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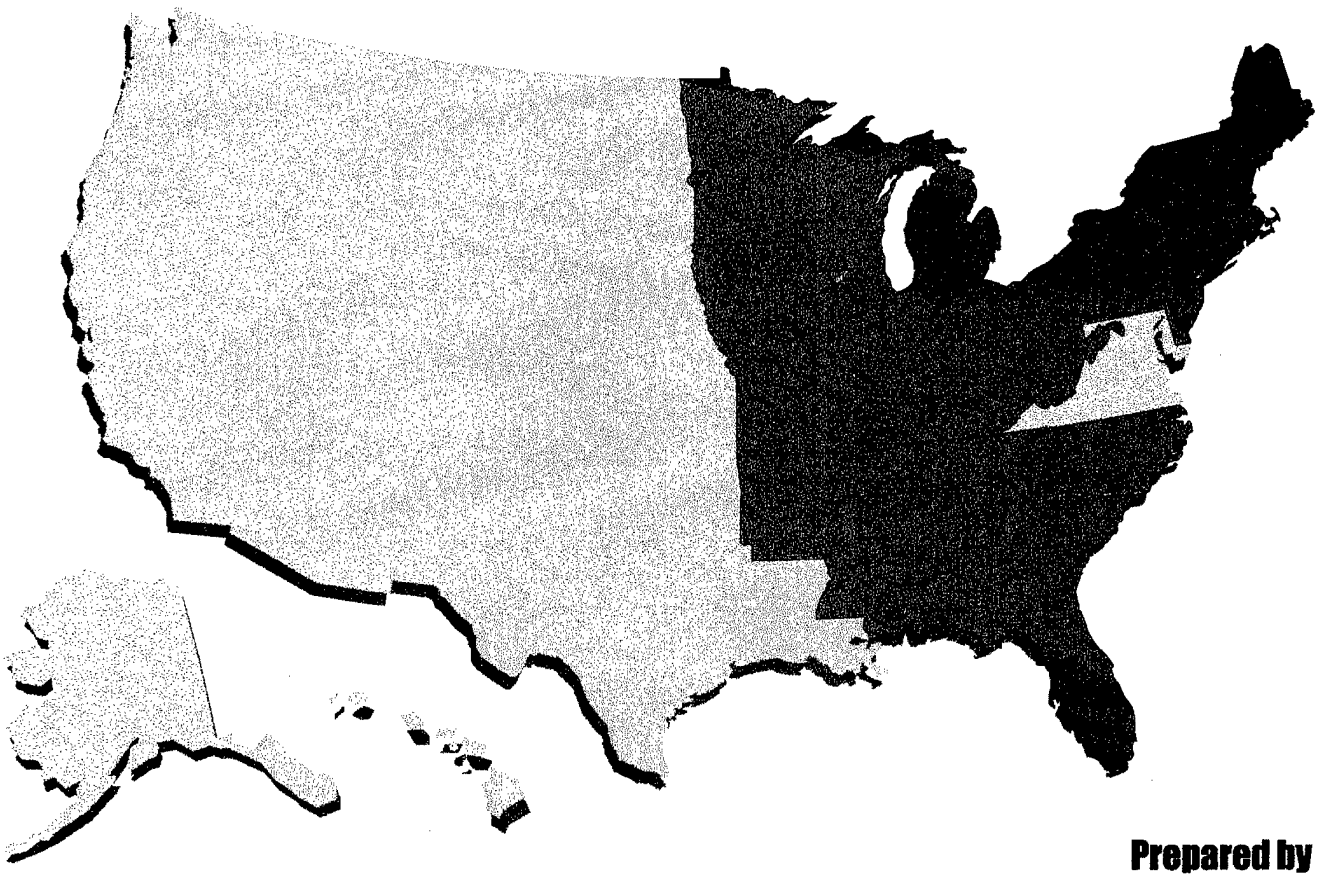

Prepared by
U.S. Army Corps of Engineers, St. Louis District
Mandatory Center of Expertise for the Curation and Management of Archaeological Collections

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13. ABSTRACT *(Maximum 200 words)*

This report examines various options for the curation of archaeological materials that are stewarded by the Department of Defense (DoD). Archaeological materials have been generated by over 50 years of archaeological investigations required by law, and many collections have been gathered from lands held by the DoD and U.S. Army Corps of Engineers (USACE). Adequate curation of these collections is mandated by federal regulations, most importantly 36 CFR Part 79—Curation of Federally-Owned and Administered Archaeological Collections. Previously, funding had not been allocated for the proper curation of these materials. As a result, most collections have not received adequate long-term care. The DoD and USACE funded this project to seek a solution to this nationwide problem. Museums, universities, and state-funded institutions already have facilities in place to curate archaeological collections. Rather than duplicate efforts, such institutions were sought out for potential partnership with DoD and USACE. The mission was to identify potential partners, evaluate their capabilities to manage the archaeological collections, and to collect baseline administrative information associated with such an endeavor. The results for the eastern U.S. are presented here. A previous report presents results of institutions in the western half of the U.S.

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Executive Summary

Background

The Department of Defense (DoD), through its major land-managing agencies, U.S. Army, U.S. Army Corps of Engineers (USACE), U.S. Navy and Marine Corps, and U.S. Air Force, is required by federal laws and regulations to curate archaeological materials and associated documentation recovered from federally-owned or managed property. As a result of over 50 years of archaeological fieldwork required under statute, large quantities of archaeological collections from DoD and USACE lands have been generated. Unfortunately, the proper curation of these materials has not been integrated into cultural resources programs and their funding. Thus, long-term collections care has in most cases been inadequate. Federal laws require that these materials be curated so that they do not deteriorate, and that they are readily available for study and exhibit. The most pertinent regulation is 36 CFR Part 79—*Curation of Federally-Owned and Administered Archeological Collections*, which took effect in October 1990. The lack of overall funding, lack of the integration of curation into existing yearly funding cycles, and the unequal weight between curation and fieldwork and report preparation have all worked against the proper curation of archaeological collections throughout the federal government, including DoD and USACE.

In response to this inequity, the Deputy Under Secretary of Defense (Environmental Security), the Assistant Secretary of the Army (Civil Works), and the U.S. Army Corps of Engineers' Director of Civil Works requested that the U.S. Army Corps of Engineers Mandatory Center of Expertise for the Curation and Management of Archaeological Collections (MCX-CMAC), located in the St. Louis District, undertake a nationwide technical study of potential partners that might be interested in serving as long-term repositories for DoD and USACE archaeological collections. The mission was to identify potential partners, evaluate their capabilities to manage the archaeological collections, and to collect baseline administrative information associated with such an endeavor. At the direction of DoD, some baseline financial information collected for this project has not been included in this report.

As an initial step in finding a solution to the long-term care of DoD archaeological collections through the Curation Options Project, St. Louis District began a process to identify potential partners. The process consisted of creating a master list of institutions to contact by telephone, and a secondary screening to determine which institutions warrant a visit after reviewing a preliminary questionnaire returned by those institutions that were interested in providing information. The final, and most important step, is an on-site visit to collect more fine-grained information on an institution's curation capabilities.

Potential partners are institutions that either currently curate archaeological collections, or have an interest in curating archaeological collections. Military installations or other DoD/USACE facilities were not included on the list of potential partners since these institutions' primary mission is not the long-term curation of archaeological collections; their primary function is not archaeological collections management, staff are not always available to care for the collections, and public education and use of the collections cannot always be assured. Private, for profit archaeological contracting companies were also not contacted because they are considered temporary curators, not permanent repositories.

Summary of Methods

To conduct the project, St. Louis District divided the U.S. into two parts: east and west. The western part, or Phase I, of the Curation Options Project encompasses the western U.S. and Maryland and Virginia, and is presented as a report under separate cover. The eastern states, or Phase II, encompasses the eastern states outside of Maryland and Virginia. The project area was in part defined by the project area of a concurrent national inventory of DoD Archaeological collections, also conducted by the St. Louis District. Staff from the St. Louis District visited 58 potential partners out of the 346 that were contacted in 28 states and the District of Columbia (Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, and Wisconsin). Phase II began in March of 1998, with fieldwork continuing through Spring of 2000.

During a visit to each institution, St. Louis District assessment teams collected information on: 1) the architecture and building systems, 2) collections management practices and policies, and 3) administrative structure of each institution. Chapters for each state (Chapters 4 to 32), present a summary of each potential partner visited in that state.

Curation Options

The original guidance for the project required that all states in the Phase II project area be visited so that at least one potential partner could be identified in each state. Based on this guidance, St. Louis District assessment teams performed field visits to individual institutions between March 1998 and April 2000. Of the 58 institutions visited, a total of 30 are suggested to potentially serve as partners. It should be noted that two states (Minnesota, New Jersey) and the District of Columbia each had no institutions willing to participate in the project. Some of these 58 institutions would require modifications to their existing facilities, collection management practices, or staff. Twenty-seven or 28 institutions constitute St. Louis District's

"Individual State Option" recommendation. The "Individual State Option," in addition to identifying one repository per state in most states, also suggests two potential partnering institutions each for Florida, and potentially two each for Alabama, Georgia, and Mississippi because of the volume of DoD/ USACE archaeological material within those states.

In addition to the "Individual State Option," St. Louis District also suggests an additional option be considered, the Mixed/Regional. These scenarios are based on the assumption that one partner in each state, and potentially multiple partners in other states, are willing and capable of entering into a long-term agreement with the federal government, and that negotiations for such an agreement result in the successful formation of a partnership. The Mixed/Regional Option, as presented in this report, is composed of both individual state and regional partners and includes twenty-one suggested institutions to choose from, resulting in five regional partnerships and ten individual state partnerships. For the Mixed/Regional Option, a number of scenarios are possible, although only one scenario is presented in this report. Implementation decisions may require consideration of a number of variables, including some outside the scope of this project. Proposed state partners in the Individual State Option are as follows.

Individual State Option

Alabama	Office of Archaeological Services, University of Alabama, Tuscaloosa
Arkansas	Arkansas Archeological Survey, Fayetteville
Connecticut	Mashantucket Pequot Museum, Mashantucket
Delaware	Delaware State Museums, Dover
Florida	Archaeology Institute, University of West Florida, Pensacola **and/or** Florida Museum of Natural History, University of Florida, Gainesville
Georgia	Laboratory of Archaeology, University of Georgia, Athens
Illinois	Illinois State Museum, Springfield
Indiana	Indiana State Museum, Indianapolis
Iowa	Office of the State Archaeologist, University of Iowa, Iowa City
Kentucky	W.S. Webb Museum of Anthropology, University of Kentucky, Lexington
Maine	Maine State Museum, Augusta
Massachusetts	Cape Cod National Seashore, Wellfleet
Michigan	Archaeology Section, Michigan Historical Society, Lansing **or** Public Museum of Grand Rapids, Grand Rapids
Minnesota	no interested institutions

Mississippi	Cobb Institute of Archaeology, Mississippi State University, Starkville
Missouri	Museum of Anthropology, University of Missouri, Columbia
New Hampshire	New Hampshire Division of Historical Resources, Concord
New Jersey	no interested institutions
New York	New York State Museum, Albany **or** Rochester Museum and Science Center, Rochester
North Carolina	Office of State Archaeology, Raleigh
Ohio	Ohio Historical Society, Ohio Historical Center, Columbus
Pennsylvania	Pennsylvania State Museum, Harrisburg
Rhode Island	Haffenreffer Museum of Anthropology, Brown University, Bristol
South Carolina	South Carolina Institute for Archaeology and Anthropology, Columbia
Tennessee	Chattanooga Regional History Museum, Chattanooga
Vermont	Lake Champlain Maritime Museum, Basin Harbor
West Virginia	Grave Creek Mound Historic Park, Moundsville
Wisconsin	Historic Resource Management Services, University of Wisconsin, Milwaukee **or** Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse

Mixed/Regional Option

The best alternative to designating at least one partner in each of the twenty-eight states is the Mixed/Regional Option. The Mixed/Regional Option would designate fifteen institutions to serve the twenty-eight states (and District of Columbia) evaluated. Institutions presented as potential partners in this option have been suggested based on several considerations. These considerations include volume of DoD/USACE collections recovered in each state, and the suitability of potential partners in each state, as compared with neighboring states. Proposed regional partners would provide curation services for DoD/USACE archaeological collections from one or more nearby states in addition to DoD/USACE archaeological collections from the partners' home states. All other proposed partners would provide curation services for DoD/USACE archaeological collections only from the state in which the partner is located. Proposed partners in the Mixed/Regional Option are as follows.

Alabama	Office of Archaeological Services, University of Alabama, Tuscaloosa
Arkansas	Arkansas Archeological Survey, Fayetteville
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Mashantucket Pequot Museum, Mashantucket, Connecticut
Delaware, New Jersey, Pennsylvania	Pennsylvania State Museum, Harrisburg
Florida	Archaeology Institute, University of West Florida, Pensacola **or** Florida Museum of Natural History, University of Florida, Gainesville
Georgia	Laboratory of Archaeology, University of Georgia, Athens
Illinois	Illinois State Museum, Springfield
Indiana, Michigan, Ohio, West Virginia	Indiana State Museum, Indianapolis or Archaeology Section, Michigan Historical Society, Lansing **or** Public Museum of Grand Rapids, Grand Rapids, Michigan **or** Ohio Historical Society, Ohio Historical Center, Columbus
Iowa, Minnesota, Wisconsin	Office of the State Archaeologist, University of Iowa, Iowa City **or** Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse
Kentucky, Tennessee	W.S. Webb Museum of Anthropology, University of Kentucky,
Mississippi	Cobb Institute of Archaeology, Mississippi State University, Starkville
Missouri	Museum of Anthropology, University of Missouri, Columbia
New York	New York State Museum, Albany or Rochester Museum and Science Center, Rochester
North Carolina	Office of State Archaeology, Raleigh, North Carolina
South Carolina	South Carolina Institute for Archaeology and Anthropology, Columbia

The central reason for proposing an additional curation scenario is an economy of scale, primarily in cost savings, to be realized in long-term collections management. Although the Mixed/Regional Option may not appear to provide much short-term savings, the funds saved in annual maintenance should be considerable over the long-term. Both scenarios and the associated proposed institutions are summarized in Chapter 33, Summary and Options, Table 33.1.

The St. Louis District suggests that these potential partners may provide high-quality professional collections management services to DoD and USACE, pending modifications to their existing curation programs and/or facilities. All partners have the capability to manage the collections for DoD/USACE and ensure their safety. In addition, DoD/USACE would increase or in some cases create administrative control over their archaeological collections. Finally, adopting any of the options presented would not only ensure long-term curation, but provide access for Native Americans, national education programs, interpretive programs, and the general public who have invested considerably in these national heritage collections.

Acknowledgments

St. Louis District thanks the many individuals and departments that participated in this project. Most particularly we are grateful to the many institutions that we visited, and the time and effort they took in answering our many questions. St. Louis District thanks the Deputy Under Secretary of Defense, Environmental Security, Ms. Sherri W. Goodman and the U.S. Army Corps of Engineers-Civil Works, willingness to support this data-gathering effort for solving the problem of curating the Department of Defense's large and diverse archaeological collections. In addition, Mr. Charles R. Smith (Assistant for Environment and Regulatory Affairs in the Office of the Assistant Secretary of the Army [Civil Works]), and Mr. Paul Rubenstein (Historic Preservation Officer for the U.S. Army Corps of Engineers) were instrumental in establishing the Corps of Engineers as a partner with the Department of Defense, in this endeavor to preserve a portion of this nation's cultural heritage. Finally, we would like to thank Mr. Bruce DeGrazia, Mr. Peter Boice, Mr. Curtis Bowling, Ms. Toni Patton-Williams, Ms. Mary Bandziukas, Ms. Paula Massouh, and Ms. Marie Bourassa of DUSD(ES)'s staff for their guidance, assistance, and long-term support of the project and its goals. Dr. Clifford T. Brown, Ms. Kathleen McLaughlin, Mr. Bernard Murphy, and Ms. Annie Griffen (U.S. Navy), Dr. James Wilde, Ms. Lynn Engelman, Ms. Stephanie Stevenson, and Mr. Doug Ripley (U.S. Air Force), Ms. Nancy Niedernhofer (National Guard Bureau), and Mr. Bob Hobson (Industrial Affairs and Installations) also provided much needed guidance and support.

1

Introduction

Initiative

The long-term care and use of archaeological collections, archaeological resources and associated records, have often been neglected obligations of archaeological fieldwork since academic archaeology began assisting federal agencies as far back as the beginning of the 20th century. Throughout the century, federal agencies sponsored regulatory archaeological projects that generated massive amounts of materials and records. Although there are laws and regulations directing the government to care for these national heritage assets, the practical fact is that most are not well-cared for. Today many of these materials and records are at risk of disintegration in repositories across the United States due to a lack of funding and staff to care for the collections.

In a singular department-wide effort to gather information on the available options for addressing the problem of the long-term curation of their archaeological collections, the Department of Defense (DoD) and the U.S. Army Corps of Engineers (USACE) have joined together to fund a multi-year, nationwide, data-gathering project to identify potential curation partners in each state. The Deputy Under Secretary of Defense, Environmental Security, the Assistant Secretary of the Army, Civil Works, and the U.S. Army Corps of Engineers, Director of Civil Works requested that the U.S. Army Corps of Engineers, Mandatory Center of Expertise for the Curation and Management of Archaeological Collections (MCX-CMAC), St. Louis District, create a program to identify these potential partners. With this support, the Curation Options Project was begun. St. Louis District was directed by DoD and USACE to proceed with the project to identify at least one partner in each state. They also encouraged the St. Louis District to suggest other ways to address the long-term curation of DoD and USACE archaeological collections. St. Louis District then devised a multi-step process to select institutions to visit, to assess those institutions during a field visit, and finally, to generate recommendations on potential partners in each state.

Evaluation Process to Address the Problem

Phase II of the Curation Options program and fieldwork is the second part of an effort to identify suitable institutions that possess professional capabilities to house the DoD's archaeological collections. This work was conducted between March 1998 and April 2000 and includes assessments of partners in the following states: Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Mississippi, Missouri, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, and Wisconsin (Figure 1.1). Institutions in the District of Columbia, Minnesota, and New Jersey were also contacted for the project, but none were interested in the project. Therefore, while a part of the overall project area, St. Louis District did not conduct site visits to D.C., Minnesota, or New Jersey.

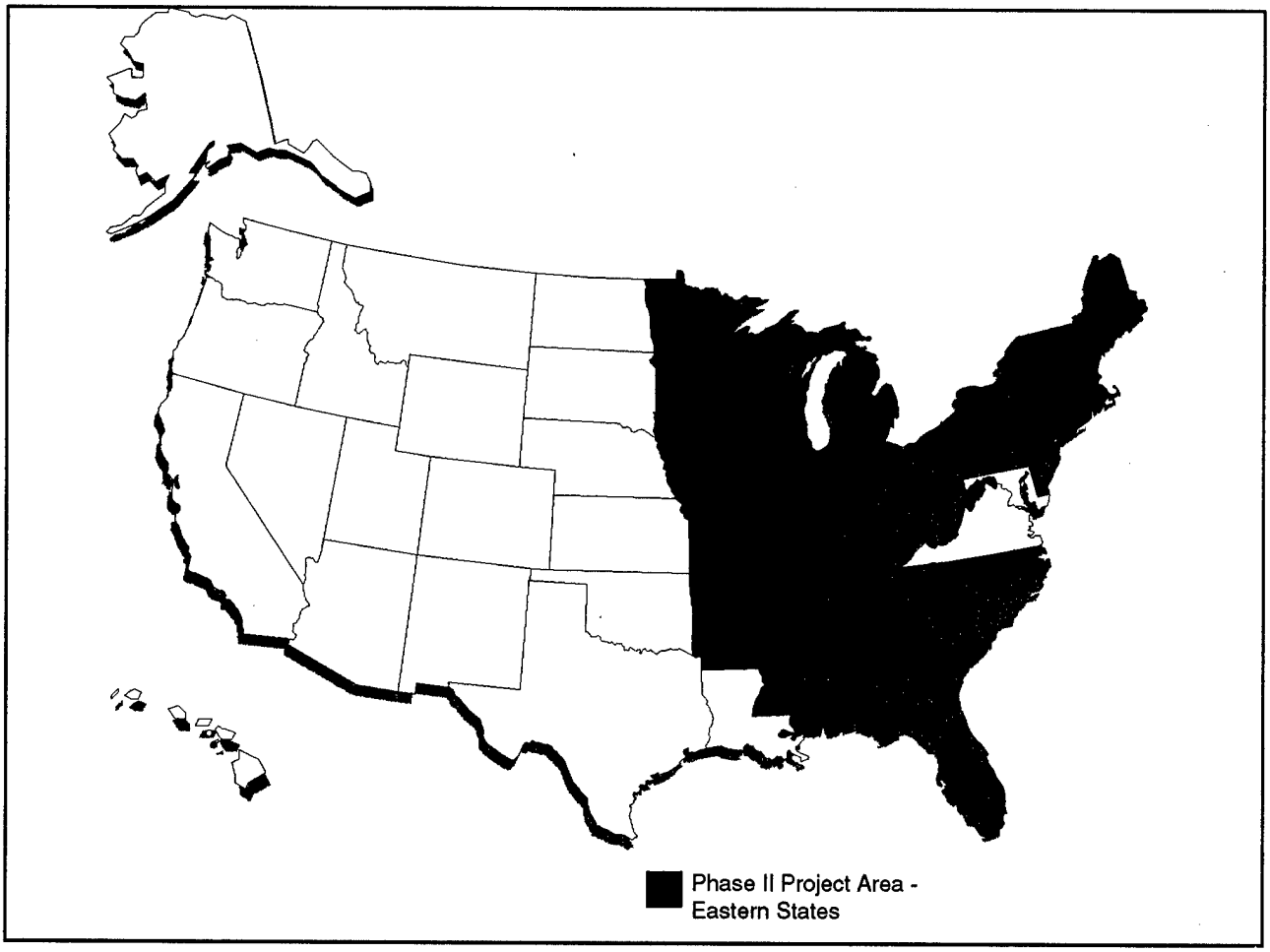


Figure 1.1. Phase II Project Area

At the beginning of the project St. Louis District created an evaluation process that was consistently applied to evaluate institutions in each state. The evaluation process consists of three steps (1) primary screening; (2) secondary screening; and (3) on-site visits. Primary screening focused on compiling a master list of institutions that currently curate archaeological collections or have expressed an interest in being considered a potential partner. Institutions on the list included public and private museums or universities, and other state or federal agencies. The initial screening list was compiled from institutions listed in directories published by the American Association of Museums, the American Anthropological Association, the Society for American Archaeology, and other repository information contained in St. Louis District's files. The initial list of potential Phase II partners to house DoD/USACE archaeological collections had 346 institutions.

For the secondary screening, St. Louis District contacted each of the 346 institutions by telephone to determine if they were interested in participating in the project. If they expressed an interest, St. Louis District sent them a preliminary questionnaire (Appendix 1). The questionnaire addresses issues such as the mission of the museum or repository, the scope of collections, what kinds of archaeological holdings, if any, were present, composition of staff, and any outreach programs. For those institutions that returned the questionnaire, the answers were scored (Appendix 1). Institutions that were not interested, did not return the preliminary questionnaire, or had returned a questionnaire but had limited resources compared to other institutions in that state, were eliminated from further consideration. Through this process, St. Louis District

identified 58 institutions from the original 346 institutions that appeared to be strong candidates for curating DoD/USACE collections (see Chapter 3 for a list).

For the remaining 58 institutions, St. Louis District scheduled a field visit to collect information through staff interviews and personal observation. Prior to the fieldwork, St. Louis District staff intended to visit four institutions per state. However, once the project began, St. Louis District staff realized that few states had four institutions that were interested, much less qualified under existing federal curation regulations such as 36 CFR Part 79 (Curation of Federally-Owned and Administered Archeological Collections). The number of institutions actually visited per state varied from one to five, with an average of two. During the project, the technical team collected the same information for each institution so that meaningful and consistent comparisons between institutions could be made.

The field team consisted of experts in three areas, architecture, collections management, and administration. These three critical subject areas provide a concise and pointed overview of an institution necessary to determine the acceptability and suitability of that institution to provide long-term curation services to DoD and USACE. The architect assessed the building as a whole structure, and its support systems including the fire detection, fire suppression, security, plumbing, heating, ventilation, and air conditioning (HVAC).

The collections management specialist collected information on an institution's staff, collections management policies and practices, and support services. The administrative specialist collected information on bureaucratic infrastructure including outreach/education programs, whether the institution conducted fund raising, whether any restrictions to expansion existed, and what scope and kinds of contributions an institution was willing to contribute to a partnership.

The architectural and collections management evaluation was performed to determine if the institution met the minimum requirements of 36 CFR Part 79. The goal of the administrative questions was to determine what each institution expected from DoD and USACE in a partnership to curate archaeological collections, and what we could expect from them.

St. Louis District scored each of the three critical subject areas. The answers to these questions were then entered into a Decision Support Model (DSM) created by the St. Louis District and its computer modeling and database design contractor, TASC. Reports generated by the DSM provide composite quantitative scores of each institution based on the three areas previously mentioned. The scores also permit comparisons among institutions on each variable in the model, although these must be extracted from the DSM output. The most appropriate use of the DSM scores is as gross composite quantitative measures of each institution. Thus, the DSM serves best as a *supplemental* tool to assist in determining the best potential partner in a state. For a more detailed explanation of how DSM scores were calculated, see Appendix 2, Decision Support Model Workshop Documentation.

Three types of data collected for this project thus form the basis for determining the best potential partner in each state. These data types include (1) descriptive data, which is presented as the text of this report, (2) intangible factors (e.g., relative location, professionalism, potential for community support, atmosphere) and (3) DSM scores. We thus emphasize that DSM scores are marginally important to the overall determination, and descriptive data far outweighs any other form of data. Intangible factors and DSM scores were considered as supplements.

Long-Term Benefits

By choosing a partner in each state that can properly provide long-term care for their archaeological collections, DoD and USACE will benefit from program uniformity and high quality care. The level of care can be standardized through use of federal standards that are enforced through binding agreements that include annual inspections and stress accountability from both the repository, DoD, and USACE. By reducing the total number of repositories that currently curate DoD and USACE archaeological collections, the management of these collections will be streamlined and the overall funding should be reduced. Once the collections are rehabilitated, processed into the repository's catalog and accession systems, and annually maintained, scientific and public access to the collections will be possible, in many cases for the first time. Access not

only includes use of the physical objects and records, but the creation of education programs that reach out to the public in their own local community through internet web sites or exhibits that are available to visitors at museums, or a range of venues (e.g., public schools, visitor centers, etc.). The collections could be used to create programs for the public to understand why DoD and USACE have archaeological collections, what kinds of information we can derive from these collections, and what we can learn about both history and prehistory using archaeological materials and records. Equally, and perhaps more importantly, the collections are a national heritage asset that can be used in primary and middle school educational programs to foster creative thinking, a major cornerstone of all learning.

Report Organization

The following Methods section details how St. Louis District determined which institutions to contact for the project, and which ones were selected to visit. The computer-based decision support model is also explained. It was constructed to provide a quantitative method, supplemental to the textual information, to potentially compare each of the repositories that were visited.

State-by-state summaries of each repository visited are then presented that briefly describe potential partners in that state. The state-by-state analyses are based on the original goal of the project, that is, to find at least one potential partner in each state.

2
Methods

With hundreds of potential partners in the 28 states (and District of Columbia) in the Phase II project area, the St. Louis District utilized the evaluation process developed for Phase I of the project to identify and assess potential partners. The three-step process moved sequentially from preliminary screening to secondary screening to on-site repository evaluation. During each step some potential partners were eliminated.

A potential partner is defined as an institution whose mission statement includes long-term curation of archaeological, ethnographic or anthropological collections. Thus, potential partners that do not curate archaeological collections as part of their mission were not considered. One of the most important factors considered was whether the institution embraced archaeological collections as a core part of their mission, thus intimately linking the institution's continued existence with those collections. This factor weighed far more heavily when considering an institution that only secondarily curated archaeological collections.

Preliminary Screening

The preliminary screening began by compiling a master list of institutions that might be interested in being considered potential partners. The master list also included those institutions that had directly expressed an interest to the St. Louis District in being considered a potential partner. Institutions were eliminated that did not have archaeological curation as a part of their mission, that were extremely small, and/or did not have regular hours of operation. These types of institutions would be unable to provide high-quality professional care, access to the collections, and would probably limit the use of collections by the public, educators, researchers, and DoD and USACE. Additionally, the St. Louis District staff believe that the public good is better served by an institution that can meet DoD and USACE curation and access needs all year round through regular hours. Many of the institutions that were screened could not successfully carry out the needed rehabilitation and annual maintenance tasks required to provide long-term curation services; these institutions were eliminated.

Directories published by the American Association of Museums, the American Anthropological Association, and the Society for American Archaeology were reviewed to identify institutions that curate archaeological, anthropological, or ethnographic collections. Other existing St. Louis District repository information generated by numerous other curation-related projects was also consulted. Eventually a total of 346 institutions were identified to be contacted; these institutions constituted the initial list. The institutions consist of public and private museums, public and private universities, and state or federally operated archaeological curation facilities.

The 346 institutions were contacted by telephone, state-by-state, to determine their interest in possibly being considered a potential partner. Institutions that expressed an interest were sent a preliminary questionnaire that was then used to further narrow the list of institutions that could be

visited within budgetary and time constraints (Figure 2.1).

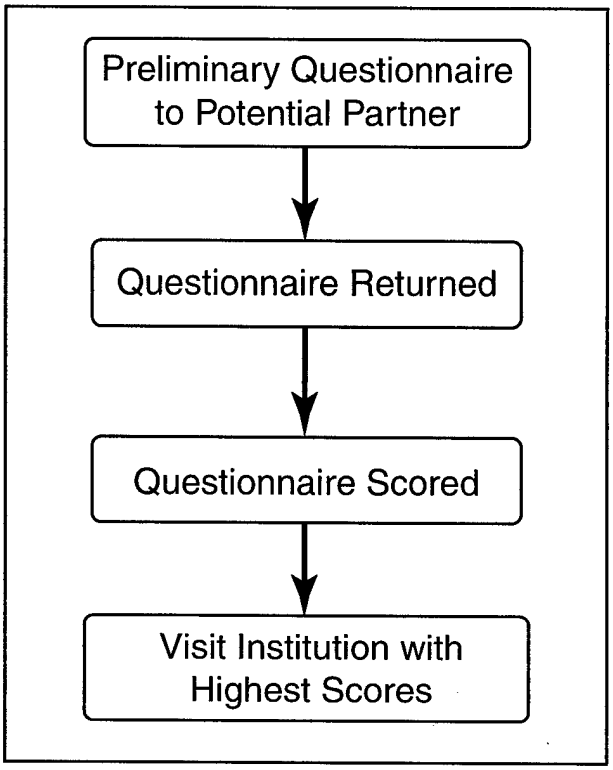


Figure 2.1 Screening Process

Secondary Screening

On the preliminary questionnaire, information was requested on the institution's mission statement, scope of collections, archaeological holdings, support facilities, staff, and outreach programs. The questionnaire was developed to assess a potential partner's general capabilities and strengths (see Appendix 1). The completed questionnaires were evaluated using a grading sheet and a standard set of criteria that reflected general policies and practices that each potential partner was expected to possess. The criteria were drawn from the self-assessment forms developed by the American Association of Museums and the National Park Service's Museum Handbook. Each criterion was individually scored using the information the institution provided, and then totaled. Institutions with the highest scores were visited.

An absolute minimum total score was not used below which an institution was eliminated from further consideration and above which an institution was selected to visit. Doing so would be too rigid a standard given the variability of institutions that might be interested in being considered a potential partner. A minimum of one institution per state (Delaware, Maine, Massachusetts, Mississippi, New Hampshire, South Carolina, and Tennessee), and a maximum of five (Florida) in each state that expressed an interest in the project were then contacted and physically evaluated by the St. Louis District. For those states where only one institution was visited, that institution was either the only one that was interested in participating in the project or had a significantly better score when compared to other institutions that returned a questionnaire from the same state. Two states—Minnesota and New Jersey—and the District of Columbia had no institutions that expressed an interest in the project, and thus none were visited.

After all the preliminary questionnaires in a state were scored, the project budget and schedule directly influenced how many institutions in a state could be visited. At the conclusion of the secondary screening, 59 repositories in 27 states were identified for on-site evaluation in Phase II. St. Louis District staff felt that these institutions, given federal curation standards and the capabilities they possessed, could be reliable professional partners in a curation program.

On-Site Repository Evaluation

For the 59 institutions that were visited, the capabilities of each potential partner were assessed. An integrated tripartite facility evaluation procedure was developed consisting of (1) a review of the existing architecture and its building systems, (2) a review of the collections management staff, their capabilities and training, and written collections management policies and practices, and (3) a review of the administrative structure of the institution with respect to curation. The architectural and collections management evaluation was performed to determine if the institution met the minimum requirements of 36 CFR Part 79.

The architect performed a building evaluation through observation and interviews with the institution's staff. The building evaluation focused on the general adequacy of the fire suppression system,

fire detection, HVAC systems, security, building construction and structural adequacy, plumbing, building egress, handicap accessibility, regulatory and site issues, and space use. The information was recorded on a building evaluation form developed by the St. Louis District (see Appendix 1). The goal of the building evaluation was to determine the suitability of the internal systems and external structure to provide a physical environment that would ensure the proper long-term care of the DoD and USACE archaeological collections.

The collections management specialist collected information on the scope of collections, environmental controls, archaeological collections storage, mission statement, composition of staff, record keeping, collections support services, and collections management policies. Again, interviews with the staff and personal observation were used to collect data. The data was recorded on an evaluation form developed by St. Louis District. The lengthy form addresses the broadest range of topics of the three critical subject areas of interest (see Appendix 1). The review of the policies and practices provided information on the institution's internal administrative structure related to archaeological collections management.

