Dinosaur National Monument

Museum Management Planning Team

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Museum Management Plan
Dinosaur National Monument

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Executive Summary

The *Dinosaur National Monument Museum Management Plan* outlines a series of issues concerning the management and use of museum collections and recommends corresponding actions to address those issues. The monument currently holds about 50,617 museum objects and specimens. There are an additional 559,199 individual items to be added to the park archives and museum collection. The total collections at this time are estimated to contain 609,816 items.

Initially, the legislative mandate (signed by President Woodrow Wilson in October 1915) creating Dinosaur National Monument required the park to preserve an extraordinary deposit of Jurassic dinosaurs of great scientific interest. When the monument was enlarged by more than 211,000 acres in 1931 and 1938, the park mandate expanded to include conservation of the scenic, natural, and historic resources of the Green and Yampa River canyons. By their nature, fossil parks are rich in museum collections and associated data. In few other types of parks is the primary resource so closely tied to the scientific community. Because the Morrison Formation extends beyond park boundaries, there is a great need for partnerships with other local agencies. One such partnership has already been established with the Utah Field House of Natural History State Park, and the local Bureau of Land Management, and the U.S. Forest Service. A joint curatorial/research facility is slated for construction in 2005.

The Research and Resource Management Division of Dinosaur National Monument, which includes the curatorial program, is presently in a developmental stage. This Museum Management Plan offers recommendations that will help the monument move forward in a proactive and responsible manner.

Summary of Recommendations

- Develop a park-specific philosophy for managing the archives, libraries, and museum collections.

- Develop an overall plan with partners that establishes a vision statement, missions and goals, and standard operating policies for a multi-agency repository.

- Improve information management tools and access procedures to promote intellectual access to Uinta Basin archives, libraries, and museum collections.

- Update documentation and accountability for the park's archives, libraries, and museum collections.

- Develop necessary work, storage and study areas for collections at points of use within the park.

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Introduction

The Museum Management Plan (MMP) replaces the
Collections Management Plan (CMP) referred to in the
National Park Service publications, *Outline for
Planning Requirements*, the *Cultural Resource
Management Guidelines*, and the *NPS Museum Handbook,
Part I.*

The CMP process generally followed an Operations
Evaluation format, concentrating on the technical
aspects of museum operations, including a full review
of accession files, status of cataloging, adherence to
guidelines, and making very specific recommendations
for corrections and improvements. As a new approach
to museum management planning, the MMP seeks to
evaluate all aspects of museum-related programs within
a park, and makes broad recommendations to guide
development of park-specific programs that address the
park's identified needs.

The MMP recognizes that specific directions for the
technical aspects of archival and collections
management exist within the *NPS Museum Handbook*
series. The MMP does not, therefore, duplicate that
type of information in this plan. Instead, the MMP
serves to place museum operations in a holistic
context within park operations by focusing on how
various collections may be used by park staff to
support the goals of this particular park. Recognizing
that there are many different ways in which archives,
libraries and museum collections may be organized,
linked and used within individual parks, this plan

seeks to provide park-specific advice on how this may be accomplished.

At Dinosaur National Monument, the MMP was requested to assist the park in establishing a viable and multifaceted program that supports the park programs. Many elements of this particular plan are developmental in nature and are designed to guide the park through the initial steps in creating a workable system that will support all aspects of park operations.

To help with this process, the MMP team surveyed the entire park staff to collect baseline data concerning archival, library and museum collections, and various related services needed by the staff. The information collected allowed the team to make a quick evaluation of numerous factors affecting museum operations, and also provided valuable insights about how a well designed museum management program might address the needs of park staff. The compiled results of this survey, along with explanatory notes, are contained in Appendix E of this plan.

This MMP was developed over a 10-day period from October 29 through November 9, 2001. The team became familiar with park resources and operations, then developed, organized and recorded the central issues and the necessary supporting information that comprises the plan. An out-briefing was conducted with the park staff on November 9, 2001.

This plan is the result of team and park collaboration, discussion, and consensus regarding all issues and recommendations. The plan includes individual contributions from Jonathan Bayless, Kent Bush, Ann Elder, Lynn Marie Mitchell and Marilyn Ostergren. The appendices were gathered from a body of

suggested methodologies and reference materials generated over time by various NPS curators for other planning documents as well as original material developed for this plan.

The Museum Management Planning Team wishes to thank the staff of Dinosaur National Monument for the courtesy, consideration and cooperation extended during this planning effort, in particular Ann Elder and Carol McCoy Brown. Their time, effort, and involvement have been very much appreciated, and have served to make the team's job much easier. It is apparent that these individuals are dedicated and committed to the preservation of the park resources, and the interpretation of those resources to the public. It is pleasure to work with such professionals.

The team and the staff of Dinosaur National Monument would also like to thank the partners who have assisted in developing this plan, in particular, Steven Sroka and Sue Ann Bilbey from the Utah Field House of Natural History State Park; H. Blaine Phillips from the Bureau of Land Management, and Chauncie Todd, Terry Clark, and Byron Loosle from the Forest Service.

History of the Museum Program at Dinosaur National Monument

1909 – 1930

In 1909, scientists made the earliest documented study collection of fossil vertebrate material from the area that is now Dinosaur National Monument. Earl Douglass, a paleontologist at the Carnegie Museum in Pittsburg, Pennsylvania, had first visited northeastern Utah in search of fossil mammals in 1908. The following year, steel magnate Andrew Carnegie asked Douglass to devote his time to finding large dinosaurs, just like the ones Carnegie had seen in a New York newspaper some years before.

Douglass knew that the Morrison Formation had yielded dinosaurs in other areas of the West. Douglass also knew that the Morrison Formation was visible at the surface near Jensen, Utah. On August 17, 1909, nearing the end of his field season, Douglass found eight tail vertebrae of a sauropod, weathering out of a hillside north of Jensen. Douglass started digging. Over the next 15 years, Douglass would supervise the excavation of 350 tons of fossil bones, the large majority of which were sent to the Carnegie Museum.

Many significant specimens were excavated in the first five years of working the Carnegie Quarry, as it came to be known. One of these included a new species of

dinosaur, which was at that time considered the most complete sauropod ever found. Named *Apatosaurus louisae* in honor of Andrew Carnegie's wife, the skeleton was mounted in the Carnegie Museum in 1915.

Carnegie Museum officials soon began to worry about the unprotected status of the quarry. They feared that without legal title to the fossil resources, other institutions or private citizens would compete for the bonanza of bones. In 1913, Earl Douglass, on behalf of the Carnegie Museum, filed a placer claim at the local U.S. Land Office. It was not until 1915 that a final decision was made on the claim. The First Assistant Secretary, Department of the Interior, ruled that fossil deposits were not subject to mining claims. Though the Carnegie Museum continued to appeal the decision, representatives of the Department of the Interior were moving to protect the site in another way.

The National Monument Act of 1906 had been used to protect sensitive areas of public interest. Some government officials considered the Carnegie Quarry a candidate for protection under this act, though not everyone thought it worthy of National Monument status. In a memorandum dated August 21, 1915, Frank Bond, Chief Clerk of the General Land Office expressed his concerns to his superiors. He stated that he did not feel that the National Monument Act was intended to protect a site where the major resource was being removed. He could not imagine a reason to grant such status to a location that was going to be, once all the fossils were removed, a large hole in the ground.

Luckily, other thoughts prevailed. On October 4, 1915, President Woodrow Wilson signed the legislation designating the Carnegie Quarry and 80 surrounding acres as Dinosaur National Monument, stating:

> "…there is located [in Utah] an extraordinary deposit of Dinosaurian and other gigantic reptilian remains of the Juratrias period, which are of great scientific interest and value, and it appears that the public interest would be promoted by reserving these deposits as a National Monument…"

Though fossils would continue to be excavated and deposited in outside repositories for an additional eight years, the Carnegie Quarry was now a National Monument.

The Carnegie Quarry was indeed now protected. But with a stroke of a pen, it changed from a museum's quarry to a public trust. Immediately questions arose. Should the Carnegie Museum be allowed to continue

quarrying? Should at least some of the specimens from the site reside in the U.S. National Museum (Smithsonian Institution)? Should a museum be built at the site?

Meanwhile, the Carnegie Museum continued to remove specimens, though now they needed a permit. The Department of Interior had invited the Carnegie Museum to apply for a permit, recognizing that the Smithsonian Institution could not afford a large-scale excavation at that time. The permit process required that the Carnegie Museum provide a list of the specimens collected and a quarry map to the Secretary of the Smithsonian Institution every year. The permit was exclusive, granted on a yearly basis. Though the Smithsonian Institution hoped to get at least some of the bones from the Carnegie's excavation, no such provision was made in the permit.

By 1919, both the newly formed National Park Service and the U.S. Geological Survey were expressing concerns about the Carnegie Museum's monopoly of the Carnegie Quarry. Frustrations grew. Finally in 1922, Department of the Interior Assistant Secretary F. M. Goodwin spelled out the growing sentiment:

> "…be advised that the ethics of the case would seem to demand that [the Carnegie Museum] deposit a portion of [its] duplicate material in the National Museum. It seems very unfortunate that the

Government, by reason of lack of funds for the particular purpose, should be deprived of the opportunity of securing and preserving for education and research work the treasures of its own domain. At the same time it would be both ungracious and unwise to refuse to accord permission to a properly constituted organization to do work which we cannot do ourselves. In view of all circumstances, however, it seems unfair that a private organization should be permitted to practically exhaust the resources of a portion of the national domain without rendering some return to the Government."

Whether from governmental pressure, a change in directors, lack of funds, or a sense of having all the dinosaur bones the museum needed, 1922 was the last year that the Carnegie Museum collected specimens from the Carnegie Quarry. The University of Utah, University of Michigan, and the Smithsonian Institution all collected briefly over the next two years. Earl Douglass' era had ended and the quarry fell silent.

Sometime before December 1942, the Douglass family either loaned or donated a substantial collection of Earl's papers, notes and photographs to Dinosaur National Monument. The Douglass family was never really satisfied with how the monument utilized these objects. The collection was returned to the Douglass family in the early 1960s. In 1987, the Douglass family loaned seven of Earl's tools to the monument for a specific exhibit. Those objects remain on exhibit today.

The monument does possess some archival objects dating back to Douglass's work with the University of Utah in 1922. They include 150 typewritten sheets, two field notebooks, 16 paper quarry maps, and one linen quarry map.

1930 –1970

In the early 1930s, the American Museum of Natural History in New York City had become interested in the development of the Carnegie Quarry. So had their curator Barnum Brown. Though the American Museum and the NPS failed in their efforts to come up with a mutually beneficial development plan, the government did hire Brown as a consultant for three weeks to evaluate the Carnegie Quarry to determine its potential for producing more fossils. Brown is credited with recommending to NPS Director Horace Albright that relief labor from the newly created New Deal programs be used to continue the work at Dinosaur National Monument.

Between 1933 and 1938, various relief labor crews removed the overburden from above the remaining fossiliferous layer and enlarged the trench in front of the quarry for future development. No specimens were collected during this time.

In 1931 and 1938, the monument was enlarged by more than 211,000 acres to include the nearby canyons of the Green and Yampa rivers. With these new lands came new resources. Archeological and biological studies produced museum collections, most of which went to outside repositories. Slowly the monument began building its own collections. By the 1960s, Dinosaur was acquiring archeological objects and herbarium specimens from studies within the park.

To this point, no NPS administrative staff had been assigned to Dinosaur National Monument. From 1927 to 1953, the monument was administered by the superintendent of Rocky Mountain National Park. Records for this period can be found within the files of Rocky Mountain National Park.

With Mission 66 funding, Dinosaur National Monument
constructed two housing areas, a Headquarters
building, and planned the long-awaited visitor center
built over top what remained of the Carnegie Quarry.
Paleontologist Theodore White, formerly of the
Smithsonian Institution and Harvard University, was
hired by the NPS in 1953 to oversee the reliefing of
the bone-bearing layer, which the relief labor crews
had uncovered in the 1930s. White trained other
monument employees, who had no previous experience, in
the delicate work of fossil preparation. Two of these
employees, Floyd "Tobe" Wilkins and Jim Adams devoted
32 and 28 years respectively to reliefing the bones in
the Carnegie Quarry.

This was an exciting time for Dinosaur National
Monument. With Mission 66 funding, an in situ museum
seemed almost certain. But how many bones really
remained in the fossil-bearing layer? It was the job
of White and his co-workers to find out. Pneumatic
tools were used in the quarry for the first time. A
tin shed was built over a portion of the quarry,
making year-round work more comfortable. White was
also responsible for curating the bones that were
found. Adams attended the NPS Curatorial Methods
training in the late 1960s and took on many of the
daily curatorial duties. It quickly became obvious
that there were still plenty of dinosaur bones in the
remaining strata.

In 1958, Dinosaur National Monument's Quarry Visitor
Center was dedicated. The building turned out much as
Earl Douglass had envisioned it some 40 years before.
In 1915, he noted in his diary:

> "How appropriate that [the fossils] or part
> of them be exposed in relief as they were
> buried, to show the tragedy of their death
> and to reveal something of their lives and
> surroundings. How appropriate to build a
> fair sized building over them to protect

them, to have this a thing of substantial
beauty modeled after nature, to have this
large enough to contain related fossils and
other curiosities…to help to appreciate
nature in her wonderful ways."

The 1,400 dinosaur bones exposed in Quarry Visitor
Center remain the centerpiece of the monument's museum
collection.

1970 – 2000

In April 1975, the monument hired Russ King to replace
Ted White, who had retired in 1974. King assumed
curatorial responsibility for the paleontology
collection. Jim Adams continued to perform day-to-day
curatorial duties. King died in a fishing accident in
October 1978.

In the late 1970s, the Dinosaur Nature Association
purchased Ted White's research library and donated it
to the park. This collection contained rare and
valuable books and numerous scientific journals and
articles. The collection formed the foundation of the
monument's current paleontology research library.

