAVA to properly manage its collections in the coming years. Brief statements about potential projects and developments designed to improve the care and preservation of objects and archives and their potential funding sources follow. Many of these statements are expressed in previous chapters. They are reiterated here as projects with the highest priority, aside from the backlog cataloging requirements.

Facilities

The monument's current storage collection room does not meet NPS standards and many deficiencies have been identified in Chapter 5: Collection Storage. The GMP identifies the need for new museum storage and workspace. Construction of a new collection storage room is the preferred alternative to improve resource stewardship, facilities, and operations. A new 1,500 square foot storage addition would be a secure, climate controlled space used to catalog and store a limited number of objects and archives from the collection. Some objects could be rotated into visitor center exhibits. A portion of the storage would be reserved to secure ceremonial items by tribal members for use in local ceremonies.

The GMP envisions the storage facility as part of a new 3,500 square foot administrative office built in conjunction with remodeling the visitor center. The GMP does not address the option of constructing a new Cultural Resource Division office with a museum storage building on the existing footprint of the division office trailer. The advantage of this option is that a new museum storage facility could become a reality at significantly less cost than constructing a larger administrative office building and remodeling the visitor center. Still another option, and the least costly alternative outside of maintaining the current arrangement, would be to build a

stand alone, secure, and climate controlled museum storage facility somewhere on the headquarters unit of the monument.

Monument staff submitted proposals in the PMIS system to expand the visitor center that would provide office space for cultural resources. An additional 623 square feet of office space could be realized if the public restrooms in the visitor center were remodeled into office space for cultural resources. A new island comfort station in the middle of the parking lot would replace the existing restrooms. A new HVAC system would replace the old propane system and permit greater climate control in the collections storage room. Both 20% Fee Demo and Repair/Rehabilitation categories are appropriate funding sources.

The Intermountain Region Museum Collection Facilities Strategy was recently approved. It prioritizes museum collection facilities approved for IMR parks. The strategy contains a proposal developed primarily by FLAG, with input and support from other northern Arizona parks and monuments for a partnership facility with MNA, which currently holds collections from 12 NPS units from the IMR. The facility may include potential non-NPS partners, such as Northern Arizona University (NAU) which holds the NPS Quaternary Collections from both units in the IMRO and Midwest Regional Office (MWRO). MNA intends to build a new collections storage facility on their property in 2007/2008. The NPS proposal would construct an addition to it for centralized storage for FLAG, GRCA, NAVA, and other interested northern Arizona parks and monuments. The facility could serve as a centralized storage facility for more than the Colorado Plateau Parks Natural History Program collections. MNA has received a \$3 million donation to begin the project and currently is completing a Master Plan and Preliminary Facility Planning and Pre-design study. MNA has begun a fund raising campaign for the proposed facility. NPS has agreed to support the effort with Line Item Construction funds expected within the next five years after MNA completes the new collections center.

Some of NAVA's collections are currently housed at WACC. The Hopi Cultural Preservation Office and professors in NAU's Anthropology Department have expressed a desire to have NAVA's collections remain on the Colorado Plateau. Having over half of NAVA's collections remain in Tucson makes them unavailable to tribal members and researchers.

Inventory NAVA Collections in Other Repositories

Knowing the location and extent of NAVA collections in other repositories has been recognized for years as a critical need. In 1977, Superintendent Frank Hastings signed a development and study package proposal to locate NAVA's collections at non-NPS institutions and accession and catalog the objects. That initiative was not funded. A similar project to inventory NAVA's collections held at other institutions was proposed in 1995 and never funded.

More than 14 museums and institutions house NAVA collections. Completing such an inventory would not be a simple task. An interdisciplinary consulting team or numerous personnel at multiple institutions would be required. The Cultural Resource Preservation Program Base funding source could be the best avenue to complete this multi-year project. However, a detailed proposal may compete under the Fee Demo funding source as well.

Replace and Rehabilitate Exhibit Cases and Exhibit Information

The current exhibit cases in the visitor center, constructed of wood and glass, were installed in 1981. The lack of gaskets around openings permits dust and active infestation (see Chapter 4: Exhibits). Many exhibit labels have incomplete or incorrect information and some of the objects on display have not been cataloged. The five large ollas on display in the visitor center, approximately 10 feet above the floor on open shelves, are not in protective cases and are subject to damage from falling. The ollas should be removed from the shelves and placed in new cases. A project to rehabilitate and replace the cases was submitted under the 20% Fee Demo program in FY01 but not funded. The Cultural Resource Preservation Program Base and the Museum Collection Preservation and Protection Program, as well as the 20% Fee Demo program, are all appropriate funding sources.

Update or Develop New Exhibits

The current exhibit in the visitor center was installed by HFC in 1981. Chapters 3: Museum Conservation and Chapter 4: Exhibits outline many of the problems with the outdated exhibit. Replacing the entire exhibit would be expensive and the cost may be prohibitive.

In lieu of replacing the entire exhibit, updates could be made. For example, collections from MNA and WACC could be rotated through sections on a periodic basis. Additional rotational wayside exhibits, such as one to accompany the wagon or hogan, also could be developed.

Inventory, Catalog, and Transfer Manuscripts and Photographs to Digital Formats

NAVA maintains numerous reports, manuscripts, rare books, and photographs relating to the history of the monument. Many of these items exist as a single copy, such as reports on the visitor center dedication in 1966 and photographs of preservation treatment activities in the 1980s. These items are housed in the

collections storage room. Several respondents to the collections survey indicated they would like for this type of information to be more accessible either as physical or electronic copies. The project would inventory NAVA's reports, manuscripts, rare books, and photographs housed at the monument, catalog the items, convert items to a digital format by scanning, and make the items available in a series of CDs and digital video discs (DVDs). Appropriate and potential funding sources include the Challenge-Cost Share, 20% Fee Demo, and WNPA funds.

Construct New Joint Cultural Resources Office and Collection Storage Room

The collections storage room is in an undesirable location in the visitor center. Environmental conditions are uncontrolled in the room. Wedged between the furnace room and the visitor restrooms, damage to the collections from water and heat is possible if water lines break or a fire occurs. The Cultural Resources office is located in a substandard 1970s trailer. Problems with the trailer include poor insulation that results in temperature extremes, a deteriorating roof, and an unlevelled floor. A new environmentally controlled storage collections room could be built adjoining a new Cultural Resources office. Potential funding sources include the Maintenance Repair and Rehabilitation Program and the Line Item Construction Program. The monument has submitted two PMIS projects for expanding the visitor center to provide office space for Cultural Resources or to build a stand-alone restroom structure that would allow the monument to convert the current restrooms to Cultural Resources office space.

Conduct a Condition Survey of Vegetal Collections

NAVA has numerous sandals, baskets, and other vegetal items in its collection. Staff should submit a project to determine the condition of the objects and set priorities, cost estimates, and plans for conservation treatment. Appropriate and potential funding sources include Museum Collections Preservation and Protection Program (MCPPP) and 20% Fee Demo funding sources. The Getty Institute of Conservation sometimes funds condition survey of museum collections.

Conserve Textile Collections

A proposal to conserve over 200 NAVA textiles at MNA was submitted in 2005 under the Cultural Resource Preservation Program Base funding source, but it was not funded. Monument staff should upgrade the proposal and resubmit each year

until it is funded. Other appropriate and potential funding sources include the 20% Fee Demo funding sources. The Getty Institute of Conservation funds not only condition survey of museum collections but actual conservation of museum objects.

RECOMMENDATIONS

NAVA

Immediate Recommendations (0–6 months)

- Explore ways to create additional volunteerism for assistance with museum management when individuals can be supervised properly.
- Continue to provide part-time collections management assistance using staff from the Interpretation Division at the monument.
- Initiate PMIS project statements that address collections management needs expressed throughout the CMP.

Short-term Recommendations (6 months–1 year)

- Revive the OFS request for a circuit rider curator position among multiple parks and monuments on the Colorado Plateau.

Intermediate Recommendations (1–2 years)

- Inventory, catalog, and transfer manuscripts and photographs to digital formats.
- Replace and rehabilitate exhibit cases and exhibit information.

Long-term Recommendations (2–5 years)

- Conduct a condition survey of vegetal collections.
- Update or develop new exhibits.
- Inventory NAVA collections in other repositories.
- Explore options for moving NAVA object collections and copies of archives from WACC to MNA when a new, secure, and climate-controlled collections storage facility is completed.
- Construct a new joint cultural resources office and collections storage room.

CHAPTER 9: ISSUES AND CONSULTATION WITH AFFILIATED TRIBES

For issues related to NAGPRA, NAVA recognizes four culturally affiliated tribes—the Hopi, Navajo, San Juan Southern Paiute, and Zuni. Each tribe is culturally distinct, yet they share a connection to the archeological sites and geographic setting of the monument.

NAVA and the surrounding land remain important to the Hopi. Areas of the monument are the ancestral home of clans that migrated through the area. Keet Seel (*Kawestima*) is a Fire Clan village. The Big Horn Sheep and Water Coyote clans have cultural ties to the site. Betatakin (*Talastima*), also called Tokonabi by the Snake Clan (Schaaf 1998), is a Flute, Deer, Fire, and Water Clan village. Inscription House (*Tsu'ovi*) is a Rattlesnake, Sand, and Lizard Clan village.

The Navajo settled the area of the monument in the early 1800s and have a long tradition of using the monument and adjacent lands for ceremonial and subsistence practices. Local Navajos played important roles in the early history of the monument, and most of the current staff is Navajo.

The San Juan Southern Paiute occupied many areas on the Shonto Plateau probably beginning in the late 1600s and continuing through the 1800s. Army Captain J. G. Walker and Major O. L. Shepherd observed small groups of Paiutes in Tsegi and Nitsin Canyons in 1859. They eventually moved north to areas around Navajo Mountain and Glen Canyon. The NAVA region still holds significance to modern-day Paiutes.

The Shonto Plateau, specifically Tsegi Canyon, is known to the Zuni as the Northern Villages. Some of their clans originated in the Tsegi Canyon system, and the surrounding landscapes remain important to the Zuni because they are part of migration histories.