The administrative specialist collected information through interviews with the administrative and technical staff. Data were collected on administrative capability, fund raising, outreach programs, possible contributions to a partnership, cooperative agreements, and budget and real estate issues. The goal of the administrative questions was to determine what each institution could contribute to such a archaeology/curation partnership, and what might be expected from DoD and USACE in a partnership to curate archaeological collections. The answers permitted St. Louis District to determine what DoD and USACE might expect from the institution with respect to shared costs, fees, and use of collections. The data was recorded on a administrative questionnaire developed by the St. Louis District (Appendix 1).

All project data gathered during the facility evaluations were numerically scored by each of the subject matter specialists in their area of expertise (Appendix 1) for entry into a computerized Decision Support Model (DSM) used to assist in comparing the repositories. The DSM provides a mechanism to quantify the information collected and then compare the institutions against each other regardless of state, or by state, or other grouping.

Three types of data collected for this project form the basis for determining the best potential partner in each state. These data types, in order of significance, include descriptive data, intangible factors, and DSM scores. We emphasize that DSM scores are important to the overall determination, but descriptive data—the text of this report—far outweighs any other form of data. Intangible factors and DSM scores were consulted as supplements.

Decision Support Model

To assist the St. Louis District in analyzing the large amount of information gathered during the Phase II fieldwork, a software-based decision support model (DSM), *Expert's Choice,* was used. The DSM summary reports were generated by the St. Louis District computer modeling and database design contractor, TASC. Recommendations in this report are the St. Louis District's interpretations of the data collected during the project, with little weight placed on the DSM values. The most appropriate use of the DSM scores is as gross composite quantitative measures of each institution. Thus, the DSM serves best as a *supplemental* tool to assist in determining the best potential partner in a state.

The model's output scores each institution and is based on data from the architectural, collections management, and administrative forms (Appendix 1). These values can be grouped by state or aggregated into regions. The total DSM score for each institution ranges from 0.000 to 1.000: all things being equal, the higher the DSM value, the greater potential for a partnership advantageous to the federal government. However, while important for an overall evaluation of an institution, the DSM values do not, in and of themselves, constitute enough information to base a decision on. Nor are they flawless in their presentation, and the reader's interpretation, of the score. Hence, DSM scores are important, but did not receive the most weight in the recommendations presented by the St. Louis District. For more detailed information on how DSM scores were derived, refer to Appendix 2, Decision Support Model Workshop Documentation.

The sections *Architecture*, *Collections Management*, and *Administration*, represent 20%, 30%, and 50% of the overall model, respectively (Table 2.1). This partitioning evenly allocates 50% of the model to technical considerations and 50% to administrative information. Once the theoretical model was finished, a series of hypothetical case studies were entered into the DSM. The theoretical model appeared to work well in these hypothetical cases. Institutional DSM scores are listed in each of the state summary chapters, and a summary table for all institutions is located in Chapter 3 (Table 3.2).

Table 2.1. Decision Support Model

Architecture (20%)	Collections Management (30%)	Administration (50%)
Systems (14.7%)	**Archaeological Collections (14.2%)**	**Administrative Capability (32.3%)**
Fire suppression	Scope of collections**	Staff authority to contribute to partnership
Fire detection and alarm system	Environmental controls	Staff to write/track grant proposals
Building HVAC system	Collections storage	Staff for fund-raising
Security system guidelines		% staff administrative
	Administrative (14.2%)	% staff archaeological collection management
Structure (4.1%)	Mission statement**	Participated in similar state, federal, DoD projects
Fire safety and building construction	Composition of staff	Current agreements for federal archaeological collections
Hazardous building components	Administrative record keeping	Willingness to contribute to partnership**
Building structural adequacy		
Plumbing/drainage/waterproofing	**Collections Management (1.6%)**	**Budget Issues (1.8%)**
	Range of support facilities	% budget toward administration
Other (1.2%)	Collections management policies	% budget toward collections management
Building egress	Associated archaeological documentation	Budget deficit in last 5 years
Handicap accessibility	Administrative records and archaeological document storage	**Programs (12.8%)**
Regulatory and site problems		Current types of outreach programs
		Experience working with Native Americans
		Programs for primary/secondary schools
		Institution Details (3.1%)
		Institution type (local, state, federal)
		Property ownership
		Property use restrictions

** Showstopper—if this criterion was not met, institution was not considered.

3

State Collections Totals and Decision Support Model Summaries

The total extent of project area DoD/USACE archaeological collections is presented in Table 3.1. This information was compiled from data collected by the St. Louis District by (1) a national inventory of DoD archaeological collections, and (2) a national survey of USACE archaeological collections. The St. Louis District reports from which this information was derived are listed in Appendix 3, DoD and USACE Archaeological Curation-Needs Assessment Reports.

In the following chapters, each institution is presented in alphabetical order, organized by state. Decision Support Model (DSM) values for each institution are presented in a summary at the end of each chapter. These DSM scores are summarized in Table 3.2, in this chapter. It is again emphasized that the DSM is meant only as a decision aid, not as an absolute guide.

Table 3.1.
Amounts of Artifacts (Cubic Feet) and Records (Linear Feet) in the Department of Defense and U.S. Army Corps of Engineers Archaeological Collections for Phase II States

State	Army		Navy/Marines		Air Force		USACE		Total DoD and USACE	
	ft^3	linear ft.	ft^3	linear ft.	ft^3	linear ft.	ft^3	linear ft.	ft^3	linear ft.
Alabama	201	7	0	0	3	1	2832	687	3036	695
Arkansas	62	9	0	0	19	3	1134	80	1215	92
Connecticut	2	1	1	1	0	0	8	2	11	4
Delaware	0	0	0	0	16	3	499	23	515	26
District of Columbia	2	1	0	0	0	0	0	0	2	1
Florida	34	0	2281	30	530	126	145	6	2990	162
Georgia	175	50	397	38	22	7	1829	85	2423	180
Illinois	66	5	0	0	1	1	1925	109	1992	115
Indiana	77	16	0	0	2	1	349	17	428	34
Iowa	33	1	1	0	0	0	768	126	802	127
Kentucky	150	35	0	0	0	0	750	36	900	71
Maine	4	1	0	0	6	3	10	1	20	5
Massachusetts	28	7	0	0	2	2	0	0	30	9
Michigan	24	2	0	0	2	1	4	1	30	4
Minnesota	0	0	0	0	0	0	43	9	43	9
Mississippi	0	0	0	0	0	0	4401	324	4401	324
Missouri	254	21	0	0	14	1	3369	152	3637	174
New Hampshire	0	0	1	1	15	3	0	0	16	4
New Jersey	21	7	2	1	1	0	13	4	37	12
New York	984	119	10	2	31	5	109	3	1134	129
North Carolina	170	31	112	19	1	1	436	29	719	80
Ohio	5	1	0	0	0	0	140	14	145	15
Pennsylvania	70	6	0	1	0	0	559	53	629	60
Rhode Island	0	0	3	2	0	1	12	5	15	8
South Carolina	46	3	797	60	28	9	411	31	1282	103
Tennessee	5	1	0	0	15	3	240	8	260	12
Vermont	0	0	0	0	0	0	4	3	4	3
West Virginia	0	0	1	1	0	0	286	39	287	40
Wisconsin	51	36	0	0	2	1	93	10	146	47
Total	2464	360	3606	156	710	172	20369	1857	27149	2545

Note: The figures for the Army, Navy/Marines and Air Force are based on research funded through the Legacy Resource Management Program, and conducted by the St. Louis District. Figures for USACE archaeological materials and associated documentation are based on a St. Louis District national survey of USACE collections.

Table 3.2
Summary of Composite and Category Decision Support Model Scores for Assessed Phase II Institutions

State	Institution	Composite DSM Scores (Max = 1.00)	Category Scores: Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Alabama	Center for Archaeological Studies, University of South Alabama	0.5753	0.06723	0.21957	0.28845
	Office of Archaeological Services, University of Alabama	0.7552	0.19547	0.26727	0.29244
Arkansas	Arkansas Archeological Survey	0.8991	0.19810	0.29605	0.40491
	University Museum, University of Arkansas	0.8743	0.19810	0.28611	0.39004
Connecticut	Institute for American Indian Studies	0.8721	0.14072	0.27715	0.45419
	Mashantucket Pequot Museum	0.9565	0.19810	0.30002	0.45841
	Office of State Archaeology, Connecticut Museum of Natural History, University of Connecticut	0.8648	0.19729	0.28717	0.38037
Delaware	Delaware State Museums	0.8055	0.15573	0.25162	0.39816
Florida	Archaeology Institute, University of West Florida	0.7798	0.14917	0.24411	0.38653
	Florida Museum of Natural History, University of Florida	0.8069	0.12965	0.29526	0.38197
	Graves Museum of Archaeology and Natural History	0.6768	0.16641	0.21946	0.29088
	Museum of Arts and Sciences	0.6961	0.19846	0.22864	0.26904
	Orange County Historical Museum	0.6963	0.19846	0.24266	0.25515
Georgia	A. J. Waring Archaeology Lab, State University of West Georgia	0.7942	0.15538	0.24702	0.39181
	Laboratory of Archaeology, University of Georgia	0.7929	0.19348	0.24396	0.35549
Illinois	Burpee Museum of Natural History	0.8112	0.19998	0.26380	0.34738
	Illinois State Museum	0.9408	0.15456	0.29907	0.48715
Indiana	Archaeological Resources Management Service, Ball State University	0.8312	0.18964	0.27017	0.37140
	G.A. Black Laboratory, Indiana University	0.7293	0.06826	0.23813	0.42288
	Indiana State Museum	0.8176	0.15152	0.28321	0.38286
	Northern Indiana Center for History	0.7299	0.19963	0.26534	0.26488
Iowa	Office of the State Archaeologist, University of Iowa	0.7951	0.09130	0.25755	0.44625
	Putnam Museum of Science and Natural History	0.8110	0.15608	0.27539	0.37950
Kentucky	Program of Archaeology, University of Louisville	0.4916	0.05125	0.19961	0.24078
	W. S. Webb Museum of Anthropology, University of Kentucky	0.7845	0.11022	0.25421	0.42011
Maine	Maine State Museum	0.8309	0.15456	0.27845	0.39793
Massachusetts	Cape Cod National Seashore	0.6126	0.10265	0.28423	0.22567
Michigan	Archaeological Commission of Saginaw County	0.6003	0.06344	0.23363	0.30323
	Archaeology Section, Michigan Historical Society	0.7232	0.19152	0.29616	0.23548
	Museum of Anthropology, University of Michigan	0.6546	0.19810	0.16151	0.29502
	Public Museum of Grand Rapids	0.8865	0.19577	0.28820	0.40251
Mississippi	Cobb Institute of Archaeology, Mississippi State University	0.7512	0.19963	0.23817	0.31344

Table 3.2
Summary of Composite and Category Decision Support Model Scores for Assessed Phase II Institutions (Continued)

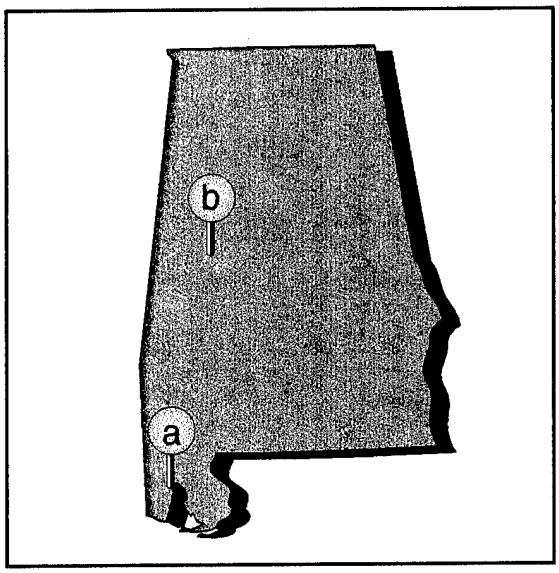
State	Institution	Composite DSM Scores (Max = 1.00)	Category Scores: Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Missouri	Center for Archaeological Research, Southwest Missouri State University	0.5336	0.05054	0.19961	0.28347
	Missouri Historical Society	0.4941	0.19694	0.29711	0.00000
	Museum of Anthropology, University of Missouri	0.8111	0.11610	0.29019	0.40485
New Hampshire	New Hampshire Division of Historical Resources	0.5458	0.12699	0.20557	0.21325
New York	Archaeological Research Center, Syracuse University	0.6514	0.04259	0.24687	0.36198
	New York State Museum	0.8402	0.10575	0.29446	0.44000
	Rochester Museum and Science Center	0.8896	0.15573	0.30002	0.43388
North Carolina	Archeology Laboratories, Wake Forest University	0.4927	0.05348	0.19829	0.24097
	Museum of the Cherokee Indian	0.6400	0.15456	0.24989	0.23554
	Office of State Archaeology	0.7857	0.15456	0.25600	0.37512
	Research Laboratories of Anthropology, University of North Carolina, Chapel Hill	0.7747	0.14031	0.23410	0.40030
Ohio	Hopewell Culture National Historic Park	0.7788	0.07072	0.25755	0.45056
	Ohio Historical Society, Ohio Historical Center	0.7454	0.09254	0.25104	0.40180
Pennsylvania	Matson Museum of Anthropology, Pennsylvania State University	0.5241	0.06283	0.27162	0.18966
	Pennsylvania State Museum	0.9085	0.19729	0.28121	0.43003
Rhode Island	Haffenreffer Museum of Anthropology, Brown University	0.6936	0.03534	0.26139	0.39686
	Public Archaeology Laboratory	0.6215	0.15269	0.24602	0.22281
South Carolina	South Carolina Institute for Archaeology and Anthropology	0.7139	0.11582	0.22705	0.37101
Tennessee	Chattanooga Regional History Museum	0.7348	0.14265	0.28013	0.31203
Vermont	Consulting Archaeology Program, University of Vermont	0.5670	0.10423	0.19961	0.26320
	Lake Champlain Maritime Museum	0.8953	0.19653	0.29832	0.40047
West Virginia	Grave Creek Mound Historic Park	0.5761	0.13245	0.23121	0.21240
	Harpers Ferry National Historic Site	0.6339	0.09678	0.29907	0.23807
Wisconsin	Historic Resource Management Services, University of Wisconsin, Milwaukee	0.7559	0.18248	0.19961	0.37385
	Logan Museum of Anthropology, Beloit College	0.6056	0.11422	0.28106	0.21035
	Mississippi Valley Archaeology Center, University of Wisconsin, Lacrosse	0.7733	0.13665	0.24413	0.39247

4

Alabama

Archaeological Materials (in cubic feet)

Department of Defense	**204**
USACE	**2,832**
TOTAL VOLUME	**3,036 ft³**
Number of Institutions Contacted	**15**



Institutions Assessed

a. Center for Archaeological Studies, University of South Alabama, Mobile

b. Office of Archaeological Services, University of Alabama, Tuscaloosa

Background

A list of the facilities contacted in Alabama is presented in Table 4.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 4.2, showing strengths of each institution. Pertinent information on both of the

Table 4.1
List of Institutions Contacted—Alabama

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Alabama Department of Archives and History			X	
Anniston Museum of Natural History				X
Auburn University, Department of Sociology and Anthropology			X	
Birmingham Museum of Art				X
Center for Archaeological Studies, University of South Alabama				
Horseshoe Bend National Military Park		X		
Jacksonville State University	X			
Little River Canyon National Preserve		X		
Monroe County Heritage Museums				X
Museum of Mobile			X	
Office of Archaeological Services, University of Alabama				
T. E. McMillan Museum		X		
Troy State University			X	
Tuskegee National Historic Site			X	
University of Alabama, Birmingham			X	

Note: Locations visited indicated in **Bold**.

facilities visited in Alabama is presented in the following discussion.

Center for Archaeological Studies, University of South Alabama

Architectural Summary

Site Conditions

The Center for Archaeological Studies (CAS) is located on the campus of the University of South Alabama (USA) in Mobile. The CAS occupies two similar buildings that are on University Boulevard, the main campus thoroughfare. There is abundant parking, totaling more than 50 spaces. The large parking area also provides truck access to the loading dock at the rear of one of the CAS buildings. Service buildings for the USA share the parking area with the CAS.

In general, the USA campus is pleasantly landscaped and well-maintained. There is sufficient space for an addition or new facility to the east of the existing buildings. The CAS staff has already forwarded a preliminary proposal for a new 10,000-ft^2 facility on this site.

Building Condition/Structural Adequacy

The two buildings occupied by the CAS, ARC-1 and ARC-2, were originally constructed in 1965 as buildings for the service operations of the USA. The CAS renovated the buildings and began operation in 1992. The buildings are nearly identical in size and construction, with the configuration of interior partitions the only difference. Each 2,100-ft^2 single story building is a concrete masonry unit (CMU) structure with a one-way concrete frame roof system. The flat roof is drained over a rubber-ply system and through an aluminum gutter system. The large aluminum single-pane windows are original to the buildings and have been fitted with interior plywood shutters that cover the entire window. Some of shutters are hinged to allow for operation and natural light.

The ARC-2 is used for staff offices, a clean processing laboratory, and classroom. This building has a higher level of interior finish than ARC-1. The ARC-1 is used for collections storage, processing of "dirty" materials, and other functions in support of CAS fieldwork. The loading dock is located on the north side of this building. The collections storage area in ARC-1 is not physically separated from the other building functions. A partitioned collections storage room would be an immediate and significant improvement. A compact shelving system would nearly double the existing capacity of the repository area. Overall, the CAS has adapted well to these buildings and now faces the common problem of insufficient space.

Code Requirements/Egress/ Accessibility

Both buildings, renovated in 1992, appear to meet all of the applicable building and life-safety requirements (type I construction, S-1 use group). Each building has two exits for emergency egress. A single step at the front entrance to ARC-2 inhibits disabled access to the facilities. Access for the disabled is possible but is difficult and inconvenient from the rear of the building. Once inside ARC-2, both buildings are accessible, although neither is compliant with the Americans with Disabilities Act (ADA). Restroom and entrance ADA compliance will likely be required with any significant renovation or alteration of either building.

HVAC Systems

Chilled water is supplied to both buildings by the university system. Each building uses a natural gas furnace for heat and a single air-handler unit for air distribution. The furnace and ductwork in ARC-1 is recent (perhaps from the 1992 renovation) whereas the entire system in ARC-2 appeared original to the 1965 structure. The new ductwork in ARC-1 is located above the repository shelving area and blows treated air directly on collections. The open space in ARC-1, the mixture of uses, and the placement of the ductwork over collections, likely combine to produce undesirable microclimates in the building.

The CSA staff indicated that within the next year, the university is planning to upgrade the HVAC systems in ARC-1 and 2. The improvements include new equipment, control systems, and re-heat capabilities for humidity control.

Fire Suppression and Detection

Neither building is equipped with an automatic fire suppression system. Both buildings are equipped with smoke sensors that are located in the security motion detectors. The alarm system is wired to the local fire department. There are no manual fire alarms. Annually inspected fire extinguishers are located throughout the building. An automatic fire suppression system should be a top priority in any future renovations or alterations to the building.

Security System

Both buildings are equipped with motion detectors and intrusion alarms. Access to ARC-1, and thus the archaeological collections, is restricted by key distribution among the CSA staff.

Collections Management Summary

Scope of Collections and Mission Statement

The Center for Archaeological Studies goals "are 1) to promote the archaeological study and appreciation of the region's prehistoric and historic past; 2) to disseminate to the public information about the region's archaeology; and 3) to preserve archaeological evidence of the region's past for future use and enjoyment." The CAS goals are strictly archaeological.

Archaeological Collections Storage

The storage area is in a building called ARC-1. Fluorescent lights and windows are not filtered. The humid climate of Mobile contributes to excessive humidity. The storage area is also used for artifact preparation, tool storage, and conservation (sand blasting).

Metal stationary shelves house polystyrene Hollinger-brand boxes (16.25 x 16.25 x 6.00 inches) or polyethylene Rubbermaid-brand boxes (18 x 12 x 9 inches), that help to protect specimens from water damage. The boxes are secured with nylon strapping for inventory control. All containers are labeled with a bar code that is used for inventory control. Placed inside each container is a list of contents. Teaching collections (ceramic type, lithic, botanical, and zooarchaeological) and on-going projects are in metal cabinets. These specimens are in cardboard boxes with foam padding as needed, both in the ARC-1 and the adjacent ARC-2 building. A vault with a combination lock is available for sensitive and/or fragile items in the ARC-2 building.

Environmental Controls

Humidity levels are not monitored, though the two portable dehumidifiers run constantly. Temperature and pest management are controlled by the University of South Alabama physical plant (see Architectural summary).

Range of Support Facilities for Archaeological Collections

The CAS has a conservation laboratory consisting of an electrolysis laboratory and two sandblasting machines in the ARC-1 building. A converted restroom now serves as a dedicated floatation room. Offices, a research laboratory/computer station, a classroom, and comparative collections are housed in the ARC-2. An active world-wide-web site describes the basic functions and on-going research at the CAS.

Staff Composition

The CAS staff consists of the director, a laboratory supervisor (M.A. required), a research associate (functioning as a conservator, M.A. required), an Archaeologist I (B.A. required), and Archaeologist II (B.A. and 5 years previous experience), and a word processing specialist.

Administrative Record Keeping

Accession numbers are assigned by sequentially year (e.g., 1997.0053). Smithsonian trinomial site numbers are used. Field Specimen (FS) numbers are assigned to each site provenience. Since 1992, all administrative data are maintained on an electronic database, using tape backups stored in the same building. Associated archaeological documentation has been cataloged only since 1992. Pertinent information is recorded in the database, such as site name, unit number, grid provenience, etc. Formal loan forms and an accession catalog are maintained. Records are protected in locked fire-proof cabinets in the ARC-2 building.

Associated Archaeological Documentation and Storage

Folders or boxes containing original documents are labeled with bar codes. Paper copies of these records (also labeled with bar codes) have also only been made since 1992, and are stored in the Anthropology Department building on campus. Records are protected in locked fireproof cabinets in the ARC-2 building. Maps are stored in metal, non-fireproof map cases also in the ARC-2 building.

Collections Management Policies

Policies exist for minimum standards of acceptance, loans, visiting researchers, accession procedures, artifact care and handling, deaccession procedures. An emergency response plan is also in place.

Administration Summary

Background

The Center for Archaeological Studies was founded in 1992 and is part of the Department of Sociology and Anthropology at the University of South Alabama located in Mobile, Alabama. The CAS has an archaeological collection from the Mobile District, but will be transferring the collection to the curation facility at Moundville. The CAS has no agreements to curate any federal archaeological collections.

Real Estate

The CAS is part of, and is owned by, University of South Alabama. Expansion or new construction is possible south of the existing collections storage building in a parking lot. The CAS has explored the possibility of expansion into the parking lot area, but no design currently exists for a new curation facility.

Administration

The Vice President of Operations/Contract Officer of the university could financially commit the CAS to a partnership with the Department of Defense (DoD) and the Army Corps of Engineers (Corps). The same Vice President could sign a cooperative agreement. The university's Office of Sponsored Research writes and tracks grants. The Associate Director of Development in the university's Development Office participates in fund raising for the university as a whole. The CAS staff also perform some limited fund raising.

Outreach and Education Programs

One staff member spends one-quarter of her time involved in outreach programs. The programs include workshops for teachers so they can incorporate archaeology into their curriculum, classroom demonstrations, fieldwork and laboratory opportunities for students and volunteers, public lectures, and web development. The CAS has offered to consult with 13 Native American tribes on Native American Graves Protections and Repatriation Act issues and will be administering a workshop for the Creek peoples.

Contributions

The CAS could contribute land, the existing staff expertise, a portion of the Director's time, operation and maintenance costs of the facility, and their existing curation policies. The university could contribute $25,000 a year in staff and materials costs. The CAS would request that the DoD/USACE contribute additional funds for staff and associated salaries and benefits, supplies to maintaining the DoD/USACE collections, equipment including computers for data entry, fireproof cabinets, and cabinets to store archaeological materials.

Notes

The CAS is relatively new at curating archaeological collections since its inception in 1992. The CAS would be interested in being a regional partner for DoD/USACE collections from Alabama, Mississippi, and Florida. The CAS is currently involved in projects concerning historic archaeology in Mobile, and has made admirable progress toward creating a quality facility. However, after only six years in these facilities, the CSA is facing the challenge of limited space.

Office of Archaeological Services, University of Alabama

Architectural Summary

Site Conditions

The Office of Archaeological Services (OAS) is located on property adjacent to Moundville Archaeological Park in Moundville, Alabama. The OAS occupies several facilities including the Erskine Ramsay Archaeological Repository, the David L. DeJarnette Archaeological Laboratory, a mobile home for visiting researchers, and a small garage. In addition to this complex, skeletal material is stored in the Laboratory of Human Osteology on the University of Alabama, Tuscaloosa, campus.

The OAS facilities are located in a large clearing with a gravel road that provides vehicular access to the buildings. Parking is located on unpaved areas in front of the buildings, although there are indefinite plans to pave the parking area. There is space for 20–30 cars. Although none of the buildings have a loading dock, an overhead drive-through door provides a loading area in the DeJarnette Archaeological Laboratory. The landscape that surrounds the complex is maintained as needed. The OAS property has been surveyed for archaeological resources. Archaeological materials associated with the surrounding Moundville Archaeological Park would not impede additional structures or expansion.

In contrast to the OAS facilities at Moundville, the Laboratory for Human Osteology is located on the well-maintained and landscaped University of Alabama campus. As with all major universities, visitor parking is limited. The Laboratory for Human Osteology has a large loading dock and service area at its rear.

Building Condition/Structural Adequacy

DeJarnette Archaeological Laboratory

The DeJarnette Archaeological Laboratory is a 12,000-ft^2 prefabricated structure that was constructed in 1980. The steel frame structure rests on a concrete slab on grade foundation. The floor area is divided into three sections. The north portion of the building (4,600-ft^2) is used as the building's loading area and main processing area. The center portion (4,000-ft^2) of the Laboratory is dedicated to staff offices. This area includes restrooms, the OAS library, and GIS/CAD office. The south portion of the building (3,400-ft^2) is used as a temporary collection storage area as well as a general storage area. The OAS is currently adding a wooden mezzanine level in this space for additional document storage. There were no signs of leakage or other structural defects in the DeJarnette Laboratory. Over the years, space has become available in the DeJarnette Laboratory as archaeological collections are processed and placed in the Erskine Ramsay Repository.

Erskine Ramsay Repository

The Erskine Ramsay Repository was constructed in 1947 and extensively renovated in 1985. The building was originally designed as a repository facility, which makes it one of the oldest purpose-built structures encountered during either phase of the Curation Options project. The facility is approximately 11,000-ft^2 in total area, with a large (8,700-ft^2) three level repository area and a two level area with separate rooms for document and special collections storage.

The exterior construction is 4" concrete masonry units. The interior structure of the repository area is an odd system of steel plates and angles that also comprise the three level shelving system. A wood plank flooring system is suspended from this steel framework. Because of the age of this original system, and its peculiar nature, it is recommended that a structural engineer review the repository structural system before large amounts of additional archaeological materials are placed in the repository.

The 1985 renovation included rehabilitation of the special collections and document storage rooms, as well as improvement and addition of other building systems. The asphalt shingle roof was replaced, the exterior CMUs were tuckpointed, and the existing windows were enclosed with brick. Despite these improvements and repairs, the Ramsay Repository again shows its age. Without gutters, the CMUs near the ground level suffer additional exposure to water and require continued attention. Also, there was evidence of leaking on the ceiling tiles in the documentation room, most likely from the fire-suppression piping. There were no other signs of

current leaks, structural defects, or hazardous building materials.

Laboratory of Human Osteology

The Laboratory of Human Osteology is located on the third floor of a new six-story natural science building on the University of Alabama campus. The OAS and Laboratory staff contributed to the finished design of the building and the Osteology space. In the building, offices and laboratories are arranged around a U-shaped corridor with the storage areas concentrated in a core that occupies the area between the legs of the U-shape. This repository core for natural science collections provides for restricted access and zoned climate control. The exterior of the building is a brick veneer with a concrete frame structure. The structure of the repository core has been sized to accommodate compact shelving units.

Completed in 1996, the Laboratory occupies a suite of offices and laboratories as well as a portion of the third floor repository area that has been modified by the addition of a temporary partition that encloses the osteology controlled collections. Two locked doors permit access to these collections. The osteology collections are currently stored in lockable storage cabinets. The repository room has space for additional cabinets and collections. Laboratory and OAS staff indicated that additional area in the repository core could be allocated for additional collections.

Code Requirements/Egress/ Accessibility

David L. DeJarnette Archaeological Laboratory

The simple structure and the open interior spaces in the DeJarnette Laboratory appear to meet all of the applicable building, life-safety, and accessibility requirements (type II construction, mixed use groups, B, S-1). The single level facility is accessible for the disabled. However, it does not comply with the Americans with Disabilities Act (ADA). Upon completion, the new mezzanine level will not be accessible to the disabled.

Erskine Ramsay Archaeological Repository

The 1985 renovation of the Ramsay Repository brought the building in closer compliance with current building, life-safety, and ADA requirements (type II construction, S-1 use group). Two exits provide for emergency egress from the building. However, the previously described structural system in the repository area of the building is a concern. Also, interior steps in the entry corridor prevent any access for the disabled. The OAS indicated that disabled researchers are able to use the DeJarnette Laboratory and have OAS staff retrieve collections from the Ramsay Repository for their use.

Laboratory of Human Osteology

Completed in 1996, the natural sciences building meets all of the current building, life safety, and ADA requirements (type II construction, mixed use; B, S-1). Three fire stairs are located in the building, along with ADA-compliant restrooms and signage.

HVAC Systems

David L. DeJarnette Archaeological Laboratory

Each of the three portions of the DeJarnette Laboratory is zoned climate control. A natural gas boiler and an electric air conditioner unit serve each zone. There appeared to be adequate ductwork throughout each zone. There are standard filters in the system that are changed as needed. These HVAC systems provide adequate climate control to the laboratory.

Erskine Ramsay Archaeological Repository

The Ramsay Archaeological Repository is divided into two climate control zones. Two heat pump units provide heating and cooling to the repository area, whereas a single heat pump unit serves the documents and special collection storage areas. These systems were added in the 1985 renovation and seem to provide good climate control for the Ramsay Repository.

Laboratory of Human Osteology

The new natural sciences building is served by the campus hot and chilled water system. Air is distributed throughout the large building by several air-handling units that divide the facility into numerous zones. The repository core area has its own separate HVAC zones with humidity control.

Fire Suppression and Detection

David L. DeJarnette Archaeological Laboratory

There is no automatic fire suppression system in the DeJarnette Laboratory. An automatic fire-detection system consists of smoke sensors throughout the building that are wired to the local fire department. Fire extinguishers are also located throughout the facility.

Erskine Ramsay Archaeological Repository

An automatic wet-pipe fire suppression system was added as part of the 1985 renovation of the building. Likewise, the renovation included new automatic detection systems, heat and smoke sensors, and new manual pull-alarms. These detection systems are wired to the local fire department. In addition to the detection and suppression systems, fire rated doors and frames were added to every interior door of the facility. The repository and collection room portions of the building were separated in the original building's construction. The Ramsay Repository is well-protected from fire.

Laboratory of Human Osteology

The Laboratory of Human Osteology is also equipped with a wet-pipe fire suppression system. Manual pull alarms and automatic smoke sensors and heat detectors are combined as the building's fire detection system. The University of Alabama and the local fire department monitor the detection system. The repository core area is separated from the office/ laboratory areas by fire-rated construction.

Security System

David L. DeJarnette Archaeological Laboratory

The DeJarnette Laboratory is secured with dead-bolt locks, motion detectors, and intrusion alarms. These systems are wired to a private security company and provide an adequate level of security for the facility.

Erskine Ramsay Archaeological Repository

The Ramsay Repository is secured with dead-bolt locks, motion detectors, and intrusion alarms. An additional set of locks provides extra security for the special collections areas. Like the DeJarnette Laboratory, these systems are wired to a private security company and provide an adequate level of security for the facility.

Laboratory of Human Osteology

The collections storage area at the Laboratory of Human Osteology is secured by a keypad "omni-lock" system. The University of Alabama police department provides security for the natural sciences building and the laboratory/office areas within it.

Collections Management Summary

Scope of Collections and Mission Statement

The Office of Archaeological Services is part of the Alabama Museum of Natural History, that includes departments of paleontology, botany, mammology, ornithology, herpetology, ichthyology, marine biology, entomology, geology, ethnology, and history. The OAS curates archaeological, ethnographic, and human skeletal materials and is located at Moundville Archaeological Park.

The OAS mission statement provides "curation services for a wide variety of federal and state agencies and private companies, and [archaeological] contractors." It is a designated repository for collections stewarded by a number of agencies from Alabama and adjacent areas in the Southeast, totaling 8,000-ft^3.

Archaeological Collections Storage

The OAS has three storage areas: 1) the main repository, the Erskine Ramsay Archaeological Repository (RAR), 2) the David L. DeJarnette Archaeological Laboratory (DAL) that is used for collections being worked on, and 3) the new Laboratory for Human Osteology (LHO) that houses human remains.

Erskine Ramsay Archaeological Repository

The RAR has a 15,360-ft^3 capacity and is located next to the DAL. It contains 144 stationary wooden shelving units with steel supports. These steel vertical members support three stories of shelves, extending up through plywood flooring on each level. Some of the materials in the RAR are in acidic boxes with telescoping lids, except for materials in the special collections rooms (discussed below). Some boxes are acid-free with built-in handles. They are stacked four boxes high on a shelf, and sealed with plastic straps for inventory control. Boxes are usually labeled directly on the box in black marker. Perforated polyethylene zip-lock bags are used as secondary containers.