Dan Chure replaced Russ King in 1979. Chure is
credited with expanding the duties of the collateral
duty park curator to be more inclusive of the entire
museum collection. Adams continued to perform the day-
to-day curatorial duties until 1984.

In 1984, Ann Elder (then Ann Schaffer) replaced the
retiring Jim Adams. Elder attended Curatorial Methods
in 1985 and assumed those duties previously assigned
to Adams. Scott Madsen replaced Tobe Wilkins in 1988.

The size of the monument's museum collection increased
rapidly in the 1990s. Development of the Biological
Resource Management Program within the park sparked
numerous scientific studies, many of which produced

thousands of museum specimens. The Paleontology
Program turned its attention to fossil sites located
outside of the Quarry Visitor Center producing tons of
excavated fossils. The Cultural Resource Management
Program began conducting field surveys in which
thousands of artifacts were collected. Both general
park libraries (one located in Quarry Visitor Center
and one in the Headquarters building) and the
Paleontology Research Library (located in the
paleontology office) likewise expanded during this
time.

Use of the collections increased as well. The discovery of many extremely scientifically significant paleontology specimens (including a number of new species) generated use of the collections from both monument staff and outside researchers. The number of outgoing and incoming loans increased dramatically. The addition of a permanent monument botanist and archeologist sparked use of those collections as well.

Recognizing that the museum collection had grown to the point where more staff were necessary, the monument established a full-time museum curator position in 2000. This position was filled by Ann Elder. In addition, the monument entered into a partnership with the Utah Field House of Natural History State Park, and local Bureau of Land Management and U.S. Forest Service agencies to construct and operate a joint curation/research facility slated for construction in 2005. As envisioned, this facility would both eliminate curatorial storage deficiencies and provide an attractive work environment for researchers.

Recognizing that most of the permanent records (papers, photos, maps, field notes, etc.) detailing the history of Dinosaur National Monument were at risk of being lost, the monument contracted Western Archeological and Conservation Center Archivist Lynn Marie Mitchell to conduct an archival survey in 2001. Mitchell identified over 400,000 archival objects worthy of inclusion into the monument's museum collection.

At the time this Museum Management Plan was published, the monument's museum collection contained over 609,000 specimens and objects —approximately 83% of those had not been cataloged.

Collections Philosophy

The basic principles for managing museum collections in national parks are not always well understood. Park managers, resource managers and interpreters are often too busy with their daily work to fully consider the concepts and logistics governing collections management. It is easy for parks to fall short of developing a sound Museum Management Program and, as a result, not realize the full benefit and value from their collections.

This section provides the following background information about museum collections:

- The purpose of museum collections
- How museum collections represent a park's resources
- Determining where to locate museum collections
- Establishing access, use and management policies for museum collections

Purpose of Museum Collections within National Parks

Museum collections always contain objects and specimens, and most museums administer their own archives and operate their own libraries. These functions are necessary to support the work of the organization as a whole. It is not unusual for these resources — archives, collections and libraries — to also be accessible to the public.

Within national parks, museum collections (including archives) serve four basic functions:

- **Documentation of resources**. Park collections should serve as documentation of the physical resources of the park and the history of the park's efforts to preserve and protect those resources.

  Physical preservation and protection of resources. Park collections should help preserve and protect a park's resources, not only by keeping the specimens and collections made to document the resources, but also by preserving information about the individual items. This is central to the management of both natural and cultural material.

- **Research**. During documentation of collections, a park performs research to provide background information used in cataloging. The park is also responsible for making collections information available to legitimate research, which can itself lead to new discoveries about an item.

- **Public programs**. The park is responsible for using its collections to provide information to the public. Exhibits and publications are two traditional means of supplying public programs, but new technology has led to other communication methods, including electronic access through Web sites and online databases.

How Collections Represent a Park's Resources

A park's museum, library, and archival collections provide different perspectives on its resources:

- Museum collections, which contain three-dimensional objects and specimens, should represent the resources within the park boundaries. Examples of museum collections include: artifacts from archeological compliance activities; specimens and

resulting reports from resource management
projects; paint samples and building fragments from
restoration of historic structures.

- The park archives should contain files,
manuscripts, maps, building plans, and photos that
document the history of park development and the
management of its resources. Individual collections
within the archives should serve to further
document the activities that created portions of
the museum collections. Examples of park archives
include: copies of field journals and maps created
while collecting botanical specimens; photographs
and spectrographic analysis of paint samples
recovered during historic structure work; maps and
as-built drawings made during utility installation;
and property, land and water use agreements that
document past acquisition and use of park lands.

- The park library should contain both published
literature and less formal reports and documents
relative to the park's resources and their
management. Examples might include: general
literature concerning local history, flora and
fauna; specialized scientific studies relative to
biota and archeological resources found in the
park; circulating copies of all park specific
planning documents; trade, craft and professional
journals reflecting the need for park staff to
remain current in their field.

Determining where to Locate Park Collections

The *NPS Museum Handbook* should be used as a guideline
for identifying locations for branch or satellite park
collections, and establishing methodologies for their
documentation, organization, storage and use.

It is often best if collections are located centrally
since this promotes efficient use of space

(particularly in terms of combining preparation and work areas). However, it may be more efficient operationally to split the collections among potential users (for example, the herbarium and insect collection going to Natural Resources for storage and use).

Branch or satellite collections are possible as long as proper preservation and security conditions are met, and the requisite work areas necessary for management and use are provided. Overall responsibility for documentation, preservation and reporting should, however, remain vested in one curatorial lead position, no matter where branch collections are located.

Establishing Access, Use, and Management Policies

Access, use, and management policies serve to define who can access the collections (both staff and public), what types of use are possible and under what conditions, and how the collections should be managed. Desired outcomes or products should be identified as well; for example, the type of services that are expected from the collections. Some examples might include production of over-lays for buried utilities; production of CDs containing paleontological research; liberal access to botanical specimens for comparative studies; and inter-library loan services.

Samples of access, use and management policies are contained in the appendices to this plan. Note that these sample policies are generic — the park is encouraged to change and adapt them to fit park-specific needs.

Focus group exercises should result in a number of park-specific documents, including a Role and Function

Statement for the combined collections that clearly
states who is responsible for the development of a
joint resource and how it will function to serve park-
wide goals. Access and use policies should be defined
and implemented, and responsibilities for development,
documentation and management of the resource defined
in a formal position description and associated
performance standards. It is only by fully defining
written objectives that they will be accomplished in
fact.

Following are some recommendations to consider for
developing and formalizing the park's management
philosophy of archives, libraries, and museum
collections:

- Contact other institutions holding archives,
  libraries, and museum collections in the general
  area to identify possible cooperative partnerships
  regarding these resources.

- Create a focus group of senior staff representing
  all park administrative units to define what the
  collections should contain, how they should be
  managed and accessed most efficiently, and what
  products should be produced upon request.

- Define the role and function of the combined
  collections by formal statement, formal access
  policies, and formal methodologies for depositing
  collections material, archival information and
  required literature into the collections.

- Assign responsibility for developing and managing
  the joint collections to a single administrative
  unit and individual via a written position
  description and performance standards.

Issue A —
Uinta Research and
Curation Center

Issue Statement

Innovative planning for construction and operation of the proposed Uinta Research and Curation Center provides partners with the opportunity to be national leaders in scientific partnerships.

Background

This issue concerns the current plan to construct and operate a museum repository (referred to here as the Uinta Research and Curation Center) in Vernal, Utah some 25 miles from the monument. The center represents a partnership between Dinosaur National Monument (DINO) and the Utah Field House of Natural History State Park (referred to as the Utah Field House, or UFH).

Since 1909, when Dinosaur National Monument started with the discovery and excavation of dinosaur fossils, museum specimens have been central to its identity and

importance. The monument's 211,000 acres contain
significant biological, geological, archeological, and
historical resources that represent a diversity of
natural and cultural resource types. These resources
have the potential, and sometimes legal mandate, to
generate museum artifacts and specimens, archives, and
library resources. Established in 1945 by an act of
the state of Utah, the museum opened in 1948. Its
mission is to "Collect, preserve, and exhibit fossil
and other objects of natural history from the Uintah
Mountains and Uintah Basin of northern Utah." The
founder and first director, Ernest Untermann, was a
former caretaker of Dinosaur National Monument. Other
sections of this plan describe the history and origins
of the DINO collections and future plans for curation
at DINO (see Issue D).

Both the Utah Field House and Dinosaur National
Monument recognize the need for a new curatorial and
research facility. The planning team focused its
efforts on Dinosaur's planning background. Information
on the planning and programming efforts of the Utah
Field House can be obtained from Steve Sroka, Director
of the Utah Field House of National History State
Park.

The monument's General Management Plan (1986)
identified the need for a collections building and
upgraded lab facilities under the preferred
alternative. The 1986 *Dinosaur National Monument
Collections Management Plan* also called for creating a
5,000 square foot storage building near the
maintenance area. NPS planning documents
(*Development/Study Package Proposal*, Form 10-238)
submitted in 1986, '88, '90, '96 and '97 called for
constructing and supplying a curatorial facility for
$4,650,000 (1997). The *Statement for Management* (1990)
sets a goal to "Build a Centralized Museum Collections
Building." A Collection Storage Plan (1993, pg. 32)

described a new 9,600 square foot facility containing "…the curatorial office, the research/work area, field records storage, natural history and cultural collections storage and field equipment storage." The intent of all these requests was to provide space for all the DINO museum collections in one facility that meets federal storage standards.

Discussion

The requirements for effective museum curation of specimens include organized storage, proper museum environment and security, documentation, accountability, active conservation of specimens when needed, and physical and intellectual access to collections for exhibit, research, and education. Proper planning for new facilities should develop a context for its layout, design, physical requirements and operations based upon a vision, explicit agency missions and goals, developed roles and functional analysis, preliminary standard operating policies and procedures, and projections of future trends and needs. The Utah Field House has begun this process as seen in the draft document, *Utah Field House of Natural History State Park Building Program Plan*, begun in 1997. The planning team includes Utah State Parks and Recreation staff members, museum professionals and community members, and seeks public input and involvement. The *Building Program Plan* lays out the vision, mission, and goals for a public museum and curatorial facility.

The current concept involves construction of a 22,000 square foot museum facility for exhibit and education and a separate facility that is the proposed Uinta Research and Curation Center discussed in this issue. The plan goes a long way towards creating the conceptual framework for the Uinta Research and Curation Center, but much more remains to be

accomplished before architectural and engineering plans can be completed.

The National Park Service has also begun the planning process for the new facility. In 2001, Ron Shields, project manager from the Denver Service Center, began to facilitate planning for Dinosaur National Monument. The challenge to merge the cultures and missions of the state and NPS partners, and meet the needs of clients and the public will require thorough planning on many different levels. A conceptual approach is described here.

Most recently in 2000, a joint curatorial facility for the Utah Field House and DINO was described as a 20,540 square foot facility costing an estimated $4,390,000. The current funding approved for the facility is some $6 million, including $800,000 for design and architectural and engineering work. A preliminary survey to assess the space and function needs of agencies, including potential clients such as the Bureau of Land Management and the U.S. Forest Service, was conducted by Ann Elder, DINO curator. Table 1 summarizes the results of this survey.

The Museum Management Planning Team strongly urges the partners to view survey results as rough estimates and to follow a systematic approach to identifying the needs of partners and clients before embarking on architectural planning and construction.

The estimates were also made using square feet, where actual storage planning will need to assess needs based upon cubic feet — the height of a room relates directly to the volume of specimens, artifacts, and records that it can hold. Effective architectural design requires careful analysis of functions, activities, operational requirements, and builds on the clear understanding of the agencies' goals.

Table 1. *Estimated space needs based on a preliminary survey.*

	DINO	UFH	Clients	Common Areas	Total
Collections Storage	6,000	6,000	2,000		14,000
Archeology Lab				400	400
Paleo Labs				2,500	2,500
Offices	300	300			600
Researcher Stations				500	500
Library				500	500
Field Equipment Storage in common				500	500
Archives Room				550	550
Art Storage		400			400
Support Areas (Conference, Kitchen, Copy rooms)				500	500

Circulation and Utility (10%)				2,045	2,045
Totals	9,300	6,200	2,000	4,995	22,495

The use of common areas shared between the UFH and DINO does not necessarily imply complete integration of all operations, although it is always an option. The paleontology labs may include specialized rooms for chemical processing or sandblasting, which might be shared, and separate processing rooms for individual agencies, projects, clients, or visiting scientists. Flexibility and adaptation to changing needs must be one of the design considerations.

Delineating space as dedicated to one agency, versus shared or client space, could use the concept of "minimum guaranteed area" where specific allocations are assured and additional allocations are subject to further consultation and agreement. For example, if 2,000 square feet were available within a specific type of storage, and UFH and DINO currently needed 500 square feet each, the center could reserve the rest of the available space for future allocations to either partner or other clients. This approach offers flexibility while recognizing the reality that once museum space is allocated and occupied it is often time consuming and expensive to reconfigure. This is especially true for clients, who may have fewer alternatives than the partners for relocating collections.

The current estimates for storage space include only modest growth for specimens over time. The Utah Field House estimates that they will acquire approximately 500 square feet of collections annually, although much of this will be for clients' collections (with the caution that cubic feet are needed for estimating more accurate square footage). There will be a desire to

maximize storage capacity in the new facility, but the total functionality of the center must not be compromised to achieve this end. As an example, the current estimate for office space (see Table 1) is for two small offices for each agency, with no potential for new staff, volunteers, interns, or clients. The design challenge of this building will be to maximize size while ensuring a protected and secure environment. The agencies must seek the involvement of architects and engineers with experience in museum or similar facilities, as well as the input and review of museum and scientific professionals.