Cultural Affiliation

The ownership or cultural patrimony of museum objects from archeological sites is controversial. The Hopi and Navajo do not agree which tribe has ownership of cultural objects found on federal land inside or outside the boundary of the Navajo Reservation. The Navajo claim to have arrived in the Southwest around 800. The Hopi believe that the Navajo arrived much later. The controversy lies in the fact that the Navajo Nation claims cultural affiliation with the pre-Columbian inhabitants of this region, not just the material culture made by ancestral Puebloans.

The ancestors of the Hopi, referred to as *Hitsatsinom*, populated the Shonto Plateau and the NAVA area from around 450 to 1300. In the late 1200s they migrated south, likely due to a combination of natural and social factors: prolonged drought; erosion; deforestation; increased competition for resources; and social pressures and conflict. Even though the ancestral Puebloans moved away from the area, the presence of

Yellow Ware pottery sherds on Skeleton Mesa seems to indicate that they returned repeatedly in subsequent centuries.

At some point, the Navajo, or Diné, emigrated from the Canadian Northwest. There is no consensus on when they arrived in the Southwest or the number of migrations that took place. The most commonly accepted timeframe is that the Diné appeared in the Four Corners region sometime in the fourteenth or fifteenth centuries. Archeological evidence indicates that they did not begin to settle permanently on the ancestral Puebloan lands until the sixteenth and seventeenth centuries. In 1868 Navajo tribal leaders signed a treaty granting the tribe the largest reservation in the United States, eventually totaling more than 16 million acres and covering parts of three states—northeastern Arizona, northwestern New Mexico, and southeastern Utah.

Nearly half of the Navajo clans trace their origins to Puebloan ancestors. The six largest clans maintain links to ancestral Puebloan “great houses” in their oral histories. Táchii’nii is the largest clan and it has the strongest links to ancestral Pueblos. The oral histories of some clans connected their ancestors to Chaco in pre-Columbian times. Water Clans stayed at Betatakin and other clans settled among the inhabitants of Betatakin and Keet Seel (Comfort 1980:55–56). Some oral traditions of certain Hopi clans such as the Tobacco, Rabbit, and Water Clans, contain elements in common with the Navajo Táchii’nii and Water Clan group stories (Fewkes 1900).

NAGPRA Collections

All of the NAVA cultural items subject to NAGPRA (human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony) are housed at WACC and MNA. They include the human remains of at least 60 individuals. Most of the cultural items subject to NAGPRA in the monument’s collection are associated funerary objects. They include complete pottery vessels, vessel fragments, pendants, stones, and various kinds of vegetal material. Unassociated funerary objects and sacred objects comprise only a small portion of the collection; and to date no objects of cultural patrimony have been identified. No cultural items subject to NAGPRA have been accessioned since 1985.

An assessment and inventory of the human remains and associated funerary objects was made by NPS staff using the best information available in 1995. A Notice of Inventory Completion for American Indian Human Remains and Associated Funerary Objects was drafted in 2001 but never published. NPS personnel examining the information in 2004 found mistakes and inconsistencies based on personal knowledge of the collections.

The NAGPRA collection at WACC was re-inventoried prior to and after the move to the new facility. A re-inventory of all cultural items at MNA subject to NAGPRA is underway and will be completed in 2007. Based on new information and provenience data, the monument’s superintendent recently determined to publish three separate

notices: one for NAVA's human remains and associated funerary objects; a joint notice for NAVA and the BIA; and a third for human remains and associated funerary objects with no provenience that likely did not come from within NAVA's boundaries. The draft notice for the latter has been completed.

The Department of Interior (DOI) Solicitor's Office maintains that the Navajo Nation has first possession of all cultural resources that fall under NAGPRA located within the exterior boundary of Navajo Nation tribal land. The Navajo Nation does not own or control non-NAGPRA objects found on the federal land of the monument. The Navajo Nation's claim to cultural affiliation with ancestral Puebloans is not an exclusive claim. They will not request repatriation of human remains except for an identified Navajo individual. Their main interest in repatriation concerns sacred objects. The Navajo Nation can claim ownership of all NAVA's museum objects subject to NAGPRA except non-Navajo human remains with identified lineal descendants. In normal cases where objects or human remains are discovered, the Navajo Nation recommends that the monument implement the Navajo Nation Policy for the Protection of Jishchaa'.

Thirty-three sets of human remains and numerous associated funerary objects from Inscription House have been assigned a likely cultural affiliation with the Hopi and the Zuni. Thirteen sets of human remains from Keet Seel are assigned a likely cultural affiliation with the Hopi, the Zuni, and Navajo. Eleven of these are classified as Kayenta Anasazi, two were recovered at an unknown time by an unknown investigator. A minimum of five individuals from Turkey Cave, Kiva Cave, and Betatakin also are likely culturally affiliated with the Hopi and Zuni. Human remains from the Kaibeto Road Burial (NA9410) sites NA8602 and NA8615, along the entrance road, and from Turkey House are listed on NAVA's NAGPRA inventory but none of the sites are on NAVA administered land.

Monument personnel are presently in the process of consultation with the affiliated tribes for the eventual repatriation and, hopefully reburial, of human remains and associated funerary objects in the monument's custody. An ethnographic overview and a cultural affiliation study have been completed. Condition assessments on certain artifact classes are useful, but not necessary. The Notice of Inventory completion is in process.

RECOMMENDATIONS

NAVA

Immediate Recommendation (0–6 months)

- Search ANCS+® for NAGPRA objects that may have been overlooked.

Short-term Recommendations (6 months – 1 year)

- Complete the re-inventory of NAGPRA objects at MNA.
- Publish a Notice of Inventory Completion in the Federal Register.

Intermediate Recommendation (1–2 years)

- Complete the repatriation process.

APPENDIX A: PRESERVATION RECOMMENDATIONS BY PRIORITY LEVEL

Use this as a checklist to note the completion date for the associated recommendations. Write the completion date into the space provided left of the recommendation.

IMMEDIATE RECOMMENDATIONS (0–6 MONTHS)

NAVA

History and Significance

None

Museum Records and Documentation

- _____ Create an Acquisition Committee to aid in decision making on gifts, purchases, and other acquisitions
- _____ Update SOCS
- _____ Purchase magnetic media safe or media drawer insert
- _____ Outgoing loans assessed and tracked in ANCS+[®]
- _____ Incoming loans assessed and tracked in ANCS+[®]
- _____ Place detached page from accession book in acid free file folder and store in front of accession folders or professionally repair accession book
- _____ Implement project to complete accession files by filing out folder fronts, including a completed Accession Receiving Report (Form 10-95), locating legal documents, and placing acid free copy in accession file
- _____ Accession undocumented collections as loans until status resolved
- _____ Research acquisition sources for undocumented collections to determine ownership
- _____ Identify and document collections no longer in monument's possession
- _____ Document deaccessions in ANCS+[®] and cross-reference deaccession number on all documents
- _____ Use Deaccession Book (Form 10-642) and follow NPS Museum Handbook, Part II recommendations (Chapter 6:16, no. 4)
- _____ Complete deaccession paperwork and file in separate deaccession folder stored after related accession file
- _____ Resolve catalog number duplication problems between WACC and MNA
- _____ Hire circuit rider curator or trained staff from nearby parks to complete curatorial tasks
- _____ Inventory all holdings and verify against catalog records

_____ Label all storage cabinets, drawers, files, and equipment to standardize location information in ANCS+®

Conservation

_____ Write an IPM plan and MHP for NAVA and implement
_____ Label, date, and place insect traps at pest access points or in areas of past infestations
_____ Begin monitoring traps on a monthly basis and document catches
_____ Create an IPM Pest Identification Collection

Exhibits

_____ Add light filters on light fixtures, windows, and doors if necessary

Collection Storage

_____ Establish short (1–5 page) MHP for storage and exhibit areas
_____ Include responsibilities and vendor, supply, and equipment list
_____ Thoroughly clean the storage room using museum housekeeping standards
_____ Clean-out wagon display wheel pads and replace with pea-sized gravel to ensure drainage
_____ Place wagon's wooden tongue, rod, and shaft on rock
_____ Secure wagon wheels with padlocks to prevent theft and vandalism

Archives

None

Staffing and Project Development

_____ When they can be supervised, create additional volunteerism and student employment to assist with museum management
_____ Continue to provide part-time collections management assistance using staff from the Interpretation Division of the monument
_____ Initiate PMIS project statements that address collections management needs expressed throughout the CMP

Issues and Consultation with Affiliated Tribes

_____ Search ANCS+® for NAGPRA objects that may have been overlooked

WACC

History and Significance

None

Records and Documentation

None

Conservation

_____ Complete IPM plan

Exhibits

None

Collection Storage

None

Archives

None

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

MNA**History and Significance**

None

Records and Documentation

_____ Purchase media file cabinet

_____ Move NPS accession files into fire-resistant cabinet

Conservation

_____ Write an IPM plan and MHP for MNA and implement

_____ Label, date, and place insect traps at pest access points or in areas of past infestations

_____ Create trap map using existing floor plans

_____ Begin monitoring traps on a monthly basis and document catches

_____ Create IPM Pest Identification Collection

Exhibits

_____ Measure light levels in exhibit hallway and add or remove light fixtures if necessary

- _____ Turn objects over or retire and exhibit similar items
- _____ Insert acetic acid detection strips in oak cases and remove objects to storage is acetic acid is detected

Collection Storage

- _____ Repair ceiling leaks in Butler building near heating units
- _____ Insulate overhead garage door
- _____ Reinstate IPM for the Pollock (herbarium) building
- _____ Purchase specialized storage containers and mounts, a janitorial cart, HEPA vacuum, task lights, and microscope for the herbarium study area

Archives

- _____ Resolve duplicate MNA site numbers on NAVA records

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

SHORT-TERM RECOMMENDATIONS (6 MONTHS–1 YEAR)

NAVA

History and Significance

None

Museum Records and Documentation

- _____ Determine if documents (files and storage enclosures) are acid free
- _____ Make copies of original documents on acid free paper or use acid free blank sheets to prevent acid migration
- _____ Adopt NPS digital data migration procedures and policy
- _____ Contact institutions that possess potential monument collections to begin ownership assessment
- _____ Retain all catalog cards that possess original drawings of artifacts
- _____ Update the next CMR on completion of comprehensive inventory
- _____ Complete 100% inventory of all holdings at the monument
- _____ Identify items that are at greatest risk as controlled property per NPS standards