Special collections rooms exist for photographs and maps in steel cabinets, and for fragile or highly sensitive materials. Foam padding and foam dividers protect fragile objects. Adequate protection exists against fire, theft, pests, and neglect.

David L. DeJarnette Archaeological Laboratory

Three separate HVAC systems service the processing lab, the offices, and the curation room. The curation room is currently being renovated with the addition of a mezzanine. Most of the unprocessed collections are in acidic boxes awaiting rehabilitation. The fluorescent bulbs are unfiltered.

The dark room for photo developing contains hazardous chemicals, with appropriate warning signs. A GIS/CAD room (using ArchInfo) contains the Alabama site files. The library has over 14,000 titles. Maps are stored in metal cabinets. The DAL has a large overhead door for loading and unloading large collections.

Laboratory of Human Osteology

The human remains facility is located on the main campus on the third floor of a natural history building completed in 1996. Curatorial staff were involved in the design of the building. The LHO space consists of a classroom, library/computer room, preparation room (with fume hood) and teaching collection. Human remains are housed in metal cabinets with unpadded wooden shelves. Fluorescent lights have ultraviolet filters. The entire collection of human remains has been reanalyzed, catalogued, and entered into a relational computer database that greatly facilitates research. A DNA lab in the same building enhances research capabilities. Some forensic work is conducted in the lab. A key-pad security system and sprinkler system are in place, in addition to fire extinguishers. A freight elevator is available to transport large amounts of material to the third floor.

Environmental Controls

The RAR is maintained at 65° F ± 5° and at 65% relative humidity. There is one hygrothermograph, which trips an alarm if wide fluctuations occur. There are no windows, eliminating ultraviolet light. A water sprinkler system wired into smoke and gas detectors (also alerting the fire department) exists, in conjunction with currently-inspected fire extinguishers. There is no written pest-management plan.

Range of Support Facilities for Archaeological Collections

Available facilities are adequate at the DAL. The processing laboratory is being renovated. The laboratory has electrolysis equipment, a photograph dark room, offices, a drafting/CAD office, research laboratories, and a storage room for incoming collections. The exhibit building and gift shop at Moundville Archaeological Park adds to public outreach regarding archaeological remains. A visiting researcher's residence facilitates scientific research.

Staff Composition

Most of the OAS staff is hired on a temporary basis, as needed by ongoing excavation projects, and performs some curation on days they are unable to excavate. Permanent staff include director, office manager, collections manager (archaeology),

collections manager (osteology), curator of archaeological collections, graduate assistant (half-time, osteology). Administrative staff is adequate.

Administrative Record Keeping

A detailed collections management manual is kept and amended as needed. The shelf location is incorporated into the accession number. Administrative records are kept in the DAL. The DAL houses the Alabama site files and the state report archive. An electronic database is maintained on 3.5-inch disks with copies stored in the LHO updated annually.

Associated Archaeological Documentation and Storage

Site photos, reports, etc., are stored in a special collections room in the RAR protected by a steel-cased, locked, asbestos door. The documentation is annually inventoried. Associated documentation is kept in metal file cabinets arranged by year and project number. Copies of photos (contact prints) are in the DAL for use as needed.

Collections Management Policies

A written policy is in place detailing the policies for collections registration, accession, loan, visiting researcher use, library use, and site file use.

Administration Summary

Background

The Office of Archaeological Services at Moundville Archaeological Park Moundville is part of the University of Alabama Museums and is located in Moundville, Alabama. The OAS was founded in 1971 as part of the College of Arts and Sciences at the University of Alabama, Tuscaloosa, and was incorporated into the University of Alabama Museums structure in 1986. The OAS has archaeological collections from the Mobile, Savannah, and Jacksonville, Army Corps of Engineers districts, and numerous Army, Navy, Air Force, and Marines installations. The OAS has agreements to curate collections from the Mobile and Savannah Districts.

Real Estate

The OAS is part of and is owned by University of Alabama, Tuscaloosa, and is located in Moundville Archaeological Park. Expansion or new construction is possible south of the existing collections storage building, the Erskine Ramsay Archaeological Repository. Expansion to the north is unlikely since the remains of an original palisade marking the outer boundary of the Moundville archaeological site are located below the parking lot in front of the building. Given the significance of the site, it is unlikely that any disturbance of the archaeological remains would be permitted since the park is a National Historic Landmark. The osteology collections are stored in the Laboratory for Human Osteology located in a building on the University of Alabama campus was completed in 1996.

Administration

The Comptroller of the university could financially commit the OAS to a partnership with the DoD/ USACE. The same Comptroller could sign a cooperative agreement. The university's Office of Sponsored Research writes and tracks grants. In some cases the OAS collects curation fees from clients. Funds to operate the OAS are generated through archaeological contracts. The OAS was assigned a development officer, but the position is currently vacant. The Executive Director of the University of Alabama Museums (UAM) participates in fund raising for the institution as a whole.

Outreach and Education Programs

The OAS outreach programs are supplemented by the larger University of Alabama Museums' Division of Programs. The UAM programs include archaeology in a variety of printed materials such as *Nature South*, a teacher's guides for a public television series, field trips for the general public, and Museum Expeditions for high school students and their teachers. The OAS sponsor's a week-long Native American Lifeways festival at Moundville which includes demonstrations of crafts, musicians, and storytellers. Throughout the year workshops are held at Moundville for the public. The workshops focus on teaching skills that Native Americans acquired including hide tanning, making reed baskets, and firemaking.

The OAS has consulted with 11 Native American tribes including the Cherokees, Creeks, and Seminoles, as part of its Native American Graves Protections and Repatriation Act compliance activities. Consultation with the Caddo is scheduled soon.

Contributions

The OAS would waive in-direct costs, charge their less expensive non-research overhead rate, contribute their its existing curation facility, staff expertise, public relations and outreach programs, their 14,000 volume museum library, the state site files, and their role as National Archeological Database coordinator for Alabama.

Notes

The OAS was a pioneer in establishing a curation facility for federal archaeological collections. Despite its novelty as an early example of curation and repository design, and the successful renovation in 1985, resources used for expansion or further improvements would be better spent elsewhere; perhaps by renovating additional space at the new Laboratory for Human Osteology. The OAS staff suggested that long-term storage space could be doubled in size with a new addition to the Ramsay Repository.

The Office of Archaeological Services plans to incorporate their database into an internet web site, including a virtual tour of Moundville Archaeological Park, thus greatly enhancing public outreach capabilities. Although the facility needs to be upgraded, its extensive public programs, and the involvement of Native Americans in those programs, the OAS would be an excellent partner. The OAS would be interested in being a regional partner for DoD/USACE collections from Alabama, Florida, Georgia, Mississippi, South Carolina, and Tennessee.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 4.2 lists the composite scores and the architecture, collections management, and administration scores for each Alabama institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 4.2
Summary of Decision Support Model Scoring—Alabama

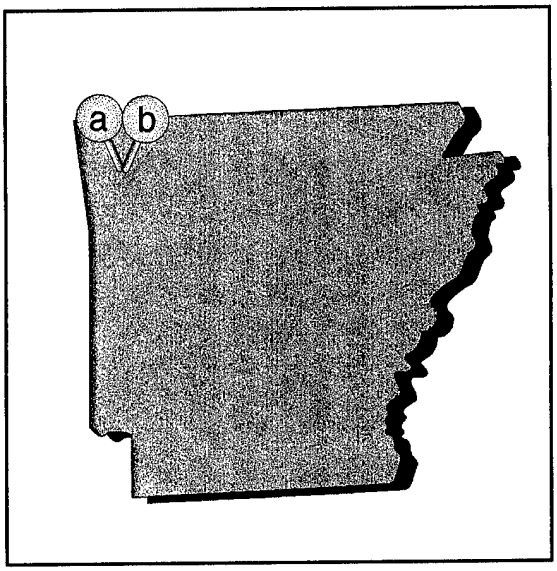
Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Center for Archaeological Studies, University of South Alabama	**0.5753**	0.06723	0.21957	0.28845
Office of Archaeological Services, University of Alabama	**0.7552**	0.19547	0.26727	0.29244

5

Arkansas

Archaeological Materials (in cubic feet)

Department of Defense	**81**
USACE	**1,134**
TOTAL VOLUME	**1,215 ft³**
Number of Institutions Contacted	**8**



Institutions Assessed

a. Arkansas Archeological Survey, Fayetteville

b. University Museum, University of Arkansas, Fayetteville

Background

A list of the facilities contacted in Arkansas is presented in Table 5.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 5.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Arkansas is presented in the following discussion.

Table 5.1
List of Institutions Contacted—Arkansas

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Arkansas Archeological Survey				
Arkansas Museum of Science and History		X		
Arkansas State University Museum		X		
Fort Smith National Historic Site		X		
Hot Springs National Park		X		
Old Washington Historic State Park		X		
Shiloh Museum of Ozark History		X		
University Museum, University of Arkansas				

Note: Locations visited indicated in **Bold**.

Arkansas Archeological Survey

Architectural Summary

Site Conditions

The Arkansas Archaeological Survey (AAS) is located in a rural area that is composed of mostly university owned land. The site has a few smaller buildings nearby, including two old barns and a one-story office building. The front and back of the building have paved vehicle access roads that are connected to the staff parking lot in the north. It would be easy to build a new facility at the adjacent site, but difficult to expand the building, due to the proximity of the roads and parking lot. The site can easily be reached by Interstate I-540 which is

three-quarters of a mile south. The region is not in any major natural disaster zone.

Building Condition/Structural Adequacy

The building that AAS occupies is in excellent condition. It was completed in late 1998. The single-story building is constructed of non-combustible materials, including a concrete floor, metal stud frame, brick veneer, gypsum plasterboard, and open-web metal joist roof. The building is designed to be a mixed use of business (405.1.2) and S2 low hazard storage (412.1.3).

A covered loading dock provides easy access to the collections storage. The dock allows for a full-size semitrailer.

Code Requirements/Egress/ Accessibility

AAS meets almost all building codes, egress, life-safety, and accessibility requirements. A two-hour fire-rated central hallway divides the collections storage from the rest of the building. Egress routes are clear and direct. Illuminated exit signs are at exits, and emergency lights are installed in necessary locations. The building is wheelchair accessible, and the back door is equipped with ADA buttons that open the door. ADA signs are installed throughout the building and in the parking lot. The sidewalk is graded to allow wheelchair access.

HVAC Systems

The heating and cooling system is in very good condition. Two gas-fired water boilers provide heating while two electrical units supply cooling. The building is zoned and controlled according to the special needs of each area. The air-handling unit keeps relative humidity at a set range of 45–55%. Filters have three layers—pre-filter, main, and carbon. The carbon layer is responsible for absorbing the excess humidity of the incoming air.

Fire Suppression and Detection

Fire-detection and -suppression systems are very good. The entire building is protected by a wet-pipe sprinkler system and chemical fire extinguishers. Smoke sensors are installed throughout the building, and are located throughout the air supply system. Heat sensors are in the sprinkler heads, which activate independently when the temperature at a particular location reaches 130° F and breaks the sensor.

Both automatic and manual-pull fire alarms are installed, and the system is wired to and monitored by the University Police Department. Emergency strobe lights are provided.

Security System

The security system is sufficient. Dead-bolt locks are used at the entrance doors, and the collections storage exterior doors can only be opened from the inside. The collections storage area requires a code to enter and has motion detectors by the doorways. The facility will be equipped with an intrusion alarm system when the fiber-optic cable is installed. The system will be monitored by the university police, who also patrol the site.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Arkansas Archeological Survey, legislated by the state of Arkansas, is to "conduct research in Arkansas archeology, encourage preservation and development of archeological societies and parks; protect and maintain artifacts, records, sites, and publications; educate the populace about archeology; and publish results of archeological findings." AAS would accept collections only from Arkansas. Existing collections are mainly archaeological, but some historic Euro-American and natural history materials are housed in the same room. AAS houses about 1,800-ft^3 of archaeological materials. The collection storage area has no space for incoming collections. AAS will share storage space with the University Museum at the University of Arkansas (UM).

Archaeological Collections Storage

As of April, 1999, AAS was being moved into newly renovated space. Collection storage is in Room 113.

Movable metal shelves will be used for archaeological materials. Collections are organized by project. Primary containers consist of both of acidic cardboard boxes and plastic "Roughneck" Rubbermaid-brand containers. Secondary containers are 4-mil, zip-lock bags.

Environmental Controls

Temperature and relative humidity (RH) are controlled at a targeted 68° F±2° F and 50% RH, respectively. At the time of our visit, temperature was 70° F and RH was 55%. Two hygrothermographs are in the collection storage room, and the charts will be filed weekly. Incandescent bulbs are not filtered, however there are no windows. Collections are not processed in the storage area. Insects and rodents are monitored by sticky traps. Food is not allowed in the collections storage room.

Range of Support Facilities for Archaeological Collections

Support facilities at AAS include a loading dock, dark room ventilated with fume hoods, photograph staging room, computer room, processing laboratory, library, conference room, employee lounge, and equipment storage rooms. No exhibit facility is planned, since UM handles these responsibilities.

Staff Composition

Full-time curatorial staff at AAS consist of the registrar, assistant registrar, and two research assistants. Part-time graduate assistants and work-study students assist as needed with curatorial tasks.

Administrative Record Keeping

AAS administrative records are kept in the library, with a copy kept at the appropriate research station. Smithsonian trinomials are used to designate sites. USGS quadrangle maps are stored flat in metal map cases, as are site location maps. Site locations are digitized into a Geographic Information System program to facilitate archaeological survey. Twelve metal file cabinets hold other administrative records in acidic file folders. Each collection is assigned an accession number. A computerized database is kept, using a custom-built program. The database is on a network that many people have access to, but only two people can change the data. Backups are kept on 4- and 8-mm data tapes. AAS is slated to switch to the Oracle database program that is able to handle scanned images.

Associated Archaeological Documentation and Storage

Associated documents have been inventoried and cataloged, and are kept in the library on metal shelves. These are acid-free folders in metal file cabinets. Copies of reports are kept at the appropriate research station. All photographic materials are in three-ring binders. Photographic negatives are kept in archival-quality sleeves. Two copies of each contact sheet are maintained.

Collections Management Policies

Collections policies at AAS are written for accessions, minimum standards of acceptance, field curation, loans, access to collections, artifact labeling, bag labeling, emergencies, and security. Draft plans are being reviewed for pest management and deaccessions.

Administration Summary

Background

The Arkansas Archeological Survey is a state institution affiliated with the University of Arkansas in Fayetteville. The University was founded in 1871, while AAS is much younger, established in 1967. In addition to being a curation facility, AAS maintains the state archaeological site files and reports, and operates an archaeological investigation research program. Federal archaeological collections currently consist of materials and documents associated with Little Rock Air Force Base, and the Little Rock, Memphis, Tulsa and Vicksburg Districts of the Corps of Engineers.

Real Estate

AAS recently moved off-campus to a new facility; collections from the University Museum are expected to be moved into the facility with AAS materials. The University of Arkansas owns the building. Although AAS staff were not clear on construction/renovation

requirements, it is likely that university officials would need to be involved in these types of decisions.

Administration

The AAS Director could commit financially to a partnership with DoD and USACE. AAS operating funds are derived from a mixture of state/university funds and contracts and grants. Several staff members are actively involved in writing and tracking grant proposals. The University has primary responsibility for fundraising. The largest supporter of AAS is the members of the Arkansas Archeological Society.

Outreach and Education Programs

No one individual staff member is involved in education and outreach; several staff members have related responsibilities, however. Related activities include fliers, publications, attendance at conferences, and displays. Specific programs include Arkansas Archeology Week, Arkansas Archeological Society sponsorship, school and civic organization presentations, teacher packets and CD-ROMs, and an annual training program for volunteers. In addition, AAS maintains extensive free information on archaeology in the state, and a training program for amateurs. AAS conducts an active publication program as well.

Contributions

AAS would be able to contribute physical storage space for collections already curated by the Survey or Museum. Collections in excess of the present volumes would probably be removed to a remote location at Blytheville, Arkansas. In addition, AAS would be able to contribute staff experience and active research programs, use of the materials in education and outreach and exhibits. DoD and USACE would be expected to contribute towards equipment purchase, operations and maintenance costs, rehabilitation costs, and labor costs involved directly with collections rehabilitation.

Notes

AAS currently curates many DoD/USACE collections from Arkansas. Archaeological collections currently occupy approximately one-fourth of the new curation storage space. The University Museum will fill the remaining three-quarters of the space with archaeological, paleontological, ethnographic, natural history, geological, and history collections, resulting in a full storage area. Overflow collections are expected to be sent to a remote site in Blytheville, Arkansas, which was not evaluated by the St. Louis District assessment team. AAS is growing and able to procure resources as needed.

University Museum, University of Arkansas

Architectural Summary

At the time of the St. Louis District visit to the University Museum, plans were to move, within a matter of months, to the AAS facility. A review of the AAS facility is included in the previous section in this chapter, and should be consulted information on the University Museum.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement at the University Museum at the University of Arkansas (UM) is "to acquire, maintain and preserve collections in the areas of anthropology, geology, history, zoology and related fields that are relevant to programs in research, education and exhibitions, with particular emphasis on those important to Arkansas." The principle collections are archaeological, constituting 9, 954-ft^3. UM will share storage space with the Arkansas Archeological Survey. This space is currently full.

Archaeological Collections Storage

As of April, 1999, UM was being moved into a newly-renovated space. Movable metal shelves will be used for archaeological materials. Primary containers are currently in 16 x 22 x 3 inch acidic cardboard boxes, and are being re-housed as time permits. Secondary containers are partitions made of particle board boxes of varying sizes. Some artifacts are in polyethylene bags.

Environmental Controls

Temperature and relative humidity (RH) are controlled at a targeted 68° F±2° F and 50% RH, respectively. At the time of our visit, temperature was 70° F and RH was 55%. Two hygrothermographs are in the collection storage room, and the charts will be filed weekly. Incandescent bulbs are not filtered, however there are no windows. Insects and rodents are monitored by sticky traps. Food is not allowed in the collections storage room.

Range of Support Facilities for Archaeological Collections

Support facilities at UM include a loading dock, processing laboratory, conservation laboratory with fume hood, exhibit facility, library, conference room, employee lounge, and equipment storage rooms.

Staff Composition

No staff member is devoted full-time to collections care. There is a curator, a curator of collections, and graduate assistant workers.

Administrative Record Keeping

Smithsonian trinomials are used to designate sites. Each collection is assigned an accession number. Administrative records are currently kept in the curator of collections' office, but are slated to be kept in a separate room in the renovated building. Security will be greater in the new space. No copies of records are kept. A computer database is used for the catalog. The data is kept on the University of Arkansas server, backed up weekly off-site. A computerized Local Area Network will be installed in the new space, and five people will have access to this information.

Associated Archaeological Documentation and Storage

Reports are kept on wooden shelves. Photographic records are kept in three metal file cabinets. Field notes and site records are stored in metal file cabinets. No copies of field notes are kept, however copies of reports are housed at AAS. When both UM and AAS are housed in the same building, all copies will be on the same premises.

Collections Management Policies

Written policies at UM will be those of AAS. Collections policies at AAS are written for accessions, minimum standards of acceptance, ethics, field curation, loans, access to collections, artifact labeling, bag labeling, emergencies, and security. Draft plans are being reviewed for pest management and deaccessions.

Notes

UM will share storage space with the AAS. Both will be housed in the same building, facilitating interaction between them. The storage space is filled, and neither UM nor AAS could accommodate incoming collections. However, UM has an exhibit facility and greater outreach capabilities.

Administration Summary

Background

The University Museum has an exhibit facility on campus that is separate from the administration and collections, which are located in a separate building. Both collections and administration are scheduled to be moved into a new building currently occupied by the Arkansas Archeological Survey and located north of campus. UM and AAS collections will be consolidated into one collections storage area and will be managed together. UM currently curates archaeological materials and associated documentation recovered from Fort Chaffee, and the Little Rock, Memphis, Tulsa, and Vicksburg Districts of the Corps of Engineers. UM was opened to the public in 1927 and is a state institution.

Real Estate

UM owns the AAS building and will move collections into the collections storage area with AAS materials. The adjacent Biomass building will be renovated for UM offices and laboratory space.

Administration

The collections manager/registrar usually signs curation agreements committing UM financially to curation partnerships. After the move to the new building is completed, the equivalent AAS staff

member will perform this duty. UM operating funds come largely from the university, and are derived from a variety of different means including tuition and state appropriations. UM encourages grant writing as a funding means; this is done by individual staff members in each department. Fundraising is another important activity and is conducted by the director of the museum.

Outreach and Education Programs

UM does not have any staff exclusively dedicated to outreach and education programs. A part-time education coordinator runs school groups through the museum. Apart from these tours, programs consist largely of special exhibits, special collections loans, and Saturday field trips for adults. The exhibit facility is a building that was once used as as a gymnasium. Exhibits have not been updated in many years.

Contributions

UM would be able to contribute physical storage space for collections already curated by the Survey or Museum. Collections in excess of the present volumes would probably be removed to a remote location at Blytheville, Arkansas. UM, in cooperation with AAS, would be able to contribute staff experience and active research programs, use of the materials in education and outreach and exhibits. DoD and USACE would be expected to contribute towards equipment purchase, operations and maintenance costs, rehabilitation costs, and labor costs involved directly with collections rehabilitation.

Notes

The University Museum is expected to fill the new AAS building's remaining three-quarters of the collections storage area with archaeological, paleontological, ethnographic, natural history, geological, and history collections. The result will be curation facility with no room for incoming collections. Overflow collections are expected to be sent to a remote site in Blytheville, Arkansas, which was not evaluated by the St. Louis District assessment team. However, AAS and the UM currently curate most federal archaeological collections recovered from DoD—and USACE—managed lands in Arkansas. These materials are currently or will soon be stored in the Fayetteville AAS/UM facility.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

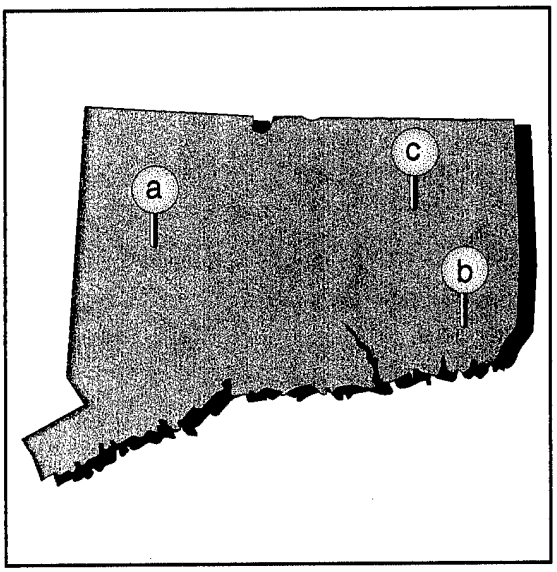
Table 5.2 lists the composite scores and the architecture, collections management, and administration scores for each Arkansas institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 5.2
Summary of Decision Support Model Scoring—Arkansas

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Arkansas Archeological Survey	**0.8991**	0.19810	0.29605	0.40491
University Museum, University of Arkansas	**0.8743**	0.19810	0.28611	0.39004

6

Connecticut



Archaeological Materials (in cubic feet)

Department of Defense	3
USACE	8
TOTAL VOLUME	**11 ft³**

Number of Institutions Contacted 8

Institutions Assessed

a. Institute for American Indian Studies, Washington Green

b. Mashantucket Pequot Museum, Mashantucket

c. Office of State Archaeology, Connecticut State Museum of Natural History, University of Connecticut, Storrs

Background

A list of the facilities contacted in Connecticut is presented in Table 6.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 6.2, showing the strengths of each institution. Pertinent information on the three facilities visited in Connecticut is presented in the following discussion.

Table 6.1
List of Institutions Contacted—Connecticut

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
The Bruce Museum		X		
Connecticut River Museum				X
Institute for American Indian Studies				
Mashantucket Pequot Museum				
New Britain Youth Museum			X	
Office of State Archaeology, Connecticut State Museum of Natural History, University of Connecticut				
Peabody Museum of Natural History, Yale University		X		
Stamford Museum and Science Center		X		

Note: Locations visited indicated in **Bold**.

Institute for American Indian Studies

Architectural Summary

Site Conditions

The Institute for American Indian Studies (IAIS) is located in a rural area of western Connecticut. It can be reached by one small highway, CT-199. The 15-plus acres site is largely undeveloped. A few houses are located near the Institute, which includes exhibits, a collections storage building, and a few small outdoor exhibits scattered around the main museum building. The structures appear to fit into the natural environment very well; they cause minimum disturbance because the circular shape of the museum and spiral roof and blend into exterior colors. The collections storage building also blends into the natural site design; most of its exterior walls are constructed into the natural slope and use curved elements.

The site has one asphalt-paved driveway that ends at a small parking area, which accommodates about fifteen cars and a few small buses. The site, including the parking area, is on a rocky slope. The paved area ends at the front of the museum, and the rest of the paths are either covered with crushed stone or are unpaved. The path to the collections storage building is covered with crushed stone. The region is not generally considered to be threatened by any natural disaster, other than potential hurricanes.

Building Condition/Structural Adequacy

The collections storage building is in good condition. Constructed in 1995, the two-story masonry building has a capacity of approximately 2,000-ft^2. It is designed to meet the needs of collections storage and research. The mechanical room is separated in the basement, which is divided into two sections. One of these sections is a permanent storage room with metal shelves, and the other half is used as temporary storage and research area. The fully occupied basement is defined by concrete floor and walls, and corrugated sheet-metal ceiling, which is supported by open-web steel joists.

The building has three exposed elevations: the curved front and two straight sides. While the front entrance is at the first floor level, the back wall is completely built into the hill. The flat roof has 2-x-2-foot elastic rubber tiles, and is level with the ground surface. It provides additional classroom or recreational space. Although the first floor level has poured concrete exterior walls, the interior construction is mostly wood, including the ceiling, which is made of plywood and is supported by laminated wood beams.

The first floor was under construction in 2000, and could be used for exhibits and potentially a few small office spaces. Wood framing and gypsum boards comprise the walls. The building has no windows, and the only two openings are the front entrance and a side exit. Extended beyond the building line, the vestibule is shaped by fixed glass panels and windows. Front entrance doors are metal-framed glass.

Code Requirements/Egress/ Accessibility

The storage facility meets most code, egress, and accessibility requirements. It is designed for mixed use, including research and storage of common hazardous materials (S-1, BOCA). The small building has two exits; this meets the minimum egress requirement. However, there is no elevator. As a result, wheelchair users are restricted to the first floor only. A small hand-operated hoist dumbwaiter provides a means of transporting heavy objects. The only set of stairs to the basement is also composed of wood. Additionally, the lack of pavement and the steep slope in front of the building could pose a problem for wheelchair users. Handicap signs are not installed either inside or outside of the building. There is no handicap parking space near the storage facility.

HVAC Systems

The gas operated forced-air heating and cooling system provides adequate regulated air for the facility. Temperature in the permanent storage area is set at 65–70° F, and at 60–65° F in non-storage areas. Relative humidity is set to 35% and 45% for storage and non-storage areas, respectively. Filters are replaced according to schedule. Effective temperature zone control is achieved with sealed partition walls.

Fire Suppression and Detection

Fire detection and protection are adequate. Heat and smoke sensors are installed throughout the building, and both manual-pull and automatic alarms are in place. Extinguishers of type A, B, and C are located near doorways. However, a small sprinkler system is installed in the mechanical room; the remainder of the building does not have a suppression system. The lack of a sprinkler system is undesirable in a collections storage facility, but the small size of the building enables the facility to meet fire code requirements.

Security System

The security system is adequate but can be improved. An intrusion alarm system is installed, wired to, and monitored by a private security company. If the alarm sounds, the security company informs the police. In addition to the hard surface of masonry material, the absence of the many openings on the exterior walls adds security protection to the building. However, motion detectors are not installed, and TV cameras are also absent. Key locks are used to secure the front doors.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Institute for American Indian Studies states that IAIS "is committed to research, interpret [sic], and preserve the histories and cultures of Native American peoples." Collections are mostly archaeological and ethnographic, and some paintings are housed in the same room. IAIS curates about 13,000 archaeological objects and about 4,000 ethnographic objects.

Archaeological Collections Storage

Long-term archaeological collections storage is in a newly-constructed building. Shelving consists of movable steel shelving (Aisle-Saver-brand, The White Co.). Primary containers are mostly acidic cardboard boxes. Secondary containers are mostly plastic, zip-lock bags. Ethnographic collections rest unpadded on the shelves.

Environmental Controls

Relative humidity and temperature are monitored and controlled by the HVAC system which is dedicated to the collections storage room. An alarm is sounded if climate sensors go beyond the set specifications, which are 47–67° F and 50–55% relative humidity. There are no windows, however fluorescent bulbs are unfiltered for ultraviolet light. The entryway is secured by a keypad locking system. Sticky traps are used to monitor pests.

Range of Support Facilities for Archaeological Collections

IAIS exhibits are devoted exclusively to Native Americans. Also available are an artifact processing area, an emergency shower, outdoor exhibits, and extensive outreach to the Native American community in Connecticut.

Staff Composition

The archaeology staff at IAIS consists of a curator and a curatorial assistant.

Administrative Record Keeping

No alphanumeric codes are used to designate sites. Instead, a unique accession number is assigned each collection. Administrative documents are stored in acidic boxes, located on wooden shelving in the artifact processing room. These are in the process of being inventoried. Catalog cards are kept in "banker's boxes" on 5-x-7-inch index cards. A copy of the catalog sheet and a description of the artifacts are kept in a bank vault off-site. Photographs and drawings of artifacts are kept with the catalog books in plastic binders.

Associated Archaeological Documentation and Storage

Many of the documents associated with archaeological collections are not available because they were donated to IAIS. Associated documents are also kept in the artifact processing room.

Collections Management Policies

All policies are in draft form.

Administration Summary

Background

The Institute for American Indian Studies is a private organization founded in 1975 as a repository and research center for archaeological collections recovered from lands in western Connecticut. In 1991, a new director was hired, and the organization has been moving in a different direction since then, focusing on museum exhibits, collections care, and education in addition to research. Education and outreach are now the primary missions of the Institute.

Real Estate

IAIS has purchased some surrounding land, and now owns 19 acres. IAIS recently constructed an adjacent building which will be used for collections storage, laboratory space, and some exhibits and offices. The interior portions of the ground floor have not been finished, but will assuredly be complete within months. Should IAIS need additional space in the future, the roof of the new facility can be easily modified to accept a second floor.

Administration

Most museum administrative functions, including fundraising activities and writing grant proposals, are conducted by the museum's director. The director, in cooperation with the Board of Directors, has the authority to commit the institution financially to a partnership. Operating funds for the museum are derived largely from donations, memberships, admissions, program fees, and fundraising activities. There are only four full-time staff members; each has taken on multi-faceted aspects of running the museum. However, volunteers constitute a large portion of the education staff.

Outreach and Education Programs

IAIS has in recent years begun to rely heavily on school education and outreach programs for income. In-house educational programs exist for pre-K through high school age children and adults, and focus on Native American lifeways, crafts, myths and legends, and history. Additionally, archaeological techniques and interpretation are taught in programs. Outreach programs consist of the same subjects, although a little more limited and tailored to the target age groups. Ecology is also taught, and the IAIS site is designed to promote student ecological investigations.

Contributions

IAIS is primarily interested in the benefits of association with a government agency, and the archaeological collections that the Institute could use in education, research, and outreach programs. The IAIS Director is confident that the Institute can provide space for collections—even if it requires construction of a new facility. Furthermore, IAIS can tailor a constructed facility to anticipated needs. DoD/USACE would be expected to provide annual maintenance fees, and potentially some equipment or supplies costs. Additionally, funding for new staff members would be very helpful.

Notes

IAIS is a small institution, but has good facilities. It has a strong membership and financial backing in the western Connecticut region, although almost all funding is from private sources. Additionally, according to the director it is relatively little problem to raise the money necessary to construct additional museum buildings on IAIS property. Most impressive is the new collections facility and the thriftiness with which it was constructed. A good aspect of IAIS is that it is dedicated solely to Native Americans. Collections management procedures are adequate, however many policies need to be written.

Mashantucket Pequot Museum

Architectural Summary

Site Conditions

The Mashantucket Pequot Museum and Research Center (MPM) is located in Mashantucket, CT, and it is directly accessible by State Highway 2. Interstate 95 is about seven miles south of the site, and CT-395 is also nearby. Surrounded by forest, the site has no other buildings immediately next to it. Foxwoods Resort and Casino, which is also owned by the Pequot Tribe, is the nearest complex in the area.

The site elevation declines from the front toward the back of the building. The front entrance is at the third level, and the rear exit is at the first level. The split-level allows natural light to reach the lowest floor of the five-story facility. With the main entrance at the east, the building faces south and stretches toward the east-west axis. A 160-foot tall observation tower marks the beginning of the museum.

At the west end of the building is the loading area, which consists of three bays and a large parking space that can accommodate full-size trucks. The 500-space parking lot is located south of the building. The site is not in an earthquake zone, but it is in a tornado and flood region.

Building Condition/Structural Adequacy

MPM is in excellent condition. The 305,000-ft^2 institution provides space for exhibits, education, public programs, a library, research, and collections storage. The structure is a steel frame, masonry-wall type construction. The building is constructed of concrete, steel, stone, glass, and wood. Constructed in 1996–1998, the award-winning five-story building has an impressively large trapezoidal steel-frame glass-clad space reaching more than three stories height. The foundation is constructed of concrete, and a portion of the second floor below grade is also in cast concrete. Both concrete masonry units and metal-stud, gypsum walls are used for partitioning. Roofing materials consists of EPDM, gravel, and glass.