Although the Unita Research and Curation Center can be seen as a place for agency, client, and academic experts to pursue the management and research of specimens removed from the public's gaze (recognizing that both UFH and DINO have museum facilities), the design must consider

the potential for small specialized tour groups and other interpretive opportunities. Tours by managers, trainees, college or school groups, scientific and nonprofit groups, and others are likely over the years.

The Center Plan

The NPS and the Utah Division of Parks and Recreation need to develop a technically sound and visionary approach that meets present curatorial needs and anticipates future growth. Perhaps one of the biggest challenges is to jointly share and operate a facility. Governmental agencies typically have sole authority over their own space and operations and do not have substantial experience in, or extensive knowledge of, joint operations. The planning process described here builds on the planning approaches already in use for both partners, and in the field of museum,

architectural, and scientific disciplines. The plan for the proposed Uinta Research and Curation Center would be produced as part of a scoping process between the partners, clients, and the public, and would include the following:

- **Vision.** A succinct statement of the overarching purpose and relationships that help determine future direction — the view of the institution from the mind's eye.

- **Mission.** Statements of the legal and societal responsibilities of the agencies involved; what they have been tasked with accomplishing.

- **Program Goals.** The objectives that cover the separate programs to be conducted in order to achieve the agency mission.

- **Functions.** Describe what tasks, jobs, and activities will occur for each program goal. How frequently will they occur, how sustainable are they, and what special space, equipment, or arrangements are necessary?

- **Roles of Partners.** Define the responsibilities of the partners for each function. What will be shared versus separate accountability and needs, who will make decisions and how will needs be identified, and what are the legal restrictions and best management practices.

- **Service to Clients.** Describe the role of the center in relationship to its clients. Who is expected to be a client, what are the limitations on clients, how will client needs be met and good customer service models be used, and how clients will cover the costs of services they use.

- **Policies**. Define a set of operating policies to Uinta Research and Curation Center. Each agency brings many broad policies with it to the partnership, but the center needs policies (directing customer service and clients' rights, preservation and use of collections, loans, educational programs, employee duties, safety, etc.) that are unique to its functions. These will require refinement as the Uinta Research and Curation Center gains experience.

- **Standard Operating Procedures**. The methods and processes used to accomplish such tasks as building security, visitor reception, housekeeping, building tours, access to collections, processing of incoming material, and numerous routine functions accomplished in ways that reflect efficient, professional standards.

The sequence of events to complete the Uinta Research and Curation Center will be determined by project planners and agency managers, but the following steps will need to occur in one form or another:

- Approval by each agency using their own decision making processes and authorities. The partnership approach needs to be clearly described at every step in the process.

- Completed compliance actions required by Section 106 of NEPA, state statutes, and all legal and agency requirements, and public scoping and involvement.

- Each agency will determine what collections, staff, and functions will occur in the Uinta Research and Curation Center. This should be easier for the Utah Field House as its base of operations is in Vernal and is being divided between two nearby facilities. Dinosaur National Monument will retain the majority of its resources and staff at the monument, and will need careful analysis of what needs to move to the Uinta Research and Curation Center. Discussions should involve all staff with relevant interest and expertise. A preliminary survey of agencies produced the estimated space requirements shown in Table 1.

- Completion of a Uinta Research and Curation Center plan that delineates the vision, mission, goals, functions, etc. Information should be collected during this process that will provide detailed input to the building design process.

- Building design, including appearance, layout, functional relationships, physical and mechanical systems, health and safety, sustainability, landscaping, security and access, and all the details necessary to produce an excellent product designed to achieve the agencies' mission.

- Planning and purchase of storage, office, and lab equipment. Investment in the most efficient and effective equipment can increase productivity, improve specimen organization and access, and be cost effective over the long life of the facility.

- Marketing the center's services to clients; developing links to other research institutions and repositories; information and program links with other museums, parks, and libraries; Internet Web site development; publications and public information programs.

This is not an exhaustive list or description of the facility planning process. It is intended to support a comprehensive approach to the design and operation of the Uinta Research and Curation Center. By building with the partners, clients, and public in mind, and designing the building to adapt to shifting program goals, we can produce a facility that incorporates our dedication to protecting the states' and nation's natural and cultural heritage entrusted to the partners.

Mission Statements

National Park Service:

The National Park Service cares for the special places set aside by the American people so that all may enjoy our heritage.

Utah Division of Parks and Recreation:

Enhance the quality of life in Utah through people, programs and parks.

Utah Division of Parks and Recreation Heritage Parks:

Protect, preserve, research, and interpret Utah's unique cultural and natural history resources for the education and enjoyment of all.

A mission statement for the Uinta Research and Curation Center will be developed as part of the planning process to address the program goals of all three agencies' missions.

Draft Vision Statement for Uinta Research and Curation Center

The Uinta Research and Curation Center will be the finest repository and research facility for the fossils and earth history from the Uintah region. The center will provide the highest quality environment for the storage and preservation of fossil, geologic, and archeological specimens, artifacts, and records from the Utah Field House and Dinosaur National Monument, as well as materials from other federal, state, and local clients. The center will support the partners and clients in their mission to research and interpret these unique specimens, and provide access to information on specimens and records to both scientists and the public. For the next 100 years, the center will work tirelessly to keep up with growing needs and maintain a state-of-the-art professionalism in fulfilling its mission.

Recommendations

- Each agency should organize scoping processes that address both internal staff and program needs and public and community involvement. Joint scoping sessions should be conducted simultaneously with internal scoping.

- Develop a Center Plan for the Uinta Research and Curation Center that establishes a vision, mission and goals, partnership and client roles, functions, standard operating policies and procedures, and projections of future trends and needs.

- Ensure that all compliance and environmental requirements are met. Work within each agency to complete all internal planning and budget requirements.

- Develop relationships with experts and community leaders to seek input and advice on all aspects of the center. A completely open communication and "no suprises" approach will be highly effective at building trust and commitment.

Issue B — Information Management and Access

Issue Statement

Improving access to information about museum collections, archives, and libraries will enhance decision-making and support efficient management of park resources.

Background

This section addresses intellectual access, which is the ability to find an object or document stored in the collection by, for example, searching for a topic or author.

Types of Materials Included in Museum Collections, Archives, and Libraries

- Published books (general, technical, references)

- Published journals

- Published journal reprints (photocopied or not)

- One-of-a-kind park-produced material (field notes, maps, correspondence, etc.)

- Limited edition park-produced material (technical reports, etc)

- Other agency-produced reports

- Datasheets

- Databases

- Rare books

- Maps (published)

- Photographs (research data)

- Photographs (historical, interpretive)

- Scientific specimens (paleontology, geology, biological)

- Historic artifacts

- Archeology artifacts

Access Tools Currently Used

The tools the park currently uses to provide intellectual access to the libraries, archives, and museum collections are the museum cataloging software ANCS+ (Rediscovery), card catalogs, NRBIB (Natural Resources Bibliography) and the NPS Dataset Catalog.

ANCS+

The Automated National Catalog System (ANCS+) is the standard NPS tool for cataloging archive material and museum objects. The database accommodates a wide variety of information about these materials, including physical description, history of ownership, relations to other objects (such as slides that correspond to field notes) and storage location. ANCS+ has a flexible search mechanism that allows records to be retrieved in multiple ways, limited only by the data itself. Some fields are carefully standardized to facilitate consistent searching. Items may be described individually (such as one dinosaur fossil), or by group (such as a collection of artifacts found at a single archeological site, a group of papers and documents associated with a research project). In

contrast to the other tools, it does an excellent job of documenting relationships between objects/documents. It is also the only tool that currently accommodates digital images of the cataloged items. The archival material cataloged in ANCS+ may overlap with material cataloged in NRBIB and material cataloged in the Dataset Catalog.

According to the 2001 Collections Management Report, approximately 50,600 objects have been cataloged in the DINO ANCS+ database. This is roughly 17% of the entire collection (estimated at 610,000 objects).

ANCS+ (Rediscovery) is accessible on the curator's computer. Other users can be assigned passwords that limit their access to sensitive data.

DINO Library Card Catalogs

The Quarry Library and the Headquarters Library both use card catalogs. Each consists of two sets of cards. One is organized alphabetically by title and the other is organized by call number.

NRBIB Database

The NRBIB database is a Service-wide catalog/index of natural resource information about NPS sites. Each record includes publication information (author, title, date, etc.), an abstract, and a description of where the document is stored. A user can search the database on any of these elements. The documents described include technical reports, journal articles, maps, correspondence and photographs. The particular strengths of the NRBIB database are its high level of subject access (via index terms and abstracts), and its ability to capture material that is not readily covered by the other system (journal articles, sections of larger works, individual unpublished reports). The material cataloged in NRBIB may overlap with the archive module of ANCS+ and the library.

A copy of the DINO NRBIB (approximately 1,200 records.) is accessible on the curator's computer. The master database is available on the Internet at: https://science.nature.nps.gov/npbib. Users must have a password to get to this site. The original NRBIB database (up to date as of 1995) is loaded on the curator's computer (a laptop that can be moved to where it is needed).

Dataset Catalog

The Dataset Catalog is a Service-wide catalog of data sets. These include assemblages of field forms or raw data, spreadsheets or databases, GIS coverages, or assemblages of slides or photographs. The strength of the data set catalog is that it covers materials not covered by the other tools (particularly electronic files), and can provide very detailed information

about the background of the material. There is some potential overlap with the ANCS+ archives module which may also catalog data sets such as documentary slides and data sheets.

The Dataset Catalog is available on the Internet at: http://165.83.36.151/parksvc/dcat.nsf.

Tables 2 - 5 summarize the differences and similarities between ANCS+, DINO library card catalogs, NRBIB database, and the Dataset Catalog.

Summary

Together, the ANCS+, card catalogs, NRBIB, and Dataset Catalog tools provide access to information about the following materials:

- Museum collections and archives (good access, but limited to the small number of items that have been cataloged).

- Quarry Library and Headquarters Library (moderate access on site, but no remote access).

- Documents in the Resource Management specialist's office (good access, but at risk of becoming inaccurate since the items are not in permanent locations).

- A minor subset of Paleontology Library (good access via NRBIB, but limited to a very small percentage of the collection and at risk of becoming inaccurate since the items are not in permanent locations).

- Minor subset in Map room (good access, but at risk of becoming inaccurate since the items are not in permanent locations).

Access to the tools themselves is limited. ANCS+ is accessible on one desktop computer and one laptop computer that can be easily brought to a location where it is needed. NRBIB is available on the Internet (with a password), but current Internet access at the park is poor. A slightly out-of-date version of the database (in ProCite) is available, but the park currently has only one legal copy of ProCite (which is also installed on the curator's laptop computer).

The current tools do not provide access to:

- Most of the Paleontology Library

- Most of the map collection

- Most of the documents stored in offices

- Documents, databases, etc. that are be stored in electronic form

Discussion

For planning purposes, the challenge is to determine how well the level of access meets user needs, then

prioritize work to efficiently address the gaps.
Various needs were cited by survey respondents (see
Appendix E). Some of these needs are listed below.

- An electronic catalog of the Paleontology Library
  for better intellectual access (both park staff and
  partners expressed interest in this). This could be
  combined with the catalog for the other libraries,
  but should also be available separately since it
  has a specialized scope and audience.

- More comfortable physical access to the
  Paleontology Library. Users expressed reluctance to
  use the collection due to the fact that it is
  stored in a private office rather than a public
  space.

- Access to the library/museum collections held by
  partnership agencies. Both NPS staff and staff at
  partner agencies expressed interest in electronic
  access to the holdings of the other agencies.

- An electronic catalog for the Quarry and
  Headquarters libraries.

The recommendations in this section address these
needs.

Table 2. *Search options available in different access systems.*

Search criteria	ANCS+	NRBIB	Library Card Catalog	Dataset Catalog
Author	Yes	Yes	No	Yes
Title	Yes	Yes	Yes	Yes
Date	Yes	Yes	No	Yes
Subject	Yes	Yes	No	Yes
Free Text/all fields	ANCS+ has a very flexible search interface that allows retrieval based on any entered data.	Yes	No	No
Location	Yes	Yes	Yes	No

Table 3. *Descriptive information provided by different systems.*

	ANCS+	NRBIB	Library Card Catalog	Dataset Catalog
Citation (author, title, date)	Yes (though documents cataloged in groups rather than individually so citation information for each item may not be entered)	Yes	Yes	Yes
Physical description	Yes	Minor (number of pages)	No	Yes
Content description (e.g. abstract)	Yes	Yes	No	Yes
Other info. – relationship to other items etc.	Yes – very strong	Yes, all of this is appropriate in the Notes field, but it is not asked for specifically	No	Yes
Storage location	Yes	Yes (though not always	Yes	Yes

		specific or current)		

Table 4. *Types of materials described.*

	ANCS+	NRBIB	Library Card Catalog	Dataset Catalog
Published Books	Yes (if considered "source material"	Yes	Yes	No
Journal Articles	Yes (if considered "source material")	Yes	No	No
Maps	Yes (unpublished)	Yes	No	No
Unpublished Reports	Yes	Yes	Yes?	No
Correspondence	Yes	Yes	No	No
3-D items	Yes	Generally no, with minor exceptions	No	No
Data Sheets	Yes	Yes, but should go into Dataset Catalog	No	Yes
Photographs/slides	Yes	Yes, but should generally to into Dataset Catalog	No	Yes (if they are "data")
Electronic Files	No	Yes	No	Yes

Table 5. *Subject/geographic coverage provided by different systems.*

	ANCS+	NRBIB	Library Card Catalog	Dataset Catalog
Limited to DINO-Specific Material	Yes	Yes	No	Yes
Natural Resources	Yes	Yes	Yes	Yes
Cultural Resources	Yes	No	Yes	No
Administration Information	Yes	No	Yes	No

Maintenance Information	Yes	No	Yes	No

Following are the numbers of NRBIB records in each storage location (an asterisk indicates that the location is outside of Dinosaur National Monument).