Conservation

- _____ Measure UV and visible light levels in storage areas and exhibits every three months, document readings, and implement measures to reduce light levels where needed
- _____ Conduct CCS for NAVA collections at the monument
- _____ Integrate collections at WACC and MNA with the CCS for NAVA
- _____ Apply for funding to stabilize and upgrade storage for objects requiring treatment
- _____ Move collections not in use at NAVA to another repository for long-term storage
- _____ Obtain copies of NAVA conservation treatment reports on file at WACC for accession and catalog files at NAVA

Exhibits

- _____ Upgrade text for NAVA exhibits in-house

Collection Storage

- _____ Transfer all museum collections to other repositories as soon as possible for long-term storage
- _____ Transfer all natural history collections to MNA and all cultural collections to WACC
- _____ Create and store non-museum (interpretive) property, type collections, incoming acquisitions, and duplicate research materials, and vertical files in existing storage space
- _____ Install insect monitoring traps in the corners of the storage area and in areas where most insect activity occurs
- _____ Create a Trap Map and record catches and then place all IPM baseline data in an IPM file
- _____ Consolidate all existing history and ethnology collections into the newest museum storage cabinets and use existing inventories to identify location changes in ANCS+[®]
- _____ Reorganize cabinet contents into archeology or ethnology groupings and store according to material type
- _____ Return the unused half height herbarium cabinet to storage and stack on the existing herbarium cabinet
- _____ Replace the felt gasket on the herbarium cabinet with a neoprene gasket
- _____ Loan the herbarium and entomology collections and one geology specimen to MNA for evaluation and identification for accessioning, cataloging, or disposal
- _____ Purchase a folding table, pad the top with polyethylene foam and use for working with collections

- _____ Purchase a small task light to provide adequate lighting until collections are transferred to other repositories
- _____ Unframe the Summers drawing and Delano prints and store them horizontally in acid free folders in a museum storage cabinet
- _____ Make a high quality copy of the Summers drawing, mark it as a copy and “Not Museum Property,” place in the frame, and hang in same location
- _____ Correct the Checklist to include administrative art
- _____ Replace broken glass on the *Navajo Dye Sources* with UV filtering glass
- _____ Vacuum wagon bed before storing for winter
- _____ Cover wagon with plastic or canvas dust cover while in storage
- _____ Place wagon harness trees in museum storage until they can be determined to not be museum property
- _____ Remove loose wagon parts to storage and document original locations on the wagon
- _____ Establish a written policy for date when the wagon is placed outside of visitor center and returned to storage
- _____ Use appropriate wagon nomenclature to improve catalog data and interpretive efforts
- _____ Use wheel chocks on wagon in storage

Archives

- _____ Prepare project statement for an archival survey to locate NAVA project records at WACC, MNA, and Denver Federal Records Center
- _____ List by archeology project documentation at MNA and NAVA to identify record duplicates
- _____ Correct discrepancies in accession and catalog numbers at WACC and MNA
- _____ Compare aerial photos at NAVA and WACC to determine if there are duplicates
- _____ Prepare a research application and use form that addresses restrictions on research use of archaeological documents which are exempt from the Freedom of Information Act
- _____ Communicate with WACC and MNA about research use and access to NAVA collections, especially as it relates to NAGPRA
- _____ Initiate a plan to address research access concerns
- _____ Provide MNA staff with the monument’s administrative history *Navajo National Monument: A place and Its People*
- _____ Develop a project statement with a backlog cataloging project to process and catalog archeology records by provenience held at MNA
- _____ Prioritize current NAVA archival projects
- _____ Use pencil to write on archival folders and envelopes
- _____ Consolidate case incident reports under restricted access with the Chief Law Enforcement Officer

- _____ Move loose accession information into appropriate folders
- _____ Evaluate slides in the Transa[®] unit to originals and duplicates
- _____ Crosscheck photos for duplicates at WACC and MNA
- _____ Compare original project drawings and maps with those held by DSC TIC and WACC
- _____ Separate historic building files from current materials and move to museum storage

Staffing and Project Development

- _____ Revive the OFS request for a circuit rider curator position among multiple monuments and parks on the Colorado Plateau

Issues and Consultation with Affiliated Tribes

- _____ Complete the re-inventory of NAGPRA objects at MNA
- _____ Publish Notice of Inventory Completion in the Federal Register

WACC

History and Significance

None

Records and Documentation

- _____ Seek data entry funds to complete accession entry beyond three mandatory fields
- _____ Seek data entry funding to complete catalog records beyond the five mandatory fields

Conservation

- _____ Conduct CCS for NAVA collections at WACC
- _____ Integrate with the CCS for NAVA collections at NAVA and MNA
- _____ Apply for funding to stabilize and upgrade storage for objects requiring treatment

Exhibits

None

Collection Storage

None

Archives

- _____ Assist NAVA staff and develop project statements for archival surveys to determine the location and ownership of original project records
- _____ Assist NAVA staff and develop project statements for backlog cataloging projects to process and catalog site files by provenience held at MNA
- _____ Assist NAVA staff and resolve duplicate accession and catalog number by project
- _____ Coordinate with NAVA staff to use a research application and use form to address restrictions on research use of archaeological documents
- _____ Communicate with NAVA and MNA about use and access as it relates to NAGPRA
- _____ Send CD to the monument with catalog records and scanned images

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

MNA**History and Significance**

None

Museum Records and Documentation

- _____ Adopt NPS file folder checklist for NPS accessions
- _____ NAVA to work with MNA and resolve ownership of potential NAVA natural science collections
- _____ NAVA to work with MNA and BIA to resolve which of the Highway 564 Project collections reside within the monument boundaries and deaccession those that are not NPS owned
- _____ As NPS ownership of natural science collections is determined, MNA will enter these records into ANCS+®
- _____ Work with monument to ensure that archeology and archive counts are correct for the October 2007 CMR and include any natural science collections that have been documented as NAVA property

Conservation

- _____ Install PEM data logger equipment in textile exhibit case
- _____ Download and analyze PEM data and determine trends to plan for corrective actions

- _____ Measure UV and visible light levels in storage areas and exhibits every three months, document readings, and implement measures to reduce light levels were needed
- _____ Integrate CCS conducted at NAVA and WACC for NAVA collections at MNA
- _____ Apply for funding to stabilize and upgrade storage for objects requiring treatment
- _____ Change or turn NAVA textiles on exhibit at MNA
- _____ Move collections stored at MNA to WACC if housekeeping is not improved and IPM data is not available
- _____ Transfer all NAVA and MNA collections to WACC until a new facility is built at MNA
- _____ Test natural history specimens at MNA for arsenic and document results
- _____ Upgrade storage containers to acid free materials for paleontology collections

Exhibits

None

Collection Storage

- _____ Replace remaining non-archival bags and twist ties with polyethylene Ziploc® bags for NPS collections
- _____ Place an archival copy of field data from old bag into new bag and in ANCS+®
- _____ Brace open shelving to facility walls and columns to improve earthquake protection
- _____ Survey nitrate holdings for NPS nitrates and transfer to WACC
- _____ Replace non-archival folder and enclosures with NPS museum approved materials
- _____ Flatten and re-house all oversized documents
- _____ Add rubber gasket seal to base of Butler building overhead door or install a sill at ground level then fill and re-caulk ground level openings to prevent pest and dirt entry
- _____ Replace polyethylene dust covers on open shelving with magnets
- _____ Equip heaters with sheet metal fins or vents to redirect hot air away from shelving
- _____ Purchase media vault or store vital records and database information in a secure, off-site location
- _____ Place acid free cardstock behind existing paper drawer labels in NPS Cabinets 1 and 2 to hold them in place
- _____ Use a bright color for MNA Object Removal Cards so that they can be found easily

- _____ Replace metal binder clips with another system in NPS cabinets
- _____ Orient trays with objects that can roll from front to back to prevent rolling and consider using additional foam strips
- _____ Cut all acid free cardboard dividers to the correct size or with folded T-shaped ends to prevent them from falling over inside specimen trays in NPS cabinets
- _____ Place small bead in the padded glass vial with ID tag outside of the vial
- _____ Purchase a Rubbermaid® mobile janitorial cart to organize loose cleaning equipment for easy use
- _____ Staple foam to drawer bottoms to prevent slippage in Ceramic Repository cabinets
- _____ Install a polyethylene liner in right Cabinet 3, Drawer 11 to pad sherds in Ceramic Repository cabinets
- _____ Place Ceramic Repository sherds in crowded drawers into trays or bags with paper labels
- _____ Return UA sherds to storage location and file destructive analysis report in site records
- _____ Consider microfiche or creating archival paper copies of one-of-a-kind records in the Ceramics Repository and store off site
- _____ Remove surplus and obsolete or unused equipment stored in the Ceramics Repository
- _____ Pad tops of research work tables in the Ceramics Repository with polyethylene foam to protect collections in use
- _____ Place all natural history specimens in trays where practical to facilitate safe handling
- _____ Purchase additional cabinets to alleviate overcrowding
- _____ Transfer the wet specimen bat (MNA Z9.513) to glass specimen jar with appropriate lid and seal
- _____ Move fluid preserved insects from zoology area into a wet specimen storage area
- _____ Replace old green felt herbarium gaskets with neoprene or silicone gaskets
- _____ Purchase a HEPA vacuum for housekeeping purposes
- _____ Develop Handling Guidelines for other natural history specimens similar to the existing NPS Herbarium Handling Guide
- _____ Complete arsenic testing for all NAVA and potential NPS specimens

Archives

- _____ Conduct a survey of archival records at MNA to identify NAVA resource management records and resolve any ownership issues
- _____ Coordinate with NAVA staff to use a research application and use form to address restrictions on research use of archaeological documents

_____ Communicate with NAVA and WACC about research use and access to NAVA collections especially as it relates to NAGPRA