The collections storage is located at the first floor below grade, and there are no windows. All four walls and the floor are cast concrete. The 18-foot high ceiling is made of metal decking and supported by steel beams and girders covered by a coat of fire-protection spray. Girders are supported by steel columns and are encased in concrete masonry unit walls. The large storage space is about one-half full of artifacts.

Code Requirements/Egress/ Accessibility

MPM meets all building codes, egress, and accessibility requirements. Fourteen exits are located at different locations. Illuminated exit signs are mounted above each exit. Ten elevators, including the freight elevator, are equipped with Braille signage. Emergency lights are in appropriate places, backed up by an emergency generating system. With ramps and handicap door accessories, the entire building is wheelchair accessible. Door handles and bathroom hardware are ADA-compliant. Adequate handicap parking space is also provided near the front entrance.

HVAC Systems

The 1996 heating and cooling system is in good condition. Heating and cooling generating units are located in an isolated room next to an open space where the condensers are located. The underground space is in between the building and the parking lot. Gas fuels the forced-air system, which is zoned. Three kinds of filters are used in the collections storage area and are changed every three months.

Fire Suppression and Detection

Fire-suppression and -detection systems are in excellent condition. A dry-pipe pre-action sprinkler system is used for the whole building. The sprinkler heads operate independently. In addition, a standpipe system was installed. Smoke and heat sensors are in all rooms. Fire dampers are used in air docks, and fire separation walls are part of the fire protection system. Corridors have a two-hour fire rating, and all separation doors are fire-rated. Fire extinguishers of type A, B, and C are found in hallways, exits, stairs, etc. The fire alarm system is wired to the local fire department.

Security System

The facility has an extensive security system. Many security cameras are deployed throughout the building, including hallways, exits, storage space, and elevators. Motion detectors are also in place. All openings at ground level are equipped with an intrusion alarm system. Access to non-public spaces is restricted to authorized personnel only, and each staff member has limited access via key cards. The security system is wired to a local tribal police department.

Collections Management Summary

Scope of Collections and Mission Statement

The Mashantucket Pequot Museum maintains a mission to display and properly curate collections associated with the Pequot Indian Nation and other Native American Indian tribes. Education and public programs are a major focus of the museum. Although the Pequot Nation and its culture and history are featured, considerable emphasis is placed on Native America in general. Any collections may be accepted, contingent on the benefit to the museum.

Archaeological Collections Storage

Archaeological materials are stored in a large collections storage area that is equipped with electronic compact storage units. The storage area is several hundred feet long, occupying the lowest floor, below ground, of the museum. Compact storage units line one entire side of the length of the room. Approximately one-half of the other side is lined with large, locking cabinets, each capable of supporting a microclimate. Another portion of the collections storage area is open for crate storage, or other supplies.

Environmental Controls

The museum, including the collections storage area, is equipped with a computer controlled HVAC system that controls both temperature and humidity. Both functions can be charted in real-time by the computerized system, which also stores historical data and compartmentalizes it by room or area.

Range of Support Facilities for Archaeological Collections

MPM maintains a loading dock, freezer treatment area, cleaning and processing laboratory, analytical laboratory, and conservation laboratory. In addition, MPM is equipped with microscopes, photography darkroom, and an x-ray machine.

Staff Composition

The following staff positions are occupied at MPM: curator, curatorial assistant, registrar, collections manager, conservator, archivist, and laboratory assistant.

Administrative Record Keeping

MPM maintains the following types of documentation, including acquisition/accession files, catalog information, conservation information, environmental records, inventory records, exhibit information, deaccession files, object location information, loan information, and photographic records.

Associated Archaeological Documentation and Storage

MPM curates the following types of archaeological documentation, including artifact inventories, archaeological site records, burial records, field notes, maps, reports, and photographic records. Associated documentation is stored in the analytical laboratory in boxes and file cabinets.

Collections Management Policies

MPM has the following types of collections management policies: accession/acquisition, field curation guidelines, inventory, loans, exhibition, conservation, packing and shipping, disaster/ emergency, access/use, security, consultation, deaccession/disposal, and integrated pest-management plan.

Administration Summary

Background

The Mashantucket Pequot Museum is a tribally-owned cultural museum located on the Mashantucket Pequot Indian Reservation, Connecticut. The Pequot Tribe owns an adjacent casino, Foxwoods, which is very successful. The casino provided the construction funds for the museum, which was completed in 1998. Currently, archaeological collections for the tribe are curated there, as are other archaeological collections by loan, gift, or agreement. No DoD or USACE collections are curated at the museum.

Real Estate

The Pequot Tribe owns the museum and the associated land.

Administration

The Pequot Museum employs a director, who with the tribal leadership, has the ability to commit the institution to a financial partnership. In addition to the director, there is a Manager of Sponsorship and Grants, and a Marketing Department. Each of these divisions is responsible for acquiring museum funding. Funding for curation is derived from admissions, memberships, grants, fundraising activities, and curation fees.

Outreach and Education Programs

MPM maintains the Mashantucket Pequot Research Libraries, and the Children's Research Library. Major programs include self-guided tours, focus tours, and education workshops. Focus tours and education workshops address history, natural history, and cultural issues.

Contributions

MPM would be able to contribute state-of-the-art facilities, space, and public and Native American programs to the DoD/USACE partnership effort. In return, MPM would expect some financial assistance.

Notes

The Pequot Museum has outstanding collections management facilities, and has considerable available space. Compact storage units can handle hundreds of boxes of archaeological materials, and there are associated storage cabinets capable of maintaining microclimates, as necessary. The facility meets the standards outlined in 36 CFR Part 79. Perhaps the only shortcoming is a lack of permanent staff, although this is supplemented by seasonal and term hires.

While MPM was constructed with funds derived from the adjacent casino, and has the infrastructure and financial support, as needed, from the tribe, the museum derives operating funds from self-sufficient sources. MPM is trying to build a regional/national program and repository, and is willing to accept regional, non-Connecticut archaeological collections.

It should be noted that MPM will accept human skeletal remains and associated grave goods only in certain instances as determined by curatorial staff. In most instances, such remains will be held only as a temporary measure, until repatriation.

Office of State Archaeology, Connecticut State Museum of Natural History, University of Connecticut

Architectural Summary

Site Conditions

The Office of State Archaeology (OSA), Connecticut State Museum of Natural History (CSMNH) currently houses archaeological collections on the University of Connecticut campus at the Thomas J. Dodd Research Center (TJDRC). The site is accessible by two small intersecting streets, Babbage and Whitney Roads. Densely built with university facilities, the campus is reached by Route-195 and North Eagleville Road. A slope runs from west to east of the site. North and west of the site are occupied by Homer Babbage Library and Nathan L. Whetten Graduate Center respectively. Across Whitney Road is the only area with some landscaped open space where a few two-story houses stand.

By planning the structure a few feet from the street sidewalk, the architect created a large court space at the opposite side of the building or the front entrance. In contrast to the busy street activities, this central court is quiet and peaceful, shared by both TJDRC and the library.

The general area is heavily used, and it is occupied by relatively new masonry buildings of two to three stories. No on-site parking but limited street parking spaces exist. No space is available for either building expansion or parking addition. This region may be considered to be in a hurricane zone.

Building Condition/Structural Adequacy

With 55,000-ft^2, TJDRC is in excellent condition, and the collections storage floor is designed for the intended use. Constructed in 1995, the steel-frame poured-concrete structure has a reduced second floor

space. The basement level is used for collections storage. The first and second floors are used for a library, a research area, an auditorium, conference rooms, classrooms, and a lounge.

The storage area is a single space which accommodates many rows of compact shelving units and an open area for bulk collections. There is no window opening in the storage area. Three entry/exit doors are provided, including a double door opening with a cargo elevator access.

The structure is supported by steel columns, girders, and beams. With the upper two floors made of corrugated metal decking, all three floors are poured concrete. The foundation walls are also a poured concrete type, and the above grade exteriors consist of concrete masonry units (CMU's) and brick veneer. The roof is a built-up type and is supported by open web steel joists.

Code Requirements/Egress/ Accessibility

TJDRC meets all code, egress, and accessibility requirements. The structure is a composite of fire-resistant materials, including concrete, CMU's, brick, and steel. Adequate exits are provided at the required locations. A passenger elevator enables wheelchair access to different levels. Exterior ramps are provided at both front and rear entrances. The widths of hallways meet required distances for two wheelchairs, and door hardware is ADA-compliant. The same can be said about the bathrooms. The front entrance is equipped with panic bars and self-opening device.

HVAC Systems

The heating and cooling system is excellent. Both heating and cooling are supplied by a campus central steam plant. Two zoned temperature and humidity controls are available. The collections area is programmed at 66° F and 35% humidity. The system is backed up by a 72-hour generator. Other areas are set at 70° F and 45% humidity. Both 15% pre-filters and 60% box filters are used, and they are replaced twice a year.

Fire Suppression and Detection

TJDRC has excellent detection and protection systems. Smoke detecting devices are installed in the return air duct system, and all areas are protected by a dry pre-action sprinkler system. Individual thermal detectors are located at the sprinkler heads, which independently responds to the heat and discharge at that particular location. The fire alarm system is wired to the campus fire department that is located less than a mile away. The entire building is also equipped with halon gas fire extinguishers which deprives oxygen in the air and cause the fire to extinquish. They are placed at easy-to-reach locations such as doorways, exits, and hallways. They are regularly inspected and updated.

Security System

The security system is fair. TJDRC does not have an intrusion alarm system installed. The main burglar deterrent is the campus police patrol and locks. However, access to the storage area is restricted and keycard entry only. Motion detectors monitor doorways positioned at must-pass spots.

Collections Management Summary

Scope of Collections and Mission Statement

The Office of State Archaeology falls under the purview of the Connecticut State Museum of Natural History. The CSMNH, in turn, is governed by the University of Connecticut. The OSA is the state-designated repository for all archaeological materials found on state lands, and curates over 100,000 archaeological items. It is charged with the "conservation of these collections, to insure [sic] their continued physical preservation, and their curation, to make sure the information they contain is systematically organized and readily usable." Collections at CSMNH include archaeology, ethnology, Lepidoptera, mycology, malacology, geology, ornithology, and paleontology.

Archaeological Collections Storage

Most of the archaeology collections are temporarily housed in the library building on campus in the basement of the Dodd Center. This temporary arrangement provides an excellent storage environment. Collections are on movable steel shelving units with motorized movement

(Spacesaver-brand), mostly in acid-free cardboard containers. Secondary containers consist of plastic, zip-lock bags. All textiles are in acid-free boxes.

Other collections are stored temporarily in the facility on Horse Barn Hill Road, Building #5, Room 126. This room serves as library/laboratory/storage area. Collections are in a mix of acid-free and acidic cardboard boxes, and a mix of secondary containers is used. Shelving consists of painted wooden planks.

Environmental Controls

Dodd Center

The basement has heating, cooling, and relative humidity control; however, none of these are monitored by collections managers. There is no monitoring for pests. There are no windows, and fluorescent lights are not filtered for ultraviolet light.

Building #5

The building has both heating and cooling, but no humidity control. One hygrothermograph is available. There is no pest monitoring. Fluorescent bulbs are filtered for ultraviolet light, and there are no windows.

Range of Support Facilities for Archaeological Collections

An exhibit facility is planned in a yet-to-be renovated building on campus. Facilities in the Dodd Center include an elevator, and a security system. Facilities in Building #5 include a large library, and computers.

Staff Composition

The archaeology staff at OSA consists of one curator.

Administrative Record Keeping

Administrative documents are stored in Building #5 in metal file cabinets. OSA has its own unique alphanumeric site designations. A unique accession number is assigned each incoming collection. No computer database is maintained.

Associated Archaeological Documentation and Storage

Associated documents are kept in metal file cabinets in Building #5. Some reports are in the library building, the Dodd Center. Maps are stored flat in metal cabinets.

Collections Management Policies

OSA policies have been drafted and are in the review process.

Administration Summary

Background

The Connecticut State Museum of Natural History is a part of the University of Connecticut at Storrs. CSMNH was created by state legislation in 1985. In 1987 the constitutionally mandated Office of the State Archaeologist was combined with the museum, and was designated the state repository for archaeological collections. Since its creation, OSA has had responsibility for all state-associated archaeological collections. While CSMNH curates Navy, Army National Guard, and Corps of Engineers archaeological materials and associated documentation, it does not have formal curation agreements.

Real Estate

OSA facilities are located on state-owned land on the periphery of campus, and managed by CSMNH and the University of Connecticut. However, most archaeological materials and associated documentation are primarily stored in the recently constructed Dodd Center, which was constructed to house archives. OSA collections are stored at the Dodd Center as well, taking up only a comparatively small portion of the space. Recently approved plans call for the Horticulture building, which is located in a campus area of high visibility next to the new basketball arena, to be renovated for use as the exhibit facility for CSMNH. Plans also call for the existing structure located behind the Horticulture building to be razed so that a new wing for collections storage can be constructed.

Administration

The museum director has the authority to commit the institution financially to a partnership with the federal government. Museum funding is not yet substantial, although it is beginning to increase. Grants are the primary source of development funds, and these are acquired through university faculty proposals. Fund raising is conducted by the museum director, who works closely with the University of Connecticut Foundation. Currently, there is only one archaeology-related staff member—the State Archaeologist. This staff member is responsible for all associated tasks, including OSA activities, teaching responsibilities, education and outreach, curation, etc. A fair number of volunteers assist the State Archaeologist in performing these duties.

Outreach and Education Programs

CSMNH has a number of outreach and education programs targeted at adults and families. Topics range from biology to archaeology; archaeological presentations include cemetery walks, lectures on human evolution, and lectures conducted as part of Archaeology Awareness Week. CSMNH also sponsors meetings of the Archaeological Society of Connecticut. In addition, CSMNH publishes newsletters, produces travelling exhibits, and provides volunteer opportunities to practice archaeology in digs and processing and analysis. Graduate students and undergraduates also participate heavily in the program and work with the collections. School outreach presentations number over eighty per year. Most archaeology-related programs are conducted by the State Archaeologist.

Contributions

CSMNH would be able to contribute space for curation. A state-of-the-art facility will be provided with the new museum facility. Other contributions include close relationship with the State Historic Preservation Office, the use of collections in education and research, and an involvement in the state legislation process. Furthermore, the current archaeology staff for the museum is the State Archaeologist. DoD/USACE could assist CSMNH by providing funding for some staff members, and potentially, equipment. Archaeology and collections management staff are deficient for the museum.

Notes

Connecticut State Museum of Natural History currently occupies half of Building 5, a prefabricated sheet metal warehouse type structure located outside of the main campus near the agriculture department. CSMNH is planning to move into a two story old brick building, which is constructed in the turn of the century. The building is currently unoccupied and needs to be renovated first. Renovation planning is underway, but the completion date is not yet known.

CSMNH has to some degree experienced a "rebirth" in the last two years. A new museum director has been hired, and is beginning to raise funds to contribute to a much-needed revitalization. The Dodd Center provides adequate temporary storage for the collections, and it appears to minimally meet 36 CFR Part 79. The impending facilities upgrades that are planned for CSMNH bode well for the institutional stability of OSA. The university's commitment to construction of the new facilities seems in little doubt, as evidenced by the many newly constructed buildings on campus.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

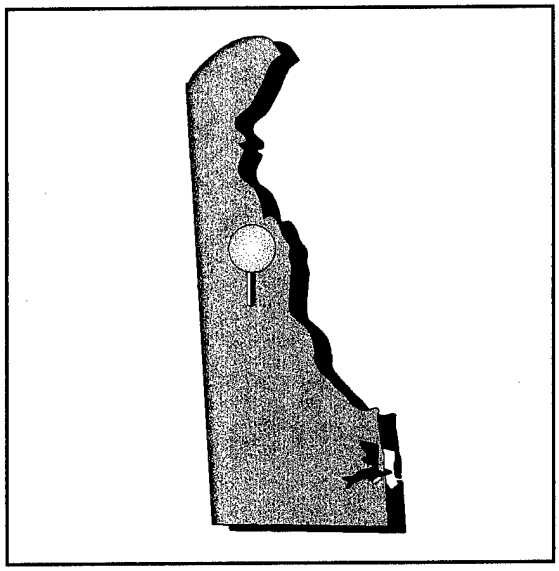
Table 6.2 lists the composite scores and the architecture, collections management, and administration scores for each Connecticut institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 5.2
Summary of Decision Support Model Scoring—Connecticut

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Institute for American Indian Studies	**0.8721**	0.14072	0.27715	0.45419
Mashantucket Pequot Museum	**0.9565**	0.19810	0.30002	0.45841
Office of State Archaeology, Connecticut State Museum of Natural History, University of Connecticut	**0.8648**	0.19729	0.28717	0.38037

7

Delaware



Archaeological Materials (in cubic feet)

Department of Defense	16
USACE	499
TOTAL VOLUME	**515 ft³**

Number of Institutions Contacted 5

Institution Assessed

Delaware State Museums, Dover

Background

A list of the facilities contacted in Delaware is presented in Table 7.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 7.2, showing strengths of the institution. Pertinent information on the facility visited in Delaware is presented in the following discussion.

Table 7.1
List of Institutions Contacted—Delaware

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Arkansas Archeological Survey				
Center for Archaeological Research, University of Delaware		X		
Delaware Department of Natural Resources		X		
Delaware State Museums				
Hagley Museum and Library		X		
Historical Society of Delaware			X	

Note: Locations visited indicated in **Bold**.

Delaware State Museums

Architectural Summary

Site Conditions

The one-year-old Tudor Annex, the current curation facility operated by the Delaware State Museums (DSM), is located in an industrial park that is privately owned. The facilities in the park consist of gymnasiums, offices, and storage facilities that are all similar in size and age. At the end of the park, where the DSM facility is located, the site is paved on three sides with asphalt to provide parking spaces. The rear of the building has a screen of trees separating the site from a residential neighborhood of single-family homes. The area east of the site has been cleared of its vegetation for a new building. The owner continues to develop the park and rent the buildings out.

With adequate parking spaces, the site is planned with room for truck circulation. A ramped loading dock is located at the west side of the building, and a loading area is also available at the east side, or directly opposite from the loading dock. The flat site is underlayed by sandy soil. It is not in an earthquake zone but is located in a hurricane region.

Building Condition/Structural Adequacy

Construction of Tudor Annex was finished early in 1999; the building is in very good condition. It has two sections, a two-story section for offices and a large single-story collections storage area. The front two story office section consists of a research/study room and a meeting room on the first floor, and a library on the second floor. The isolated storage space is divided into two sections by a metal screen. One side of the large section is used for historical collections, and the other is used for archaeological collections.

The approximately 10,000-ft^2 building has a poured concrete floor, and a wood frame structure in the front part with stucco exterior finish. The interior is finished with gypsum plasterboards and carpet floor covering. The storage section is comprised of a metal frame and exterior sheet metal. Both sections have built-up roofs with EPDM covering. While the front section has many single-pane metal frame windows, the rear section does not have any windows.

Code Requirements/Egress/ Accessibility

The Tudor Annex meets most code, egress, and accessibility requirements. The facility was designed for curation use (Mixed Use Groups of S-1 and E, BOCA) upon request of DSM. The fire separation between the storage and research areas is three hours, in accordance with BOCA Codes. The non-load bearing sheet-metal walls have a fire rating of zero hours (705.2, BOCA). As a result, the building meets the specifications of the construction type and materials. The facility has five exits that provide excellent egress.

Wheelchair accessibility, however, is limited to the ground floor only. There is no elevator to the second floor. Two ADA parking spaces are identified at the front entrance. Although the bathrooms are wheelchair accessible, they are not equipped with grab-bars nor stalls and therefore are not fully ADA-compliant.

HVAC Systems

Two heating and cooling systems provide separate environmental controls for both the front and the rear sections of the building. Electronically monitored forced-air systems are operated by electric and gas power. Both temperature and humidity are continuously recorded and monitored at the maintenance office. While the storage area system does not take in fresh air but instead recycles the interior air, the office area takes in approximately 10–12% fresh air. Pleated air filters are changed twice a year.

Fire Suppression and Detection

Fire detection and protection meet fire codes. Smoke and heat sensors are installed throughout the building, and they are wired to the local fire department. Annually inspected fire extinguishers of type A, B, and C are placed at easy-to-reach locations. The gypsum walls are fire-rated, but the interior doors are hollow wood core, or non fire-rated. There is no sprinkler system installed, which is within the fire code for a building with a total square footage under 10,000-ft^2.

Security System

The security system is excellent. The facility is protected by a system that is wired to and monitored by a private security company. Both security cameras and motion detectors are used, and the video system runs on a 24-hour cycle. Recording is activated by motion detectors and opening of the peripheral door. An access code is required to enter the building. Each staff member is assigned a code, and each use of a code is recorded, with the associated time, in the database. The front entrance is locked at all times, even when the building is in use. When someone knocks on the door, a staff member responds to it, enabling him or her to know who is visiting or leaving.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Delaware State Museums is "to collect, maintain, preserve, exhibit, interpret and publish... the archaeological, historical, cultural, commercial and industrial life of the State from 10,000 B.C. to the present day." Collections are mostly archaeological, including both historic and prehistoric. Other divisions within the DSM curate Euro-American historic artifacts, such as furniture. DSM curates about two million archaeological artifacts. The long-term storage area is about half full.

Archaeological Collections Storage

Long-term collections storage at DSM is in a leased, pre-fabricated steel structure. Adjustable metal shelving holds the mostly acidic cardboard boxes (20 x 20 x 3 inches). The boxes are stacked up to six on a shelf. Secondary containers consist of polyethylene, zip-lock bags no less than 2-mil thick. A labeling policy helps to ensure that permanent markers are used for all labeling materials. A mylar insert is in each bag with appropriate information.

Environmental Controls

The HVAC system is new, and adequately controls temperature and humidity. Two hygrothermographs are in the building to help monitor the environment, however these have not been calibrated. Long-term storage has unfiltered fluorescent lighting and no windows. DSM has a contract with a pest management company, which inspects, traps, and sprays pesticide on a regular basis.

Range of Support Facilities for Archaeological Collections

Support facilities at DSM include offices, a small reference library, comparative lithic and animal skeletal collections, an incoming collections room, and an exhibit building. An agreement with the Winterthur Museum in Wilmington facilitates conservation of materials from a shipwreck.

Staff Composition

Staff at DSM consists of the Curator of Archaeology and one part-time assistant. DSM provides physical plant staff.

Administrative Record Keeping

A state-based system is used to designate archaeological sites, and is a variation of the Smithsonian trinomial system. It consists of the Delaware state number and the county, the block letter, and the site number (e.g., 7S-G-15). Delaware is such a small state that this system is viable. Each incoming collection is not assigned a unique accession number, but a provenience and catalog control number.

Administrative documents are kept in acid-free folders in DSM long-term storage space in lateral metal file cabinets. No copies are kept. A computerized database is maintained on FileMaker Pro® for Macintosh, and the fields are site number, name, catalog numbers, comments, and types of associated documents. The database is backed up onto Iomega Zip® disks once per week and the copy is kept at the curator's house. The database is not attached to a network.

Associated Archaeological Documentation and Storage

Associated documents are also kept in metal lateral file cabinets in the long-term storage area. These have neither been inventoried nor cataloged. Flat storage is available for oversized documents. No copies are kept of documents, except for electronic copies of reports.

Collections Management Policies

Policies at DSM exist for accessions, emergencies, access to collections, integrated pest management, deaccessions, loans, packing of material, inventories, and ethics. Security guidelines are also in place.

Administration Summary

Background

The Delaware State Museums consists of a number of state-owned historic sites and museums. DSM offices and collections facilities are located in Dover.

DSM has been in existence since 1947, although archaeological materials were curated beginning in the 1950s. Formal cataloging and accessioning of archaeological materials began in 1965. Currently DSM curates materials recovered from Dover Air Force Base. Other federal collections consist of federally-funded highway projects and two national wildlife refuges; DSM has curation agreements with the U.S. Fish and Wildlife Service.

Real Estate

Archaeological collections are located in a rented facility which is shared with DSM history collections storage. Each department occupies approximately one-half of the building. The building is part of the Tudor Industrial Park, a complex of leased buildings. In cooperation with the owners of the industrial park, DSM has already undertaken modifications of the building. For example, the park owners installed an HVAC system in the collections building, while DSM paid for some other improvements. Park owners are considering construction of a new building next to the existing DSM collections building, which would also be available for leasing and use by the museum.

Administration

The State Historic Preservation Officer and/or the Museum Director have the authority to commit the institution to a financial partnership. No DSM staff members that exclusively involved in writing and tracking grants. A few individual staff members perform these activities separately. No DSM staff members are exclusively involved in fund raising; museum funding is derived from state appropriations, benefactors, donations, and honoraria related to museum projects.

Outreach and Education Programs

DSM has a Curator of Education on staff, and conducts several types of programs and exhibits. Among the programs are in-service programs for teachers or the general public; publications; Discover Archaeology exhibits; and presentations for professional and general public audiences (on the order of 30+/year). In addition to these programs, DSM operates a number of remote historic sites/ museums, including John Dickinson Plantation, Meeting House Galleries, Johnson Victrolas Museum, Old State House, Woodburn: The Governor's Mansion, and the Delaware State Visitor Center.

Contributions

DSM could contribute space, expertise, collections security, research, and education/outreach programs. Among DSM's needs are a full-time curatorial assistant, shelving improvement, additional space, acid-free primary containers, and computer software and hardware. DSM would also like some assistance in getting a new Museum Service Center off the ground; the Curation Options Project can assist in making the case to the State of Delaware. In return for curatorial services, DoD and USACE would be expected to provide compensation for the collections housed.

Notes

DSM performs almost all of the archaeology within the state, but is hampered by a lack of staff. It is a part of a much larger state-based system, and as such vies for resources within the state. It would be difficult to garner support from the state legislature if out-of-state collections are to be curated, and DSM would ask for 100% federal support. Contingent upon the size and origin of these collections, DSM could provide the land, and to some extent, staff, but may need funding for a facility.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 7.2 lists the composite scores and the architecture, collections management, and administration scores for Delaware State Museums. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 7.2
Summary of Decision Support Model Scoring—Delaware

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Delaware State Museums	**0.8055**	0.15573	0.25162	0.39816

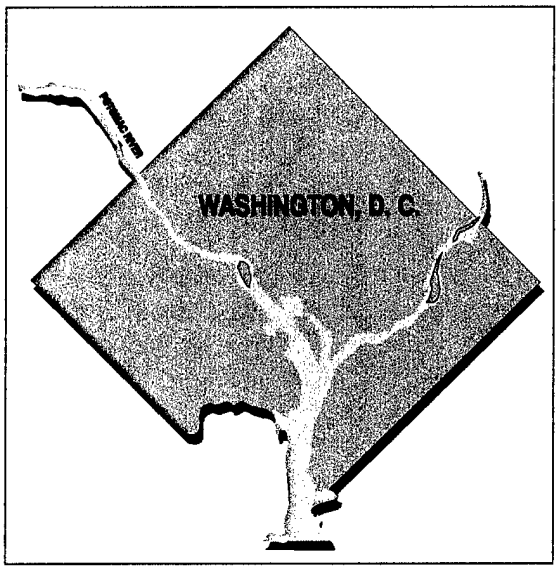
8

District of Columbia

Archaeological Materials (in cubic feet)

Department of Defense	2
USACE	0
TOTAL VOLUME	**2 ft^3**
Number of Institutions Contacted	**4**

No Institutions Assessed



Background

A list of the facilities contacted in the District of Columbia is presented in Table 8.1, including the reason(s) none were selected for an on-site evaluation.

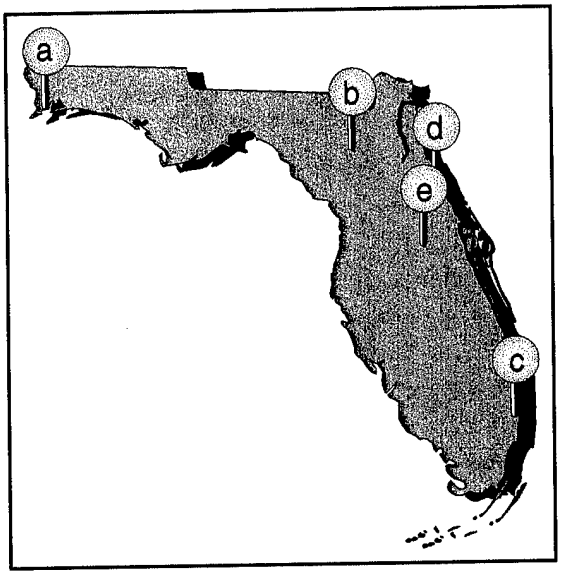
Table 8.1
List of Institutions Contacted—District of Columbia

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
George Washington University		X		
Historic Preservation Commission		X		
National Geographic Society			X	
Potomac River Archaeological Survey, American University		X		

Note: Locations visited indicated in **Bold**.

9

Florida



Archaeological Materials (in cubic feet)

Department of Defense	2,845
USACE	145
TOTAL VOLUME	**2,990 ft³**
Number of Institutions Contacted	**31**

Institutions Assessed

a. Archaeology Institute, University of West Florida, Pensacola
b. Florida Museum of Natural History, University of Florida, Gainesville
c. Graves Museum of Archaeology and Natural History, Dania
d. Museum of Arts and Sciences, Daytona Beach
e. Orange County Historical Museum, Orlando

Background

A list of the facilities contacted in Florida is presented in Table 9.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 9.2, showing strengths of each institution. Pertinent information on the facilities visited in Florida is presented in the following discussion.

Table 9.1
List of Institutions Contacted—Florida

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Appleton Museum of Art			X	
Archaeology Institute, University of West Florida				
Art Museum at Florida International University	X			
Boca Raton Museum of Art		X		
East Martello Museum			X	
Elliott Museum		X		
Everglades National Park			X	
Florida Bureau of Archaeological Research		X		
Florida Museum of Natural History, University of Florida				
Fort Caroline National Memorial		X		
Graves Museum of Archaeology and Natural History				
Gulf Islands National Seashore			X	

Table 9.1
List of Institutions Contacted—Florida (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Historic Pensacola Village				X
Historical Museum of South Florida			X	
Indian Temple Mound Museum		X		
Jacksonville Museum of Contemporary Art	X			
Key West Lighthouse Museum		X		
Lowe Art Museum, University of Miami	X			
Miami Museum of Science			X	
Museum of Arts and Science				
Museum of Discovery and Science		X		
Museum of Fine Arts		X		
Museum of Science and History		X		
Orange County Historical Museum				
Orlando Museum of Art			X	
Polk Museum of Art			X	
Science Center of Pinellas County			X	
South Florida Museum		X		
South Florida Science Museum			X	
Southeastern Archaeological Center, National Park Service		X		
Tampa Bay History Center	X			

Note: Locations visited indicated in **Bold**.

Archaeology Institute, University of West Florida

Architectural Summary

Site Conditions

The long-term repository (Building 49) for the Archaeology Institute (AI) is located on the campus of the University of West Florida (UWF) in a wooded area. The site is somewhat remote from the main campus. The building is located at the bottom of a hill and above the floodplain. The area is in a hurricane zone.

There is room for expansion of building and parking. Ample parking spaces exist. Small and medium trucks can easily park in front of the building to load or unload.

Building Condition/Structural Adequacy

Constructed in 1970, Building 49 has undergone extensive renovations. A new roof, insulation, and air conditioning system were installed in 1998. Building 49 appears like a new structure; both exterior and interior are in excellent condition. The pre-fabricated building has no gutter and downspout system. With the frequent heavy rains of the region, gutters and downspouts are essential in protecting walls and foundations from rain damage. A proper drainage system should be constructed to receive and channel the rainwater.

Building 49 serves three activities: long-term collections storage in the center section, work room/ equipment storage, and the layout areas on either side. The long-term collections storage space measures 2,880-ft^2, about the same size of the other two spaces combined. Of the three spaces, only the workroom has floor drainage.

A skylight in the layout or research area is a nice feature in the windowless researcher's space. Ample fluorescent lighting is provided throughout the building. Since ultraviolet light is a hazard to collections, ultraviolet filters should be added to the skylights and fluorescent lights.

Code Requirements/Egress/ Accessibility

Building 49 meets most of the building code, life-safety, egress and accessibility requirements. At the entrance, a newly constructed ramp qualifies the facility as ADA-compliant. The layout area also has an ADA-accessible bathroom. The long-term collections storage area does not have any direct emergency exit.

HVAC Systems

The new central cooling and heating system supplies regulated air to long-term collections storage and layout areas. The work/equipment storage is not regulated but is ventilated with a large wall-mounted fan. Exterior walls surround these two spaces and are insulated with batt-type fiberglass insulation. The two interior walls, however, are not insulated. To create a more efficient climate control, insulation should be added to the wall that divides collections storage and work room/equipment storage. The present humidity control system in the long-term collections storage area creates a suitable environment for archaeological collections.

Fire Suppression and Detection

The fire suppression and detection systems are adequate in Building 49. Smoke and heat detection systems are present and are wired to and monitored by the UWF Police Department which relays the information to the local fire department.

Chemical fire extinguishers are placed at appropriate locations. These extinguishers are regularly checked and updated. A wet standpipe system provides the long-term collections storage with protection. The wet-pipe system should be expanded to the other two spaces to compensate for the lack of sprinkler system.

Two smoke-activated sky ventilation systems are installed on the roof of the long-term collections storage area; these provide excellent fire detection. Manual pull alarms are conveniently located at doorways and exits.