Records	Location
580	Resource Management Specialist's Office
197	Paleontology Library
184	Quarry Library
81	Headquarters Library
69	Headquarters Central Files
*58	CPRS (Probably "Colorado Plateau Research Station)
*57	Water Resources Division library, Fort Collins, CO
16	Headquarters Map Room
14	Paleontology Archives
7	Paleontology Laboratory
*1	Western Heritage Museum Vernal, UT

Recommendations

To improve access to information to enhance decision-making and support park operations for managing the resources of Dinosaur National Monument, the Museum Management Planning Team recommends the following:

- Catalog the Paleontology Library using ProCite and make it available to NPS and partner agency staff (much of this work can be accomplished off-site using digital images created during the inventory process recommended earlier)

- Store the Paleontology Library in a space that is dedicated to the library function.

- Catalog the Quarry Library and Headquarters Library using the NPS library tools – ProCite and Voyager (the NPS library catalog available on the Internet).

- Finish cataloging the backlog of museum and archive records using ANCS+ and work to get this data online so it is more readily available.

- Maintain the NRBIB database. Use the online system as soon as Internet access makes this practical. Until that time, use the local database. Consider storing items in permanent locations (some may be appropriately housed in the archives, others may be appropriately stored and labeled in a collection stored in the nature resource management offices). Update the storage information when NRBIB items are moved.

- Expand the Quarry and Headquarters library catalogs to include park-owned books that are stored in offices.

- Participate in an across-agency, combined catalog that includes materials in partner offices.

Additional recommendation:

- Write a synthesis or analysis of the park's history to complement the information stored in databases. Leaving or retiring staff should be encouraged to summarize the history of their involvement in managing the resources and overseeing research at the park.

Recommendation for Inventorying the Paleontology Library

This section describes a recommendation to conduct an inventory that can be used to create an off-site catalog. This effort involves creating digital images of each document in the collection. The images should capture the reference information (title, author, publisher, etc.) and any indication of ownership. The images should be stored together in files with the name of the box or shelf where they are stored. The resulting image collection can be used to conduct off-site cataloging.

Figure 1. Example of metal shelf. General description (stored in text file): "Metal cabinet on desks in middle of room. Twenty-six items on the shelf plus three on top; images stored in files, PL40.jpg-PL94.jpg."
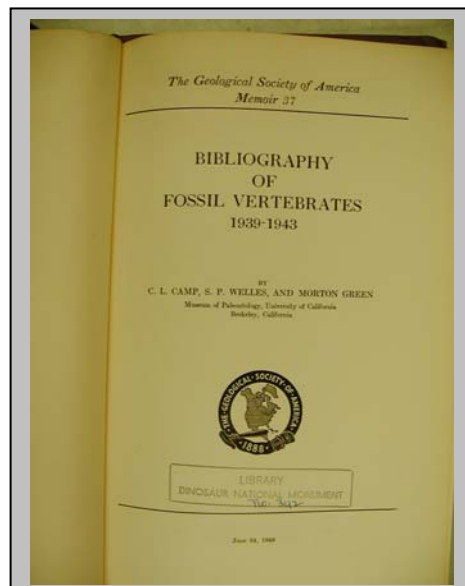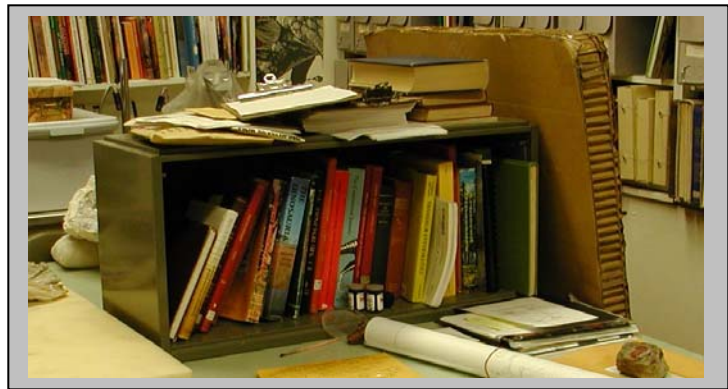
Figure 2. This image (sample document image, PL93.jpg) shows the stamp that indicates the item belongs to "Dinosaur National Monument Library" and also the title, date, publisher, author information that can be used to create a catalog record.

Dinosaur National Monument Museum Management Plan

Issue C —
Collections Documentation

Issue Statement

The park needs updated planning documents and museum records to attain legal accountability and ensure high-quality collections.

Background

The collection documentation for Dinosaur National Monument includes both accession and catalog records. The park currently maintains these records in the Paleontology Library located on the first floor of the Quarry Visitor Center. Since establishment of the monument, the unit has created 364 accessions to document over 50,625 museum objects. These accessions have been generated mostly through field collections and donations. The staff has entered over 15,400 catalog records in the ANCS+. The Paleontology Library holdings are documented by card catalogs, which give the author, title and date. Two key planning documents, the *Scope of Collections Statement* (1986) and *Dinosaur National Monument: Collections Management Plan* (July 1987) are outdated and in need of revision.

Discussion

Collections Documentation — Background on NPS Guidelines

Museum documentation is a major part of the accountability process for museum collection management. Documentation is also essential for both physical and intellectual access to museum collections for management, interpretation, exhibit and loans, and scientific research. There are two primary types of documentation for museum collections: accession records and catalog records. In addition, loan records, museum management reports and the annual inventory serve as documentation for managing a park's collections.

Accession Records

Accession records describe the movement of items to and from the collection and document their legal ownership status. Accession and catalog records in the park collection must meet National Park Service museum standards for documentation. These records provide valuable information that identifies the unique and irreplaceable resources within the monument's boundaries. Without accurate documentation, information about important resources will be lost.

The accession process begins with the entry of objects and specimens into the collection, whether these items are generated from field collections, donations, loans, or transfers of property. The accession records identify legal ownership or custody and provide essential information (such as provenance, date acquired, gift, purchase, etc.) about the objects or specimens. Acquisitions must be recorded in the monument's accession record and accession file. The records constitute legal documentation of the museum's authority to hold and use the collections. Accession receiving reports, loan documents, and all other permanent records associated with the accession should

be filed in an accession file and maintained in a protected environment.

Catalog Records

Catalog records provide descriptive and location information for museum objects and specimens. They are the primary accountability records for objects and specimens.

The second step in the documentation process is cataloging. Catalog records also document and provide individual accountability for the museum objects and specimens. They record physical attributes of the objects and information pertaining to their accession, condition, storage location, and provenance. This information is entered into the ANCS+ and submitted annually to the National Park Service's National Catalog in Harpers Ferry, West Virginia.

Loan Records

Records documenting loans of material between the monument's collections and other parks, institutions, and affiliated individuals are also an important part of museum documentation. Loan records document and establish temporary legal custody for the museum objects and specimens. Museum objects may be loaned or borrowed for research, exhibit purposes, analysis, curation, or conservation. The monument currently has loans both to and from other institutions and affiliated individuals.

Museum Management Reports

Museum management reports are an additional source of documentation. They cover various aspects of collection management activities such as accessioning, cataloging, research requests, and loans. Inaccurate museum object totals in the annual Collection Management Report (CMR) give a false record of museum

collection activities and may be a source of
confusion. Incomplete or out-of-date information in
the CMR gives an inaccurate picture of collection
activities. The information in the CMR completed by
parks is used to determine both the percentages of
Backlog Cataloging funds received by the region, and
the eligibility of an individual park to receive these
funds; thus, the accuracy of this report is critical.

Annual Inventory of Museum Property

Completion of the Annual Inventory of Museum Property
is mandatory and ensures accountability for museum
collections. This document requires the
superintendent's signature upon completion. Submitting
the annual inventory to the Museum Management Program
in Washington, D.C. is required.

Collections Documentation at DINO

Documentation for Dinosaur's museum collections,
archives and library holdings was evaluated to verify
legal accountability and ownership, as well as to
assess current policies for managing these
collections. The evaluation identified three serious
issues surrounding information for the museum
collections:

1. Loan documentation for collections leaving the park or
   arriving from various institutions is inaccurate. A
   review of the park's museum records indicates that
   incoming loans have not been entered into the
   accession record.

2. The check-in and check-out process is not well
   managed. A high percentage of outgoing loans have no
   due date and appear to have been generated on an
   informal basis. Receipts for property are not present
   in the accession files.

3. At the park, loan files are not properly maintained, and it is difficult to discern whether objects or specimens have been returned or received. There is also evidence that the park and other institutions are loaning out each others' items. This presents the potential for accountability or ownership issues to arise between the National Park Service and other institutions.

Some objects and specimens have had catalog numbers assigned in order to process an outgoing loan, but catalog records were never completed in ANCS+. The amount of catalog numbers previously assigned without full cataloging has not yet been determined. This is complicated by the fact that the park has never formally maintained a log or record book of park catalog numbers. A review of catalog records revealed numerous inconsistencies, such as incorrect storage locations, improper classification codes, and a lack of standardization of proper names.

The above issues will be difficult and time-consuming to resolve due to the lack of a complete and accurate inventory. In previous years the park has completed the Annual Inventory of Museum Property. In 1991, 14 objects/specimens could not be located; catalog numbers were assigned to an accession, but because cataloging was not completed, the park does not know where the objects are. This pattern is evident in succeeding years: 42 objects were reported missing in 1992, 35 objects were reported missing in 1993, and 47 items were reported missing in 1994. All missing items had catalog numbers assigned, but data entry was not completed. Between 1995 – 1999, the park did not complete the annual inventory because of the time required to complete the process. The park resumed this collection management activity in fiscal year 2000. Completing a 100% inventory of all museum collections should be considered a top priority for

the park to gain intellectual and physical control over its holdings. This activity would also provide the information required for the planning of the new multi-agency curatorial facility.

Park Planning Documents

Scope of Collections

The Scope of Collections Statement (SOCS) has three objectives:

- Defines the purpose of a museum collection.

- Specifies the subject matter, geographical location, and time period to which the collection must relate.

- Briefly outlines policy and procedures for acquiring and using the collections.

The SOCS must be reviewed annually and revised whenever changed conditions clearly alter the park's mission.

Approved in 1986, the park's current Scope of Collections Statement is outdated and needs to be rewritten. In reviewing this document, for example, there are no written guidelines for the acquisition or growth of park archives (records and manuscripts). There are also references to other "collections" within the monument that are not covered in the SOCS but need to be evaluated. For example, the collection of materials located in the paleontological office, which includes rare books, maps, field notes, and mixed media (reel-to-reel) dating back to Earl Douglass' tenure. There are also historic photographs of the cliff face dating back to the late 1950s. The SOCS should be revised with input from both Natural Resource and Cultural Resource staff.

Other Planning Documents and Policies

A recent archival assessment completed for the monument identified 253 linear feet (approximately 405,000 items) of park records and associated field record documentation for inclusion in the park archives.

The park currently does not have any type of written policy to address the significant growth of museum collections. There are no policies for access to the park archives, acquisition of materials, duplication of information, or ownership of materials. Without written policies, the control of park records and information is hampered. Also, there are no written indexes, finding aids, or inventories for park records. The lack of access tools limits the ability of the curator to properly manage the archives and further hinders the ability to locate information or provide reference support to park staff and outside researchers.

The three libraries at DINO also need policy documents. The Quarry Library currently has clear, written guidelines for accessioning and processing new materials. These same policies are in effect for the Headquarters Library. The Paleontology Library does not have accession/processing guidelines.

None of the collections have a Scope of Collections Statement, which would allow unused materials to be discarded or inappropriate materials to be rejected. Development of park-specific operating policies should include the guidance for creating annual inventories.

Preservation Documentation and Planning

Preservation activities for the park archives and the Paleontology Library have been limited and there is no current policy or priority list that addresses the

preservation or storage needs of the various material types. The majority of records and documentation identified for inclusion in the museum collections are in original acidic folders or enclosures. Several archival collections, such as the Echo Park Dam Controversy, appear to have had some water damage. Photographic items, including lantern slides and glass plate negatives, should be relocated to a more secure area and copy negatives should be made. Records are often overpacked in file cabinets or on shelves, and there is obvious damage to some documents (maps and drawings) due to poor storage conditions.

There are challenges in trying to manage and preserve park archives, primarily because park records are scattered over numerous locations, including park Headquarters, the Quarry Visitor Center, the Green River District Resource Center, Maintenance, park offices and satellite libraries. The majority of these locations lack any environmental controls for temperature and humidity.

The Paleontology Library documents, circulars and monographs are currently stored in Hollinger boxes. A large percentage of the containers are over-packed, which is damaging the items. An archival storage plan should be written to address this problem and improve preservation of the fragile and rare items.

Recommendations

- Accession all incoming loans and update the accession records, accession files, loan files, and ANCS+ records to meet NPS standards.

- Catalog the backlog of museum objects and park archives in ANCS+ and update information in the museum catalog records in ANCS+ to meet NPS standards.

- Update the Collection Management Report to reflect museum collection activities, in particular the catalog backlog, collection loan activity, and the amount of use the collection receives.

- With assistance from other NPS curators and/or registrars, complete a 100% inventory of all museum objects.

- Update the Scope of Collections Statement for museum, archives and libraries, with input from Natural and Cultural Resources staff.

- Develop a series of written policies to address such topics as acquisition of materials, circulation, access to collections, and duplication of information.

- Inventory library collections.

- Convene board of survey to take action on all missing objects.

Issue D —
Park Storage and Facilities

Issue Statement

The park needs to develop the necessary work, storage, and study areas at points of use within the park to ensure proper care and access to the collections in a safe environment.