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

INTERMEDIATE RECOMMENDATIONS (1–2 YEARS)

NAVA

History and Significance

- _____ Use project or monument funds to support research at AMNH, NMAI, and UU to aid in architectural studies at the monument
- _____ Locate NAVA collections at other institutions and seek funds to sponsor work with these collections to further the understanding of the Tsegi Canyon region

Museum Records and Documentation

- _____ Contact non-NPS institutions to obtain information on potential monument holdings in their collections
- _____ Implement a project to verify that handwritten notes on catalog cards are duplicated in the ANCS+® database

Conservation

None

Exhibits

- _____ Redesign and remodel of the Family Home exhibit should include historic pot rings and reproduction artifacts (foods, turkey feather blanket, tools, hunting equipment, etc.) and all items that might be found in a typical family dwelling of the time as well as access, viewing panels, and text panels
- _____ Construct and install floor level exhibit cases for shelved pots in the lobby or consider the Family Home option
- _____ Remove loom and fully enclose the loom exhibit case

Collection Storage

None

Archives

- _____ Conduct records management training for monument staff
- _____ Assign responsibility for archival and manuscript collections and establish a Records Management Review team
- _____ Inform monument staff about the nature of the monument's archival collections and procedures for their management
- _____ Develop SOP for staff and researchers on how to handle archival and manuscript materials
- _____ Develop a general guide to the monument's archival and manuscript materials after finding aids have been developed
- _____ Survey all archival and manuscript holdings and develop project proposals for cataloging and rehousing the materials
- _____ Prepare PMIS project statement(s) to request backlog cataloging funds to process and catalog archival collections
- _____ Improve the storage of all archival and manuscript materials and consolidate collections in museum storage rehousing into archival boxes and folders
- _____ Document the use of archival and manuscript collection in the log book
- _____ Establish a use and access policy for the monument's archival collection
- _____ Establish a reference and research area for researchers separate from collection storage
- _____ Check NPS files to locate and consolidate older monument records
- _____ Compare the older monument records to archival records at WACC and MNA
- _____ Compile a complete list of NPS and site specific reports and accession into NAVA collections with a duplicate list
- _____ Accession and catalog monument resource management files, reports, and any remaining materials
- _____ Accession the monument's rare book collection into the museum collection
- _____ Work with monument staff to schedule periodic record review and transfer non-current records to the Federal Records Center
- _____ Develop SOP for listing folders and boxes of older monument resource management files in preparation for transfer to repositories
- _____ Rehouse oversize maps, drawings, and plans into archival folders that are the same size as the map drawer
- _____ Create a folder listing for oversize material in the map cases
- _____ Rehouse scrapbooks and the rare books

Staffing and Project Development

- _____ Inventory, catalog, and transfer manuscripts and photographs to digital formats
- _____ Replace or rehabilitate exhibit cases and exhibit information

Issues and Consultation with Affiliated Tribes

_____ Complete the repatriation process

WACC**History and Significance**

None

Records and Documentation

None

Conservation

None

Exhibits

None

Collection Storage

None

Archives

None

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

MNA**History and Significance**

None

Museum Records and Documentation

None

Conservation

None

Exhibits

None

Collection Storage

- _____ Upgrade the NPS natural science storage containers
- _____ Replace non-archival folders, bags, plastic vials, twist ties, and other improper storage enclosures in natural science collections with NPS approved materials
- _____ Replace wooden stretcher bars in the wet specimen storage facility with high density polyethylene planks
- _____ Transfer all other NPS wet specimens to appropriate containers and install a ventilation system
- _____ Add acid free covers to identify genus and species (organized alphabetically by family) inside herbarium cabinets
- _____ Purchase drop-front herbarium boxes and acid free cardboard to support herbarium folders

Archives

None

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

LONG-TERM RECOMMENDATIONS (2-5 YEARS)**NAVA****History and Significance**

- _____ Consider hiring an archivist to conduct research and aid MNA in improving condition and housing of NPS archives at MNA
- _____ Seek field notes and photographs taken by Cummings students that might reside at other repositories such as SI
- _____ Request funding to locate and document NAVA collections at non-NPS facilities in the Southwest and move toward consolidation at one facility when possible

Museum Records and Documentation

_____ Identify and research accessions with archeological material from private individuals

Conservation

None

Exhibits

_____ Submit a project to an interpretive repair and rehabilitation funding source to update and remodel existing visitor center exhibits

_____ Consider redesigning the weaving exhibit to include all woolen textiles in the entrance to and inside the auditorium

Collection Storage

None

Archives

_____ Consider using monument funds to hire an archivist to conduct research at MNA for NAVA and improve the condition and housing of archives there.

Staffing and Project Development

_____ Conduct a condition survey of vegetal collections

_____ Update or develop new exhibits

_____ Inventory NAVA collections in other repositories

_____ Explore options for moving NAVA object collections and copies of archives from WACC to MNA when a new, secure, and climate-controlled collections storage facility is completed

_____ Construct a new joint cultural resources office and collections storage room

Issues and Consultation with Affiliated Tribes

None

WACC**History and Significance**

None

Museum Records and Documentation

_____ With the monument, research and determine values for collection items where possible

Conservation

None

Exhibits

None

Collection Storage

_____ Work with other northern Arizona parks and monuments to submit multi-park PMIS project to complete the projects at WACC for all the sites with collections at the center

_____ Obtain tables for the conservation labs, restraining bars or cords for open pottery shelving, specialized storage containers and mounts, specialized archival storage equipment and inert containers for rehousing park collections, and a conservation cart for use in the archive workroom

Archives

None

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

MNA**History and Significance**

None

Museum Records and Documentation

_____ Plan for elevated cabinetry in the new facility

Conservation

None

Exhibits

None

Collection Storage

_____ Survey and inventory the Library Manuscript and Photograph Collection holdings for NPS records relating to archaeological site files

- _____ Make copies for MNA and transfer original materials to site files, especially those containing NAGPRA information
- _____ Purchase map and flat files and acid free folders to properly store materials by production type
- _____ Determine a secure storage area for oversized materials that cannot be kept in the Library
- _____ Consider installing additional lighting in the Butler building to enhance collections related activities
- _____ Purchase a motorized scissor-lift ladder or platform for working with collection boxes located on high shelving units
- _____ Purchase mobile, caster based chrome plated carbon or stainless steel metal shelving for NPS NAGPRA vault
- _____ Follow draft IMR Guidelines for Handling and Storing Human Remains
- _____ Submit PMIS project to research the locality and collection data related to specimens possibly from the monument and confirm those to be NPS property
- _____ Purchase required inert materials to properly store these natural history collections

Archives

None

Staffing and Project Development

None

Issues and Consultation with Affiliated Tribes

None

APPENDIX B: INSTITUTIONS WITH NAVA COLLECTIONS AND FUTURE RESEARCH NOTES

American Museum of Natural History Central Park West and 79th St New York, NY 10024-5192 (212) 769-5100 www.amnh.org	Richard Wetherill's 1897 collection from Keet Seel
Arizona Historical Society 949 E Second St Tucson, AZ 85719 (520) 628-5774 www.arizonahistoricalsociety.org	Byron Cummings 1913–1930 Betatakin, Inscription House, and Keet Seel
Harvard University Peabody Museum of Archaeology and Ethnology 11 Divinity Ave Cambridge, MA 02138 (617) 496-1027 www.peabody.harvard.edu	1931 excavation by Samuel Guernsey at Turkey Cave or other information related to sites in the monument
Heard Museum 2301 N Central Ave Phoenix, AZ 85004 (602) 252-8840 www.heard.org	Research collection to determine what is from the early excavations in Tsegi region
Milwaukee Public Museum 800 W Wells Milwaukee, WI 53233 (414) 278-2702 www.mpm.edu	In 1927, West intimated collections exist at this facility although contents are uncertain
Museum of Northern Arizona 3101 N Fort Valley Road Flagstaff, AZ 86001 (928) 774-5213 www.mus.naz.org	Check library archives, e.g. Betatakin daily entry and visitor book (government stamped book) maintained by John Wetherill
Navajo National Monument HC 71 Box Tonalea, AZ 86044 (928) 672-2715 www.nps.gov/nava	Originals and copies of many expeditions can be found at NAVA or were transferred recently to WACC

<p>Northern Arizona University PO Box 602 Flagstaff, AZ 86001 (928) 523-5551 www.nau.edu/library</p>	<p>Young collection for work from students of Cline Library Special Collections and Archives Cummings</p>
<p>Smithsonian Institution Cultural Resource Center 4220 Silver Hill Rd Suitland, MD 20746 (301) 238-6624, ext. 6392 www.si.edu</p>	<p>1917 Neil Judd records at Betatakin and Inscription House; W. B. Douglass records from Keet Seel and Betatakin; Fewkes records from Betatakin and Inscription House; Cummings records from Betatakin and Turkey Cave; A. E. Douglass records as well as miscellany related to Fewkes</p>
<p>University of Arizona Arizona State Museum PO Box 210026 1013 E University Blvd Tucson, AZ 85721 (520) 621-6302 www.statemuseum.arizona.edu</p>	<p>Byron Cummings post-1913 work at Betatakin, Inscription House, and Keet Seel</p>
<p>University of Arizona Laboratory of Tree-Ring Research Building 58T Main Office 105 W Stadium Tucson, AZ 85721 (520) 621-1608 www.ltrr.arizona.edu</p>	<p>Tree ring specimens from all major sites in NAVA</p>
<p>University of California at Los Angeles Fowler Museum Attn: Wendy Teeter PO Box 951549 Los Angeles, CA 90095 (310) 825-1864 www.fowler.ucla.edu</p>	<p>Rainbow Bridge-Monument Valley site records from 1935–1938</p>
<p>University of Colorado Museum of Natural History 218 UCB Boulder, CO 80309-0218 (303) 492-6892 http://cumuseum.colorado.edu/</p>	<p>Sherd collections by Earl Morris from Betatakin and Inscription House</p>

University of Utah Utah Museum of Natural History 1390 Presidents Circle Salt Lake City, UT 84112 (303) 581-6927 http://www.umnh.utah.edu/	Large amount of Cummings collection that is probably unpacked; excavations
Western Archeological and Conservation Center 255 N Commerce Park Loop Tucson, AZ 85745 (520) 791-6400 www.nps.gov	1963 Turkey Cave, 1964 and 1966 Inscription House Keith Anderson Center notes; photographic collections of Betatakin and Keet Seel from 1909 to 1958 and 1934 excavations

APPENDIX C: NAVA STORAGE EQUIPMENT REFERENCE LIST

2 Viking® standard museum storage cabinets with five drawers each on riser/sanitary base, tan, one 1-inch drawer and four 3-inch drawers

1 Steel Fixtures® Inc. standard museum storage cabinet on wooden pallet, gray, with five 1-inch drawers

This cabinet is not designed to store herbarium specimens and contains approximately 25–35 herbarium folders improperly lying loose inside open drawers.