Security System

The security system is sufficient and ready to be upgraded if necessary. The keypad system is located at the main building entry, and intrusion alarms are monitored by the local police department. Motion detectors are mounted at key spots and are tied to the university system. A dead bolt lock adds security to the entry door.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Archaeology Institute at the University of West Florida is the "investigation and enhancement of northwest Florida's... archaeology on land and under water." During our visit, it was made clear that the AI does not limit collections to northwest Florida. Collections are solely archaeological and comparative zoological.

Archaeological Collections Storage

Collections storage at the AI is in a prefabricated steel structure (Building 49) on campus with a gated entrance that is locked at night. The tripartite room plan has collections storage in the middle third and constituting the major portion, with a conservation/ equipment storage area on one side, and documents storage/temporary work space on the other. There are two loading docks, one opening directly into collections storage, and one opening into the conservation/equipment storage area. Shelving consists of painted steel and is adjustable. Primary containers are made of acid-free cardboard. Secondary containers are made of a variety of materials. Beginning in 1995, all collections are placed in 2- to 6-mil, zip-lock bags. From 1993 to 1995, heat-sealed plastic bags were used. Paper bags were used as secondary containers for collections before 1993. About seventy percent of the collections need to be rebagged.

Environmental Controls

There is both a cooling and heating system. Relative humidity is controlled by the HVAC system, but is not monitored by collections managers. Fluorescent bulbs are unfiltered, however there are no windows. Collection managers do not monitor pests, but the University sprays pesticide regularly and will be called to report infestations. This has yet to happen.

Range of Support Facilities for Archaeological Collections

Support facilities at the AI include a new exhibit/office/laboratory building (Building 89) positioned strategically at the entrance to campus. This building was unoccupied at the time of our visit, but will house exhibits dedicated to archaeology, and a public auditorium is slated as an addition. Building 89 has a covered loading dock, floatation tanks, laboratory space flat, metal, map cases, and sinks. In Building 49 adjacent to long-term collections storage, there is a wet laboratory for electrolysis and desalinization of artifacts: many tanks are large. Also in Building 49 is a "layout room" for temporary workers in need of access to the collections, with work tables and shelf space in the same room as document storage. Building 13 houses the Department of Anthropology, and many facilities there are being renovated. Room 131 has department offices, a conservation laboratory, drafting tables, a photograph staging area, light tables, and an X-ray machine. Room 127 is for "passive conservation" and has a wet laboratory, small electrolysis tanks, an oscilloscope, a chemical storage cabinet, fume hood, freezer for freeze-drying, and a kiln. Room 114 is a general teaching laboratory for physical anthropology, field survey, and GIS. Room 111 is a student lounge.

Staff Composition

Collections management staff at the AI consist of a conservator, two archaeologists, the associate director and director who oversee curatorial duties. Many collections management duties are performed by student workers.

Administrative Record Keeping

Administrative documents will eventually be housed in Building 89. Smithsonian trinomials are used to designate sites. Each collection is assigned a unique accession number, consisting of the year and a letter code denoting a particular project (e.g., 93F). The letter codes are arbitrarily assigned and change yearly. Each box in collections storage has written on it the accession number, plus the box number (e.g., box 1 of 10). The location of a collection is noted in the accession file. An electronic database is maintained on a Paradox database.

Associated Archaeological Documentation and Storage

Associated documents will be moved into Building 89. There will be flat metal map cases, metal file cabinets for business records. Associated documents were in the process of being inventoried for the electronic database at the time of our visit. Duplicates are made of reports, site file forms and field forms. These are stored in the same room as the originals. There are no duplicates of field notes. Plans exist to place original documents in Building 49. Maps are being converted into CAD files.

Collections Management Policies

Written policies at the AI include a conservation policy, artifact washing and labeling policies, and a container labeling policy.

Administration Summary

Background

The University of West Florida Archaeology Institute was founded in 1980 as part of the Florida state university system. The University of West Florida was established in 1967. Currently, AI curates archaeological materials and associated documentation from Naval Air Station, Pensacola and Tyndall Air Force Base. No formal curation agreements for DoD/USACE archaeological collections are in place.

Real Estate

The State of Florida owns the land, and the University of West Florida leases 1,600 acres. The university subleases portions. Many areas around the university are wildlife preserves and wetlands, which cannot be modified by construction. University

procedures dictate construction activities, which follow a campus master plan. There are also cost-containment standards for construction on campus.

Administration

The signatory authority for a financial partnership is determined by the method of contract negotiation. Federal-dollar construction can be approved by the university, but construction projects funded through other means must be approved by the state legislature. Additional forms of funding are provided by grants and fund raising activities. Grants, although written by individual faculty members, are tracked through the university's Grants and Contracts Office. Fund raising activities are conducted by the university Development Office and the University of West Florida Foundation.

Outreach and Education Programs

All AI staff are involved in outreach and education at some level. One of the more interesting programs is the "Archaeology Minute" which is aired on local public radio twice per day every weekday. Graduate students are involved in primary and secondary school presentations, and there will soon be exhibits available for school tours. There are also development modules for teachers to use in classrooms.

Contributions

For a partnership, AI could contribute land for a new building, curation space, staff expertise, exhibit areas, and a conservation staff and associated equipment. DoD/USACE would be expected to contribute new construction funding, and labor costs for rehabilitation and long-term maintenance.

Notes

The AI has seen tremendous growth during its relatively short existence, augmented by the recent discovery of one of the 1559 Tristan de Luna expedition shipwrecks in Pensacola Bay. Appropriate collection management policies have yet to be written. Facilities at the AI are excellent, and have every indication of growth and continuance. There are five archaeologists at the AI who could expedite research on DoD/USACE collections. Exhibits and outreach are one of the strong aspects of this institution dedicated to archaeology in Florida. The new exhibit building and a web page with a virtual underwater archaeology project are proof of administrative support from the university. There is insufficient space for DoD/USACE collections, and if negotiations for partnership were begun, the AI would request a new collections storage building.

Florida Museum of Natural History, University of Florida

Architectural Summary

Site Conditions

Located on the University of Florida main campus, the Florida Museum of Natural History (FLMNH) is easily accessible. Museum Road defines the east boundary. A high-rise building and a three-story building border the south and west. A wooded area is across Museum Road directly north of the site.

Parking is limited to a multi-storied parking garage across Museum Road. The site has very little expansion space. Any potential change to the site or building has to be approved by the architect.

The site consists of mostly sandy-based soil, which allows quick water drainage. It is in a hurricane zone, but not in an earthquake or flood region. The university has a detailed emergency plan to respond to natural disasters, most notably hurricanes. Coordination is an assigned duty to some faculty members to ensure prompt response in case of a threatening situation.

Building Condition/Structural Adequacy

The poured concrete three-story building is arranged in a L-shape, with the main entrance leading to the third floor (Type 2 Construction, sec. 403.0, BOCA). Two stairways connect to the second floor below grade. The outer exterior walls are partially below grade and covered with a berm.

From the outside, the building appears in a shape of a three-step pyramid. No windows are present on the outer two exterior walls of the ell. The inner surfaces of the exterior walls are open with windows and metal-frame and glass walls. This

design maximizes the use of natural light at the inner two exterior walls of the ell, and provides views of the outside, which is a quiet landscaped area.

Archaeology storage and laboratories are located on the first floor. Different branches of the natural science department, associated long-term storage areas, and offices are located on the second floor. The third floor is being renovated for office space.

Although the structure is sound, the mechanical systems are aging. Similarly, the metal-frame supported, built-up roof system needs repair often to eliminate leaking.

Code Requirements/Egress/ Accessibility

The building system does not meet code, life-safety, egress, or accessibility requirements. On the first floor, only two exits are provided at two ends of the large 5,382-ft^2 rectangular space. These exits are not located in a direct route of travel but are separated by offices and research spaces. Although evacuation plans are posted on each floor, the limited number of exits may hinder egress.

There is no elevator. As a result, moving heavy or bulky objects is difficult. There are no wheelchair accessible ramps. To get to a different level, a wheelchair user must exit the building to access another entrance on the desired level, and re-enter the building.

HVAC Systems

The electric HVAC systems are aging and need occasional maintenance. Regulated air is supplied by a boiler and a chiller that are part of the university central system. Air filters are replaced according to schedule.

Fire Suppression and Detection

Fire-suppression and -detection systems are adequate for the building. Both automatic and manual-pull alarm systems are present and are wired to the University of Florida Police Department. Smoke detectors are located throughout the building except in certain private offices; heat sensors are also in place where necessary. Chemical fire extinguishers are placed in easy-to-reach locations such as exits. At the loading dock, a standpipe system supplements the fire suppression. A sprinkler system is not installed.

Security System

Only the third floor is equipped with motion detectors tied to a system that is monitored by the police department. The first and second floors do not have an electronic security system.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Florida Museum of Natural History, as defined by Florida law, states that "The functions of the Florida Museum of Natural History...are to make scientific investigations toward the sustained development of natural resources and a greater appreciation of human cultural heritage, including...biological surveys, ecological studies, environmental impact assessments, in-depth archaeological research, and ethnological analyses, and to collect and maintain a depository of biological archaeological, and ethnographic specimens and materials in sufficient numbers and quantities to provide within the state and region a base for research..." This broad mission is further specified by the director to focus on Florida, Latin America, and the Caribbean Basin. The majority of collections are natural history (paleontology, mammalogy, malacology, herpetology, ornithology, paleobotany, ichthyology).

Archaeological Collections Storage

The FLMNH collections storage area is in the basement adjacent to the work areas, known as ranges, with one for each of the five curators. Movable Spacesaver-brand shelving holds metal cabinets. Primary containers consist of a variety of materials, some in 1-ft^3 acidic boxes, some in small acidic trays within drawers on the shelves, and some in small non-acidic trays. Secondary containers are also a variety of materials, but two-thirds are polyethylene, zip-lock bags. Special collections (more vulnerable to pests) are housed in the Special Collections room (Room 113).

Environmental Controls

Fluorescent bulbs are not filtered in the ranges but are filtered in Room 113. There are no windows. The temperature is kept at 68–70° F, and there is both cooling and heating. In 1997, relative humidity (RH) was monitored by means of a hygrothermograph, during which time RH was about 60%. Room 113 has a separate HVAC system and is kept colder due to the presence of fragile materials. Dust is controlled in the ranges by 4 HEPA filters that run continuously. Dust/moisture barriers are in place where necessary in Room 113, and over a dugout canoe in the range. Flying insects are monitored by a Sears-brand "Bug Whacker" insect collector. All incoming materials are fumigated before arrival.

Range of Support Facilities for Archaeological Collections

Support facilities include the new exhibit building called Powell Hall, in the museum annex on campus. A permanent exhibit on southwest Florida archaeology is being built. The five separate ranges are Caribbean archaeology, historic archaeology, southwest Florida archaeology, Florida archaeology, and zooarchaeology. Each range has its own computers and other equipment. Other facilities are the James A. Ford non-lending library, computer rooms, a lounge, geographic information systems, curator offices, a floatation room with drying racks, and extensive comparative materials for zooarchaeology and paleobotany. Work space is available.

Staff Composition

Staff of the archaeology program at the FLMNH consist of five curators who oversee research and use of the collections, a full-time registrar, one part-time collections manager (historic archaeology and southwest Florida archaeology), two full-time collections managers (zooarchaeology), and about ten part-time graduate student workers who occasionally perform curatorial functions. A conservator search is on-going. Other natural history departments have similar personnel.

Administrative Record Keeping

Smithsonian trinomials are used to designate sites. Each curator is separately responsible for each range. Additionally, each curator has collections on different sections of the movable shelving, and there is a different artifact location system for each curator. Each incoming collection is assigned a unique accession number, consisting of the year accessioned, a sequential number and sometimes a third number equal to the field specimen number (e.g., 98-18-1). Two other accession number systems were formerly used, and there is a separate field in the database for these old numbers. The library has a copy of the archaeological catalog through 1980. Each curator handles inventory control. The registrar handles all loan requests. Almost all materials are on a computer database, with location information. The database is not on a network, and information is stored on a fixed disk, backed up on 3.5-floppy disks. Information on which species are present in the comparative skeletal collections of the zooarchaeology range is on the FLMNH web site (http://flmnh.ufl.edu).

Associated Archaeological Documentation and Storage

Again, associated documents are the responsibility of each curator. Therefore, there are five different ways they are stored.

Collections Management Policies

An overarching collection management policy is available on the FLMNH web site. Written polices exist for acquisitions, ethics, acceptance, loans, access to collections, and exhibitions. A supplementary policy has been written by the archaeology registrar and details artifact numbering, labeling techniques, artifact packaging.

Administration Summary

Background

The Florida Museum of Natural History at the University of Florida has been in existence since 1917, when it was designated as the state museum. FLMNH currently houses collections from both DoD and USACE lands (5,100-ft^3). FLMNH has no formal curation agreements for these.

Real Estate

Two separate buildings, in different locations on campus, together comprise FLMNH facilities. The exhibit facility (Powell Hall) was completed in 1998. The state of Florida owns the property on which the collections and research facility (Dickenson Hall) is situated. The University of Florida master plan, with the approval of the state, has control over any additional construction on the properties.

Administration

The director of FLMNH has authority to commit to an agreement with DoD/USACE. No staff member has the sole function of writing and tracking grant proposals for FLMNH. However, a separate office of the University of Florida (Contracts and Grants) has this responsibility, and staff are required to submit grant proposals through this office. There has been no financial deficit in the last five years.

Outreach and Education Programs

No individuals are involved exclusively in archaeology outreach programs. The five archaeology curators each devote some of their time to helping develop exhibits and bringing grade and high school students to Dickenson Hall to learn about research. Native Americans (Seminole and Miccosuki) are actively sought out for their input on both NAGPRA-related items and exhibits. Permanent archaeology exhibits are installed in Powell Hall.

Contributions

Staff at the University of Florida could not provide information on contributions.

Notes

The FLMNH is the twelfth largest natural history museum in the nation. The archaeology collections are among the most comprehensive in the state. They have a large, new exhibit facility and the research capabilities associated with such a large institution and the affiliated University of Florida. The new exhibit facility in a museum annex indicates the long-term stability of FLMNH. There is insufficient space for incoming collections, and preliminary plans exist for creating space, either for dedicated offices or long-term collections.

Graves Museum of Archaeology and Natural History

Architectural Summary

Site Conditions

The Graves Museum of Archaeology and Natural History (Graves) is located just south of Fort Lauderdale in Dania, Florida. With a large and prominent site, the Graves hopes to be an integral part of Dania's renaissance. The museum is located on South Federal Highway, a major thoroughfare between the stronger tourism-based Cities of Hollywood and Fort Lauderdale. The Graves has occupied its current facilities since the early 1990s. A large parking lot (50+ spaces) is located directly north of the museum and a garden/courtyard is located on the southeast quadrant of the building site. Almost half of the floor area of this former light manufacturing/printing facility is not renovated.

In addition to the available space within the existing building, the Graves is well-positioned to expand its facilities and growing campus. The museum currently owns two adjacent residential properties directly to the east and has right of first refusal on the adjacent properties to its north and south. Plans call for demolishing the residential properties to the east in order to construct a new entrance/elevator core and administrative office building. Additional parking is planned for the north and south properties.

The Graves has also secured $500,000 of city funds and $1,000,000 in county funds for the museum's expansion and renovation efforts. Construction on the entrance/elevator core is scheduled to begin in 1998. Meanwhile, the City of Fort Lauderdale has invited the Graves Museum to relocate to its own museum district. While the move could greatly improve tourist traffic to the Graves, the offer has not embraced by the museum because of the inevitable difficulties of relocation and the optimism in the existing master plan. Once the Graves begins construction of the entrance/elevator core with the city and county funds, the museum will be committed to its Dania location.

Building Condition/Structural Adequacy

The 50,000-ft^2 former printing facility was constructed in five phases beginning in the late 1960s, with numerous minor improvements. The facility has been greatly adapted over the decades. Currently, the Graves only uses approximately 30,000-ft^2 of the facility. The Dania city library currently leases approximately 5,000-ft^2 of the facility that it has renovated as a local public branch. Because there is no passenger elevator to the second floor, it is used for little more than basic storage and has not been significantly renovated since the museum's occupation. The collections storage area is located on the second floor. The new entrance/elevator core is intended to make the second floor area (18,000-ft^2) available for better use, including improved collections/archive space and additional exhibit areas. Offices, exhibit areas, conference room/library, gift shop, and work shop/loading areas are all located on the first floor.

The structure for the majority of the facility is a concrete frame construction. Other portions of the building are a steel-frame structure. The building has a flat roof with exterior gutters and parapets. There were no hazardous building materials observed or reported by museum staff. The building remains structurally adequate despite minor signs of deterioration. However, the building has not been updated to meet current hurricane resistance standards. The building was not equipped with floor drains and displayed minor signs of water damage and leakage.

Code Requirements/Egress/ Accessibility

The facility does not meet all of the current building and life-safety requirements (type I construction, mixed use group). The first level exhibit, restroom, and office areas are generally accessible, although not compliant, with the Americans with Disabilities Act (ADA) requirements. Six exits provide adequate emergency egress from the first level.

There is no passenger elevator to the second level, which not only prohibits ADA access, but also prohibits public use of the space and the museum's full use of the second level. There is only a single, not fire rated, stair to the second level. Another fire rated stair would be necessary in addition to the renovation/ upgrade of the existing stair. The new entrance/ elevator core is planned to overcome these shortcomings and allow full use of the second level.

HVAC Systems

The entire building is cooled by a new 90-ton capacity roof-top chiller. Between 15–20 air handler units (AHUs) deliver conditioned air throughout the building. These AHUs vary in age and condition, but the system provides adequate climate control for the museum. Some units are original to the building whereas others were installed with the new roof-top chiller. Individual air conditioning units provide cooling in the office areas. There are standard air filters for the system, as well as a re-heat coil for humidity control. A service contract provides for monthly and any necessary emergency HVAC service.

Fire Suppression and Detection

The Graves facility is equipped with a wet-pipe fire-suppression system. Manual pull alarms as well as smoke and heat sensors comprise the fire detection system. The composition of these systems reflects the building's phased construction. The fire-detection system is wired to the local fire department through a local security company. Museum staff has also cultivated a relationship with the local fire department that ensures familiarity with sensitive building areas and collections. The upcoming improvements and expansion should provide an opportunity to consolidate these systems.

Security System

The Graves facility is protected with dead-bolt locks, infrared sensors, glass breakage sensors, motion sensors, and intrusion detectors. The security system divides the facility into over 70 zones and is wired to the local police department through a local security company. Museum staff has also cultivated a relationship with the local police department that ensures familiarity with sensitive building areas and collections.

Collections Management Summary

Scope of Collections and Mission Statement

The Graves Museum of Archaeology and Natural History's mission statement is "to look to the past to help understand the present and to better plan for the future world..." Paleontological and archaeological exhibits form the greatest portion of their galleries. The scope of collections "will include but will not be limited to archaeology, anthropology, biology, with a special emphasis placed on south Florida and the circum-Caribbean." North American archaeology collections are limited, since there is an on-going interest in Central American and Classical (Old World) artifacts. The Graves is not interested in anything less than 100 years old. The Graves is interested in archaeological artifacts from North America to help round out their collections.

Archaeological Collections Storage

In contrast to most other facilities, the Graves does not suffer from a lack of storage space. South Florida collections are in wooden cages with metal shelving, in acidic boxes with flap lids. Some ceramics are stored on metal shelving in cardboard trays lined with foam padding. Others are in boxes lined with acid-free paper. Secondary containers for the Florida materials consist of plastic bags. Fluorescent bulbs were unfiltered.

Environmental Controls

Humidity is monitored by three gauges, two in the exhibits area and one in the archives. No written record exists of humidity levels. There is humidity control in each air handling unit throughout the building. The archives room is kept cooler than other collections, but not the Florida materials. Taxidermy collections are adjacent to the archaeological collections. The overhead loading door is not sealed. A pest management company is contracted for monthly services. Fire extinguishers have been recently inspected. Security procedures are adequate.

Range of Support Facilities for Archaeological Collections

Support facilities consist of a library, exhibit areas, office space, conservation laboratory, paleontology preparation laboratory, equipment storage, exhibit preparation laboratory (with woodworking equipment), and a lounge area for employees. There is one fume hood in the paleontology laboratory. Most support space is geared toward exhibit preparation. There are displays on permanent loan at the nearby Sawgrass Park.

Staff Composition

The director is in charge of the assistant director and the curator of fossil shells. There is no registrar. The Graves formerly employed a conservator who now volunteers as needed. There is adequate exhibit preparation staff, an office manager, a facility manager, an education director, an accountant, and a development director. Students from Florida Atlantic University regularly serve as interns in museum studies, and assist with curation duties.

Administrative Record Keeping

No inventory procedures are in place for associated documents, however, museum staff reported that an inventory is in progress. This is problematic. No procedures manual exists for labeling, cataloging, or storing collections. The more recent acquisitions are cataloged and photographed. A unique accession number is assigned each collection, consisting of the year it was acquired, plus a box number. One catalog book exists per collection and these act as accession books. These books are copied, one is kept with the collection, one in the assistant director's office, and one at the director's office. The Graves is beginning to store the photographs electronically on CD-ROM, and these are backed up every 2–3 months. Artifacts are located on storage shelving by location on the shelving unit, across and down.

Associated Archaeological Documentation and Storage

Associated documents are in the direct care of the assistant director. They are stored in his office, which is adjacent to the in-house library. Copies of these

documents are at the director's house. Some of the documents are in acidic boxes, some in metal file cabinets, and some in binders on wooden shelving units.

Collections Management Policies

Written policies exist for acquisitions, accessions, deaccessions, artifact insurance, loans (both in and out), and collections inspections. Particular attention is paid to the legality of donated collections. The written policy states that collections will be inspected bi-monthly. However, no written policies exist for procedures in case the collections need attention such as rehabilitation. There are hurricane procedures for materials such as the dinosaur fossils. A safety manual generated by a consulting firm, Workplace Safety Solutions, Inc., is required reading for all employees. It includes policy statements and materials safety data sheets. Cotton gloves are worn for object-handling.

Administration Summary

Background

The Graves Museum of Archaeology and Natural History is a private, non-profit museum located in Dania, Florida. Dania is located between two larger cities; Fort Lauderdale to the north and Hollywood to the south. The Graves was founded in 1959 as the Broward County Archaeological Society. The Graves is named after Gypsy Graves who until recently served as the Director of Archaeology and Natural History. A new Board of Directors has been installed as the museum is attempting to increase the professional management of its internal administrative affairs. The Graves has a limited quantity of archaeological material. They do not curate any federal archaeological collections.

Real Estate

The Graves is about to undertake a significant renovation of its existing building and construction of a new building to hold its administrative offices, classrooms, a conservation laboratory, and storage space for collections. The new building will require the removal of several adjacent residential properties owned by the museum. Internal changes to the existing building include creation of new exhibition spaces.

The Graves was located in a small building in Fort Lauderdale, but moved to its present location in 1993 when the building they currently occupy became available. The City of Fort Lauderdale has recently contacted the museum about returning to a newly created arts and sciences district in downtown Fort Lauderdale, but these discussions have not produced an agreement. If the planned changes to the museum begin in its present location, moving to Fort Lauderdale will no longer be an option.

Administration

The director of the museum could financially commit to a partnership with the Department of Defense and the Army Corps of Engineers. The director could sign a cooperative agreement. The development officer writes and tracks grants. The director and the development officer participate in fund raising for the museum.

Outreach and Education Programs

The museum has a full time Director of Education and is assisted by two other staff members. The archaeology outreach programs are a part of the overall museum education program. The archaeology programs include museum exhibits and tours, archaeology courses for adults, excavations with volunteers, having students from Florida Atlantic University assist in collections management projects, development of curriculum for local public schools including high school, and a summer camp for ages 7–10. A marine archaeology program is under development. Members of the Seminole tribe constructed a traditional shelter in the outside garden and have conducted craft shows featuring Seminole textiles, baskets and traditional music.

Notes

The Graves Museum falls into the unique category of institutions with available space for additional collections storage and land available for future expansion. However, the available space will require significant renovation in order to suitably curate federal archaeological collections. The Graves would be interested in accepting collections from anywhere in North America to round out exhibits for the museum and has plans for major changes to its existing exhibits.

With the assorted building initiatives looming on the horizon, it is difficult to forecast the capabilities of the Graves Museum. Nevertheless, the museum's progress in acquiring adjacent property, and success in securing city and county funding, are promising developments.

Museum of Arts and Sciences

Architectural Summary

Site Conditions

The Museum of Arts and Sciences (MAS) is located on a secluded campus in Daytona Beach, Florida. There are several parking areas near the museum building totaling over 100 spaces. A loading dock is located on the north side of the facility. Entrances from the east and west bring visitors into the large central MAS lobby area. The campus is wonderfully landscaped and well maintained.

Expansion is possible on the property. The MAS is operating under a well-established master plan that has guided the museum's periodic growth over the last 20 years. There are wetlands on the property, which have been reviewed with the local USACE district (Jacksonville) and incorporated into the master plan.

Building Condition/Structural Adequacy

The MAS facility is constructed of concrete masonry units (CMUs) with steel frame roof construction. The single level 1973 building plan is configured as a series of interlocking hexagon that creates 60° angles throughout the museum. The hexagonal plan is inherently inefficient when maximizing usable floor space and can increase construction costs. However, the effect at the MAS is a series of meandering spaces that seem to work well as museum exhibit halls. The building is clearly planned with exhibits and visitors as the focus. The exhibit and public spaces are finished with quality materials and are excellently maintained. The MAS is currently preparing to renovate this portion of the building that should improve and expand archaeological collections storage area. No hazardous building materials or structural defects were observed. There are no floor drains in the building.

The building currently totals 65,000-ft^2. There is little available space in the collections storage area (approximately 10,000-ft^2) for additional archaeological collections. The museum staff indicated that an addition dedicated to collections storage would be necessary in order for the MAS to accommodate additional collections. Several major additions were constructed in response to a major new collection accessioned at the MAS. These additions have mostly been expanded exhibit spaces. The most recent major expansion was completed in 1993.

Code Requirements/Egress/ Accessibility

The MAS facility meets all of the applicable building code, life safety, and Americans with Disabilities Act (ADA) requirements (Type II construction; mixed use, B, A-2). As each wing of the museum was designed, it was considered as a separate structure for building code purposes even though it was an attached expansion of the existing facility. This allowed new construction to be built to contemporary codes, while enabling the existing structure to be updated as necessary.

As many as ten exits provide emergency egress from the split-level facility. An unobtrusive ADA ramp connects the lower level original portions of the building to the newer portions. The newer additions to the facility have been constructed at a higher level to reduce the wetlands' impact on the property.

HVAC Systems

The MAS is equipped with on site electric water chillers and numerous air handler units that are located throughout the facility. The air handler units are equipped with a reheating coil for humidity control. New HVAC equipment was installed in each addition to the facility. The HVAC systems appear to be well maintained and provided adequate service for the MAS building and its exhibits and collections.

Fire Suppression and Detection

The MAS is equipped with a wet-pipe fire suppression system. The original 1973 portion of the building is the only area that is not equipped with a

fire sprinkler system. During the course of recent renovations, the entire facility has been updated with automatic and manual fire detection system. The system is wired to the local fire department through a local security company that directly monitors the MAS facility. Fire extinguishers that have been inspected within the last year and are located throughout the entire facility.

Security System

The MAS employs a full time chief of security who patrols the facility during open hours. During off-hours, the facility is secured by dead-bolt locks, video monitors at sensitive areas, motion detectors, intrusion alarms, and glass-breakage sensors throughout the building. The entire alarm system is wired directly to a local security company which then notifies the local police department.

Collections Management Summary

Scope of Collections and Mission Statement

The Museum of Arts and Sciences mission statement encompasses "educational and cultural services to the local community, the region, and the State of Florida, through collection, conservation, presentation and interpretation of original and significant objects..." MAS has exhibit galleries for historic Euro-American furniture, archaeology, African ethnography, astronomy, decorative and fine art displays. The archaeological focus will "attempt to acquire representative artifacts from the various [Indian] cultures that inhabited Florida..." The size of MAS archaeological collections is small. MAS limits incoming collections to exhibit-quality specimens.

Archaeological Collections Storage

Archaeological, malacological, and geological storage is in a small mezzanine location. These materials are currently being moved. Human skeletal materials are in cardboard trays with foam padding, which are in wooden drawers. All boxes are acidic, with either telescoping or flap lids. Secondary containers consist of paper bags. The fluorescent bulbs are unfiltered, however there are no windows in the storage area. Laboratory equipment is stored on open metal shelving.

Environmental Controls

Hygrothermographs are in each exhibit gallery, however, none are in the archaeological storage area. It is unknown whether they have been calibrated. The printouts are analyzed every three months. Each person receives a numbered copy of the Safety Procedure list. One shower exists in the west wing. Security procedures are adequate. Exhibit areas are cleaned every two weeks by a cleaning company.

Range of Support Facilities for Archaeological Collections

There is an auditorium with a seating capacity of 269. No laboratory or designated research facilities exist. The exhibit galleries are the main features of the MAS. A small area is set aside for exhibit preparation. Administrative offices, a museum store, and a library/conference room provide additional support facilities. A summer field school is held.

Staff Composition

One senior curator supervises all curation issues. The registrar does not handle the archaeological collections storage, rather the Curator of Science and History performs these functions. Unfortunately, this person is slated to move his duty location to St. Augustine, thus depriving the MAS of any archaeological expertise in Daytona Beach. The MAS sometimes contacts staff at the Florida Museum of Natural History to assist with archaeological and natural history issues. Any needed conservation/ restoration work is contracted out.

Administrative Record Keeping

Two separate systems exist at the MAS for curation record keeping: one for art items on display, and another for archaeological collections under the care of the Curator of Science and History. Archaeological record keeping is described here. Copies of all the Volusia County site files are kept at the home of the Curator of Science and History. No written procedures exist, and no inventories have been performed. A Field Specimen number system is used

that associates an artifact to a particular provenience. None of the administrative records are stored electronically.

Associated Archaeological Documentation and Storage

Associated documents are stored in the same room as the archaeological collections. Some field notes are in plastic binders on wooden shelving units. None of the cabinets are fireproof. Some are in boxes, perhaps in preparation for the imminent move to a different location within the MAS. Copies of these records are at the home of the Curator of Science and History.

Collections Management Policies

The written policies of the MAS do not yet apply to the archaeological collections. Written policies exist for acquisitions, accession records, cataloging, inventory, insurance, conservation, and deaccessions. A policy exists for "Objects Accepted for Purposes of Sale or Trade."

Administration Summary

Background

The Museum of Arts and Sciences is a private, non-profit museum located in Daytona Beach, Florida. The MAS is primarily a fine arts museum, although they curate a limited quantity of archaeological material. They do not curate any federal archaeological collections and therefore have no agreements to provide curation services. The museum was founded in 1962 and has undergone several significant additions to the original building through time.

Real Estate

Expansion of the MAS is restricted by wetlands throughout its property. The most recent addition to the building was only possible after successfully going through the individual Section 404 permitting process.

Administration

The director of the museum could financially commit it to a partnership with the Department of Defense and USACE. The director could sign a cooperative agreement. Two individuals write and tracks grants. The director and the two individuals that oversee grants participate in fundraising for the museum. The museum owns the property.

Outreach and Education Programs

The museum has a full time Curator of Education. The archaeology outreach programs are a part of the overall museum education program. The archaeology programs include published articles by the staff archaeologist that are available to the public, museum exhibits, a field school for adults and children, teacher in-service training, a partnership with a local Middle School entitled Preserving the Past, and programs at the museum's off-site historical and environmental outreach center known as Gamble Place. The Preserving the Past Program has been nominated for an award administered by the Smithsonian Institution. The museum has repatriated 43 sets of Native American human remains under state law.

One of the travelling exhibits that is currently on display at the museum, Pirates and Privateers of America, is from the Mel Fisher Maritime Heritage Society. Hosting such a display, even given the historic and educational nature of the objects, results in ethical problems for the archaeological community since these objects were recovered during Fisher's salvage work.

Contributions

The MAS could contribute the services of an American Association of Museums accredited museum, their staff, current facility, reputation in the local community and state, their track record, and their status as the only Arts and Sciences museum in Florida. The MAS would expect the DoD/USACE to assist in underwriting the costs of curating their collections.

Notes

The MAS has deferred its participation in the project until the DoD/USACE is able to share more detailed information about the archaeological collections. The MAS currently has an good facility that would serve well as a repository for DoD/USACE archaeological collections. Although the building would most likely

require an addition to accommodate the collections, such an addition could be incorporated into the MAS master plan.

The existence of an educational program that includes archaeology is a positive benefit, although the staff is limited. The current on-staff archaeologist is scheduled to switch duty location, a move that leaves the MAS without an archaeologist. Additionally, the MAS appeared to only be interested in obtaining artifacts for display, thus limiting their interest in the project.

The lack of experience with federal archaeological collections, their reluctance to accept collections that have minimal exhibit value, the limited quantity of the MAS existing archaeological collections, and hosting an exhibit derived from Mel Fisher's controversial salvage work, suggest limited partnership opportunities with MAS.

Orange County Historical Museum

Architectural Summary

Site Conditions

The Orange County Historical Museum (OCHM) is located in Loch Haven Park, which is part of the cultural attraction district of Orlando, Florida. Loch Haven Park is located at the intersection of Princeton St. and Mills Ave., just minutes east of I-4. The Orlando Museum of Art, the Civic Theater of Central Florida, and the new science center are also located nearby in the park. The OCHM and the Museum of Art share a large parking area with over 200 spaces. The park is well landscaped and maintained, with opportunities for future expansion within the park's master plan.