Background

Dinosaur National Monument was established to preserve an extraordinary deposit of dinosaur remains from the Jurassic period. The paleontological collection at the park is of international significance. The Quarry Visitor Center cliff face exhibit, located in a unique award-winning structure constructed in 1958, is of world renown, and has been designated a National Historic Landmark. The quarry building also houses a large part of the paleontological comparative collection and the smaller comparative osteological collection. Large paleontological specimens still in their protective plaster field jackets are in several other locations in the park. Most of these "ad hoc" storage areas have very limited environmental controls.

The park has converted a Mission 66 house at the Green River District housing area into offices for part of the Resource Management staff. The garage has been converted to a museum storage area, and houses most of

the archeological collections currently being processed and studied, along with a few paleontological specimens. This storage area has very limited environmental controls. There is no dedicated space for preparing and studying the archeological material. Such activities (as well as some storage) take place in the individual office areas.

Most of the collections representing modern biota collected from the park are currently in storage in the basement of the park Headquarters building, located about 30 miles away from the quarry near Dinosaur, Colorado. The building furnace, heating ducts, water and sewer lines compromise this space. In addition to the natural collections, the space also houses part of the archeological collection and additional paleontological specimens. There is no dedicated space for preparing and studying the specimens. Such activities are done in the individual office areas or makeshift workspace.

The park library resources are likewise split into three primary areas. At the Quarry Visitor Center, there is a library operated by the Interpretive Division and a specialized Paleontology Library in the park paleontologist's office. At park Headquarters there is a library in the basement that shares space with the conference/break room. In addition there are groups of books in every office that was visited; presumably some of these belong to the park, while others are personal property.

Most of the books in the Interpretative and Headquarters libraries have card pockets with checkout cards, and there are call numbers on the spines. None of the references in the Paleontology Library appear to have card pockets, cards or call numbers. A number of the references in separate offices appear to be marked as to owner; however, none appear to have library call numbers. There is no single library

catalog system that allows a user to determine the
storage location for a particular title.

The park archives (records and manuscripts) are even
more scattered and less identifiable as separate parts
of a whole. In addition to the central park files at
Headquarters, virtually every office holds records of
some type, and there is no central catalog or finding
aid to indicate who is holding which park records.
Many, if not most, of these should be considered as
part of the park records and manuscript collections
(archives) and recorded as such. The archivist from
the Western Archeological and Conservation Center has
recently completed a survey of the park archives and
made specific suggestions for remedial action.

There are numerous documentation and accountability
concerns related to the archives, library, and museum
collections. Many of these concerns are the result of
insufficient space and lack of trained staff dedicated
to managing these resources. The situation is serious
enough to warrant a specific section dedicated to
accountability concerns, and methodologies to address
them, in this plan (see Issue C). As a result, this
issue focuses on types of collections and associated
space needs within the park.

Discussion

At the time this plan was developed, the park was
planning for a centralized storage facility in
partnership with the Utah Field House of Natural
History State Park (Vernal, Utah) that would handle
most of the collection management activities for the
park (see Issue A).

The joint facility may be expected to provide a
centralized storage and use area for the bulk of the
museum, archival and library resources of the park.
However, there will remain a need for some museum,

archival, and library collections to be located at various points within the park. Branch operations at selected points of use would result in increased employee productivity and reduced costs to the park, while at the same time retaining the potential of delivering completed specimens/projects to the joint facility for long-term care.

Relationship among Archives, Museum Collections, and Library Resources

An understanding of how archives, museum collections, and library resources are related is central to a discussion of collection storage and work facilities. Also pertinent are the special preservation needs of each resource, as well as the linkages among resources that help to provide the staff and public with usable products (see Issue B).

Archives, museum collections and libraries all contain information relating to the park's resources. For example, the archives should house the written reports, maps, photographs and plans that result from that research. The museum collection should contain specimens collected from research activities in the park. The library should be the repository for published materials resulting from the research represented in the archives and museum collections. Although the information in archives, museum collections and libraries may be in different formats, the data sets are interconnected.

The objective is to facilitate use of these data sets. At a designated satellite or branch within the park, one should be able to view specimens in the museum collection, find the data associated with those specimens in the park archives, look up the published literature on the subject in the park library, and

access any electronic information via computer. This does not imply that all park collections should be physically available at each designated point of use; however, the information about the collections should be available where needed.

Simply having sufficient storage space for these data sets at a branch operation satisfies only part of the need. In addition to storage, dedicated space is also required for preparing, preserving and studying specimens, and for associated study in the archives and library. In some cases this space needs to be specialized, with equipment such as sinks, drying racks and air exchange units. Each branch's space needs to be designed and equipped according to the specialized work performed at that particular location.

This MMP suggests three branch operations — Quarry Visitor Center, Cultural Resource Management and Natural Resources Management — at three points of use within the park.

Quarry Visitor Center

The philosophy guiding development of this branch should revolve around providing basic services for a limited quarry operation, and reference/demonstration services for interpretation. Most of the osteological and paleontological collections, the interpretive library, Paleontology Library, and associated archives relating to paleontological operations should be moved to the Uinta Research and Curation Center proposed for Vernal. There needs to be a smaller, combined reference library to support both interpretative and paleontological operations at the quarry, linked to the primary library and archives in Vernal.

Cultural Resource Management

Currently, Cultural Resource operations are centered at the converted Mission 66 house known as the Green River Resource Center. The park needs to decide which Cultural Resource functions will remain here and which will be moved to the Uinta Research and Curation Center in Vernal upon its completion. If all functions move to the new facility, there will be no need for branch operations at the Green River Resource Center. If some functions remain at the Green River Resource Center, all paleontological collections and the bulk of the archeological collections should be removed to the URCC, leaving the branch with a comparatively small collection plus a work space for current projects.

A small laboratory is required, with provisions for wet and dry processing, microscope and imaging capabilities, and the air handling equipment necessary to provide staff safety. This would involve a limited renovation of the existing garage, living room and kitchen to meet specific needs. There is the need for a small specialized reference library, and reference materials could even be located in individual staff offices. Computer links to the primary library and archives in Vernal would also support this branch operation. An estimated 700 square feet are required for this branch. The Museum Collection Protection and Preservation funding source could be used for planning this renovation, and providing the necessary storage furniture. Actual renovation funds could also come from Cyclic Maintenance, Repair/Rehab, Fee Demo, Cultural Resources Protection Program, Donation Accounts, or a combination of sources.

Natural Resource Management

Management of natural resources will be based at park headquarters near Dinosaur, Colorado. The philosophy

guiding this branch operation should revolve around providing basic services for the park Natural Resources Program centered in the Headquarters building.

All of the archeological and paleontological collections, and much of the library, would be removed to the Uinta Research and Curation Center being planned for Vernal, Utah. Extraneous natural collections (possibly the wet specimens and insect collection) could also go to Vernal if they are not required at this location. The current basement area could then be renovated to provide a small preparation laboratory for wet and dry processing, microscope and imaging capabilities, necessary air handling equipment for staff safety, and storage for working comparative collections. At this time these specimens are expected to be mainly botanical, however provisions should also be made for limited collections of both vertebrate and invertebrate specimens as required by resource management specialists.

There is the need for a small specialized reference library, which could be located in individual staff offices. Computer links to the primary library and archives in Vernal would be required to support this branch operation. An estimated 600 square feet are required for this branch operation, and renovation of the current storage area in the basement is suggested. Museum Collection Protection and Preservation Program funds could be used for planning and furnishing. In addition to the other funding sources mentioned earlier, funds could also be requested from the Natural Resource Initiative for this renovation.

Recommendations

- Consolidate responsibility for organizing and administering the park archives, library, and

museum collections under a single division and
individual. Increase the amount of staff time
devoted to these tasks as required by the use of
seasonal, term or permanent technicians with
training/experience specific to the task.

- Determine final location and space requirements for
  branch collections and library operations in
  consultation with park staff that will be using
  them.

- Develop the designs for proposed branch operations
  with a collaborative team of specialists (curator,
  librarian, architect, engineer) who can provide
  technical advice and ideas for innovative physical
  organization, storage methods and materials.

- Design the preparation, storage, and study areas to
  be as open and contiguous as possible. Use a
  minimal number of walls and doors so valuable space
  is not wasted.

- Provide efficient compactor storage units and
  redesigned storage cabinets to use available space
  efficiently.

- Design facilities for multi-tasking, such as
  providing moveable work surfaces, flexible task
  lighting, adaptable ventilation systems, multiple
  computer hook-ups, and power sources as part of the
  renovation packages.

Appendix A —
Suggested Library
Operating Policy

Introduction

The libraries at Dinosaur National Monument are an
essential resource that enables staff at the site to
carry out the park's mandate. The operating policies
establish guidelines and standards for developing and
operating the Dinosaur National Monument libraries,
and provide stability, continuity, and efficiency in
their operation. The policies are intended to guide
and support decisions of the library manager and to
inform park staff and other users of the library's
objectives. Operating policies will be reviewed and
updated by park staff every two years and be approved
by the superintendent, unless policy changes require
action sooner.

Objective

The primary objective of the Dinosaur National
Monument libraries is to select, preserve, and make
available material that assists park staff and
site-related researchers in their work. Primary
emphasis will be the support of interpretive services
to park visitors.

Responsibility

Implementation of this policy is the responsibility of the library manager. This person will be designated by the superintendent and will be responsible for compiling a list of desired acquisitions, promptly adding

new library items to the collection, shelving materials, ensuring that material is returned in proper condition, accounting for the collection, and maintaining catalog materials in computerized and physical form.

Scope of Collection

The collection consists of books, periodicals, microfilm, videotape, maps, photographs, and a vertical research file. These materials cover (*emphasis of the park*), park mandate and development, and NPS material.

Materials in the library will pertain to the following:

(List areas of interest to the park, including cultural and natural resource management, law enforcement, maintenance, administration, and interpretation).

Selection Guidelines and Procedures

The Interpretation and Resource Management Divisions will use the following criteria in selecting materials for the library:

- Importance of the subject matter to the collection
- Authenticity and accuracy
- Permanent value and/or historic potential
- Author's reputation

- Publisher's reputation and standards

- Readability

- Price

- Availability in nearby libraries

The library manager will compile a list of desired acquisitions in August of each year. Input from all staff (both paid and unpaid) will be considered. Copies will be forwarded to the superintendent and team leaders for budget and reference purposes.

Microfilm

The microfilm collection will include materials unavailable or prohibitively expensive in their original form.

Periodicals

In addition to general library selection criteria, periodical selections will consider the following:

- Periodicals must supplement the collection as an additional and current source of information.

- Periodicals must occasionally or regularly publish popular articles, or historic articles of use or interest to the park staff.

Operating Guidelines

Loan Privileges

Borrowing privileges are extended to all NPS employees and volunteers at the park. There is a 30-day limit on individual loans. The 30-day loan period can be extended at the discretion of the park library manager. The library manager is responsible for reviewing the card files no less than once a month and

contacting staff with overdue materials. No more than three items may be checked out at one time.

At the discretion of the park library manager or chief, library privileges may be extended to the following:

- NPS employees from other areas.

- Contractors conducting research in the park.

- Researchers with valid research needs at all levels.

- Other users who will benefit the park and not interfere with normal operations.

Non-NPS library use will be restricted to on-site use. The superintendent may make exceptions. Use of the library by nonpark staff will be by appointment with the park library manager. Use will be supervised; users will check in and check out. The library will maintain a log of nonpark use.

Returned materials are to be placed in the "Return" box. The park library manager is responsible for reshelving and refiling materials. No other person should re-shelve books. Materials should be re-shelved at least on a biweekly basis.

Damage and Loss Policy

Borrowers will replace lost or seriously damaged materials and, if materials are not immediately available, reimburse the park with the cost of replacement. If materials are not replaced or compensated for within a period of 90 days, a bill of collection will be issued for the estimated market value of the materials.

Abuse of library materials and privileges will result in the loss of library privileges.

Vertical File

The library will maintain a vertical file. This file contains information about the park, photocopied material not suitable for cataloging into the regular collection, pamphlets, articles, and personal accounts from diaries, journals, letters and newspaper clippings. Materials in this file will be cataloged into a vertical file index, which the park library manager will maintain. This file will be updated yearly in January.

Paperbacks

Paperbacks will be acquired for the following reasons:

- Title is not available in hardcover.

- Subject is estimated to be of current interest only.

- Substantial price difference exists.

Duplicates

Duplicate copies of heavily used materials will be acquired when needed.

Replacement

After all reasonable efforts have been made to recover lost or stolen books, replacement will be attempted if there is a demand and/or the item meets selection criteria. If possible, a replacement should be purchased by the individual to whom the lost book was loaned.

Gifts

Gifts of materials that meet the selection criteria may be accepted with the understanding that:

- The park retains the right to keep, use, or dispose of them as deemed appropriate by the superintendent.

- The materials will be integrated into the regular collection.

- Park staff will give no appraisals for tax purposes. The park library manager may assist in the following ways.

  - Suggest sources of such information, such as dealers' catalogs.

  - Provide a receipt describing the donated items but not assigning a value to them.

Controlled Access Collection

A locked cabinet will be maintained in the library with rare and fragile materials. Considerations for inclusion in this cabinet include:

- The items are virtually irreplaceable.

- Monetary value of the items is over seventy-five ($75.00) dollars.

- The items have particular historic interest to the park.

- The items have unusual attractiveness or interest.

- The items are in fragile or delicate condition.

Materials from this collection will be loaned only at the discretion of the superintendent. Titles will be noted in the catalog as being in the cabinet. A separate list of these materials will be maintained in the cabinet.

Exhibited Materials

The library manager will compile and maintain a list of all books, periodicals, and maps that are used as furnishings and are not part of the library. The list will be kept in the controlled access area.

Interlibrary Loan

Interlibrary loans will be made only through the Pacific West Regional Library in the Columbia Cascades Support Office in Seattle. Loans will be made of non-sensitive materials only, and the concurrence of the park library manager is required. The log of loaned materials will be kept.