2 Lane® herbarium cabinets, half-height, with 12 compartments, 10 with folders and two with herbarium supplies, olive drab

One herbarium cabinet is currently located in residence 4. This herbarium cabinet is empty and needs to be cleaned and returned to storage. It also requires a new replacement gasket. The herbarium specimen folders in the gray standard storage cabinets should be placed inside this specially designed cabinet for better protection.

1 Lane® entomology cabinet, half-height, gray, with 12 Cornell pinning trays

- Trays 1 through 8 are empty
- Tray 9 contains cataloged and pinned specimens from the 1960s and a few from the late 1990s. Condition: GOOD
- Tray 10 contains cataloged and pinned butterflies from the 1960s. Condition: GOOD
- Tray 11 contains miscellaneous uncataloged and pinned specimens. Condition: FAIR-POOR
- Tray 12 contains Riker box of 5 uncataloged and unpinned insects, possibly hands-on interpretive items, including a cicada and its shed skin, Jerusalem cricket, bumble bee, and a scorpion. Condition: GOOD-FAIR

2 Viking® Equipment Co. visual (glass door) storage cabinets

Cabinet 1 has 3 shelves (4 rows) and Cabinet 2 has 4 shelves (5 rows). There are five surplus shelves located on top of the cabinets along with extra shelf clips.

- Cabinet 1, Shelf A holds miscellaneous cataloged and uncataloged photographic collections of prints, negatives, and framed and unframed enlargements, 7–8 copies of visitor center orientation film (16 mm film on reels, all but two in metal and plastic film cans). Copies have been transferred to VHS videotape and a CD.
- Shelf B holds miscellaneous cataloged and uncataloged photographic collections of prints and negatives.
- Shelf C holds copy photos on CDs of the photo and manuscript collections housed at WACC. This cabinet also contains the monument's collection of fine

art and some miscellaneous archive materials including old framed and unframed exhibit photographs from about 1960.

- Shelf D holds 2 scrapbooks, Navajo language newspapers from about 1950, visitor register from about 1990, and Edward E. Curtis portraits of Southwest Indians (oversize)
- Cabinet 2 Shelves A–E holds the uncataloged rare books recently removed from the library and break room

1 Schwab® 5000 fire-resistant filing cabinet on wooden pallet, tan, letter size, 4-drawer, with combination lock

- Drawer 1, NPS blank museum forms, annual reports, etc.
- Drawer 2, NAVA loan forms, CCS information, non-NPS repository information, etc.
- Drawer 3, empty
- Drawer 4, obsolete copies of NPS blue Working Copy ANCS+® binders, incomplete

1 Hercules®, fire-resistant filing cabinet on wooden pallet, tan, letter size, 4-drawer, with key lock

- Drawer 1, site files, visitor registers, NAVA brochures
- Drawer 2, correspondence
- Drawer 3, accession folders 1–500
- Drawer 4, accession folders 501–588 accession book and partial problem book

2 GSA bookshelves, glass fronts, stacked on top of chest high ledge on right side of museum storage area

- These contain archival supplies, surplus polyethylene foam scraps, bubble wrap, U-Haul® boxes, etc. The entire NPS curatorial reference library at the monument is also stored on this ledge.

1 GSA metal file, gray 5x7 inch 2-drawer file located on the top of the Hercules® fire-resistant file

- Contain NPS Wildlife Observation Cards from about 1950, photo cards (Form 1030), and slide collection information and other library related materials. The right side drawer contains the NAVA Museum Catalog by Type (classification) and the left side drawer contains only blank cards and forms. A pile of blank folders and a to-do pile of materials (some photos and accession information) is on top of the Schwab® fire-resistant file. These items should be removed and properly filed or placed in an IN box for further action. After the 100% inventory of the monument's library is complete and the rare books moved to museum storage have been accounted for, the old library catalog cards should be removed and stored with the library or disposed. The library accession book (now

obsolete) should also be removed from museum storage and stored with the library materials. All NPS and non-NPS videotapes should be reviewed and only those with ongoing relevance to the monument should be cataloged in the library collection.

1 cardboard, black 3x5 inch Source of Accession File (obsolete)

1 GSA metal flat file index guide from about 1930, olive drab, is stored on top of the ledge

- The file contains minor information (copies of herbarium specimen labels and plant family listings) for an undetermined portion of NAVA's herbarium collection

APPENDIX D: STANDARD STAFF EMERGENCY PROCEDURES

Have an emergency flip chart available to each employee to serve as a ready reference in case of an emergency. The following provides a summary of emergency situations the monument might face during business and visiting hours. The broad topics are intended to assist staff in understanding what to expect and how to respond. The sections can be expanded and printed in flip chart format for ease of accessing pertinent information. The content under each type of emergency is monument specific.

IN CASE OF EMERGENCY CALL _____.

FIRST AID and MEDICAL EMERGENCIES

When an employee, visitor, student, or volunteer observes a visitor who appears to be ill or injured, do the following:

(Include details outlining anticipated monument situations.)

POWER OUTAGE

The monument has an emergency generator that provides emergency power to the visitor center. If a prolonged power outage occurs, do the following:

(Include monument specific details.)

WATER DAMAGE

Serious water damage may occur from a number of sources: burst pipes, clogged drains, broken skylights or windows, and construction oversights. If a water leak occurs:

(Include monument specific details.)

EXPLOSION

Chemical accidents, leaking gas, damaged or faulty electrical systems, or even motor vehicles could be the cause of life-endangering explosions. Be prepared for fire or power failure to follow explosions:

(Include monument specific details.)

FIRE

If a fire occurs:

(Include monument specific details.)

CHEMICAL SPILL

If a chemical spill occurs:

(Include monument specific details.)

TELEPHONE THREAT

It is possible staff may receive a threatening telephone call or letter, a suspicious parcel, or discover a suspicious object somewhere on the premises. If you receive a telephone threat:

(Include monument specific details.)

If you receive a written threat or suspicious parcel or if you find a suspicious object anywhere on the premises:

(Include monument specific details.)

EVACUATION

(Include monument specific details.)

**APPENDIX E: PREVIOUS PROJECTS RELATED TO CARE AND PRESERVATION
OF MUSEUM OBJECTS**

Year Proposed	PMIS No.	Project Title	Project Description
1979	N/A	Inventory, Catalog, and Accession Artifacts	An ambitious proposal to locate and inventory all NAVA collections held at all institutions. Not funded. \$15,000
1994	N/A	Inventory, Accession, and Catalog Collection	An ambitious proposal, similar to the project above, to locate and inventory all NAVA collections held at all non-NPS institutions. Not funded. \$10,000
1994	N/A	Implement Collection Management Plan	Proposal to draft a Collection Management Plan. Not Funded. \$10,000
1995	N/A	Inventory NAVA Collections in Other Repositories	An ambitious proposal, similar to the projects above, to locate and inventory all NAVA collections held at all non-NPS institutions. Not funded. Budget not documented
1995	N/A	Collection Condition Survey	Proposal to conduct a condition survey of the monument's visitor center exhibit objects and collections in storage at the monument. Not funded. Budget not documented
1995	N/A	Conservation Treatment for Buckboard Wagon	Proposal to conduct conservation repair and treatment of the buckboard wagon. Not funded. Budget not documented
1995	N/A	Upgrade Collection Storage/Work Space and Curation Care	Proposal to modify the existing storage collections to create curation workspace. Not funded. \$50,000
1995	N/A	Rehabilitate Museum Exhibits for Security and Preservation	Proposal to improve the condition of exhibit cases in the visitor center and storage cases in the collections storage room. Not funded. \$6,000
1998	22333	Replace Outdated and Obsolete Audio/Visual Equipment	Proposal to update old A/V equipment in the visitor center. Funded in FY99. \$15,000, 20% Fee Demo
1998	42455	Backlog Cataloging of Inscription House Collection at the Museum of	Proposal to inventory and catalog NAVA objects and archives related to Inscription House. Not funded. \$25,000, Museum Collections and Backlog Cataloging, CRPP Cultural Resources

		Northern Arizona	Preservation Program Base
1998	42461	Develop a Collection Management Plan	Proposal to draft a Collection Management Plan for the monument. Funded in FY03. \$17,000, Museum Collections Preservation and Protection
2000	59204	Backlog Cataloging Within the Park	Proposal to hire a GS5 museum specialist to inventory and catalog monument photographs, negatives, and archives at WACC. Funded in FY01. \$30,000, Museum Collections Preservation and Protection
2001	69662	Rehabilitate and Update Existing Exhibits in Navajo National Monument	Proposal to rehabilitate older exhibits cases in the visitor center and purchase new cases if needed. Not funded. \$48,000, 20% Fee Demo
2001	71109	Replace Outdated 20 Minute Video	Proposal to produce a new video about the monument's cultural resources. Not funded. \$125,000, 20% Fee Demo
2001	72106	Archives Backlog Cataloging	Proposal to inventory and catalog photographs and archives at WACC. Not funded. \$29,500, CRPP Museums Collections Backlog Cataloging
2001	76232	Replace Heating System in the visitor center	Proposal to replace two propane furnaces in the visitor center. Not funded. \$25,000, 20% Fee Demo, Repair/Rehabilitation
2003	94865	Rehouse Objects and Upgrade Storage Cabinets at the Museum of Northern Arizona	Proposal to replace older non-archival containers with new archival containers, and place NAVA objects into new storage cabinets at the MNA. Funded in FY03. \$28,300, Museum Collections Preservation and Protection
2004	105750	Conserve Prehistoric Textiles	Proposal to conduct conservation treatment for NAVA textiles at MNA. Not funded. \$25,488, CRPP Cultural Resources Preservation Program Base
2004	107278	Visitor Center Expansion with Island Comfort Station.	Proposal to construct an addition to the visitor center, construct new restrooms on the parking lot island, remodel the present restrooms into office space, and install a new HVAC system. Not funded. \$500,000, 20% Fee Demo Repair/Rehabilitation
2005	105750	Conserve Prehistoric Textiles	Proposal to conduct conservation treatment for NAVA textiles at MNA. Not funded. \$25,488, CRPP Cultural Resources Preservation Program Base

APPENDIX F: SURVEY RESULTS

This details the results of a survey relating to the archives and collections management program at NAVA. The survey was conducted in advance of the Collection Management Plan (CMP) in an effort to identify and quantify staff needs relating to the monument archives, museum, and library collections.