The OCHM leases an off-site facility for its collections storage. The McLeod warehouse is located in west Orlando. The warehouse facility has a large paved area for truck circulation and loading with parking spaces located along the building. Parking or building expansion is unlikely, although additional space could be leased by the OCHM.

In December 1999, the OCHM will relocate to the 1927 Orange County Courthouse in downtown Orlando. Demolition has just begun on the courthouse complex so the details of the OCHM occupancy are not yet clear. However, it seems clear that the new downtown site will increase the museum's visibility and decrease its available parking.

Building Condition/Structural Adequacy

The Orange County Historical Museum is a concrete masonry unit construction with a slab foundation and a steel flooring and roof system. The OCHM facility was constructed in the 1980s. A major two-story addition increased the OCHM space to approximately 10,000-ft^2. The museum is now using the adjacent facility that was vacated by the science museum when it moved into its new facility in 1994. The acquisition of these classroom/laboratory spaces nearly doubled the museum's facilities at Loch Haven Park. The OCHM also maintains the Museum of Firefighting at its Lock Haven location. This facility is a 1927 brick fire station that has been relocated to the park and houses exhibits on the history of firefighting.

Exhibits and offices are located on the first floor. Additional exhibit space and the OCHM library/archives are located on the second floor. The collections storage room is located on the first floor. This 2,000-ft^2 area includes the curator's office, an employee kitchen area, and a small room for special collections. This space had no standard shelving units and was cluttered. A 750-ft^2 mezzanine level is used for additional collections storage. The mezzanine level is ordered with metal shelving units. An 800-ft^2 loading area/exhibit preparation shop is adjacent to the collections storage room and provides access to the mezzanine level. There were no structural defects observed. There were no floor drains in the facility. There were no hazardous building materials observed or reported.

McLeod Warehouse

OCHM leases a 7,200-ft^2 warehouse space in a light industrial complex in west Orlando. The building has a slab on grade foundation with a concrete masonry unit and metal stud wall system and steel frame insulated roof. There are two overhead doors for loading, one at each end of the space. The main entry is an aluminum storefront system. A small office and restrooms are partitioned near the main entrance. There are six skylights in the warehouse. The OCHM has installed single row of heavy-duty shelving. A great variety of other collections/objects are scattered throughout the space awaiting processing. The

McLeod warehouse is currently underused and suffers mostly from disorganization and general clutter. The OCHM has commissioned an architect to provide recommendations for the improvement and organization of the warehouse space for collections storage use. There were no signs of leakage, structural defects, or hazardous building materials. The warehouse space had no floor drains.

1927 Orange County Courthouse

The OCHM is scheduled to occupy the historic Orange County Courthouse in December 1999. The program for the renovation does not provide for collections storage at the courthouse. The 1927 building is a concrete-frame structure with limestone veneer in a classical expression. Several unfortunate monolithic additions were made to the classical courthouse in the 1960s and 1970s. These additions are scheduled for demolition in order to create an outdoor plaza south of the original courthouse. Because of the recent start of demolition work, the courthouse was not toured or evaluated in detail. The current plan calls for collections to remain at the McLeod warehouse.

Code Requirements/Egress/ Accessibility

OCHM Facility

The OCHM appears to meet the applicable building, life-safety, and accessibility requirements (type II construction, B use group). A passenger elevator provides access to the second level in accordance with the Americans with Disabilities Act (ADA). An open stair also provides access to the second level in compliance with building code requirements. The building is equipped with an emergency lighting system and lighted exit signs. The collections storage area is separated with a fire rated door and partition. Six exits provide emergency egress from the facility.

McLeod Warehouse

The single level McLeod warehouse appears to meet all of the applicable building, life-safety, and accessibility requirements (type II construction, S-1 use group). The OCHM space is partitioned from the adjacent space by a CMU fire rated wall. There are exits located at each end of the space. The building is equipped with an emergency lighting system and lighted exit signs. A wheelchair lift provides ADA-access/compliance for the raised main entry.

HVAC Systems

OCHM Facility

The OCHM facility is served by on site electric water chillers that supply chilled water to multiple air handler units (AHUs) located throughout the building. The multiple AHUs provide zoned HVAC control. The entire HVAC control system was updated with a computer controlled and monitored system in 1994. The HVAC equipment is equipped with standard air filters as well as a reheat coil for humidity control. The new computer controlled equipment and multiple AHUs provide adequate climate control for the OCHM.

McLeod Warehouse

The warehouse storage facility is cooled with three direct expansion air conditioner units located on the north side of the building. Three overhead air handler units distribute cool air throughout the space. However, distribution is likely inadequate in the large volume of space at the McLeod warehouse. As additional shelving units are installed, and as the existing collections are better organized in the space, microclimates could likely develop without additional ductwork. The AHUs have standard air filters. Six portable dehumidifiers are used throughout the space. While not as effective as an integrated humidity control system, the portable units have proven effective at the warehouse. OCHM staff empty the dehumidifiers once a week.

Fire Suppression and Detection

OCHM Facility

The OCHM facility is protected with a wet-pipe fire suppression system. Both manual and automatic alarm systems are located throughout the building. Smoke and heat sensors are located throughout the facility. The fire detection system is wired to the local fire department through a local security company. Fire extinguishers were inspected within the last year and are located throughout the building. The fire-suppression and -detection systems adequately protect the OCHM facility.

McLeod Warehouse

The McLeod warehouse facility is protected with a complete wet-pipe fire suppression system. Manual alarms as well as smoke and heat sensors are located throughout the leased space. The fire detection system is wired to the local fire department through a local security company. Fire extinguishers were inspected within the last year and are located throughout the warehouse space. The fire-suppression and -detection systems are adequate.

Security System

OCHM Facility

The OCHM facility is protected with intrusion alarms, dead-bolts, disarm keypads, and motion detectors. The security system is wired directly to a private security company, which then notifies the local police department.

McLeod Warehouse

The McLeod warehouse is protected with intrusion alarms, dead-bolts, disarm keypads, and motion detectors. The security system is wired directly to a private security company, which then notifies the local police department.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Orange County Historical Museum is "to serve and educate the community through the preservation and interpretation of the rich cultural heritage of Orange County and Central Florida and their relation to the world." The OCHM accepts collections from Orange County, Orlando, and the central Florida region. Items and photographs pertaining to the Euro-American settlement of the area are emphasized. The principal collections are historic firearms, and citrus industry artifacts and memorabilia.

Archaeological Collections Storage

The OCHM has two storage areas. One is in the same building as the exhibits, and the other is off-site in a rented space with a five-year lease. The on-site storage has metal shelving units, but no cabinets for special collections. Most of the historical-period material (bottles, glass, electrical appliances) is stored unboxed and unpadded on the shelving units. Some of the textiles are stored in grey, acid-free cardboard boxes.

The off-site rental building stores historic items such as farm machinery, paintings, and furniture. Some shelves are empty. Shelving units are metal-framed with plywood shelves. Collections are stored on the shelves without padding. The fluorescent bulbs and skylights are unfiltered. Two doors allow loading and unloading of large items. The building has a cooling system, but no heat. Three portable dehumidifiers are emptied twice per week.

Environmental Controls

There is a written pest control policy stating that incoming collections will be inspected for pests. Random, weekly inspections are conducted. Non-chemical methods of pest control are preferred, but chemicals are used if necessary. Fluorescent bulbs are unfiltered at the on-site storage area. The facility has both cooling and heating with a computerized control system installed in 1994. Dehumidifiers keep the building at 50% ± 5% humidity. Temperature is kept at 72° F. A sprinkler system has been installed for fire suppression.

Range of Support Facilities for Archaeological Collections

Support facilities consist mainly of exhibit and preparation space. There is a museum store and administrative offices. No research facilities exist, however there is work space for staff and volunteers.

Staff Composition

The registrar usually handles documentation and photographs, while the collections museum technician handles cataloging and administrative records. A Curator of Education handles outreach programs. The exhibits coordinator works with exhibit preparation. Other staff members include a maintenance technician, a museum service coordinator, a librarian and archivist, a museum store manager and museum secretary. There is no archaeologist, conservator, or curator of collections.

Administrative Record Keeping

The OCHM has no procedures exist for labeling primary and secondary containers, rather the OCHM uses the system that the collection comes with. Accession numbers incorporate the year the collection was accessioned. Each collection has a unique lot number that is incorporated into the accession number. An electronic database is maintained and data is stored on a removable Iomega-brand Zip drive. This database is available on a computer network. Copies are kept at the home of the collections museum technician and the photograph archivist.

Associated Archaeological Documentation and Storage

Documents associated with archaeological remains are stored in fire-resistant file cabinets in a locked archive room. None of the associated documentation has been cataloged. Originals are kept at the institution that generated the documents, and copies are kept at the museum. Some of the documents associated with human skeletal material are located at nearby Rollins College.

Collections Management Policies

Written policies exist for acquisitions, donations, purchases, registration, personal collections of the staff, loans (incoming and outgoing), insurance, use of photographs, and deaccessions.

Administration Summary

Background

The Orange County Historical Society Museum is a private-public partnership between the OCHM and the Orange County Board of County Commissioners that is located Loch Haven Park in Orlando. The partnership is contained in a five year renewal agreement between the two parties. The OCHM is primarily a history museum, although they curate a limited quantity of archaeological material. They do not curate any federal archaeological collections and therefore have no agreements to provide curation services. The museum was founded in 1945 as an Antiquarian Society.

Real Estate

Expansion of the existing OCHM is possible, but is unlikely given the renovation that is planned for a historic courthouse in downtown Orlando that would house the OCHM. The existing building that contains the OCHM and the land the building occupies are owned by the City of Orlando. Large oversized objects are stored off-site in a privately owned warehouse. Both the building and the warehouse are leased. If the renovation plans do not occur, changes to the existing building would require the approval of the Loch Haven Park Board and the Orlando Building Department.

Administration

The Executive Director/CEO or President or the Board of Directors of the OCHM could financially commit to a partnership with the Department of Defense and the Army Corps of Engineers. The Executive Director/CEO or the Board of Directors, and the Orange County Board of County Commissioners could sign a cooperative agreement. The Executive Director/CEO, with the assistance of the fiscal staff, write and tracks grants. The Development Officer and an outside consultant conduct fund raising for the OCHM.

Outreach and Education Programs

The museum has a number of staff members in its education program, although none of the three to four individuals are exclusively involved in archaeology outreach. The OCHM has an exhibit on the Windover archaeological site and conducts a mock excavation for public and college students.

Contributions

The OCHM could contribute its current facility with its upgraded environmental controls, the staff's expertise, and insure public use of the materials. The OCHM would expect the DoD/USACE to assist in providing contextual information for each collection, funds for additional staff, equipment, and, storage and analytical equipment.

Notes

The OCHM is in transition. The OCHM would likely seek other facilities for its collections when the current five-year lease at McLeod expires in 2001. However, the draft program calls for the addition of new offices, a new mezzanine level, and partitioned loading areas at McLeod. These improvements suggest that the museum is planning to remain at McLeod. If the museum is planning to relocate, resources may be better divided between the need for immediate improvements at McLeod and the need to establish a permanent collections storage facility. The OCHM is positioned to significantly benefit from its relocation to the renovated downtown courthouse. It is desperately in need of additional space and staff, both of which would have to be significantly augmented prior to their acceptance of DoD/USACE archaeological collections.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

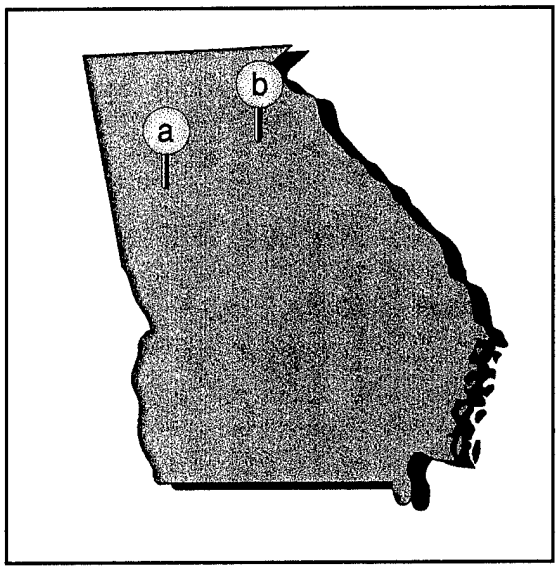
Table 9.2 lists the composite scores and the architecture, collections management, and administration scores for each Florida institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 9.2
Summary of Decision Support Model Scoring—Florida

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Archaeology Institute, University of West Florida	**0.7798**	0.14917	0.24411	0.38653
Florida Museum of Natural History, University of Florida	**0.8069**	0.12965	0.29526	0.38197
Graves Museum of Archaeology and Natural History	**0.6768**	0.16641	0.21946	0.29088
Museum of Arts and Sciences	**0.6961**	0.19846	0.22864	0.26904
Orange County Historical Museum	**0.6963**	0.19846	0.24266	0.25515

10

Georgia



Archaeological Materials (in cubic feet)

Department of Defense	594
USACE	1,829
TOTAL VOLUME	**2,423 ft³**
Number of Institutions Contacted	**14**

Institutions Assessed

a. A. J. Waring Archaeology Laboratory, State University of West Georgia, Carrollton

b. Laboratory of Archaeology, University of Georgia, Athens

Background

A list of the facilities contacted in Georgia is presented in Table 10.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 10.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Georgia is presented in the following discussion.

Table 10.1
List of Institutions Contacted—Georgia

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
A. J. Waring Archaeology Laboratory, State University of West Georgia				
Augusta Richmond County Museum			X	
Columbus Museum		X		
Georgia Capitol Museum		X		
Georgia Department of Natural Resources		X		
Georgia Southern University Museum		X		
Georgia State Parks			X	
Georgia's Stone Mountain Park		X		
Kolomoki Mounds State Park		X		
Laboratory of Archaeology, University of Georgia				
Michael C. Carlos Museum		X		
Museum of Arts and Sciences			X	
Savannah Science Museum		X		
Thomasville Cultural Center, Inc.		X		

Note: Locations visited indicated in **Bold**.

A. J. Waring Archaeology Laboratory, State University of West Georgia

Architectural Summary

Site Conditions

The site of the Antonio J. Waring, Jr., Archaeology Laboratory (AJWAL) is in the quiet northwest edge of the university, just off the main campus complexes. The building sets into the slope of the hill near the maintenance buildings. The site is not immediately next to any highway but can easily be reached. The nearest is Highway 166, which defines the southern boundary of the campus.

The site shares a 23-space parking lot with the field track in front of the repository. There is land to expand upon, which is above the flood plain and not in the hurricane or earthquake zone.

Building Condition/Structural Adequacy

Built in 1993, the AJWAL building is for archaeological laboratory and repository uses. (Type-2 Construction, sec. 403.0, BOCA). The 4,300-ft^2 prefabricated structure appears in very good condition. The workshop is on the first floor at the entrance. A small office and a storage room are next to the lab or workshop with a unisex bathroom. Directly above the workshop is the research or lecture room. An interior loading area and a staircase divide the storage area and the rest of the building. The long-term storage space has a mezzanine, with 8–10-feet of overhead space that can potentially be used for a second mezzanine. Structure members are welded and bolted together.

The exterior of the building has gutters and downspouts to provide adequate drainage. A major building upgrade has been completed.

Code Requirements/Egress/ Accessibility

The building meets the building code, life-safety, and egress requirements but not ADA. (Mixed Use and Occupancy, sec. 313.0, BOCA). The spaces are logically laid out and separated with fire-resistant walls and fire-rated doors. Egress routes are clear and straightforward. Exits are located within short distance of any direction and they are indicated with signs. There are emergency lights in place and an emergency staircase allows quick egress to an exit from the second floor. No elevator is provided and entry doors are not wheelchair accessible.

HVAC Systems

Renovations were completed in 1999. New duct works replaced the venting inlet and outlet. Smaller vent and a grill system were installed to circulate air within the interior. This modification creates a climate-controlled interior space.

To meet the demand for more power, the electrical system was also upgraded. New double metal doors replaced the overhead metal type at the loading area. These changes allow for better climate control. Humidity and temperature control systems were also upgraded.

Fire Suppression and Detection

Fire suppression is adequate. The alarm system was improved. Smoke and heat sensors were installed. The heat sensors are concealed in the air-duct system. Type A, or water, fire extinguishers are located throughout the building, and they are regularly checked and updated. No sprinkler system is planned to be installed.

Security System

The site is within the range of the campus-police patrol. A security system will be added and monitored by the campus police. Once the intrusion alarm system is installed, the building will be well protected.

Collections Management Summary

Scope of Collections and Mission Statement

The Antonio J. Waring, Jr., Archaeology Laboratory at the State University of West Georgia "is to provide conservation and curation services for archaeological materials." Collections (5,123-ft^3) are entirely archaeological.

Archaeological Collections Storage

Long-term collections storage at AJWAL is in the same building as the rest of the facilities but located in a separate area. There are two levels, ground and mezzanine, on which steel shelving rests. Primary containers consist mostly of Hollinger-brand boxes (90%), and secondary containers consist primarily of 4-mil, Ziploc-brand bags. The weight of each box has been limited to 30 pounds. The storage area is about 90% full.

Environmental Controls

No permanent lighting is installed in the storage room, and neither are there windows. Instead, portable lanterns are used. Pest monitoring is accomplished by six 3-x-4-inch sticky traps. Temperature and relative humidity at the time of our visit was 70° F and 60% RH, respectively. There is heating, and the cooling system was installed in 1999, along with sheathing for insulation and a smoke/heat detection system. Daily logs are kept of the three hygrothermographs. The hygrothermographs have not been calibrated since installation. Food is not allowed in the building.

The special collections room is maintained at 72° F and 70% RH. It contains ceramics on wooden shelves with bean-bag padding, slides of archaeological sites, photographic negatives, and mammal skulls.

Range of Support Facilities for Archaeological Collections

The library will function as a work space in the future, and has wood laboratory cabinets, a sink, and microscopes. The wet laboratory contains a sink, drying racks, and a water distillery. The photograph laboratory has a digitizing table and staging equipment. All Georgia USGS quadrangle maps are available and are stored in a flat, metal map case. A small shed in the rear of the building functions as a conservation laboratory with an electrolysis tank, fume hood, hazardous chemical cabinet, and air abrasion system. There are no exhibits.

Staff Composition

Staff at the AJWAL consists of the laboratory supervisor and part-time student workers.

Administrative Record Keeping

Smithsonian trinomials are used to designate sites, and each collection has a unique accession number assigned to it. Accession numbers are sequential. Administrative records are housed in the Department of Anthropology office, and at least one file cabinet is fire-resistant. An electronic database is kept using Microsoft Access, and is under development. Eventually that database will be maintained on the campus mainframe computer. Currently, the electronic database is not on a network. Boxes are located by a system of level, range, row, section, and box. Student workers perform box inventories.

Associated Archaeological Documentation and Storage

Three copies associated documents are kept: (1) one with the artifacts; (2) one in the University archives located in the Ingram library; and (3) the original at Ingram library. This arrangement with the library may end in the near future. Written policy states that all photographic materials "must be placed in archival sleeves..." All field and laboratory records must be on acid-free paper or placed within acid-free folders."

Collections Management Policies

Written policies exist for standards of acceptance, accessioning, artifact and document packaging, collections access, no food/drink, and conservation.

Administration Summary

Background

The Antonio J. Waring, Jr., Archaeology Laboratory at the State University of West Georgia has been in existence since 1974, and is state-owned. The director of AJWAL falls under the direct supervision of the Chair of the Department of Sociology/Anthropology; however, the laboratory supervisor is appointed by the University President. Collections are exclusively archaeological. AJWAL does not currently house Department of Defense collections.

Real Estate

The Board of Regents of the University system of Georgia owns the property. No identified restrictions are in place regarding use of the property.

Administration

The State University of West Georgia President has the authority to commit AJWAL to a curation agreement with DoD/USACE. There has been no financial deficit in the last five years. One person, the Lab Supervisor, writes all grants, and the Sponsored Programs Department tracks them.

Outreach and Education Programs

No individuals are involved exclusively in outreach programs. AJWAL hosts an internet web page for an avocational archaeology group (http://www.westga.edu/~gaarc/), and this is an important aspect of outreach. Many Native American groups in Georgia are not federally recognized; nevertheless AJWAL works with them on some issues. There is no exhibit facility.

Contributions

AJWAL could contribute staff expertise, equipment, overhead and maintenance costs. In return, AJWAL would expect funds toward some equipment, additional staff, additional storage space, and contributions toward upgrading existing systems.

Notes

AJWAL recently upgraded its facilities with a new cooling system, keypad security, heat/smoke detectors, and insulation. The lab supervisor is acutely aware of the requirements of 36 CFR Part 79 and of partnership possibilities with the government. The search is on-going for a new director for AJWAL. Much depends on the direction this important staff member chooses for AJWAL.

Laboratory of Archaeology, University of Georgia

Architectural Summary

Site Conditions

The Laboratory of Archaeology (LA) is in a basement area of the Riverbend Research Facility on the south campus of the University of Georgia (UGA). It is part of the Georgia Museum of Natural History (GMNH). There is a large parking area to the east of the building, with truck/vehicular access to the basement level loading area on the north side of the building. The entrance to the LA is located on the basement level on the north side. Approximately ten parking spaces are available near the basement entrance. Because of other university spaces that could be available for LA use, significant expansion of the parking or the facility at Riverbend is unlikely.

The university has several large construction projects on its south campus. It is currently following a comprehensive master plan developed with Ayers/Saint/Gross, a prestigious architecture and planning firm in Boston. Much of south campus is either under construction or contains recently completed new facilities.

Building Condition/Structural Adequacy

The 1974 Riverbend Research Facility was originally constructed as "temporary" laboratories for short-term research projects at the university. Many of the laboratories have become permanent homes to some of UGA's research programs. Nevertheless, in 1990 the LA was able to secure approximately 6,000-ft^2 of basement space of the single level, 34,000-ft^2 facility.

The basement and first floor structure is a concrete frame system with a steel frame-and-joist roof structure. The exterior is a standing seam parapet atop a brick veneer. The LA basement area is partitioned with concrete masonry units into a large processing room with an overhead door to the loading area, a series of offices and archival storage rooms, and a 2,088-ft^2 collections storage room with compactor shelving units. The room is estimated at 85% capacity. Since acquiring the space, the LA has made steady improvements, including compactor

shelving units, upgraded HVAC equipment, and installation of a suspended ceiling in the processing area.

The LA facility contains no hazardous building materials and displayed no structural defects. Fire suppression, plumbing, and HVAC water piping are routed throughout the LA space, including the collections storage room. A clear-glass piping system originally served as the hazardous waste plumbing for the first level laboratories, but now serves standard wastewater plumbing. None of these plumbing systems have failed in the past. The LA facility is not equipped with floor drains.

Code Requirements/Egress/ Accessibility

The LA space appears to meet all of the applicable building and life safety code requirements (type I construction, mixed-use group S-1, B). Three exits provide emergency egress from the LA. The main entry provides egress to the exterior from the processing area, a emergency exit provides egress from the collections storage room, and an exit to a fire rated stairwell provides emergency egress from the office area.

The entire LA space is accessible for the disabled. A passenger elevator provides access to the upper level according to the Americans with Disabilities Act (ADA). The first level restrooms have been renovated to meet ADA standards.

HVAC Systems

The LA space is served by the Riverbend Research Facility's on-site electric chillers and natural gas boilers. The LA area was equipped with new air handler units in 1996. A separate high-capacity HVAC system serves the special collections and archive rooms. The main collections storage area is equipped only with heating system. Standard air filters are changed as needed. The LA staff noted that the basement location provides additional insulating qualities that ease the HVAC demands of the space. The UGA facilities staff provides regular maintenance of the HVAC systems.

Fire Suppression and Detection

The entire LA space is equipped with a wet-pipe sprinkler system. Manual pull alarms and automatic smoke and heat sensors comprise the fire detection system. The fire-detection systems in the LA space were updated as a result of the 1990 renovation of the basement space. The fire-detection system is wired to the UGA public safety office, which then notifies the local fire department when the alarm is sounded.

Security System

The LA facility is protected with intrusion alarms, dead-bolt locks, keypad controls, and motion detectors. The security system is wired directly to the UGA public safety office, which then notifies the university police department when necessary.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Georgia Museum of Natural History is to "collect and maintain evidence of the archaeological, biological, and geological heritage of Georgia and beyond; to encourage scholarship and service relating to the collections; to foster stewardship of the heritage of the people of Georgia; and to instruct people of all ages in the cultural and natural heritage of the southeastern region."
The Laboratory of Archaeology is the official Georgia site file location, and has contracts to rehabilitate archaeological collections for the National Park Service, Southeastern Archaeological Center in Tallahassee. It currently houses about 8,000-ft^3 of archaeological materials, about half of which are owned by USACE.

Archaeological Collections Storage

Collections have been consolidated into a basement room (2,470-ft^2) of a building built in 1973. A metal door opens to the outside and a wood interior door allows access from the hall. Spacesaver-brand, manual, movable shelving (10 units) with enameled metal shelves support the (mostly acidic) cardboard boxes. The shelves are approximately 85% full. All

materials are in boxes, and are not stacked on top of one another. Secondary containers are paper bags, except for the National Park Service (NPS) materials which are in plastic bags. The NPS materials are in white Coroplast plastic boxes. Pipes above the shelving increase the chance for water damage to the collections.

Environmental Controls

Humidity gauges are not calibrated; however a humidity log is recorded weekly and kept for three or four years. Temperature and alarm testing log books are also kept. The collections storage area has no humidity control or cooling system. However, because the storage area is essentially underground, temperature and humidity are less likely to fluctuate. The fluorescent light bulbs are unfiltered, the lights are off most of the time, reducing ultraviolet light exposure. There are no windows. No written pest management plan exists, and pest management is handled by a contracted company for the University of Georgia.

Range of Support Facilities for Archaeological Collections

An Analysis Room (192-ft^2) contains office supplies, weight scales, a light table, a microscope, three computers, and digitizing equipment. The Special Collections Room (300-ft^2) houses mostly pottery resting on metal shelves, in addition to photographic equipment (camera, stand and lights), but no film-developing equipment. Most analysis takes place in the Main Analysis Room (1,260-ft^2) which has a sink, garage-type door, wooden shelving for temporary storage, and three portable, charcoal canister "fume hoods." There is no exhibit facility.

Staff Composition

The LA staff consists of two permanent workers, both assisting in curation part-time (10% and 50%, respectively). Much of the curation work is performed by part-time graduate and undergraduate students, overseen by the collections manager.

Administrative Record Keeping

The LA is in the process of retroactively assigning unique accession numbers. The databases in Microsoft Access are also being merged. The state archaeological database is separate from the LA database. Thirteen database tables exist (artifact loans, box data, collections transactions, temperature/humidity, color slides, field excavation records, photograph subject codes, shelf location names, UGA catalog, and equipment loans). Electronic data is stored on a CD-ROM and backed up weekly onto another CD-ROM that is stored in a different building (Baldwin Hall) on campus. The data is available on a local area network linking four computers and the server. Bar codes on each box and shelf incorporate location information.

Associated Archaeological Documentation and Storage

All associated documents are located in the records room, some in acidic boxes, some in metal file cabinets. Only the "oldest" (1940's) of the associated documents have been copied onto acid-free paper, and these copies are stored in the same room as the originals. Maps are stored flat in metal cabinets. Copies of state historic preservation office (SHPO) cultural resource management reports are stored in the SHPO office in Atlanta. Photographs, negatives, and slides associated with the archaeological collections are in acid-free folders.

Collections Management Policies

Written policies exist for acquisitions, minimum standards of acceptance, loans, deaccessions, photographs of artifacts, policy revisions, collections inventories, and public access.

Administration Summary

Background

The Laboratory of Archaeology is an unofficial part of the Department of Anthropology and the Georgia Museum of Natural History at the University of Georgia in Athens, Georgia. The LA was founded in 1947, and curates archaeological collections from the Army Corps of Engineers, Mobile and Savannah Districts, and a small collection from Fort Benning. The LA has no formal curation agreements for these.

Real Estate

The LA is operated by UGA, and is located in a renovated building on the south side of campus. Expansion or new construction is possible in the existing building, but is unlikely. GMNH does not yet have a building of its own. Rather, the creation of a GMNH building on the UGA campus would bring together natural history collections with the archaeological collections now held by the LA into a new facility. Although land has been designated for a museum facility, actual construction of the building is several years away. A new GMNH director has just been named.

Administration

A Vice President of the university could financially commit the LA to a partnership with the DoD and USACE. The director of the Research Foundation could sign a cooperative agreement. The university's Office of Sponsored Research writes and tracks grants. The Development Office of the University of Georgia participates in fundraising for the institution as a whole and has assigned a development officer to the College of Arts and Sciences in which the LA is administratively located.

Funds to operate the LA are generated through archaeological contracts and maintenance of the Georgia state archaeological state files. The LA has no budget of its own within the Department of Anthropology. Thus, there are no funds dedicated to curation of existing collections and no paid staff for collections management.

Outreach and Education Programs

The LA archaeology outreach programs include tours given of the curation facility, a field school held every summer, a volunteer program for the laboratory, and senior undergraduate and graduate presentations in local schools. The LA compiles Early Georgia, a publication of the Society for Georgia Archaeology. The LA has consulted with Cherokees, and Creeks to comply with the Native American Graves Protections and Repatriation Act. GMNH has 17 different traveling science boxes, one of which discuses Native Americans in Georgia.

Contributions

The LA could contribute time to manage the archaeological collections, students to work on the collections, the use of an existing building, and the possibility of a full-time position funded by the state to assist in managing the collections. Through the university, the LA has land to offer for a new facility. The LA suggests that DoD/USACE could support their collections by providing funds for equipment, staff, floor space, and operation and maintenance.

Notes

The LA facility is limited by the basement location and the Riverbend facility's systems. Both LA staff and UGA officials stated that the most likely improvement scenario is relocating the laboratory to another, better-suited university facility. These spaces include an off-site library book repository or integration of the LA into a yet-to-be-constructed building for the Georgia Museum of Natural History. If the GMNH constructs a building, it will be in a position to upgrade their facilities to properly handle DoD/USACE collections from Georgia. The LA would be interested in being a regional partner for DoD/USACE collections from Alabama, Florida, Georgia, South Carolina, and North Carolina.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

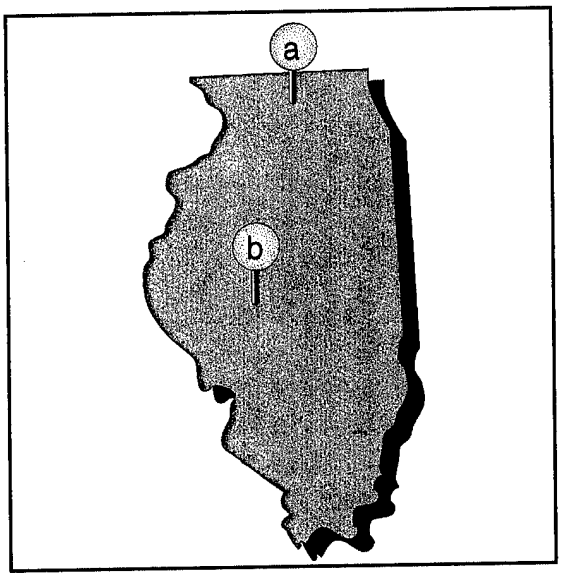
Table 10.2 lists the composite scores and the architecture, collections management, and administration scores for each Georgia institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 10.2
Summary of Decision Support Model Scoring—Georgia

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
A. J. Waring Archaeology Laboratory, State University of West Georgia	**0.7942**	0.15538	0.24702	0.39181
Laboratory of Archaeology, University of Georgia	**0.7929**	0.19348	0.24396	0.35549

11

Illinois



Archaeological Materials (in cubic feet)

Department of Defense	67
USACE	1,925
TOTAL VOLUME	**1,992 ft³**
Number of Institutions Contacted	**13**

Institutions Assessed

a. Burpee Museum of Natural History, Rockford

b. Illinois State Museum, Springfield

Background

A list of the facilities contacted in Illinois is presented in Table 11.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 11.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Illinois is presented in the following discussion.

Table 11.1
List of Institutions Contacted—Illinois

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resource
Art Institute of Chicago	X			
Burpee Museum of Natural History				
Center for Archaeological Investigations, Southern Illinois University		X		
Center for American Archeology			X	
Field Museum of Natural History		X		
Illinois Museum of Natural History		X		
Illinois State Museum				
Illinois State University		X		
Illinois Transportation Archaeological Research Program		X		
Krannert Art Museum			X	
Lakeview Museum of Arts and Sciences		X		
Northern Illinois University, Anthropology Museum		X		
Northwestern University		X		

Note: Locations visited indicated in **Bold**.

Burpee Museum of Natural History

Architectural Summary

Site Conditions

The Burpee Museum of Natural History (BMNH) is located in Rockford. It is in the River District, on IL Route-2, and the site is on the west bank of the Rock River. Other nearby highways are US-20, IL-70, and I-90. BMNH operates several buildings, including two historic registered mansions dating back to the mid-1800's. To the north of the exhibit building is the original exhibit building, the Barnes Mansion, and to the south a museum annex. A tunnel connects BMNH and the museum annex at below-grade level. The site has a 60-car and parking lot. The rear of the museum has an area which can potentially converted into additional parking space or for building expansion. A single classroom structure is built at the edge of the river, providing additional study space for children.

The adjacent property is used for institutional, residential, and commercial purposes. The area is not densely built and open space exists between the multi-story masonry structures. The site is on high ground and therefore not threatened by the river. Rockford is considered to be in a flood and tornado zone, but the site has never been flooded or damaged by tornado. It is not in an earthquake region.