Vertical File Policy

Items in the vertical file may be checked out in the same manner as books unless they are specifically

marked to the contrary. When borrowing a vertical
file, the entire folder must be taken and all
materials returned to the re-shelving area.

Photocopying

Photocopying of materials is permitted except in the
following situations:

* Materials could be damaged due to flattening the
  binding or exposure to light.

* Materials are marked "Do Not Copy."

Material photocopied for use outside the park must be
labeled as follows:

NOTICE:
Copyright law found in Title 17, U.S. Code
may protect this material.

Adding New Publications

The Library of Congress Cataloging System (LCS) is
used at Dinosaur National Monument. The following
steps will be followed when new publications are added
to the system (presumes that the park library has
been/will be cataloged by the Pacific West Regional
Library):

1. The Administration Office will receive new books and
   attend to all invoice matters.

2. The new books will then go to the library manager.

3. The library manager will photocopy the title page and
   the reverse page, and forward the copy to the Pacific
   West Regional Library, whose library staff will
   catalog the book, add it to the card catalog, and
   prepare labels for the book.

4. The library manager will prepare an accession record for the book consisting of date received, cost, source of acquisition, and condition.

5. While books are being added to the catalog, they will be placed in the controlled access area; they can be used in the library only with the permission of the library manager.

6. The library manager will prepare a monthly memo for the park staff, listing the new additions and providing the title, author, and a short summary.

7. When cataloging is completed and labels arrive, the library manager will affix labels, pocket, and checkout card to the publication.

8. Books will then be shelved according to their LCS number.

9. Every four months the library manager will update the park's computerized catalog with the most current copy from the Pacific West Regional library. At this time, hard copies of the author, title, and subject listings will be added to the library reference area.

Excluded Publications

With the exception of the categories listed below, all books purchased with NPS or cooperating association funds will be accessioned and cataloged into the park library in a timely manner. Excepted categories include the following:

- Dictionaries, thesauruses, word finders, usage guides, or similar reference guides.

- Other books regularly needed by employees to carry out their day-today duties, such as safety manuals, fire codes, regulations, laws, museum manuals, public health manuals, etc.

- Annual publications, such as almanacs, price books, catalogs, zip code guides, etc.

- Publications purchased as part of an approved training program.

Books in the excepted category may be included in the collection at the discretion of the library manager.

Inventories

The library will be inventoried annually in October. An up-to-date shelf list will be acquired from the Pacific West Regional Library; the library manager will match the shelf list with current holdings and account for all missing books. Books that cannot be found will be listed on a memorandum, which will be circulated to staff for input. If this process produces no results, the list will be forwarded to the Pacific West Regional Library for deletion from the catalog.

By the end of each fiscal year, the park library manager will compile a list of acquisitions of the past year, noting source and cost. The list will be

forwarded to the _____[name of position].

Binding

Unbound or paperback material will be bound at the recommendation of the library manager when value, condition, or frequency of use justifies this step.

Weeding

The removal of material from the collection judged to be of no use for research or documentary purposes will occur on a yearly basis. Weeding will take place at the time of the annual inventory, and library managers will use the same criteria used in the selection of new materials. Items considered for de-accession should exhibit the following characteristics:

- Information outside of the scope of collection

- Outdated information

- Inaccurate information

- Irreparably damaged or worn material

All items, including those that exhibit the above characteristics, should be carefully considered for possible historic value.

Weeding Procedure

- Items are removed from the collection following the above criteria.

- Selected material is included in a memo and circulated to park staff. Final approval of weeding is made by the _____ [name of position].

- A Report of Survey (DI-103) is prepared and circulated.

- Library records will be updated.

- Cataloged items are offered to the following:
  a) Pacific West Regional Library
  b) Pacific West Region Units
  c) Harpers Ferry
  d) Department of the Interior Library
  e) Library of Congress

Materials may be disposed of to other institutions at the discretion of the park library manager with the concurrence of the _____ [name of position]. The library will be weeded in October.

The staff at the Pacific West Regional Library may be contacted with questions concerning library management or operations not specific to the parks, at 206.220.4114.

Approvals

Superintendent _____ Date _____

Team Leader _____ Date _____

Library Manager _____ Date _____

Appendix B — Access Policies

It is National Park Service policy that park-specific cultural and natural collections be available for educational and scholarly purposes. The Service is also charged to manage these resources for optimum preservation. To minimize the potential impact on the archives and museum collections and to ensure basic security and preservation conditions, it is necessary to document, restrict, and monitor access. The guidelines in this appendix are followed at [name of park] in order to provide supervised management of park-specific resources.

Levels of Access to the Archives and Museum Collections

All serious research — regardless of educational level — is encouraged.

Providing different levels of access to collections is a standard curatorial philosophy underlying the policies of most major museums. Based on the information provided on the Research Application (included in this appendix), individuals will be provided access to different types of collections information or material, depending on their needs and available staff time.

Conditions for Access

- The research application must be completed; it will
  be used as a basis for determining the level of
  access necessary, and to maintain a record of use
  for statistical purposes.

- Level of access will be determined by the superintendent and/or the collections manager(s). Prior to allowing direct access to the archives and collections, alternatives such as access to exhibits, publications, photographs, and catalog data will be considered.

- Access will be made with the assistance of the curatorial staff, during regular staff working hours. A fee to cover the cost of staff overtime may be required for access outside of the normal working hours.

- Individuals provided access to archives and collections in nonpublic areas are required to sign in and out using the Guest Register.

- The *Guidelines for the Use of Archival and Museum Collections* will be followed by all individuals with access to the collections.

- While no user fee will be required for access to the archives or museum collections, the superintendent and curatorial staff will determine what services may be reasonably offered and what charges may be required for such services as staff overtime, photography of specimens, or reproduction of documents.

- All photography of specimens and duplication of documents will take place on-site per the *Guidelines for Photography of Museum Collections and Duplication of Historic Documents*.

- A limited amount of space is available for researcher use of archives and museum collections. Researchers are required to check in all collections and remove all personal possessions each evening.

- Dinosaur National Monument reserves the right to request copies of notes made by researchers, and requires copies of research papers or publications

resulting in whole or part from use of the collections.

- There may be legal considerations (such as the Native American Graves Protection and Repatriation Act, 1991) which allow or limit access to part of the archives and museum collections.

Access Policy Administration

This statement of policies and procedures is public information, and is available upon request from the following:

Superintendent
Dinosaur National Monument
4545 East Highway 40
Dinosaur, CO 80610-9724

Implementation of these policies and procedures has been delegated to the collections manager(s); however, the superintendent has the final authority to grant access to the archives and museum collections.

The evaluation of requests should consider the motives of the researcher, the projected length of the project, the demands upon the available space, staff and collections, and the possible benefits of the research project. Access may be denied if thought not to be in the best interests of the resources, the park, or the National Park Service. It is expected that the superintendent will make these decisions in consultation with the collections manager(s).

With increased attention and use, the archives and collections will require increased monitoring to provide security, to detect developing preservation problems, and to facilitate prompt treatment. Regular inventory of the most heavily used portions of the archives and museum collections will be required to ascertain object location and condition.

DINOSAUR NATIONAL MONUMENT

Research Application for Museum Collections and Historic Documents

Name _____ Telephone Number (_____)_____

Institution/Organization
_____

Address _____

Date you wish to visit
_____

(An alternate date might be necessary due to staffing limitations.)

Have you previously conducted research in the park's museum collection?
Yes_____   No

Research topic and materials you wish to see
_____

Indicate which activities you wish to do

Consult catalog cards   Consult archeological records

View objects in storage   Study objects in storage

Draw objects   Consult historic documents

Other _____

Purpose of your research

Book   Article

Lecture/conference paper   Term paper

Thesis   Dissertation

Exhibit   Project

Identify/compare with other material

Other commercial use or distribution
_____

Other _____

I have read the Museum Collection Access and Use/Research Policies and Procedures and agree to abide by it and all rules and regulations of Dinosaur National Monument. I agree to exercise all due care in handling any object in the museum collection and assume full responsibility for any damage, accidental or otherwise, which I might inflict upon any museum property. Violation of National Park Service rules and regulations may forfeit research privileges.

Signature _____

Date _____

Please return to: Superintendent, Dinosaur National Monument, 4545 East Highway 40, Dinosaur, CO 80610-9724

(reverse side: Research Application)

Park Service Use Only

Identification (provide at least one)

Institutional ID _____

Driver's License Number _____

Research Topic

_____

_____

Location of Research (check one)

   Curatorial Office

   Storage

   Exhibit Area

   Others

_____

___

DINOSAUR NATIONAL MONUMENT

Museum Objects Reviewed by the Researcher

Park	Catalog	Object Name	Location	Accession	Acronym	Number

Approvals

Name _____

Title _____

Date _____

DINOSAUR NATIONAL MONUMENT

Museum Collections and Archives Register

Date	Time In/Out	Name/Address	Purpose of Visit	Items Looked At	Accompanied By

DINOSAUR NATIONAL MONUMENT

Guidelines for the Use of Archival and Museum Collections

The guidelines provided here are followed at Dinosaur National Monument regarding use of the park's museum collections and archives. It should be noted that these resources are separate from the park's library, which is managed by the Division of Interpretation.

It is the policy of the National Park Service that its museum collections and archival resources be available for educational and scholarly purposes. The Service is also charged with managing these resources for optimum preservation. To minimize impact on these collections, it is necessary to regulate access to the materials.

Copies of the research application and the full text of the *Guidelines for the Use of Archival and Museum Collections* are available to the public, upon request from:

Superintendent
Dinosaur National Monument
4545 East Highway 40
Dinosaur, CO 80610-9724

Availability

The museum collections and archives are open Monday through Friday, from 8:00 A.M. to 4:30 P.M. Park staff should contact the park collections manager(s) for assistance with access. The museum collections and archives are "nonlending," and the materials will remain in the building.

Nonstaff users must complete a *Research Application* (included in this appendix) prior to accessing

information or materials to ensure that assistance is available upon arrival. Access will not normally be granted on weekends.

All materials must stay within the study areas
provided within the collection management facility.
The size and location of these areas may vary
according to the time of year, requests from other
researchers, and staff available. The researcher may
bring only those materials needed for research into
the assigned study area.

Registration

The Guest Register, used to record access to museum
and archival collections, must be signed when the
collections are used by staff or nonstaff members.
Nonstaff researchers are required to complete a
Research Application (included with this policy).
These forms will be retained indefinitely for
statistical analysis and as a permanent record of
collections use. A new application is required for
each research project, and must be renewed each
calendar year.

As part of the registration process, the researcher
will be given a copy of these procedures to review and
sign, thereby indicating his/her agreement to abide by
them.

Use of Archival Records and Manuscripts

Many of the park administrative records, the
archeological records, and other historic reference
material have been copied onto microfiche; and a
reader/printer is available for limited research use
by the public. Where microfiche is available, it will
be used for research requests. Only in the most
extraordinary circumstances will original documents be
used when microfiche is available.

When microfiche is *not* available, the archives user
should follow these procedures to ensure careful
handling of all materials:

- Remove only one folder from a box at a time. Do not remove or alter the arrangement of materials in the folders.

- Maintain the exact order of materials in a folder, as well as folders within a box. If a mistake in arrangement is discovered, please bring it to the attention of museum staff. Do not rearrange material yourself.

- Do not erase existing marks on documents and do not add any additional marks.

- Do not lean on, write on, trace, fold, or handle materials in any way that may damage them.

- Use only pencils for note-taking. The use of pens of any kind is prohibited. Typewriters and computers may be used for note-taking if provided by the researcher.

Duplication

The park will consider requests for limited reproduction of materials when it can be done without injury to the records and when it does not violate donor agreements or copyright restrictions. Depending on the number of copies requested, there may be a charge for photocopying. Fragile documents and bound volumes will not be photocopied. All photocopying of archival material is to be done by the museum staff.

Copyrights and Citations

The revised copyright law, which took effect in 1978, provides protection for unpublished material for the life of the author, plus 70 years. In addition, all unpublished material created prior to 1978, except that in the public domain, is protected at least through the year 2002. Permission to duplicate does not constitute permission to publish. The researcher accepts full legal responsibility for observing the

copyright law, as well as the laws of defamation, privacy, and publicity rights.

Information obtained from the park museum collections and archives must be properly cited, in both publications and unpublished papers. The citation should read:

> (object name and catalog #) in the collection of Dinosaur National Monument, Dinosaur, CO. Photograph courtesy of the National Park Service."

Restrictions on Use

The use of certain materials may be restricted by statute, by the creator, or by the donor. For the protection of its collections, the park also reserves the right to restrict access to material that is not fully processed, or is exceptionally valuable or fragile; and to information that may be restricted or confidential in nature.

Responding to Off-Site Reference Inquiries

It is the responsibility of the park curatorial staff to attempt to answer inquiries received by letter or telephone within at least 20 days from the date of receipt. Clearly, the extent to which this reference service is undertaken will depend upon availability of staff time and the nature of the question. The receipt of written inquiries will be acknowledged by telephone if a full response cannot be provided promptly. The staff must set time limits for answering research questions, so researchers are encouraged to use the collections in person.

A record of all research inquiries will be maintained. Such a record is useful for security and for compiling statistics on research use of the collection. Use of the collections by park staff will be included in these statistics.

Guidelines for Handling Museum Collections

Handling museum collections may be hazardous. Follow the guidelines provided here to ensure safe handling.

Archeological collections can contain broken glass and rusty metal objects with sharp edges. Historic material may retain chemical or biological contamination. Natural history collections contain chemical preservatives and possible biological contamination. Archival collections may be contaminated with mold, insects, and vermin droppings, or may contain asbestos or cellulose nitrate film.

- Use caution in handling collections, and wear gloves when requested to do so.

- Curatorial personnel will retrieve and replace material for anyone using the collections. Direct access to material may be restricted if the object is very fragile.