SURVEY OBJECTIVES

The primary objectives of the survey were to determine the following:

- Percentage of the staff using the monument museum collections and library.
- Percentage of the staff using non- monument information resources.
- Primary areas (categories) of information use, and the reasons for use of those specific collections.
- Primary reasons staff do not use monument information resources, and what may be necessary to promote information resource availability and use.
- General impressions on the part of the staff concerning the value and use of monument archives and museum collections.

In addition, limited demographic information was collected to develop a length of service and experience profile and to demonstrate equitable response from each monument administrative unit.

SURVEY METHODOLOGY

The target universe of the survey was the temporary and permanent staff of NAVA. The survey was disseminated to the 13-person staff in August 6, 2004 requesting the survey be completed and returned to the archeologist by September 3, 2003. The monument's archeologist serves collaterally as the curator and did not participate in the survey. A total of 5 responses were received, representing a reasonable (38%) response rate. A response rate of 12% is required for this type of survey to be considered statistically valid, so the NAVA response is considered normal, but not with a high degree of confidence in the results.

Two types of questions were used in the survey to collect different kinds of information:

- **Checklist Questions** designed to determine what types of services the respondents were using and what type of services they need.

- **Evaluative Questions** designed to determine the respondents' attitudes toward the collection management programs offered.

Respondents were also given two opportunities to add comments. One was included in the services used and the other in the services needed sections. Write-in responses are generally not used in surveys of this type because they often fail to elicit a statistically valid response and, the response generated, is often difficult to quantify. This proved to be the case in this particular survey where most of the written responses were anecdotal in nature and tended to reinforce information already recorded by the respondents in the checklist sections. They have been included with the results because they serve to illustrate some informational trends.

Since the response to the survey was sufficient to be considered statistically valid, the results will be phrased as representative of the entire staff surveyed. Since only five persons returned the survey, responses of less than 20% will always equal 0%. Therefore, responses are generally commented on when appropriate, and all responses are tallied on the attached survey form. Percentages, when 0.5 or more, are rounded up to equal numbers and rounded down when less.

DEMOGRAPHICS

Demographic information can assist with understanding motivation and needs of the respondents in addition to documenting an adequate distribution of response across administrative division and employment status. Information collected from this survey includes length of service, distribution by administrative unit, and employment status.

LENGTH OF SERVICE

	Total	Average
Years of service	61	12.2
Years at NAVA	20	4.0
Years in current position	5.0	1.0
Number of parks served in	21	4.2

DISTRIBUTION BY ADMINISTRATIVE UNIT

Administration	1
Interpretation	3
Maintenance	0
Cultural Resources	1

EMPLOYMENT STATUS

Temporary / Seasonal	1
Permanent	4

SURVEY SUMMARIES

Percentage of use the collections receive:

- 100% of the staff used the library an average of 32 times last year.
- 60% of the staff used the archives an average of 7 times last year.
- 60% of the staff used the museum collections an average of 7 times last year.
- 60% of the staff used non-service library or museum collections (including archives) an average of 50 times last year. Note: Most questioned what was meant by non-NPS collections.

CONCLUSIONS

The majority of the staff use the library and a significant percentage of the staff use the archives, while fewer use the museum collections in some aspects of their jobs. Although 60% of the staff uses services not being offered by the park that requires them to use outside sources for needed reference, and the fact that most respondents did not understand what was meant by non-NPS collections, this response should be viewed skeptically.

Concerning the types of archival and museum collections used:

- 60% photo collections
- 40% resource management records
- 40% archeological collections
- 60% historic archives
- 40% administrative records
- 40% historic collections
- 40% ethnological collection
- 20% of the staff uses the geology collections
- 0% uses the herbarium or insect collection

Concerning the reasons cited for collections use:

- 60% project research
- 60% information for visitors

- 20% maintenance/repair information
- 20% historic structure information
- 40% develop summer programs
- 20% publication
- 40% exhibit/programs
- 40% environmental impact/remediation research
- 40% personal knowledge
- 0% comparative studies

The majority of current use focuses on obtaining information and material for project research and visitor information. The highest percentage of staff utilizes photographs and archival paper records relating to the monument's history and sites or area history. Use of the archeological collection is slightly less because almost all of the collections are housed off the monument in other institutions. The monument may wish to consider duplication of most of the photographs and files on DVD and CD and house a representative sample of collections at the monument.

Reasons given for not using the archives and collections:

- 20% do not know where the collections and archives are located, what type of collections are available, and would like to see the collections storage room opened on a regular schedule
- 20% said that there is no place to look at or study the collections and archives
- 40% said the collections are neither physically nor electronically available
- 40% said the collections are too far away from where I work

It is not surprising that at least one respondent does not know where the collections are located in the monument because files, photographs, and collections were not centrally located at the time of the survey. Also, most of the collections are spread throughout numerous institutions across the country and a full inventory of where objects and archives are located has not been done. Most would like the rare book collection be more available or at least duplicated so users could browse.

Suggestions for improvement were as follows:

- 80% would like a listing of what objects and archives are in the collections
- 20% suggest collections be moved to a central location and open the storage room for longer hours
- 40% suggest organizing online services to support research or provide computer access to collections information
- 20% recommend providing professional staff to organize and work on collections

Other suggestions include acquiring more books, the need to have WACC label the contents of the digital archive CDs in some sort of library database, the ability to browse the collections, and provide museum outreach to seasonal users.

Information from the evaluative part of the survey (Section IV) identifies the value monument staff ascribes to the concepts of archival and collections management and preservation in the monument. These responses may be used to evaluate staff

understanding of why collections are created, what they consist of, and the degree of support that may be expected in the allocations of staff and resources to the improvement of library and museum services. The following five statements may be inferred from responses to the survey:

1. The staff views NAVA's collections and archives important to the preservation of information about the park.

- The collections and archives should be used to document monument resources. (100% agree)
- The collections and archives are of no value to me in the completion of my job. (100% disagree)
- The collections and archives are primary resources of the monument. (100% agree)
- There is no value in maintaining museum collections and archives. (100% disagree)
- The collections and archives serve as the institutional memory of the monument. (80% agree, 20% uncertain)
- The collections and archives should be consulted prior to beginning resource management projects. (80% agree, 20% uncertain)

2. The staff supports expending staff time and funding for the management of monument archives, collections, and libraries.

- The archives, collections, and libraries need professional management and care. (100% agree)
- Monuments should not be expending staff time and funding on museum collections. (100% disagree)
- Funds spent on museum collections and archives would be better spent on preservation of other monument resources. (80% disagree, 20% uncertain)

3. The staff generally believes collections and archives should continue to reflect the cultural nature of the monument's mission.

- There is not enough emphasis on cultural material in the museum collections. (80% uncertain, 20% disagree)
- There is not enough emphasis on natural materials in the museum collections. (20% agree, 80% disagree)

4. The staff desires more assistance for gaining access to collections and archives and the development of easily obtainable information (e.g. computerized finding aids, collections lists, and the ability to browse).

- The collections and archives should be more available for staff use. (100% agree)
- The archives should contain copies of all studies and reports done about the monument. (100% agree)

5. The staff is somewhat uncertain as to the best use of the collections and archives, yet all believe more of the monument's material should be displayed to visitors.

- The best use for the collections is reference and research. (60% agree, 40% uncertain)
- The collections would be more useable if combined with the archives and library. (40% agree, 60% uncertain)

GENERAL CONCLUSIONS

Almost all the reasons for not using collections involve problems of not knowing what is in collection and limitations to access. In general, respondents believe that collections are both physically and electronically unavailable. The library receives more use than the objects, rare books, photographs, and manuscripts located in the collection storage room generally because it is more accessible. More than one staff member suggests the location of the rare book and manuscript collection with the collections storage room is a prohibiting factor that limits access. A recommendation that should be acted on is to make duplicate copies of rare books and manuscripts.

The need to provide several methods of intellectual and physical access to the monument's museum collections is important. Improved access means the ability to build a solid foundation about the monument's resources and the surrounding community that will influence the content, direction, and quality of information staff can provide to the visitor. The first step for improvement is to conduct inventories of the collections and archives then provide the necessary listings and finding aids to the material. Some of that work is currently underway and some of the specialized report features of the ANCS+® program can help provide access to this information. Another way to benefit staff in their use of collections and archives is to create adequate work space at the monument to examine archives and some objects.