Building Condition/Structural Adequacy

BMNH is in excellent condition. The much larger 1998 addition is attached to the Manny Mansion. The three-story metal-frame masonry structure is designed to match the historical structure next to it. The foundation, each floor, and basement walls are poured concrete. Exterior walls are made of concrete masonry units, and interior walls are made of metal stud framing and gypsum wall boards. Steel columns support steel girders and beams, which bolster corrugated metal decking that provides the base for concrete floors. Open-web steel joists support the flat roof with EPDM covering.

Collections storage rooms are located at the basement level. They do not have windows. The loading dock is located at the north side of the building. Though not covered, it can accommodate full-sized trucks. Directly connecting the exterior and the storage area is an 8-x-10-foot elevator and a stairwell next to it.

Code Requirements/Egress/ Accessibility

The facility meets all building codes and egress and accessibility requirements. The 40,000-ft^2 area includes exhibit space, a laboratory, two collections storage rooms, and several small offices. A tall-ceiling auditorium/multipurpose room is located on the first floor next to the main entrance. Major areas are separated by fire doors and walls of concrete masonry unit, and subdivision of space are partitioned by walls of metal stud and gypsum plasterboards. All construction components consist of fire resistant materials. Six exits provide direct egress to the outside and identified by lighted exit signs.

The facility is completely wheelchair-accessible, including the bathrooms. The 8-x-10-foot freight elevator is also used for passengers. The passenger elevator has not been installed, although funding for an elevator has been obtained and it has yet to be built. ADA signs are installed in the parking lot and throughout the building.

HVAC Systems

The facility has adequate temperature control. There is one central and four smaller heating and cooling systems. The central forced-air system supplies the major areas including the collections storage spaces. The smaller units support hallways and other minor areas. Gas and electricity fuel the units. Pleated and bag filters are used and replaced two or three times a year. Temperature is set at 68–70° F, and the relative humidity is set to 45–50%.

Fire Suppression and Detection

Fire-detection and -suppression systems are excellent. Smoke detectors are installed throughout the facility, and heat sensors are located at the sprinkler heads, which discharge independently at the location where heat is detected. The wet-pipe suppression system is inspected annually. It is wired to, and monitored by, the local fire department.

Both automatic and manual alarms are present, and fire extinguishers of type A, B, and C are placed at easy-to-reach locations such as doorways and hallways. These are inspected monthly. In addition to illuminated exit signs, an emergency lighting system is in place throughout the building. An automatic fire hatch is installed on the flat roof, enabling a reduction of heat build-up in the event of fire.

Security System

The security system is new and in good condition. An intrusion alarm system is installed at entrances, and it is monitored by the private security company ADT. Six surveillance cameras are installed inside. Entree to the collections storage rooms is restricted to authorized staff, and is they are accessed by keycard entry only.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Burpee Museum of Natural History is "to promote the appreciation of the natural heritage of the Rock river Valley region. We will develop this appreciation through our collection, exhibits, educational programs and research." Collections consist largely of geology, paleontology, archaeology (580-ft^3) and vertebrate zoology. No archaeological collections are excluded, however art or historical (Euro-American) collections are referred to a more appropriate museum nearby.

Archaeological Collections Storage

BMNH houses collections in the basement of a newly constructed purpose-built facility for collections storage and exhibits. Archaeological collections are in small cardboard boxes on metal drawers within metal, locking cabinets. Ethafoam-brand padding is used where appropriate. Secondary containers are a mix of zip-lock and paper bags. The metal trays are labeled with accession numbers. Collections are to be moved into Delta-brand metal cabinets. No artifacts are stored loose on the shelves.

Environmental Controls

The collections storage area has heating, cooling, and humidity control. The HVAC system controls the environment, but the collections managers also monitor the temperature and relative humidity weekly using a hygrothermograph. Fluorescent bulbs are filtered for ultraviolet light. There are no windows in the storage area. The doors are sealed. Dust levels are monitored by placing microscope cover slips in the storage area and examining them monthly. Only collections managers, not cleaning staff, are allowed into the storage area. The fire, flood, and security alarms are electric, and if the electricity is turned off, an alarm is sounded.

Range of Support Facilities for Archaeological Collections

BMNH has almost exclusively archaeology exhibits on the 3rd floor. Exhibits are also housed in an historic building next door; these are older exhibits. Research areas and an exhibit preparation room are in the basement, and a large freight elevator facilitates movement of oversized items. The loading dock opens into this elevator. The use of chemicals is kept to a minimum. A gift shop and a lounge are in operation.

Staff Composition

Full-time staff at the collections center includes a of biological collections manager, a curator of earth sciences, and a part-time curator of archaeology. Conservation work is contracted out.

Administrative Record Keeping

Full-time staff at the collections center includes a of biological collections manager, a curator of earth sciences, and a part-time curator of archaeology. Conservation work is contracted out.

Associated Archaeological Documentation and Storage

Associated documents are kept in the office of the biology collections manager in metal file cabinets and on a shelf in the collections storage area. Only some of the reports are duplicated with the original stored

off-site. These documents have been neither inventoried nor copied.

Collections Management Policies

Written policies exist for acquisitions, loans, disasters, access to collections, security and deaccessions.

Administration Summary

Background

The Burpee Museum of Natural History is a private, non-profit institution that was established in 1942 by an endowment from the Harry and Della Burpee trust fund, in addition to Works Progress Administration funds. BMNH also receives monies through a more recent source, the Robert H. Solem Endowment, through which the new exhibit and collection storage facility was funded. This new building is in a museum annex (Sinnissippi Park), and is connected to the Discovery Center next door by an above-ground enclosed walkway.

Real Estate

BMNH owns the property and no there are no restrictions to the use of the property, requirements for open space, or covenants against construction.

Administration

The director of BMNH has the authority to commit to a partnership agreement with DoD/USACE. Construction costs led to a brief financial deficit in 1999, however this shortage has been alleviated. One staff member is responsible for writing and tracking grant proposals. Primary supporters include the membership organization consisting of about 800 people, and the Rockford Park District.

Outreach and Education Programs

No one person is devoted exclusively to archaeology outreach, however, the Education department has three full-time staff members. BMNH considers archaeology/anthropology to be a major focus of outreach activities, and was recently awarded a $6,000 grant to support a Native American Festival at a local archaeological mound site. There is also an annual "Honor the Mounds" ceremony which is free and open to the public. A regular program focusing on Native Americans is also offered, entitled "A Wigwam Birthday" for 6–9 year old children. Summer courses on Native American lifeways are offered for pre-school through 10 year olds. BMNH is a sponsor of the northern Illinois Native American Awareness Committee, many of whom are Native American. Education staff conducts salary credit teacher classes to educate teachers in the lifeways of indigenous peoples of the area.

Contributions

BMNH could contribute storage space, curation services and inventory reports. In return, BMNH would expect long-term storage materials (boxes, bags, shelving, cabinets, labeling materials), operation and maintenance costs, and funds for staff time.

Notes

The Burpee Museum has good facilities and excellent environmental controls. However, the archaeologist functions in an adjunct capacity and is a full-time professor at Northern Illinois University. Additional collections management staff is needed. Movable shelving is needed to alleviate storage space problems. BMNH would probably only accept a portion of the DoD/USACE archaeological collections. The future of BMNH seems bright since there is support from both the general public and the Native American community. The best aspect of BMNH is the collections management policies and procedures, and the brand-new, 40,000-ft^3 facility.

Illinois State Museum

Architectural Summary

Site Conditions

The Research and Collection Center (RCC) at the Illinois State Museum, (ISM) sits on a level city block, defined by Laurel, Ash, 11th, and 10½ Streets to the north, south, east, and west, respectively. The site can easily be reached; it is near I-55 and I-72. It shares the block with a few one-story shops in the east, and a state auto lot to the north. There is much open space, and most of the ground has been adapted for parking space. The environs are moderately built

with single houses, a few stores, and a mostly landscaped area. This location is not considered a natural disaster zone. Nonetheless, landscaped area and space for potential building expansion exist. The facility is built against the southern property line and backs private businesses to the east. The site is fenced on three sides and shares a common fence and gate with the auto lot, which opens to provide necessary circulating space and docking for a semitrailer. The only access to the site is provided at the west or front of the facility. Inside the gate is a parking lot that has recently been expanded.

Building Condition/Structural Adequacy

ISM was built in 1920 as a manufacturing plant and has been converted to different uses many times throughout the years. Since its adoption by the ISM in 1986, many capital improvements have been carried out, including master planning, HVAC and security upgrades, and the current reinforcement of the roof system. ISM has been expanded with a single-story building constructed of steel frame, masonry exterior-walls, concrete floors, and wooden roof decking with EPDM. With a clear height of about 14 feet, original steel columns are spaced 15 feet on center.

The 79-year-old facility has been renovated to accommodate the new function. The new layout accommodates the curation and collections purposes. Office and laboratory spaces surround the collections storage areas. Only the front entrance and one office have windows. One can hardly tell the building is a makeover unless particular attention is paid to the architectural details and the method of construction. Different materials, such as CMU and brick, are used on the same wall, steel columns are welded together, and braces are bolted on the steel column, which is made of four small L-shaped steel attachments to frame the roof structure. The wooden roof decking is the only less than desirable material found in the structure. The original manufacture concrete floor design provides adequate support for the collections.

Code Requirements/Egress/ Accessibility

The facility meets most building code, egress, and accessibility requirements. The systematic upgrades have brought the facility into compliance. As many as eleven exits are provided at all four cardinal directions, and lighted exit signs indicate each. The interior circulation features clear hallways with exits at the end of each. Except for offices, each space is contained by fire-rated doors. All interior and exterior spaces are wheelchair-accessible, including the parking, which is identified with ADA signs.

HVAC Systems

The heating and cooling systems are adequate. The central forced-air system operates on one of the two gas-fired boilers and electric water chillers. The nine-year-old system is checked and maintained by engineers who also replace the air filters as-needed. Both temperature and humidity are controlled by a computer system.

Fire Suppression and Detection

Fire-detection and -suppression systems are good. Both automatic and manual fire alarms are provided throughout the facility. Heat and smoke sensors provide fire detection. Fire extinguishers of type A, B, and C are placed at convenient locations. Sprinkler systems are installed at a few places, such as the openings that connect two spaces. Evidently, the sprinkler heads locations are intended to prevent the spread of fire from one room to another. A sprinkler system is not present in the larger areas of the facility, including the storage areas.

Security System

The security system is excellent. Intrusion alarms are installed at all exterior openings, and the system is wired to and monitored by a private security company, which also responds to the fire alarms. Each storage area is accessible by keycard only; staff members have only their department keycard. Motion detectors are installed at the doorways inside the storage areas.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Illinois State Museum is to foster "an understanding and appreciation of Illinois by collecting and disseminating information on the state's natural, cultural, and artistic heritage. This purpose is served by preserving and utilizing collections and associated data to acquire new knowledge through research and by promoting learning through exhibition and educational programs." The majority of collections are archaeological (eight million objects). Zoological, paleontological, botanical, and geological collections are also housed at the collections center. No archaeological collections are excluded from curation, unless they contain hazardous materials.

Archaeological Collections Storage

ISM houses collections in the Research and Collections Center, which is separate from the downtown exhibit building. Shelving units consist of adjustable metal and Delta cabinets. Primary containers are acid-free Hollinger-brand boxes measuring 9 x 12 x 14.5 inches. No artifacts are stored loose on the shelves. Secondary containers are 2-mil, zip-lock bags.

Environmental Controls

The collections storage area has heating, cooling, and humidity control. This is all controlled by the centralized HVAC system. Digital climate readers monitor conditions, and the data is downloaded into a computer program that can generate reports on climate history. If the temperature or humidity go beyond the specifications set by collections managers, an alarm goes off. Fluorescent bulbs are filtered for ultraviolet light. Pests are monitored by sticky traps. No chemicals are used on archaeological artifacts.

Range of Support Facilities for Archaeological Collections

ISM maintains an exhibit facility in the tourist area of downtown Springfield, and at other sites in Illinois including the famous Dickson Mounds. ISM has an active research program dedicated to Illinois. Support facilities at ISM include a zooarchaeological laboratory, the Faunmap mammalian distribution database, pollen laboratory, DNA lababoratory, paleontology, zoology, and geology laboratories. A library focusing on Illinois archaeology is maintained. Fume hoods are available for use in the paleontology laboratory. Offices, an employee lounge, and a loading dock are also available.

Staff Composition

Full-time staff at the collections center includes a physical anthropologist, three curation assistants, two associate curators, a research associate for ethnographic collections, and a curator of archaeology. Conservation work is contracted out.

Administrative Record Keeping

Smithsonian trinomials are used for site designation. Each box has a computer-generated inventory on acid-free paper held on the box with adhesive. Collections are stored on the shelves by site. Artifacts are labeled directly with india ink. An inventory of collections is maintained on Dbase III+, but will eventually move to Microsoft Access. Information is stored on a hard drive and backed up daily onto tape drives. The back-up is kept on-site. The database is not attached to a network.

Associated Archaeological Documentation and Storage

Associated documents have been inventoried but not cataloged. A duplicate copy of these documents is kept on acid-free paper at the exhibit facility.

Collections Management Policies

Written policies exist for acquisitions, standards for acceptance, treatment of human remains, inventories, exhibition, packing, box labeling, collections access, security, pest management, and deaccessions. A disaster plan is in draft form.

Administration Summary

Background

Illinois State Museum is a division of the Illinois Department of Natural Resources. ISM was established in 1877, and is located in Springfield. The exhibit building is located downtown in the capitol complex, while the Research and Collections Center is located a short distance to the south and east. Archaeological, geological, paleontological, and other specialized collections are located at the Research and Collections Center.

ISM has a curation agreement with the Corps of Engineers, St. Louis District, and actively conducts NAGPRA-related work for the district. In addition, ISM curates archaeological materials and associated documentation for the Chicago, Kansas City, Louisville, and Rock Island Districts of the Corps of Engineers.

Real Estate

The state of Illinois owns the land on which the Research and Collections Center sits. There are no restrictions on improvements, although any plans would require approval, probably up through the level of the Department of Natural Resources.

Administration

A financial commitment to a partnership would be a multi-group decision, coordinated through the Illinois Department of Natural Resources. Funding for ISM consists largely of state appropriations, although contracts, grants, and fund raising are also significant sources of income. All department curators write and track their own grant proposals, and the state Development Director assists in tracking them as well. Additionally, the Development Director is a full-time fundraiser.

Outreach and Education Programs

ISM employs three people directly involved in outreach and education programs: two at Dickson Mounds, Illinois, and one in Springfield. Additionally, most ISM staff are involved in these programs at some level. Programs include an annual archaeology field trip associated with the contract program, field schools, ISM website, exhibit programs, an intern program with local university students, school lectures and tours, monthly archaeology projects for students, workshops for teachers, travelling exhibits, and a module on Native American heritage (curriculum resources). Education programs through the museum are collections-oriented and are based on the active ISM research programs. There are permanent archaeology exhibits located at Dickson Mounds and at the Springfield exhibit facility.

Contributions

ISM's level of contribution depends on the volume of collections to be added to the collections already curated at the museum. If the volume is not extensive, then ISM can contribute their facility and the associated professional curatorial environment. However, if substantial amounts of collections are to be added to the existing ones, then ISM will need an alternative, perhaps new, curation facility. There are other options, such as compact storage units; storage units at ISM currently consist of static open metal shelves. ISM will also need some support assistance for staff labor. Beyond this, ISM can contribute staff expertise and the use of the collections in an active research and education program.

Notes

ISM is well-known to hold up a standard in archaeological curation. All pertinent collections management policies and procedures are in place. The best aspect of ISM is the emphasis on research. This allows ISM administrators to garner resources for curation, since curation alone is not easily understood by state legislative bodies. ISM has considerable experience working with the federal government, as demonstrated with its multiple archaeological investigation contracts, and by its multiple federal curation agreements. The research/outreach emphasis also meshes well with the goals of the Curation Options project. If ISM were to accept additional DoD/USACE collections, it would expect contributions toward additional storage space, either in the form of movable shelving or an addition to the building.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

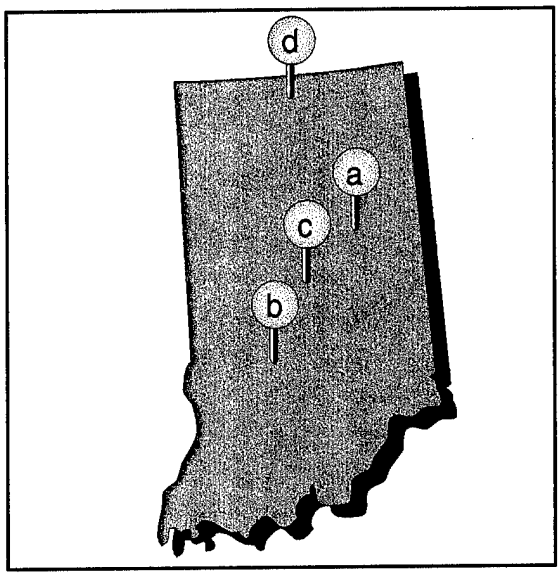
Table 11.2 lists the composite scores and the architecture, collections management, and administration scores for each Illinois institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 11.2
Summary of Decision Support Model Scoring—Illinois

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Burpee Museum of Natural History	**0.8112**	0.19998	0.26380	0.34738
Illinois State Museum	**0.9408**	0.15456	0.29907	0.48715

12

Indiana



Archaeological Materials (in cubic feet)

Department of Defense	79
USACE	349
TOTAL VOLUME	**428 ft³**
Number of Institutions Contacted	**13**

Institutions Assessed

a. Archaeological Resources Management Service, Ball State University, Muncie

b. G. A. Black Laboratory, Indiana University, Bloomington

c. Indiana State Museum, Indianapolis

d. Northern Indiana Center for History, South Bend

Background

A list of the facilities contacted in Indiana is presented in Table 12.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 12.2, showing strengths of each institution. Pertinent information on the facilities visited in Indiana is presented in the following discussion.

Table 12.1
List of Institutions Contacted—Indiana

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Angel Mounds State Historic Site		X		
Archaeological Resources Management Service, Ball State University				
Eiteljorg Museum of American Indians		X		
G. A. Black Laboratory of Archeology, Indiana University				
Indiana State Museum				
Indiana State University		X		
Indian University and Purdue University at Fort Wayne				X
Indianapolis Museum of Art				X
Minnetrista Cultural Center		X		
Northern Indiana Center for History				
Purdue University			X	
Tippecanoe County Historical Museum	X			
W. H. Mathers Museum, Indiana University		X		

Note: Locations visited indicated in **Bold**.

Archaeological Resources Management Service, Ball State University

Architectural Summary

Site Conditions

Archaeological Resources Management Service (ARMS) is located in the Department of Anthropology on the campus of Ball State University. It is easily accessible by interstate, within the City of Muncie. Metered parking is available across the street, and a parking garage is located two blocks away.

Building Condition/Structural Adequacy

The ARMS facility is constructed of concrete and steel beam supports, with a brick and stone exterior. Floors are concrete, and the roof is single-ply insulated membrane with a stone ballast. Both the building and the roof were renovated in 1984–85. Interior walls are drywall, and suspended acoustical tiles form the ceiling. Interior doors are all fire-rated solid core wood with dead-bolt locks.

Code Requirements/Egress/ Accessibility

As a result of the 1984–85 renovation, the ARMS building appears to be ADA-compliant. Additionally, it appears to meet other local and building code requirements.

HVAC Systems

The facility has a relatively new heating and cooling system, although the collections storage area environment is controlled by a separate air conditioning and furnace. Relative humidity is controlled by the heating and cooling system. The forced-air system for the building is equipped with fiberglass air filters; filters for the collections storage area are electrostatic.

Fire Suppression and Detection

The ARMS facility is protected by a wet-pipe sprinkler system. Fire extinguishers are also available throughout the building. Fire detection is provided by heat sensors and smoke alarms. The fire department is located approximately three blocks from the university campus. Doors to stairs are fire-rated, as are the building egress corridors.

Security System

The building itself is not protected by an electronic security alarm system. However, the collections storage area/ARMS laboratory is equipped with one. Motion detectors monitor doors and aisles. The storage area has keypad-controlled access and key locks on the doors. Dead-bolt locks are soon to be installed. In addition to these measures, access to the storage and lab areas is tightly controlled; only two staff have the keypad access code.

Collections Management Summary

Scope of Collections and Mission Statement

The Archaeological Resources Management Service at Ball State University is "a non-profit organization to provide archaeological services for compliance projects, applied archaeological research, and education in Midwestern archaeology." The great majority of the 820-ft^3 of collections are archaeological.

Archaeological Collections Storage

Archaeological collections at the ARMS are in the basement (Room 005) of the Burkhardt building, built in 1922 and completely renovated in the mid-1980's. The painted steel shelves are adjustable, and there are work tables in the room. Most of the primary containers are acidic boxes, and one-quarter of the secondary containers are 4-mil, zip-lock bags; the are rest a mix of paper and plastic. Boxes are never stacked more than two high. Collections are arranged alphabetically by county. Comparative chert collections are also in Room 005.

Environmental Controls

There are no windows in Room 005, and fluorescent bulbs are unfiltered. The temperature is maintained at 69° F by the HVAC system, and relative humidity will be kept "within professional standards" as a result of our visit. No humidity monitoring devices were used at the time of our visit. There is no written pest-management policy or spraying schedule, but no food is allowed in Room 005. Incoming collections go first to the lab for inspection.

Range of Support Facilities for Archaeological Collections

ARMS has an Indiana archaeological reference library with CRM reports, Indiana quadrangle maps, a dark room with a photographic staging area and separate air filtration, an equipment storage room (kiln, transits), a wet lab, a fume hood, offices, and a small room for temporary exhibits that is also used by other academic departments (empty at the time of our visit).

Staff Composition

Staff at ARMS consists of the director and a collections manager. Other work is performed by student workers.

Administrative Record Keeping

Paper copies of the catalog are kept in Room 314F in two locked metal file cabinets, arranged by site, or by county, or by accession number. An accession file, NAGPRA inventory, loan agreements are also kept in Room 314F. There is an index of photographs since 1993 in Room 314D. Accession numbers consist of the year the item(s) was accessioned plus a sequential number. Information for all collections accessioned since 1993 are kept on an electronic database in Dbase IV. Copies of the database are made every six months and kept on 3.5-inch floppy disks. The database is on a local area network (LAN) and two to three people have access.

Associated Archaeological Documentation and Storage

Field notes, site survey files, and CRM reports are kept in the Indiana reference library in Room 314B. No copies of the field notes exist, however electronic copies of most reports exist.

Collections Management Policies

Written policies consist of artifact processing, artifact labeling, photograph labeling, acquisitions, deaccessions, loans, inventory, disaster plan, accessions, and access to collections. No written pest management plan exists.

Administration Summary

Background

Archaeological Resources Management Service at Ball State University, is a non-profit organization with a mission to provide expertise in archaeological compliance, applied archaeological research, and Midwestern archaeology education. ARMS curates archaeological materials and associated documentation. Currently, ARMS curates archaeological collections from Grissom Air Force Base, Camp Atterbury, Newport Army Ammunition Plant, and the Corp's Louisville District. However, there are no formal curation agreements in place. Ball State University, of which ARMS is part of the Anthropology Department, is a state institution that has been in existence for approximately 80 years.

Real Estate

The State of Indiana owns the ARMS building and the associated land. Effects on the property are required to be channeled through the proper university offices.

Administration

The university's Vice President for Business Affairs has the authority to commit the institution financially to a partnership. Support for the ARMS program is derived from the university, contracts, fundraising, and grants. The Office of Contracts and Grants is charged with assisting university staff in grant writing and tracking. University Alumni Programs is the office responsible for overseeing university fundraising.

Outreach and Education Programs

All members of the ARMS staff participate in outreach and education. Elements of the program consist of laboratory tours, site tours, school presentations, and representation with the Upper White River Archaeology Group (avocational).

Contributions

For a partnership, ARMS could contribute space, staff, expertise, and some overhead for administrative functions. DoD and USACE would be expected to contribute operations and maintenance funds, funds for rehabilitation of collections including shelves and boxes, and funding for additional staff.

Notes

Our visit convinced Ball State University physical plant to install humidity control in the collections storage room; a mutually-beneficial outcome of our visit. This indicates that ARMS has the desire and capability to upgrade facilities if needed. Though ARMS is not a large institution, it operates efficiently. ARMS is willing to accept collections from anywhere in Indiana.

G. A. Black Laboratory, Indiana University

Architectural Summary

Site Conditions

The Glenn A. Black Laboratory (GBL) is located on the campus of Indiana University in Bloomington. The campus is easily accessible from State Highway 37. Little parking is available for GBL, although there are a few spaces available for the adjacent Mathers Museum, an art museum with which GBL is conjoined. Most parking is located at the Memorial Union, a few blocks away.

Building Condition/Structural Adequacy

The GBL facility was constructed in 1969, and as specifically designed as an archaeology research laboratory. The structure is steel-and-concrete block construction, effaced with pre-formed limestone slab walls and blocks under the roof. The roof is flat, built up with a rubber membrane. It replaced the original roof approximately 6–7 years ago. The concrete slab floors easily meet the carrying capacity needs of archaeological materials storage.

Exterior doors in the facility are glass, while interior doors are composed of steel. Two rooms are used for archaeological collections storage. These include the Cultural Resource Management Room and the Systems Maintenance Room. GBL and most associated storage areas are all located on the first floor, while the second floor is composed of a library, data backup and electronic systems, and other laboratories.

Code Requirements/Egress/ Accessibility

The GBL facility is not fully compliant with the Americans with Disabilities Act (ADA). While the main entrance has handicapped access, there are no other special accomodations other than wheelchair ramps. Interior corridors in some areas of the building are narrow because of tightly-spaced shelving. Otherwise, GBL appears to meet all applicable building, life-safety, and accessibility requirements.

HVAC Systems

The GBL building has a boiler system for heat, and a recently added separate air conditioning system. Relative humidity is not controlled. The air handling units are equipped with filters. Rooms have independent thermostats. The university physical plant has a central electronic/computerized monitoring system.

Fire Suppression and Detection

The facility is not equipped with a fire-suppression system. Fire extinguishers are the only method of fire protection. Fire detection is accomplished by manual pull alarms. There are no smoke detectors or heat sensors.

Security System

There is an electronic security system that has coverage over all public areas, including halls and corridors, on one keypad. Separate zones exist for

collections areas. Access to codes is monitored and limited. In addition to these measures, doors are equipped with dead-bolt locks and key locks. Campus police also patrol the area.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Glenn A. Black Laboratory at Indiana University is the "conduct of high-quality, original archaeological research on the prehistory and history of Indiana." It houses the State archaeological program "in an academic context where it would benefit from related research efforts and contribute to the educational programs of the institution." It thus focuses on the state of Indiana. Collections include primarily archaeological collections (5,944-ft^3), but also small amounts of comparative faunal, botanical, and paleontological collections.

Archaeological Collections Storage

Archaeological collections at the GBL are stored in two rooms; one called the Collection and Analysis room (Room #018) and one called Bulk Storage (Room #016). Room #018 has open metal shelves, and materials are arranged by accession number. There are work tables between the aisles for graduate students. Wooden dowels span the metal shelf supports to help keep ceramics from falling off the shelves. Most boxes are acidic. About fifty percent of the collections use paper bags as secondary containers, though the GBL is slowly changing over to 4-mil, polypropylene, zip-lock bags. Some ceramics are stored bare on the shelves and some have customized cork or styrofoam rings to serve as padding.

Environmental Controls

Relative humidity (RH) is neither controlled nor monitored. Temperature is controlled by both a heating and cooling system. There are no windows in either long-term storage rooms (#016 and #018), and fluorescent bulbs are unfiltered. If a pest is detected, Indiana University pest management department personnel are notified.

Range of Support Facilities for Archaeological Collections

Support facilities at the GBL include a loading dock for large objects (Room #007), a photography room with dark laboratory and photograph stage (Room #011), a room for archival storage with a fume hood, a CRM office through which archaeological contracts are handled (Room #013), and an instrument storage room in which remote sensing equipment is kept. There is also an extensive library focusing on Indiana archaeological archives on the first floor. Also on the first floor are digitizing cameras, GIS equipment, a digitizer plotter, and a copy machine. Adjacent to the William Hammond Mathers Museum (a history museum) is an exhibit room dedicated to archaeology. Exhibit cases lining the walls are arranged by archaeological time period.

Staff Composition

The staff consists of the assistant director/curator, a combined full-time position, plus graduate and undergraduate workers.

Administrative Record Keeping

Administrative documents are kept in the Records Room (#003), in which fluorescent bulbs are filtered. The Smithsonian trinomial system of site designation is used. The catalog number consists of the year the collection was accessioned plus the sequential number within a particular year (e.g., 1907-1). Archaeological site files (n=30,000) are in four metal file cabinets. The card catalog is also in four metal cabinets and is arranged sequentially by accession number. Maps are kept in metal flat map cases. Other administrative documents are kept in metal cabinets in Room #003 in white, acid-free boxes, including cooperative agreements and correspondence. Some archaeological reports are copied, with one copy kept in Room #003 and one upstairs in the library. Associated documents have not been inventoried or cataloged. A computer database uses SYBASE, and is kept on a local area network. About 20 people have access to this information, and there are seven NT workstations.

Associated Archaeological Documentation and Storage

Photographic negatives have been catalogued, but are rapidly deteriorating due to age (di-acetate base). Photographic prints are kept by site and county in a wooden cabinet. Slides are in two metal, locked cabinets. None of the associated records have been inventoried. Some flat map storage is in Room #016.

Collections Management Policies

Policies include a minimum standards of acceptance, field curation guidelines, labeling procedures, and access procedures for both archaeological and archival materials. There is no written pest management plan.

Administration Summary

Background

The Glenn A. Black Laboratory of Archaeology is an independent research unit of Indiana University, Bloomington, established in 1965. The GBL facility was constructed in 1969 and dedicated in 1971. GBL curates archaeological collections from the U.S. Fish and Wildlife Service, the U.S. Forest Service, and USACE Louisville, Detroit, Fort Worth, and Chicago Districts. Curation agreements are in place for the U.S. Fish and Wildlife Service and the U.S. Forest Service.

GBL is a private institute that is on campus and associated with Indiana University, a state institution. The Eli Lilly Foundation provided funds for building construction in 1965. Today most of the operating costs incurred by GBL are supported by the Glenn A. and Ida M. Black Endowment and the Angel Mounds Fellowship Fund. Other varied support funds come from the GBL contracts program, the Indiana Historical Society, and the Indiana University general fund, which provides a small operating budget, some salaries, and physical plant maintenance.

Real Estate

Indiana University owns the GBL facility and property. Expansion of the facility would not be problematic, although approval would be necessary through a university chain.

Administration

Administratively, GBL is part of the Indiana University Division of Research and the University Graduate School. The university's Contracts and Grants Department has responsibility to approve financial partnerships. Grants and fundraising activities are another form of the institution income. Grants are written by virtually all staff on an individual basis and are tracked accordingly. Fundraising activities are conducted by the Indiana University Foundation, which handles fundraising for the entire campus.

Outreach and Education Programs

GBL is involved in several outreach and education programs, in which all staff and volunteers participate. Staff and graduate students conduct presentations and demonstrations at schools. The annual Discovering Archaeology, a day event held during Indiana Archaeology Week, is conducted by GBL staff.

Contributions

GBL could contribute equipment, supplies, staff time for cataloging, and floor space to a partnership. If a new facility is forthcoming, other university resources could potentially be allocated. DoD and USACE would be expected to contribute curation costs, conservation costs, funds for staff time, and storage costs.

Notes

Because of a lack of long-term storage space, the assistant director suggested that DoD/USACE collections could be housed in an off-campus warehouse facility that has pest infestations and no cooling system. This warehouse does not meet the requirements of 36 CFR Part 79. The installation of movable high density storage would create much additional space in the long-term storage room at GBL. However, the assistant director seemed reluctant to consider this possibility. The GBL has a very long history of archaeological research in Indiana, however, public outreach is mostly limited to Indiana University students. The GBL has excellent physical resources for research on collections.

One person (the assistant director) works as a curator, collections manager, registrar, and conservator who oversees part-time graduate students. The GBL is thus understaffed, though the assistant director thought that staffing, resources, and equipment are adequate.

Indiana State Museum

Architectural Summary

Site Conditions

The Indiana State Museum and Historic Sites (ISMHS) is located in the heart of downtown Indianapolis. The maze of one-way streets is confusing, but the museum is located on a major thoroughfare. Parking for the museum is available in an adjacent lot and in another located across the street. A new site for ISMHS is to be located across from the state government office complex. This new site will have access to a large underground parking facility in the museum complex.

Building Condition/Structural Adequacy

The ISMHS building is constructed of brick on the interior and the exterior. Structural supports are brick and stone. Floors and ceilings are composed of steel and marble. The structure is generally in good condition. The roof is original, although it has been well maintained. It was re-tarred in the early 1990s.

The ISMHS building was originally constructed in 1909 as an office building for city officials. It is a five-floor structure with a lower level, and the collections storage area is located on the fourth floor. Access to this area is only by key-operated elevator, which must be controlled by ISMHS staff. Spaces adjacent to the collections storage area include work processing areas, additional storage rooms, and staff offices.

Code Requirements/Egress/ Accessibility

ISMHS is not entirely ADA-compliant, although several measures to this goal have been completed. There is wheelchair accessibility to the main entrance, and elevators available. Additionally, there are audiovisual fire alarms and enlarged bathroom stalls. However, some halls/corridors are still too narrow, particularly in the exhibit areas. It appears that ISMHS meets all other local and building code requirements.