- Do not remove materials from storage packaging without the permission and assistance of the curatorial staff. The packaging is necessary to prevent damage and deterioration of the specimen, and to protect the researcher from potential injury.

- Always handle objects with clean hands. Use white cotton gloves when handling metal, photographs, paper, and leather objects; washed white duck gardener's gloves may be required for heavy objects.

- Do **not** use white cotton gloves when handling glass or other objects with slippery surfaces, very heavy objects, or items with friable or brittle surfaces.

- Do not pick up anything before you have a place to put it down and your path to this place is clear.

- Look over an artifact before lifting it to see how it is stored and to observe any peculiarities of its construction, fragility, etc. If an object is made in separable sections, take it apart before moving it. Do not attempt to carry heavy or awkward objects alone. Never carry more than one object at a time, and be particularly careful with long objects.

- Except for small items, always grasp an object with two hands, and grasp the largest part or body of the object. Slide one hand under fragile items as you lift them.

- If an artifact has a weak or damaged area, place or store it with that area visible.

Special Objects

- Mounted herbarium specimens should be laid on a flat surface and the folder cover and specimens handled gently, taking care not to bend the sheets or touch the actual specimen.

- Pinned insect specimens should be handled as little as possible, and then handled by the pin. Avoid bumping and strong drafts when handling these specimens.

- Skulls and skeletons should be kept in their jars
  or containers while examining.

- Ceramics and baskets should be supported from the
  bottom, never lifted by the rim or handles.

- Photographs, transparencies and negatives should be
  handled by the edges, and should remain in
  protective mylar sleeves whenever possible. White
  gloves should always be used when handling
  photographs.

- Unrolled textiles should be broadly supported from
  underneath rather than by holding from the edge.

Reporting Damage

Please report any damage you observe or cause to
specimens.

Behavior

- Food, beverages, smoking and pets are not allowed
  in the storage or study areas at any time.

- Staff members are responsible for the behavior of
  any person accompanying them into the collections.

- Children under six years of age must be accompanied
  by an adult and physically controlled at all times.
  Other minors must be under the direct supervision
  of an accompanying adult at all times.

I have read and understand the above policy.

Name

_____
_____

Date

_____
_____

Dinosaur National Monument Museum Management Plan

DINOSAUR NATIONAL MONUMENT

Guidelines for Photography of Collections and Duplication of Historic Documents

This policy documents appropriate procedures for providing photographs of Dinosaur National Monument museum collections, and for duplicating original historic photographs and documents. The policy is intended to prevent damage or loss through mishandling or exposure to detrimental environmental conditions.

Duplicate Photographs of Museum Collections

There are many possible uses for photographs of the items in museum collections, the most common being exhibits, publication and research. It is the policy of the National Park Service to encourage the use of Service collections in these legitimate ventures and to make photographs of museum collections available within reasonable limitations.

Photography involves exposing often fragile museum objects to potential damage or loss from handling and exposure to heat and light. The Service seeks to minimize this potential damage by photographing items as few times as possible. To accomplish this, the park will develop a reference collection of object photographs that will be available for public use. A minimal fee may be required for copies of the photographs.

In order to provide this service, and to build the necessary reference collection, the following procedures will be followed:

- Requests for photographs of items in the museum collections will be submitted to the park curator, who will establish any necessary priority for the

work. Requests should be made on copies of the attached form.

- Requested items that do not have copy negatives will be photographed based on these priorities. A cost recovery charge for photography and processing may be required.

- Photography will be done at the park, under park control, to preclude the possibility of artifact damage or loss. The resulting photographic negatives and their copyrights belong to the National Park Service.

- Once an object has been photographed, the negative will be maintained at the park to fill any future requests for photographs of that object. A minimal cost recovery charge through the Park Association may be required for prints.

Duplication of Historic Photographs and Documents

There is a wide variety of historic photographic processes and document types, but they all are subject to rapid deterioration from exposure to visible light and are very susceptible to damage from handling. Handling is often disastrous to these materials and causes damage such as tears, cracks, abrasions, fingerprints and stains. Handling also subjects historic photographs and documents to frequent fluctuations in temperature and humidity.

To prevent further deterioration, copies will be made of all historic photographs and documents, with the copy replacing the originals as the primary item for research and use. The original material will remain in storage, for the most part, as primary source material.

Because of increased requests for access to and copies of historic photographs and documents, the following procedures are necessary to establish priorities for the duplication work:

- Requests for duplicate historic photographs and documents are submitted to the park collections manager who will establish any necessary priority for copy work.

- Requested items that do not presently have copy negatives will be duplicated based on these priorities. The originals must be accessioned and cataloged into the park collection. A cost recovery charge for duplication may be requested.

- Duplication will be done at the park, or under park control, to preclude possibilities of loss or damage of the originals.

- Once the photographs have been duplicated, copy prints and modern negatives of the originals will be maintained and used for intellectual access and for further duplication. Microfiche copies of historic documents will also be maintained and will be available for use. A cost recovery charge may be required for copy prints.

The park will provide the sufficient quality duplication necessary to fulfill all the normal requirements for suitable reproduction. Outside individuals or organizations that request use of the images will be required to use only those copies provided by the park; and they will be obligated to acknowledge NPS credit if the photographs are published or exhibited to the public. By law, users must also credit the photographer, if known.

DINOSAUR NATIONAL MONUMENT

Request for Photographs of Items from the Museum Collections

Catalog #	Object Name	B&W/Color	Size	Finish

The undersigned agrees to provide the following credit statement for all publication use:

"(object name and catalog #) in the collection of Dinosaur National Monument, Dinosaur, CO. Photograph courtesy of the National Park Service."

Signature

_____

Date

_____

Appendix C — Evaluating and Retaining Park-Specific Records

The collection of park-specific records and manuscripts (commonly referred to as the "park archives") is a specialized part of the park museum collection. Along with the items and information in the collections, the records and manuscript collection provide information on the inner workings of the park. The archives may contain such diverse elements as records of land acquisition, maps and drawings of park improvements, resource management studies, copies of park publications, films, and slide shows, the personal files of former park employees, and field records related to specimen collection.

For the creation of the park archives, it is necessary for the records manager and the collection manager to cooperate and work toward a common objective: the retention of the institutional memory of park as a whole. The park can best facilitate the logical and orderly movement of records and manuscripts from their point of origin, through processing, and into permanent locations for storage and use by emphasizing the team approach. Occasionally this team should also include the services of a professional archivist, who can assist in the development of the overall form, structure, and use criteria for the collection. In this particular case, the MMP team suggests that the park request the services of the archivist at the

Western Archeological and Conservation Center in
Tucson, Arizona.

Three primary National Park Service documents should guide the creation of the park archives:

- *Director's Order 19, Records Management* identifies what types of records must be destroyed or transferred to a Federal Records Center and sets the schedule for these activities.

- *Director's Order 28, Cultural Resource Management* outlines in broad terms the National Park Service policy covering the creation, management, and use of park records and manuscripts as part of a museum collection.

- The *NPS Museum Handbook*, Part II, Appendix D, contains specific instructions on methods to organize, manage, and use archival collections for the benefit of both staff and the general public.

During the visit to Dinosaur National Monument, the Museum Management Planning Team identified numerous park records that must be evaluated for retention in the archives. A professional archivist should evaluate this collection and assess organization, storage, and duplication needs.

To obtain the funding necessary for this work, the park should take the following steps:

- Accession the entire collection under one initial accession number. As the archivist organizes the collection, add several more accession numbers, depending upon the natural groupings of record types.

- Ensure adequate documentation of this accession in the next annual Collection Management Report. This step will allow the park to request Backlog Cataloging funds and address the organization, cataloging, and duplication of this resource.

- Survey, catalog, and duplicate the collections. Provide the requisite number of media use points (microfiche reader/printers or computers with printers, for example) in designated use areas that are convenient to the staff and general public.

- Develop an adequate "follow-on" program designed to update the archives with new material from the park's active files on a regular basis (3- to 5-year cycle). Program Cyclic Maintenance funds to underwrite this necessary work.

By adopting and following this methodology, the monument will be able to move the records and manuscripts that document park resources and management activities from current files to an organized medium available for both NPS and public use.

Appendix D —
Planning, Programming,
and Staffing

The effective development of the programs, budget and staff necessary to preserve resources and complete the park's mission requires an aggressive approach to long-range planning. If the necessary documentation of need followed by the requisite planning and programming of the required work does not occur, disorganization and inefficiency will govern task completion. It is important to maintain balance and perspective in planning and programming for resource preservation; otherwise, the resource will suffer.

As a nonspecialist ultimately responsible for all park programs, the superintendent depends on the professional and technical advice of a journeyman-level curator to make informed decisions regarding park collections. It is the responsibility of the latter to provide the necessary documentation, programming and planning required to make sound fiscal and staff decisions that result in efficient management of the resources. In filling these responsibilities to the collections, the collections manager must of necessity be very clear in the documentation and costing of all assigned duties, and must present this information in a timely manner.

In filling these responsibilities toward collections management, the curator must of necessity be very clear in both the documentation and costing of all assigned duties and the presentation of this information to the superintendent. Thus, the curator also has the responsibility to

document the work that will not be completed as a result of other duties and obligations assigned which may take administrative precedence over necessary and regularly scheduled curatorial work.

The most efficient method to document current and projected activities involving curatorial staff is a time/cost analysis. This approach is suggested to establish a point of credibility for the park museum management program; and to provide the superintendent with a logical basis upon which to decide whether work gets done or is placed in backlog. This also provides the superintendent with good information to use in defense of unit requests for staff and funding. Some very basic time/cost analysis questions might include:

- How many accessions have been processed each year for the last three years?

- What is the average time/cost to process an accession?

- Is the rate of new accessions entering the collections increasing or decreasing?

- Are we keeping up with basic registration, or is material going unprocessed?

- What is the average time/cost to catalog an object?

- What is the average time/cost to prepare a specimen for storage?

- What is the average storage cost per cubic foot of storage per year?

- What is the time/cost to provide exhibit case monitoring/cleaning per year?

- How many requests for research access to collections were received per year for the last three years?

- Is the rate of requests for research access increasing or decreasing?

- What is the time/cost to comply with the "average" research request?

Similar analysis should be done for all assigned duties (primary and collateral) and the results compiled in terms of time and of direct costs. Once this information is collected, analyzed and formatted for presentation, both the employee and superintendent will be able to recognize the time and direct costs associated with the various facets of the entire work load, and determine how to balance and accomplish the necessary work. Additionally these data will document where collateral-duty activities may detract from essential work, and where the use of other levels of support would be more cost-effective.

The addition of a museum technician as a part-time staff member to assist with some of the time-consuming, day-to-day technical operations as needed would allow the park curator to focus on larger issues such as the backlogged collections registration and overall program management. Project funds, fee demonstration, and donation accounts are all good sources to fund this type of position in the short term.

One of the primary reasons park programs become neglected when a member of the professional staff leaves a position is the lack of good documentation of how the program (and thus the professional position) serves the park. Reconstitution of a lapsed position

and dormant program always requires a major effort, and any lapses in professional services for a complex collection, or series of collections, will result in both collection documentation and preservation problems. The only effective action to prevent this situation is planning, programming, and budgeting work that documents the need and value of the professional service to the entire park.

Recommended Actions

- Develop a list of essential museum management activities (such as registering collections, inventorying, cleaning exhibit cases, downloading data loggers, and replacing/recording insect traps) and begin a time/cost documentation and analysis for each activity.

- Determine which activities (cited above) require professional attention and which are technical in nature.

- Prepare staffing and/or funding proposals for the technical assistance required to provide adequate support for the professional program.

- Develop a list of regularly scheduled collateral duties not directly associated with the Museum Management Program and begin a time/cost documentation and analysis for each duty.

- From the above exercise, determine whether the completion of collateral duties adversely affects the completion of primary museum management functions such as basic registration. The data may support the addition of technical staff as mentioned above.

- Revise the Project Management Information Program for the park. Combine similar projects and remove overlapping or repetitive project statements. Double-check the budgets.

Appendix E — Survey Results

This appendix details the results of a survey relating to the archives and collections management program at Dinosaur National Monument. The survey was conducted in advance of the Museum Management Plan in an effort to identify and quantify staff needs relating to the park archives, museum collections and library.

Survey Objectives

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

- Percentage of the staff using the park museum collections and library.

- Percentage of the staff using nonpark information resources.

- Primary areas (categories) of information use, and the reasons for use of those specific collections.

- Primary reasons staff *do not* use park 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 park 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 park administrative unit.

Survey Methodology

The target universe of the survey was the temporary and permanent staff of Dinosaur National Monument. The survey was disseminated to the 57-person staff under a cover memorandum from the acting superintendent in August 2001, requesting that the survey be completed and returned to the Columbia Cascades Support Office by October 2001. A total of 27 responses were received, representing a 49% response rate. A response rate of 12% is required for this type of survey to be considered statistically valid, so the Dinosaur response is considered quite good, 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 that *is* 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 in general (49%) was more than sufficient to be considered statistically valid, the results will be phrased as representative of the entire universe surveyed. Responses of less than 10% to any specific question are not considered statistically valid, and will generally not be commented upon. However, all responses are tallied on the attached survey form. Percentages have been rounded up to equal numbers when 0.5 or more, 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 included length of service, distribution by administrative unit, and employment status.

Length of service

	Total	Average
Years of service	356	12.7
Years at DINO	234	8.3
Years in current position	122	4.3
Number of parks served in	78	2.7

Distribution by administrative unit

Administration	2
Interpretation	3
Maintenance	13
Ranger	2
Resource Management	4
Unknown	4

Employment status

Temporary / Seasonal	8
Permanent	20

Survey Summaries

Percentage of use the collections receive by park staff:

- 57% used the library an average of 20 times last year.