NAVA MUSEUM, ARCHIVES, AND LIBRARY COLLECTIONS SURVEY RESULTS SURVEY SECTION I

The first questions help us determine use patterns for museum, archives, and library collections. For the purpose of this survey, a visit to collections includes verbal, telephone, and email requests for information that would require the Collections Manager to find and communicate that information to you. (5 respondents)

1. Do you use the monument library? No (0) Yes (5)

If yes, about how many times in the past year? 160 total (32 on average)

2. Do you use the monument collections and archives? No (2) Yes (3)

If yes, about how many times in the past year? 35 total (7 on average)

3. Do you use non-NPS collections or archives? No (2) Yes (3)

If yes, about how many times in the past year? 250 total (50 on average)

4. What parts of the collections and archives do you use (check as many as apply):

Historic Archives (60%)	Administrative Records (40%)
Photo Collections (60%)	Historic Collection (40%)
Archeological Collection (20%)	Ethnological Collection (40%)
Herbarium (0%)	Paleontological Collection (0%)
Insect Collection (0%)	Geological Collection (20%)
Mammal Collection (0%)	Bird Collection (0%)
Resource Management Records (such as building files, natural resources studies, archeological excavation reports) (40%)	Note: Natural History specimens in the park's current collection are extremely limited

5. What are the primary reasons you use the collections? (Check as many as apply.)

Administrative Research (40%)	Project Research (60%)
Develop Summer Programs (40%)	Comparative Studies (0%)
Maintenance/Repair Info (20%)	Historic Structure Info (20%)
Publication (20%)	Information for Visitors (60%)
Exhibit/Programs (40%)	Other (please list): personal knowledge (40%)
Environmental Impact/Remediation Research (40%)	

SURVEY SECTION II

We realize that there might be many different reasons park staff does not make use of the museum, archives, or library collections in their work; and that it may be possible to fix some of the situations if we know what to look for. Your open and honest response to this question would be appreciated.

6. What are the primary reasons you do not use the collections? (Check as many as apply.)

Don't know where the collections and archives are located (20%)

Don't know what types of collections are available (20%)
 Don't know how to find the collections I need (0%)
 Don't know who can get me into the collections (0%)
 There is no place to look at or study the collections and archives (20%)
 There are no supporting archives (reports, maps, and photos) (0%)
 The collections don't have the items I need (0%)
 The collections are not relevant to my job (0%)
 There is no place to work (20%) There is no wet laboratory (0%)
 The collections are not physically accessible (40%) There is no dry laboratory (0%)
 The collections are not electronically accessible (40%) There is no preparation area (20%)
 There is no supporting library (0%) There is no study area (20%)
 There is no computer printer (0%) There is no copy machine (0%)
 Collections are not organized (0%) There is no one to let me in (0%)
 Not open on a regular schedule (20%) The staff is not friendly (0%)
 There is no one to help me find things (N/A) The staff is not helpful (0%)
 Collections are too far away from where I work (40%) as distance to the nearest facility (MNA) with NAVA collections (other than NAVA) is 145 miles
 Other (please list): Sometimes I don't have time or access to the collections storage room is limited because of key control

SURVEY SECTION III

There is always room for improvement. We are looking for some general trends and areas that may require innovation and shifts in the way museum, archives, and library collections are managed. Again, your open and honest response to this question would be appreciated.

7. What could the collections and archives do to be more useful to you? (Check as many as apply.)

- Move collections and archives to a more central location (20%)
- Open collections and archives different or longer days and hours (20%)
- Provide a listing of what is in the collections (80%)
- Provide finding aids to the collections (0%)
- Combine museum collections with archives (0%)
- Combine museum collections with the library (0%)

- Provide a work area (0%)
- Wet lab (0%)
- Dry lab (0%)
- Other (0%)
- Provide a computer hookup (0%)
- Printer (20%)
- Copy machine (0%)
- Other (0%)
- Provide online services to support research (40%)
- Provide professional staff to organize and work on collections (20%)
- Organize existing collections (20%)
- Organize existing collections in a different manner (0%)
- Provide professional staff to assist with access to collections (0%)
- Provide remote computer access to collections and archives (40%)
- Provide the type of collections I need (0%)
- Other (please list): Develop finding aids (e.g. WACC and MNA digital archives discs, photos). Need more books in the library. Develop a museum outreach program for seasonal employees.

SURVEY SECTION IV

We are interested in your general and overall impressions regarding the value and use of museum, archives, and library collections within the NPS.

8. Please indicate the intensity of your opinion by circling one letter for each statement below.

A = AGREE U = UNCERTAIN D = DISAGREE

Statement	A	U	D
Museum collections and archives should be used to document monument resources.	5	0	0
Monument collections and archives are of no value to me in the completion of my job.	0	0	5
Monument archives, collections, and libraries need professional management and care.	5	0	0
Monument collections and archives should be consulted prior to beginning resource management projects.	4	1	0

Monument collections and archives should be more available for monument staff use.	5	0	0
Monument museum collections and archives are primary resources for the monument.	5	0	0
The best use for monument collections is reference and research.	3	2	0
Monument collections would be more useable if combined with the archives and library.	2	3	0
There is not enough emphasis on natural materials in monument collections.	1	0	4
Monument s should not be expending staff, time, and funding on museum collections.	0	0	5
Monument archives should contain copies of all studies and reports done about the monument.	5	0	0
There is not enough emphasis on cultural material in monument collections.	0	4	1
There is no value in monuments maintaining monument museum collections or archives.	0	0	5
Monument collections and archives serve as the institutional memory of the monument.	4	1	0
Monument visitor centers should exhibit more material from the monument collections.	5	0	0
Funds spent on museum collections and archives would be better spent on preservation of other monument resources.	0	1	4

SURVEY SECTION V

In order to assure a well-represented response from a cross section of park staff, we would appreciate a minimum amount of demographic information.

Number of years in the NPS. Total 61 years (average 12.2)
Number of years at current monument. **Total 20 years (average 4.0)**
Number of park units you have served in. **Total 21 (average 4.2)**
Current position (optional)
Administration: **1**
Interpretation: **3**
Maintenance: **0**
Ranger: **0**
Resource Management: **1**
Other (please list): **0**
Number of years in current position. **Total 5.0 (average 1.0)**

Are you currently:

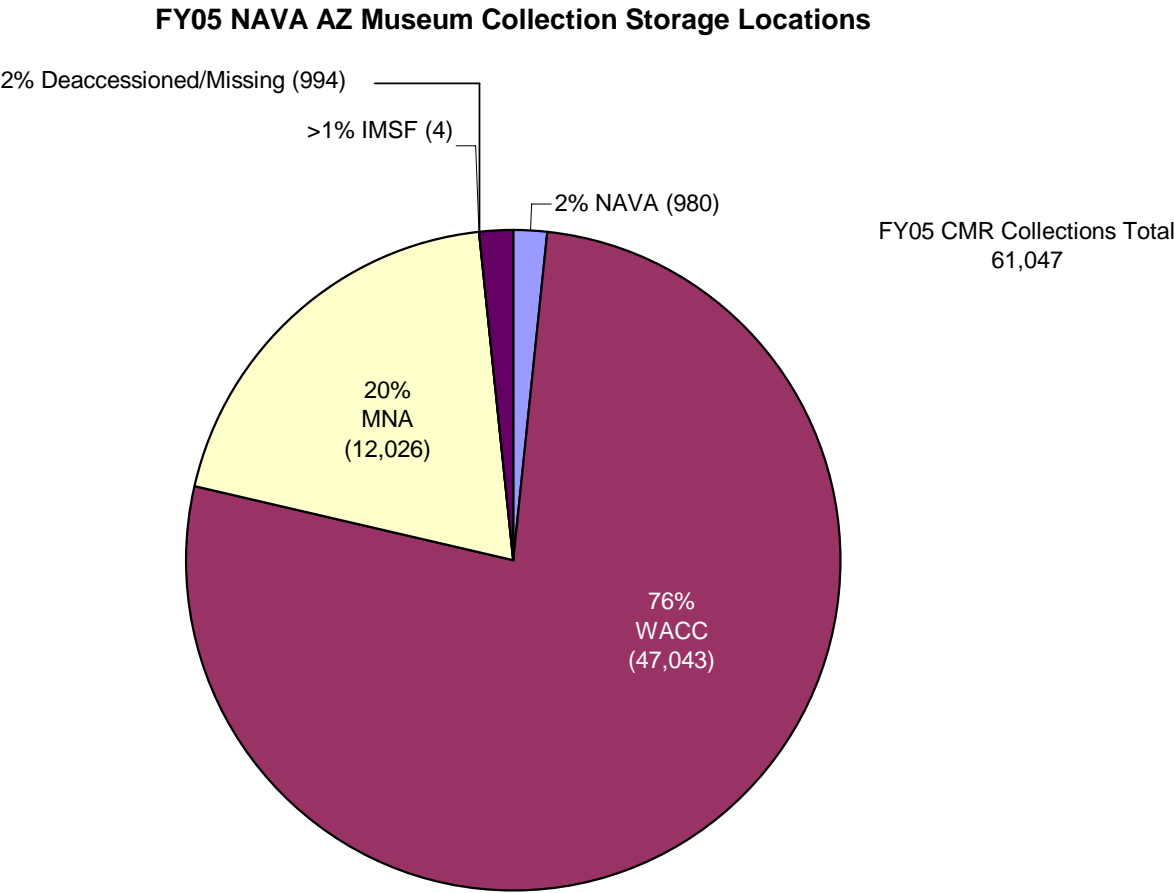
Permanent staff: 4

Term/Seasonal/Temporary staff: 1

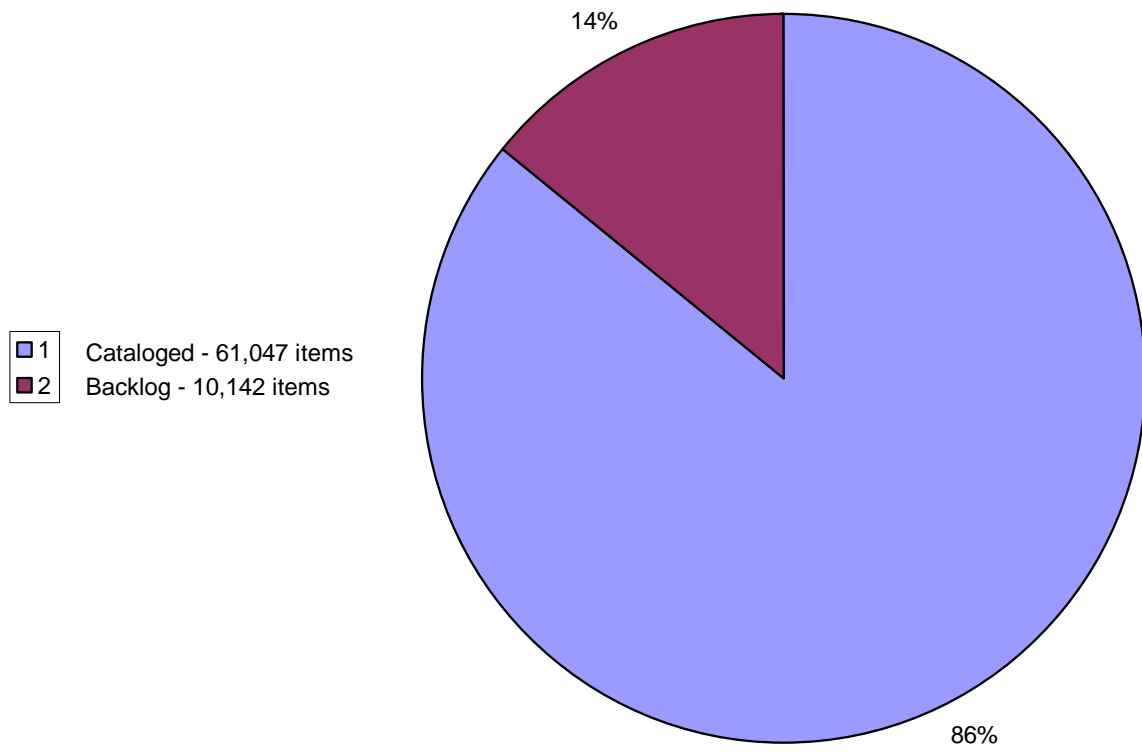
Please estimate the time you spent responding to this survey. **Total 140**
(average 28 minutes)