- 32% used the museum collections an average of 52 times last year.

- 25% used nonservice library or museum collections an average of 23 times last year.

Conclusions

The majority of the staff uses the library and a significant percentage of the staff uses the archives and museum collections in some aspects of their jobs. It might be interesting to determine what services are *not* being offered by the park that requires 25% of the staff to use outside sources for needed reference. This could be accomplished by a one-sheet survey to all employees requesting specific information for improving services (title/subject suggestions for books/periodicals, hours of operation, etc.).

Concerning the types of archival/museum collections used by the staff:

- 36% use the photo collections
- 18% use the paleontological collections
- 18% use the historic archives
- 14% use the historic collections
- 11% use the administrative archives
- 11% use the herbarium

Concerning the reasons cited for collections use:

- 29% is for maintenance/repair information
- 25% is for information for visitors
- 21% is for project research
- 21% is for exhibits/public programs
- 14% is for historic structure information
- 14% is for publication
- 11% is for summer programs

The majority of current use centers around obtaining
information and material for maintenance, visitor use
and project research. The highest percentage of use
appears to center around the photographs and paper
records. This may be due to the poor organization and
access to the three-dimensional collections, but may
also reflect the type of information needed. The park
may wish to consider duplication of part/all of the
most used files on micro-fiche or compact disk, and
location of the duplicates at points of use.

Reasons cited for not using the archives/collections:

- 39% said they not know what was in the collections

- 39% said they did not know how to find needed material in the collections

- 32% said they did not know where needed material was located

- 25% said the collections were not electronically accessible

- 24% (aggregate) said there was no place to work/study the collections

- 11% said there were no supporting archives

Suggestions for increasing usage were as follows:

- 75% — provide a listing of what was in the collections

- 39% — provide a finding aid to the collections

- 36% (aggregate) — provide adequate work space

- 36% — move the collections to a more central area

- 36% — combine the museum collections and the library

- 36% — provide computer access in the collections work area

- 25% — provide remote computer access to the collections

- 21% — combine the collections and the archives

- 18% — add profession staff for the collections

- 11% — extend hours/days for accessing collections

Almost all the reasons cited for not using the collections involve problems of access. Conversely, most of the suggestions for increasing usage involve improving the access to collections and associated information. An obvious first step is to provide the

necessary listings/finding aids to the collections. This is followed by the need to provide adequate space to access and work with the collections, both for preparation and reference, in areas close to points of use. An aggregate 57% see a need to combine the archives/library/museum collections.

Information from the evaluative part of the survey (Section V) identifies the value that park staff ascribes to the concepts of archival and collections management and preservation in the park. These responses may be used to gage staff understanding of why the 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 information may be inferred from responses to the survey:

- The staff views the collections/archives as being important to the preservation of information about the park, as indicated by the response to the statements…

  - "Museum collections/archives should be used to document park resources" (75% agree)

  - "Park collections/archives are of no use to me in the completion of my job" (57% disagree, 36% uncertain)

  - "Park museum collections/archives are primary resources of the park" (57% agree, 25% uncertain)

  - "Park museum collections/archives serve as the institutional memory of the park" (57% agree, 32% uncertain).

- A response of "uncertain" to the above statements is unusual, and suggest confusion on the part of the staff as to what exact roles and functions the collections are filling at this park.

- Overall, the staff supports expending staff time and funding for the management of park archives, collections, and libraries.

  - "Park archives/collections/libraries need professional management and care" (53% agree, 39% uncertain).

  - "Parks should not be expending staff time and funding on museum collections" (64% disagree, 29% uncertain.)

  - "Funds spent on museum collections/archives would be better spent on preservation of other park resources" (46% disagree, 39% uncertain).

- Again, the high number of "uncertain" responses suggests considerable confusion and indicates a need for role and function development.

General Conclusions

The park libraries and museum collections receive a higher than normal incidence of use when compared to that of other parks. This use is centered in the photo, archival and paleontological collections, mostly for the purposes of maintenance information, project research and visitor related programs. The park should be looking at ways to facilitate that use through the production of finding aids, the joint housing of archives, collections and library resources, providing adequate specimen preparation and work areas at point of use, and providing several methods of intellectual access to the park specific resources. An informational finding aid should be produced for distribution to the park staff at the earliest opportunity. Some of the specialized features of the ANCS+ program should help with this. The orderly increase of funding for both collections staff and specialized space is relatively important to the park staff as a whole, and the staff can be expected

to support activities perceived as filling their needs for access and information.

The survey format provided the park staff with the opportunity to offer individual impressions of the archives, museum collections and library program operations in a candid manner, as well as providing a venue for staff suggestions for changes and improvement. The survey results provide park management with firm background data that should be useful in developing specific programs to manage these unique park resources.

The compiled survey form follows.

DINO Archives, Library, and Museum Survey Results

Survey Section 1

These first questions will help us determine use patterns for museum, archives, and library collections. For the purpose of this survey, a "visit" to the collections also includes verbal, telephone and e-mail requests for information that would require the collections manager to find and communicate that information to you.

1. Do you use the park library? No (**12**) Yes (**16**)
   If yes, about how many times in the past year? **314** total (19.6 average)

2. Do you use the park collections/archives? No (**19**) Yes (**9**)
   If yes, about how many times in the past year? 470 total (52.2 average)

3. Do you use non-NPS collections or archives? No (**21**) Yes (**7**)
   If yes, about how many times in the past year? **159** total (22.7 average)

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

   Historic Archives **(18%)**   Administrative Records **(11%)**

   Photo Collections (**36%**)   Historic Collection **(14%)**

   Archeological Collection **(7%)**   Ethnological Collection

   Herbarium **(11%)**   Paleontological Collection **(18%)**

   Insect Collection   Geological Collection **(7%)**

   Mammal Collection **(7%)**   Bird Collection

   Resource Management Records (such as building files, natural resources studies, archeological excavation reports)   **(18%)**

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

Administrative Research **(7%)**   Project Research **(21%)**

Develop Summer Programs **(11%)**   Comparative Studies **(7%)**

Maintenance/Repair Info **(29%)**   Historic Structure Info **(14%)**

Publication **(14%)**   Information for Visitors **(25%)**

Exhibit/Programs **(21%)**

Environmental Impact/Remediation Research **(7%)**

Other (please list): personal use, comparison, plant ID

Survey Section II

We realize that there might be many different reasons park
staff members do not make use of the museum, archives, or
library collections in their work; and that it may well 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/archives are located **(33%)**

   Don't know what types of collections are available **(32%)**

   Don't know how to find the collections I need **(39%)**

   Don't know who can get me into the collections   **(39%)**

   There is no place to look at/study the collections/archives **(14%)**

   There are no supporting archives (reports, maps, photos) **(11%)**

   The collections don't have the items I need **(7%)**

   The collections are not relevant to my job   **(32%)**

   There is no place to work   **(11%)**   There is no wet laboratory
                                                            (11%)

   The collections are not physically   There is no dry laboratory
   accessible **(21%)**   **(25%)**

   The collections are not electronically   There is no preparation
   accessible **(25%)**   area

   There is no supporting library   There is no study area

   There is no computer printer   There is no copy machine

   Collections are not organized **(14%)**   There is no one to let me
                                                    in

   Not open on a regular schedule **(7%)**   The staff is not friendly
                                                    (11%)

   There is no one to help me find things **(7%)** The staff is not helpful
                                                    (7%)

   Collections are too far away from where I work **(11%)**   Distance 28 miles,
   30 miles

   Other (please list): Paleo library located in an office, poorly organized for
   staff use, not accessible when office is closed & locked. Not helpful in
   finding things. Takes too long to find what I need, BLM herbarium in Vernal
   is more complete, easier to use, less hassle, w/ good work space.

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/archives do to be more useful to you? (Check as many as apply.)

❑ Move collections/archives to a more central location **(36%)**
Suggestions: Vernal = 2, Quarry Building, Need new building. Keep park collections in park. Vernal is not central.

❑ Open collections/archives different or longer days and hours **(11%)**
Suggestions: publicize hours. Open on "as needed" basis.

❑ Provide a listing of what is in the collections **(75%)**

❑ Provide a finding aid to the collections   **(39%)**

❑ Combine museum collections with archives   **(21%)**

❑ Combine museum collections with library   **(36%)**

❑ Provide a work area   **(11%)**
    Wet lab **11%**   Dry lab **25%**   Other: well lit exam area w/good

❑ Provide a computer hookup **(36%)**
    Printer **21%**   Copy machine **11%**   Other:

❑ Provide online services to support research   **(14%)**

❑ Provide professional staff to organize and work on collections **(18%)**

❑ Organize existing collections   **(32%)**

❑ Organize existing collections in a different manner   **(11%)**

❑ Provide professional staff to assist with access to collections   **(14%)**

❑ Provide remote computer access to collections/archives **(25%)**

❑ Provide the type of collections I need   **0**
Suggestions:

❑ Other (please list): Combine collections/archives in one location. Locate all collections in one spot. Provide tours/training to use collections (2). Librarian needed to

organize/manage library. Combine library with collections,
but not off site. Provide computer database that ID's casts in the
collections. Provide system for access that is "user friendly."

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** =

Statement	A	U	D
Museum collections and archives should be used to document park resources.	21	5	1
Park collections and archives are of no value to me in the completion of my job.	2	10	16
Park archives, collections and libraries need professional management and care.	5	11	2
Park collections and archives should be consulted prior to beginning resource management projects.	15	9	4
Park collections and archives should be more available for park staff use.	16	8	4
Park museum collections and archives are primary resources for the park.	13	9	6
The best use for park collections is reference and research.	9	15	4
Park collections would be more useable if combined with the archives and library.	1	14	13
There is not enough emphasis on natural materials in park collections.	2	8	18
Parks should not be expending staff, time and funding on museum collections.	17	9	2
Park archives should contain copies of all studies and reports done about the park.	13	3	1
There is not enough emphasis on cultural material in park collections.	6	17	5
There is no value in parks maintaining park museum collections or archives.	1	9	18
Park collections and archives serve as the "institutional memory" of the park.	16	10	2
Park Visitor Centers should exhibit more material from the park collections.	22	6	0
Funds spent on museum collections and archives would be better spent on preservation of other park resources.	4	11	13

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 356 years, average 12.7**

Number of years at current park **total 234 years, average 8.3**

Number of park units you have served in **total 78, average 2.78**

Current position (optional)
Administration = 2
Interpretation = 3
Maintenance = 13
Ranger = 2
Resource Management = 4
Unlisted = 3 4

Number of years in current position **total 122, average 4.35**

Are you currently:
   Permanent staff **20**
   Term/Seasonal/Temporary staff **8**

Please estimate the time you spent responding to this survey:
total 345, average 12.3 minutes

DINO — October 2001

Bibliography

Good museum management planning requires an understanding of the library, archives, and museum collection resources as they currently exist; background on how and why these resources were developed; and information on what is required to preserve the resources and make them available for use. In order to accomplish these goals effectively, planners must first review park-specific documentation such as reports, checklists, and plans; and then make recommendations based upon sound professional theory and techniques that are documented in the professional literature.

This bibliography brings together the references used in developing the Museum Management Plan for Dinosaur National Monument. The first section is the reference list of park-specific documentation provided by the park and used by the team to understand the current status of the resources. The second section includes a list of recommended readings that will provide the park staff with a better understanding of the physical and intellectual nature of these unique resources, and will enable them to apply professionally accepted techniques and standards for preservation and use.

Park Reference List

1986   General Management Plan

1987   Collections Management Plan

1990	Interpretive Prospectus
1990	Statement for Management
1991	Museum Security Survey (Stevan P. Layne, CCP)
1992	Collection Storage Plan
1999	Museum Collection Standard Operating Procedures
1999	Museum Housekeeping Plan
2000	Position Description, Museum Curator GS 1015-11
2001	Collection Management Report
2001	Collections Access Policy and Procedures (draft)
2001	Status of Funds
2001	Annual Performance Plan
2001	PMIS Statements

Suggested Reading List

The skills and craft necessary to perform adequate curatorial work have expanded exponentially over the past three decades. Fortunately, the literature in the field has also expanded to meet program needs. The current National Park Service publications, *Museum Handbook*, the *Conserve O Gram* series, and *Tools of the Trade,* all provide basic guidelines. They inform the reader how to perform certain tasks such as accessioning and cataloging, but they do not teach the neophyte when and/or why these tasks should be done. The proper application of the methodology presented in these documents requires a degree of intellectual preparation and practical experience that cannot be provided in procedural manuals or a two-week course.

The following references represent some of the best
theory and practice in the fields of collections
management, exhibits and programs, and archival
management available today within the professional
community. The Museum Management Planning Team does
not suggest that the park purchase a copy of each
suggested reference, but it is possible to acquire
copies of these volumes on inter-library loan.

Park managers and supervisors are encouraged to consider familiarity with the recognized literature in the field when evaluating prospective employees or, as an indication of continued professional growth, when doing performance evaluations. This familiarity should be a determining factor for employment at the GS 1015/11 level and above. It should also serve as an indication of job interest and commitment to professionalism when overall work standards are evaluated.

Collection Management References

American Association of Museums. *Caring for Collections: Strategies for Conservation, Maintenance and Documentation*. 1984. More than 60 curators, registrars, and conservators contributed information on how to improve environmental conditions, manage inventory, register objects, and augment public use of museum collections.

Appelbaum, Barbara. *Guide to Environmental Protection of Collections*. Second View Press, 1991. Clarifies the various conditions that impact collections, how objects respond, and how to mitigate damage. Good book for the nonspecialist.

Butcher-Younghans, Sherry. *Historic House Museums: A Practical Handbook for Their Care, Preservation, and Management*. Oxford University Press, 1996. This book serves as both reference and hands-on guide for all aspects of historic house management, including collections care, conservation, security, and interpretation.

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with up-to-date information sections concerning
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