NAVA, December 2004

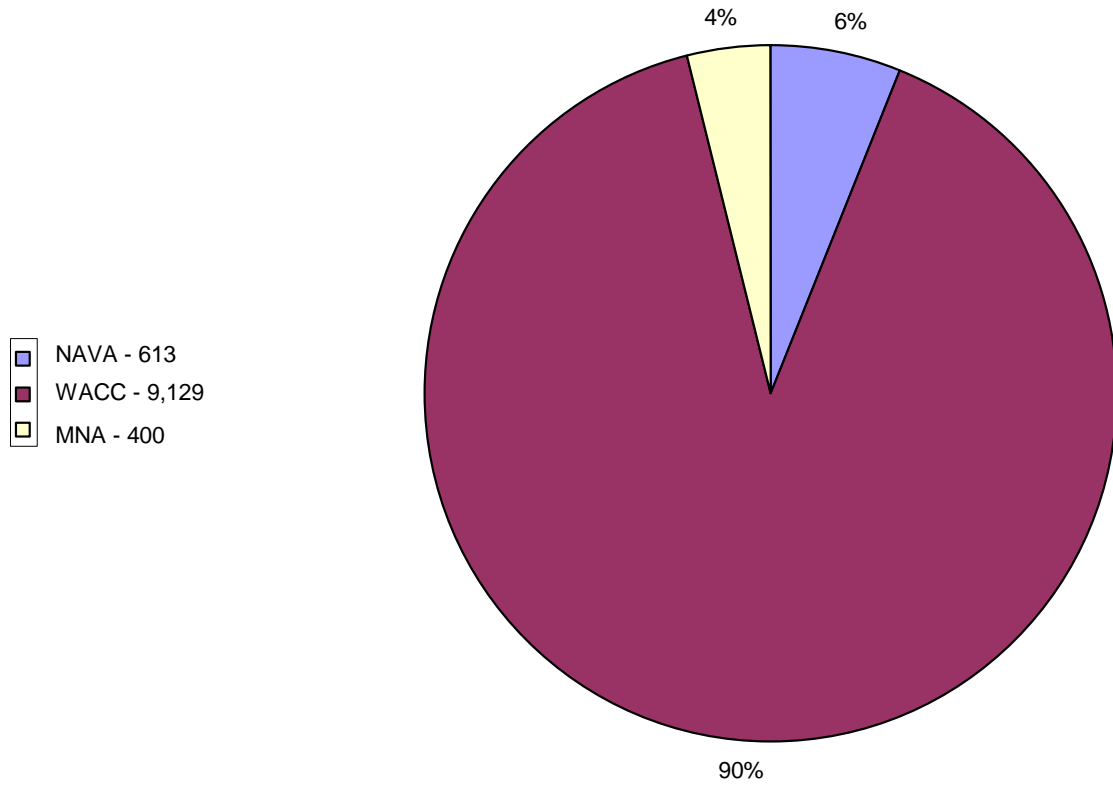
**APPENDIX G: PIE CHARTS SHOWING NAVA COLLECTION SIZE AND
BACKLOG**



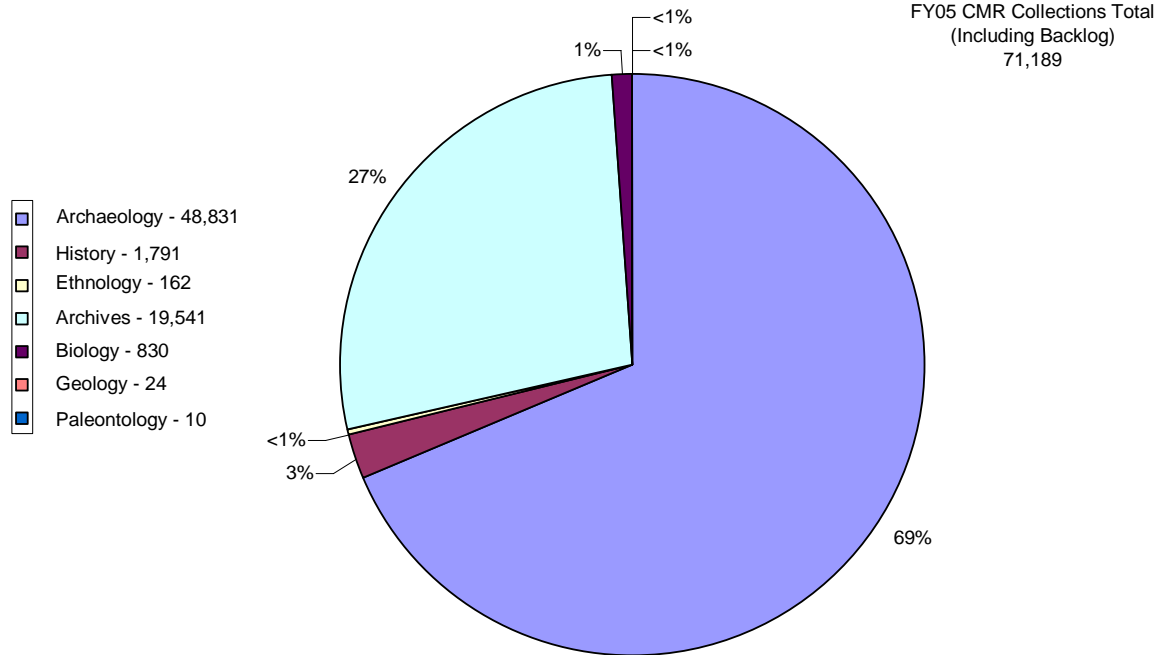
FY05 NAVA Cataloged Compared to Backlog



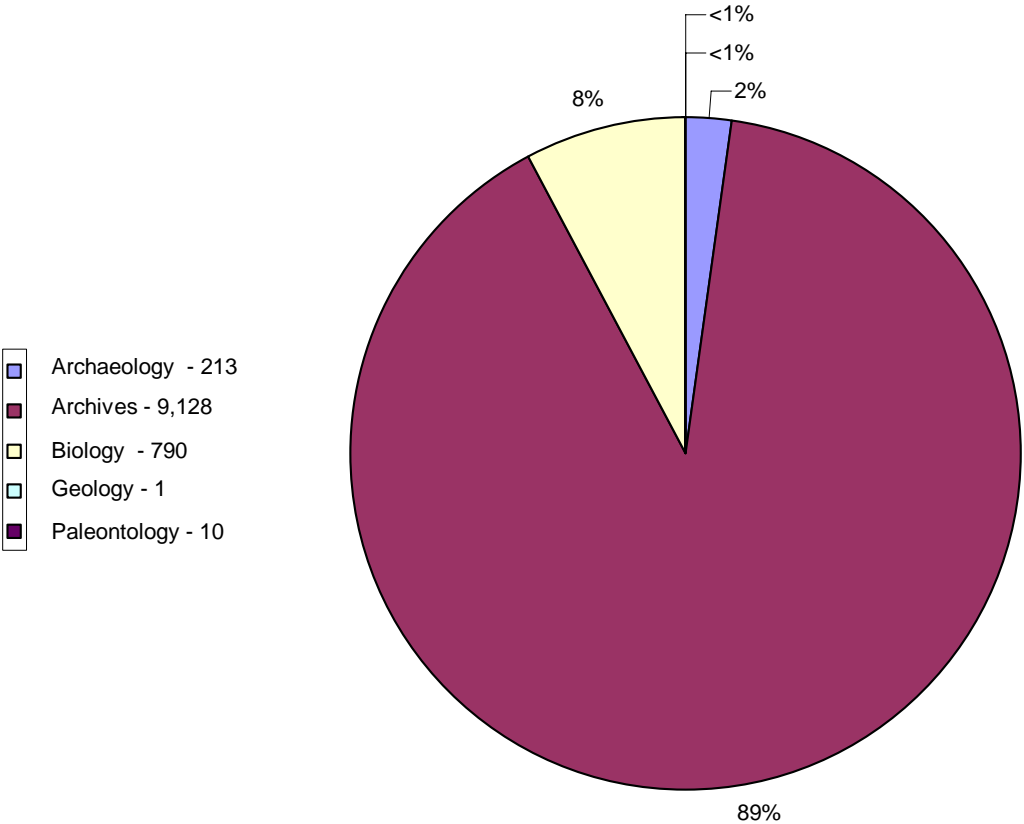
FY05 Backlog by Repository



FY05 NAVA Museum Collection Categories by Discipline



FY05 Backlog of Museum Collection Categories by Discipline



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National Park Service:

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National Park Service Publications:

<http://www.cr.nps.gov/museum/publications/index.htm>

Jobmaster:

<http://www.jobmaster.com/index.html>