HVAC Systems

ISMHS has a zoned 24-hour temperature and humidity control system. The cooling system is chilled water; heating is convection and forced-air. Steam dispersion is used for humidity control throughout the building. Portable dehumidifiers are also used when necessary. Annual temperatures are targeted at 70–75° F, and relative humidity is targeted at 40–55 percent. The two archaeological collections storage rooms have no separate environmental controls.

Fire Suppression and Detection

Fire detection in the ISMHS building is accomplished by heat sensors and smoke alarms. Fire extinguishers and fire hose cabinets are available for fire suppression.

Security System

ISMHS is equipped with an electronic security system, which includes all the collections storage areas. The system is controlled by keypad access, and some doors have key card access ports. In addition to the security system, the museum exercises limited access policies, has key locks and keyed numbered combinations on doors, and has security personnel on duty during museum hours. Galleries and exhibit areas are equipped with video monitors.

Collections Management Summary

Scope of Collections and Mission Statement

The broad mission of the Indiana State Museum and Historic Sites is "to collect, preserve and interpret the natural and cultural history of the State of Indiana for past, present and future generations." Most collections are natural history and Euro-American historic, and archaeological collections constitute a small portion (500-ft^3).

Archaeological Collections Storage

Archaeological collections at the ISMHS are on the fourth floor in two rooms. Metal shelves are painted. Some acidic and some non-acidic boxes are used as primary containers. Boxes are never stacked more than two-high. Secondary containers are primarily 4-mil, polypropylene, zip-lock bags. Temporary storage is in metal cabinets, in shelves with acid-free dividers.

Environmental Controls

There are no windows, and fluorescent bulbs are unfiltered. Pest monitoring is accomplished by sticky traps (glue boards and mouse boxes). The adjacent mammal collection increases pest risk, as does the carpeting. A quarterly application of pyrethroids helps to control pests. No food is allowed in storage areas, but is allowed at work desks. A new building to house all facilities is in the planning stage, and this will have much improved environmental controls. Relative humidity (RH) is neither monitored nor controlled in the archaeological storage areas, though RH is monitored and controlled in other storage areas within the building.

Range of Support Facilities for Archaeological Collections

The ISMHS conducts regular excavations in the summer that involve the general public in on-going excavations. There is a conservation laboratory, a registration office, a collections manager office, comparative zoological specimens, a wet laboratory with de-ionization canisters and a hazardous chemical cabinet, a field equipment room, and public exhibits on Indiana history and prehistory. Support facilities will improve if the new building is constructed. Materials Safety Data sheets are kept in the conservation office, and appropriate safety protection devices are available for use.

Staff Composition

Collections management staff at the ISMHS consist of the anthropology curator, various other curators, a registrar, a collections manager, a conservator, and various interpreters and educators.

Administrative Record Keeping

Smithsonian trinomials are used to designate sites. The accession number incorporates the year, next a two-digit number designating the type of material, then the site number, then an individual artifact number, if needed (e.g., 71.13.433.5). The numeral 13 signifies prehistoric, 14 signifies human skeletal, 15 signifies historic, and 16 signifies ethnological. Administrative records for archaeological materials are kept in the same rooms as the archeological materials. None of the cabinets are lockable. Cataloging and inventory of associated documents has begun and is about twenty percent complete. A computerized database is kept using Paradox version 3 and version 4.3 for DOS, and there is no network. Curators are responsible for their own collections.

Associated Archaeological Documentation and Storage

Associated archaeological documents at the ISMHSHS are kept in the same room as archaeological materials. Some copies are made of reports, especially of reports funded by highway projects. These copies are sent to the Division of Historic Preservation and Archaeology (DHPA), which is in a different building in downtown Indianapolis.

Collections Management Policies

Policies include minimum standards of acceptance, ethics policy, incoming/outgoing loans, numbering of artifacts, exhibit, deaccessioning, artifact labeling, artifact handling, artifact storage, and disaster plan. No written pest management plan exists.

Administration Summary

Background

The Indiana State Museum and Historic Sites is a state institution which maintains collections, exhibit facilities, and historic sites located throughout the state. The institution was founded in 1869, and moved into its current building one hundred years later. Currently ISMHS has archaeological collections from Fort Benjamin Harrison, and some small Corps collections.

Real Estate

Both the current building and the new facility are owned by the State of Indiana. The properties around the new building will be managed by White River State Park personnel, which is another state agency.

Administration

The Director, Indiana Department of Natural Resources has the authority to commit the Indiana State Museum to a financial partnership. Funds for archaeological curation are derived from a number of sources, including state funds, grants, and fundraising activities. A grants administrator oversees both fundraising activities and grant tracking.

Outreach and Education Programs

ISMHS operates a number of outreach and education programs. The I-REACH Bus is a traveling exhibit that goes to Indiana schools. The Public Archaeology Program, at the time of the St. Louis District visit, was involved in a historical archaeology project at Lanier Mansion State Historic Site. There is also the Fossil Festival and the Reptile Festival in Summer and Fall, respectively. Archaeology and natural history trunks are in the process of being designed for primary and secondary school programs. I-REACH is the ISMHS banner program.

Contributions

ISMHS could contribute floor space, staff, and operations and maintenance funds to a partnership. DoD and USACE would be expected to assist in recovering some of the associated curatorial costs.

Notes

The ISMHS is a state institution on the verge of a new era. It is planning a new building that will be adjacent to the existing Eiteljorg Museum, thence forming a museum annex. ISMHS currently has the most full-time staff of any of institution in Indiana. Collections management policies are detailed and written, and adequate staff is in place. The anthropology curator has a good working relationship with faculty at Ball State University, and can utilize resources there, if needed.

Because collections are stored in many different rooms in the large ISMHS building, maintaining an adequate and secure environment is a difficult task. These problems should be eliminated when ISMHS moves into the planned facility. This will also eliminate parking and accessibility problems.

Northern Indiana Center for History

Architectural Summary

Site Conditions

The Northern Indian Center for History (NICH) is located several blocks west of downtown South Bend, Indiana. The main museum building is located on the southern end of the Copshaholm property, a historic home and grounds on a prominent city street. The collections storage facility is located two blocks south of the Copshaholm property. The surrounding neighborhood is currently rebounding from decades of decline. Several large historic homes have been renovated and the NICH serves as an anchor for the area. Nevertheless, there are still adjacent and other nearby properties that are in decline. The direction of the neighborhood and increased visibility of the new facilities at the Copshaholm property are perhaps the NICH's greatest challenge.

The laboratories at the main museum building would likely be used to rehabilitate the DoD/USACE archaeological collections. There is parking for over one hundred cars at the main museum building. A loading dock is located on the west side of the building for large exhibits. A loading dock on the east side of the building is used for general deliveries.

A small paved area provides access to the overhead dock door and loading area at the collections storage building. The same paved area provides four undesignated parking spaces. An unmaintained alley is the northern boundary of the site. The NICH owns approximately 200-ft. of adjacent property to the west of the repository building that is ideal for expansion.

Building Condition/Structural Adequacy

The main museum 50,000-ft^2 facility was constructed in 1994 and includes the NICH offices, exhibits, laboratories, library, and auditorium. The building

was constructed to compliment the historic Copshaholm mansion and grounds and provides an attractive and purposeful environment for visitors and supporters. The new facility was well maintained and showed no signs of structural deficiency. It has no floor drains, and contains no hazardous building materials. The laboratory spaces would be sufficient for the rehabilitation needs of the collections.

The repository area was completed in December 1997 at an approximate cost of $300,000 ($26/ft^2). The prefabricated steel structure is clad with insulated panels and decorative concrete masonry units. The building has no windows. The roof is a standing seam metal system. The footprint of the building is 6,600-ft^2. A steel frame mezzanine adds another 5,000-ft^2 of floor space that brings the area for collections storage to 11,600-ft^2. The new building was well maintained and organized, and displayed no signs of structural deficiency. The county technically owns the building and leases it to the NICH. The county is responsible for exterior maintenance, which has already made repairs of several bullet holes, presumably from the neighboring tavern. The facility is equipped with floor drains but does not contain any hazardous building materials. The NICH repository is a quality yet effective example of a cost-efficient collections storage facility.

Code Requirements/Egress/ Accessibility

The main NICH museum building meets all of the applicable building, life-safety, and accessibility requirements (type II construction, B use group). Six exits provide emergency egress from the building. An elevator provides access between levels.

The NICH repository meets all of the applicable building, life-safety, and accessibility requirements (type II construction, S-1 use group). Three exits provide emergency egress from the building. There is no disable access to the mezzanine level. Because the building is not a public facility, this is compliant with the Americans with Disabilities Act.

HVAC Systems

Twin exterior direct-expansion condensers provide redundant cooling capacity to the repository. A natural gas boiler provides hot water to the single air handler unit (AHU). The system is equipped with filters that are changed regularly. The HVAC control systems provide both temperature and humidity control and monitoring. The ductwork from the AHU was designed to provide additional distribution between the two levels and several rows of collections storage shelves. A recirculation unit provides additional air distribution in the building.

Fire Suppression and Detection

Both the main museum and the repository are equipped with wet-pipe fire sprinkler systems. There are manual and automatic detection systems that are wired to a local security company and then to the local fire department. The main museum building has an in-house monitoring system at the security station. Both buildings are equipped with audio and strobe alarms as well as emergency lights.

Security System

The main museum facility is secured by dead-bolt locks, video monitors at sensitive areas, motion detectors, keypad access and intrusion alarms throughout the building. The entire alarm system is wired directly to a local security company which then notifies the local police department.

The repository facility is secured by dead-bolt locks, motion detectors, keypad access and intrusion alarms throughout the building. The entire alarm system is wired directly to a local security company which then notifies the local police department.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Northern Indiana Center for History is "to collect, preserve, interpret, exhibit and teach the heritage of the St. Joseph River Valley Region..." Most of the collections are historical Euro-American and include portraits of influential persons in the region, textiles, toys, dolls, bed coverings, costumes, furniture, and antique machinery, and a large collection of the All American Girls Professional Baseball League paraphernalia. Prehistoric archaeological collections are a small portion. Very few culturally unaffiliated human remains are curated.

Archaeological Collections Storage

NICH collections are housed in a building completed in 1997. Metal shelving has electrostatically-applied paint and 30-inch deep shelves. The few archaeological collections are in acidic boxes with a variety of secondary containers.

Environmental Controls

Relative humidity (RH) and temperature are monitored by one hygrothermograph (calibrated once/month by a sling psychrometer) in the upper mezzanine level and by the HVAC system. The system is set at 70° ± 2° F and 50% RH. Logs from the hygrothermograph are kept and analyzed once per month, and variation is negligible. There is no written pest management plan or collecting device, however a contractor sprays pesticide once per month. The building houses mostly furniture, textiles, and paintings. Ultraviolet radiation is kept to a minimum since there are no windows, and the fluorescent bulbs have filters.

Range of Support Facilities for Archaeological Collections

Support facilities at the NICH include a large exhibit museum. Exhibits focus on the St. Joseph River valley, encompassing northwestern Indiana and southwestern Michigan. A small exhibit ("What's the Point?") focuses on archaeological stone tools. Four small fume hoods are in the exhibit preparation room. Various offices and a small library focusing on collections management are housed in the exhibit building. A large loading dock permits movement of large collections.

Staff Composition

The staff consists of a senior curator (full-time), curator of collections (full-time), an archivist (part-time) and a registrar.

Administrative Record Keeping

No inventory of collections has been done, but one is planned in the next ten years. There is a box log, since each box is numbered and each item in a box is numbered. Numeric codes for all artifacts consist of the year it was acquired plus a sequential number (e.g., 98.1). Alphanumeric codes for archaeological remains are given the regular, in-house accession number plus the Smithsonian trinomial (e.g. 98.1.12.SJ.338). Donor card files are kept. A computer database is kept on a DOS-based program, SNAP!SHOT, that is not on a network. Fields include location information, loan information, description, and conservation information. Associated documents have not been inventoried.

Associated Archaeological Documentation and Storage

All associated archaeological documents are kept in the Curator of Collections office. These consist of field notes and maps. No photos or slides are kept of archaeological artifacts.

Collections Management Policies

Collections policies are slated to be re-written. Written policies include an acquisition procedure, outgoing and incoming loans, deaccession, ethics, and personal versus institutional collecting policies. A committee approves/disapproves incoming collections every two weeks.

Administration Summary

Background

The Northern Indiana Center for History is a general history museum that includes archaeology collections and programs only as a supplement to its broader focus on regional history. It is a private institution that receives a small portion of its annual funding from the county.

Real Estate

The NICH took ownership of its existing properties in 1990 and completed a large exhibits facility in 1994. The NICH completed a new collections storage facility in 1997 located on a nearby site. The county technically owns the exhibits and collections storage buildings and nominally leases them to the NICH for $1 dollar/year. The county maintains the exteriors and grounds of each building while the NICH retains responsibility for the interiors of the building. The lease agreement calls for the county to release ownership of the facilities to the NICH in 2010.

Administration

The NICH director has the authority to commit the institution to a partnership with the DoD/USACE, with approval from the board of directors. The NICH seems to have adequate administrative staff and while there is no dedicated archaeology staff. An assistant director and the NICH's financial planning officer have grants writing and tracking responsibilities. The NICH director and director of development have fundraising responsibilities.

Outreach and Education Programs

The NICH has staff dedicated primary/secondary school outreach. The NICH hosts over 12,000 school children in organized tours each year. The local school district provides direct funding to the NICH to support these school visits. There are no dedicated archaeology staff and few archaeology outreach programs and collections. A summer archaeology field school for children and adults is the highlight of the archaeology programs.

Contributions

The NICH could contribute collections storage space, land for future expansion, integration into the NICH's existing programs and collections management systems. The NICH would also consider cost sharing overhead costs. In return, the NICH would expect DoD/USACE to contribution funds toward a staff member to care for the collection and for expanded outreach/research programs.

Notes

The NICH is a regional history museum that has made good progress toward creating an environment that preserves and exhibits items relating to its mission. However, the registrar indicated that they try to limit collections to items relating to the St. Joseph River Valley. The director was very concerned about NAGPRA-related artifacts, and indicated the NICH would not accept such items.

The NICH repository facility should be noted as a quality example of cost-effective curation design. The building serves well as a repository but does not have adequate laboratory space for processing and rehabilitating collections. The prefabricated repository building is suitable for future expansion. The storage facility is newly-built and meets the requirements of 36 CFR Part 79.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 12.2 lists the composite scores and the architecture, collections management, and administration scores for each Indiana institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 12.2
Summary of Decision Support Model Scoring—Indiana

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Archaeological Resources Management Service, Ball State University	**0.8312**	0.18964	0.27017	0.37140
G. A. Black Laboratory, Indiana University	**0.7293**	0.06826	0.23813	0.42288
Indiana State Museum	**0.8176**	0.15152	0.28321	0.38286
Northern Indiana Center for History	**0.7299**	0.19963	0.26534	0.26488

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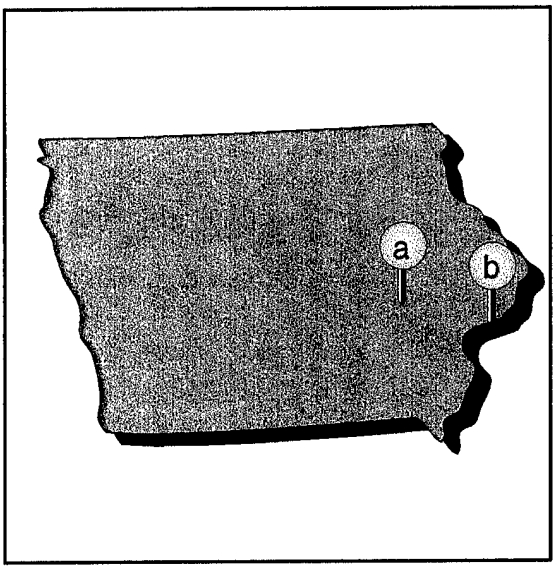
Iowa



Archaeological Materials (in cubic feet)

Department of Defense	34
USACE	768
TOTAL VOLUME	**802 ft³**
Number of Institutions Contacted	**10**

Institutions Assessed

a. Office of the State Archaeologist, University of Iowa, Iowa City

b. Putnam Museum of Science and Natural History, Davenport

Background

A list of the facilities contacted in Iowa is presented in Table 13.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 13.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Iowa is presented in the following discussion.

Table 13.1
List of Institutions Contacted—Iowa

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Fort Dodge Historical Museum			X	
Effigy Mounds National Monument		X		
Grout Museum of History and Science				X
Luther College, Laboratory of Archaeology			X	
Office of the State Archaeologist, University of Iowa				
Putnam Museum of Science and Natural History				
Sioux City Public Museum		X		
State Historical Society of Iowa		X		
University of Iowa Museum of Natural History		X		
University of Northern Iowa Museum				X

Note: Locations visited indicated in **Bold**.

Office of the State Archaeologist, University of Iowa

Architectural Summary

Site Conditions

Office of the State Archaeologist (OSA) is located in the southern section of Iowa City, and it is associated with the University of Iowa. Accessible by highways IA-1, I-80, and I-380, the site is at the corner of two downtown streets. To the south of and parallel to the site is a railroad that diverges into two tracks. The site has a considerable reduction in elevation running from north to south. A 45-space parking lot exists along with additional parking and circulation spaces at the north and the east of the facility. While three areas are paved, the west boundary is characterized by strips of grass and a sidewalk. The north and west boundaries are defined by a line of trees.

The overall site condition is good, although a few spots retain rain water because of improper grading. It also has space for potential building expansion. The use of adjacent areas is mixed for industry, business, office, commerce, and residential housing. Adequate landscaping and parking spaces are provided between buildings, indicating good planning. With a few exceptions, most structures in the area are single-story masonry buildings. The region is not believed to be in any natural disaster zone.

Building Condition/Structural Adequacy

Built in the early 1960's, the facility was originally designed as a grocery store until acquired by the University of Iowa in 1994. OSA moved into the building in April 1994. The 15,000-ft^2 main level and 6,000-ft^2 basement space house OSA and the university radio station. OSA occupies two-thirds of the main level and one-fifth of the basement space, while the radio station takes up one-third of the main level. Four-fifths of the basement is used as general university storage. Containing compact storage units, the main collection storage area is isolated in the middle of the building on the ground floor. The human skeletal remains storage area is located adjacent to the main storage area. The research area is oriented at the rear next to the processing area.

Extensive renovations were instituted in 1998. The steel frame CMU wall structure has poured-concrete floors and a brick exterior wall veneer. The roof is composed of two parts—an intersecting front portion and a built-up rear portion. The intersecting roof is covered with a layer of asphalt sheeting, and the built-up roof is finished with roll EPDM. The roof lacks insulation. Evidence of wall cracking is apparent due to the lack of expansion joints. However, the cracks are sealed and have become the natural expansion joints. There are fixed windows on the north and east walls where offices and a library are located. The front part of the building has a tall ceiling with ample natural lighting. The office space consists of one open space with short dividing walls and partitions. A covered loading dock is located at the east elevation, in front of which adequate space is available for a full sized truck.

Code Requirements/Egress/ Accessibility

OSA meets most of the building code, egress, and accessibility requirements. Constructed of fire-resistant materials, the facility is converted to office and storage use from the original commercial function. Different activities are separated by fire-resistant walls. A central hallway provides adequate circulation and egress. However, accessibility is a problem for wheelchair users. Additionally, there is no elevator access for the basement. Only the front entrance is wheelchair accessible; the rear exit door opens to a flight of metal stairs outside, and there is no ramp. Some of the building interior aisles are less than 36 inches wide, which is a minimum width for wheelchair maneuvers. The site has adequate ADA signage, but the building interior does not.

HVAC Systems

The heating and cooling systems provide sufficient environmental controls. Two types of heating systems are used, including direct expansion and radiant heating. Regulated air is forced through the ductwork system, while the radiant heating system is arranged along the perimeter of the building. Both electricity and natural gas fuel the systems. Disposable and washable filters are replaced in six-month intervals.

Two cooling units installed on the roof chill water for cold air exchange. The heating and cooling systems were installed in the 1994 renovation. The

temperature is targeted at 65° F in the main-level storage room and 72° F in the non-storage areas. Relative humidity is targeted at 58–62% for the entire building.

Fire Suppression and Detection

Only the basement is equipped with a wet-pipe sprinkler system. Not all spaces are equipped with smoke detectors, which are located in the return air ducts. Heat sensors are not used, and neither is an automatic alarm system. A fire alarm is installed at the exterior wall facing Clinton Street, which is the busiest street in near the site. The fire detection and alarm systems are in the process of being upgraded.

Security System

Only exit doors are locked. Police patrol is the main security measure.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Iowa Office of the State Archaeologist is "...to discover, disseminate, and preserve knowledge of Iowa prehistory and history." OSA has a close working relationship with several university programs and departments, including anthropology, geosciences, Quaternary Studies Group, and the Museum of Natural History. Collections at OSA are almost exclusively archaeological, including human skeletal remains, botanical remains, and zoological specimens. OSA also maintains a large early 1900's human skeletal collection acquired from Stanford University that was derived from medical school cadavers.

Archaeological Collections Storage

Archaeological collections are housed in an interior room designated "the repository," which has only one, tightly-controlled, entrance. The door opens to a narrow hallway, which leads to a larger section filled with 10-x-15-foot (h x w) manually operated metal compact storage units. Additionally, there are some stationary open metal shelving units in the narrow entry hallway. Some documentation is stored on these units. A separate storage room, adjacent to the repository, is used for analyzing and curating human skeletal remains. The OSA physical anthropologist and NAGPRA coordinator manage the burials room.

Primary containers for artifacts consist primarily of small acid-free cardboard boxes, each encompassing approximately ¼-ft^3 in volume. Some of the boxes are smaller, approximately $^1/_8$-ft^3 in volume. There are generally seven to 11 boxes stored on each shelf of the compact storage units. Secondary containers consist primarily of acid-free boxboard and acidic paper wrapping.

Environmental Controls

The "repository" has heating, cooling, and relative humidity control. Air movement systems are HEPA filtered. Humidity and temperature in the room are monitored with a datalogger. Humidity in the basement collections storage areas is controlled using four commercial dehumidifiers. Doors and windows in the facility are sealed; the "repository", as an internal room, has no doors or windows.

Pest management is handled through a University of Iowa contracted firm, which sprays the facility both on demand and on a regular basis. When problems are detected, traps are distributed for regular observation.

Range of Support Facilities for Archaeological Collections

In addition to curatorial space, OSA has a loading dock, temporary storage room, artifact washing room, a room for flotation and drying, and a large room for artifact processing and analysis. OSA also maintains comparative collections for lithic artifacts, ceramic artifacts, zoological specimens, and botanical specimens. The flotation/drying room is equipped with a fume hood for hazardous chemical usage. Field equipment is stored throughout the flotation/drying room and the temporary storage room. Other equipment, stored primarily in the analysis/processing room, consist of computers, microscopes, and a freezer.

Staff Composition

Two OSA staff members, the repository manager and the documents curator, are devoted exclusively to collections care. The Burial Programs Director, Site

Records Coordinator, and the OSA Director are also integral to collections processing and storage. The repository manager also functions as the laboratory manager. OSA employs a large number of other staff which are associated directly with archaeological investigation projects.

Administrative Record Keeping

Archaeological sites are tracked by Smithsonian trinomial designations. Incoming collections are assigned an accession number, which determines the placement location on the repository shelves (sequential). There are a variety of cataloging systems, although the main system is a number that represents provenience, with an option of a second number representing specimen number. The computer database is organized to incorporate the variety of cataloging systems present.

At present, OSA maintains its own databases in Paradox. However, OSA is converting to Microsoft Access. Computers are all on a password-protected local area network, with remote access capability. An archival backup copy of appropriate files (on tape) is made automatically at night, and a full backup is produced every week. A copy is stored off-site monthly.

Associated Archaeological Documentation and Storage

Records are stored primarily in the OSA archives, except for annual burial reports, which are stored in the burials room. Project burial reports are stored in the archives. The following other types of archaeological documentation are housed at OSA: artifact inventories, site records, field notes, maps, photographs and slides, and reports. There are several file systems through which records can be accessed. These include the archaeological site files, project files, computer-accessed card catalogs, and miscellaneous county files. Cross-indexed keys include site number, project number, contractor serial number, etc. The archives is one of the largest rooms in the OSA facility, and is filled with open metal shelves (primarily for reports) and standard metal file cabinets. Associated archaeological documentation is stored in the archives.

Collections Management Policies

OSA has the following written collections management policies and procedures: mission statement, accession policy, minimum standards of acceptance, loans, conservation, exhibition, access and use of collections, consultation, and pest-management.

Administration Summary

Background

The Iowa Office of the State Archaeologist is a state-designated agency responsible for maintaining a database of Iowa archaeological sites, conducting state-sponsored archaeological investigations, managing the state ancient burials program, and curating state archaeological collections. The OSA was established in 1959, and is part of the state-operated University of Iowa. OSA also has a large contract archaeology program which conducts investigations for a number of customers, the largest being the Iowa Department of Transportation. OSA currently curates archaeological materials and associated documentation for Iowa Army Ammunition Plant, and the Rock Island and Kansas City Districts of the Corps of Engineers.

Real Estate

The University of Iowa owns the building, which OSA shares with a radio station; each organization has approximately one-half of the facility. There are no restrictions on modifications to the building or property, other than the normal code and zoning requirements.

Administration

OSA could commit to a financial partnership agreement through university assistance. The Vice President for Research is the most likely official to commit the institution to such an agreement. OSA derives much of its operating funds from state university appropriations and from its active contract archaeology investigation program. Grants are an additional source of income; proposals are managed by the OSA director and the university's general contracts program director. Fundraising is conducted at a higher university level, the University Foundation.

Outreach and Education Programs

OSA operates a diverse education and outreach program. OSA coordinates the annual Iowa Archaeology Month activities. Other outreach activities include public field schools, brochures, web site, publication of a scientific journal *Midcontinental Journal of Archaeology*, teacher training, workshops associated with the field schools, and support for the Iowa Archaeological Society. In addition, OSA provides experience for graduate and undergraduate students in the university anthropology department.

Contributions

OSA provides a strong university-based program with a commitment to archaeological collections. There is also a strong museum-based commitment from the university, and an associated trust. OSA has a large staff with varied expertise. DoD and USACE would be expected to provide a fixed maintenance fee to cover the costs of curation.

Notes

OSA has a very active archaeological research program that is largely funded by contracts, although it enjoys a state mandate for existence and a close relationship with a well-funded university. Iowa has one of the more active cultural resource management programs in the nation. The OSA building is very appropriate for field-to-shelves collections management, with many appropriate support facilities.

The main-level curation repository is approximately three-quarters full. OSA staff are investigating the possibility of acquiring more space in the basement of the building, but this too may be limited or not forthcoming. OSA will eventually need either a new addition or a new facility. Current acquisition plans call for another basement storage area.

Putnam Museum of Science and Natural History

Architectural Summary

Site Conditions

Putnam Museum of History and Natural Science (Putnam) is located in a large landscaped city block of Davenport. The site has a considerably large drop in slope that changes one floor level from the front to the rear of the building. The elevation drops steeply beyond the employee parking area and continues for several city blocks until reaching the Mississippi River. Views of the city and the river below unfold from the rooftop, which was once used as an observatory.

The general use of the area is residential. The Art Museum is located to the immediate west of Putnam, on the same block. Mary Crest College is to the east of the Putnam, across a main street. Up to 40 parking spaces are available for visitors, and a large lot in the rear is used by the employees. A loading dock area can accommodate a semitrailer. Highways near the site are US-61, US-6, and I-80. The site is not considered to be located in a natural disaster region.

Building Condition/Structural Adequacy

The Putnam is in good condition. The facility was constructed in two different phases, the original part in 1962, and the newer addition in 1995. It was designed as a museum. With three levels, the original section constitutes most of the building space, including three exhibit/gallery spaces and a learning center on the first floor, three galleries and a lecture hall in the basement, and offices on the second floor. The one-story addition includes the front entrance, lobby, receptionist's desk, a study room, and two exhibit spaces. Three collections storage rooms are located in the basement. The total space is an estimated 43,500-ft^2.

The building is on a split-level site. The structure is reinforced poured-concrete with pre-cast concrete panel and stone exterior walls. Stairs are also poured concrete. Built-up roofs are covered with EPDM and gravel. The front entrance and the mid-hallway have a curved metal frame and tinted vinyl covers that permit natural light into the building.

Code Requirements/Egress/ Accessibility

The facility meets building code, egress and accessibility requirements. The Putnam is constructed of noncombustible materials such as concrete, stone, and CMU's. There are a total of nine exits located in

different areas of the building. Each exit is identified by a lighted sign. Two of the three elevators are for passengers and are equipped with braille, providing wheelchair access throughout the building. Bathrooms are ADA-compliant, and ADA signs are installed both inside and outside of the facility. Doors are not fire-rated, however.

HVAC Systems

Heating and cooling systems provide adequate environmental control for the facility, which is divided into 33 zones. The collections storage areas have 12 zones, and the remainder of the building has 21 zones. Two gas-fired hot water boilers support the heating system, and three electric chillers supply the cooling. There is also a steam boiler for humidity control. High efficiency particle air filters are replaced every four months. The relative humidity is set at 45% throughout the facility, while the temperature is adjusted between 70–72° F.

Fire Suppression and Detection

The front or new part of the facility is protected by a sprinkler system, but the original section is not. Both sections have smoke and heat sensors. Automatic and manual-pull alarm systems are in place, and fire extinguishers of type A, B, and C are available and are inspected annually. The fire alarm system is wired to a local security company, which also responds to the security alarms.

Security System

The security system is very good. Motion detectors are used at critical areas such as doorways and collections storage rooms. While access to the storage rooms is restricted, an access code is required to disarm the system upon entering the front doors. Lockable storage cabinets are used, and intrusion alarms are installed at most openings and tied to the private security company.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Putnam Museum of History and Natural Science is "to collect and preserve objects and natural science specimens and to provide educational and enriching experiences through interpretive exhibits and museum programming." Since its founding in 1867, the Putnam has been collecting objects of antiquity and objects of scientific interest, curating them, and using them in exhibits and education programs. The Putnam's collections can most appropriately be classified as natural science (e.g., geology, paleontology, and biology), history (e.g., social, cultural, political, and economic), anthropology (e.g., archaeology and ethnology), and archives (e.g., regional and institutional). Archaeology collections are not proportionately large, but consist of over 10,000 items from the Mediterranean region, Europe, and North, Central, and South America.

Archaeological Collections Storage

The collections storage area is located on the lower level of the Putnam, adjacent to the registrar's office. This area is located in close proximity to the loading dock and exhibits preparation area. The collections storage area does not exclusively house archaeological materials, but also contains art, ethnology, decorative art, a herbarium, and natural history collections (e.g., birds, insects, and mammals). Archaeological materials are housed on industrial-strength steel enamel finish metal shelving units, in baked enamel finish metal modular drawer units, and in pine wood cabinets dating to the 1890s through 1920s. Drawers are normally padded with Ethafoam-brand padding or cotton batting.

Most artifacts (e.g., whole ceramic pots, large groundstone items) are stored on open shelving, with no primary or secondary containers. Most other artifacts are housed in metal cabinet drawers with some type of padding (e.g., Ethafoam or cotton batting). More fragile items are in small padded boxes which are fabricated in-house. A small amount of artifacts are still in the original brown acidic paper bags.

Environmental Controls

The Putnam has heating, air conditioning, and relative humidity control. Hygrothermographs are used to monitor humidity, and are analyzed weekly. Air circulating systems are filtered. Relative humidity is set for 45%, although a special climate zone is maintained for the Asian-Egyptian collections room, which has an RH of 40%. Temperatures are targeted at 68–72° F. Pest management is accomplished through a contracted firm, which conducts on-site monitoring of all museum areas on a monthly basis. Pheromone traps, sticky traps, and other monitoring devices are used.

Range of Support Facilities for Archaeological Collections

Support facilities at the Putnam include a loading dock and a laboratory/preparation area. The museum has a freezer, and fume hoods associated with hazardous chemicals usage. Other support areas consist mainly of exhibits preparation and classrooms.

Staff Composition

Collections-related staff include the Chief Curator, the Curator of History, the Curator of Natural Science, the registrar, and a curatorial and education specialist. The registrar has collections management responsibilities for the archaeology collections, and the Chief Curator has curatorial responsibilities for the archaeology and ethnology collections.

Administrative Record Keeping

The Putnam uses several site-record administration systems, including the Smithsonian trinomial method of site designation. Older, donated collections may not have provenience information. The museum maintains all types of management records, including accession files, catalog information, conservation information, environmental records, inventory records, exhibit information , deaccession files, object location identification, and loan information. These records are stored in the registrar's office.

Associated Archaeological Documentation and Storage

The Putnam curates associated documentation such as artifact inventories, site records, burial records, field notes, maps, reports, and photographic records including prints and slides. Associated documentation is maintained in the archives, which is in the library area. Records are housed in standard metal file cabinets, in acid-free folders. The archives are located behind a steel-mesh "caged" area which is key-controlled and accessible by only appropriate curatorial or collections staff. In the registrar's office, administrative records are stored in standard metal file cabinets; the cabinets housing accession records are fire-resistant.

The Putnam registrar uses the SNAP! program to manage the museum's collections. The registrar's computer is attached to a network, to which five people have direct access. These staff members include the curatorial and collections staff, and the director. Daily and monthly backup copies of data are produced on disk, and one copy is stored off-site in a bank vault.

Collections Management Policies

The Putnam maintains most written collections management policies and procedures, including a mission statement, accession/acquisition policy, minimum standards of acceptance, inventory policy, loan policy, exhibition policy, conservation policy, packing and shipping procedures, disaster/emergency plan, access/use policy, security guidelines, consultation policy, collections management policy, and deaccession policy. A collections management procedures manual is in progress.

Administration Summary

Background

The Putnam Museum of History and Natural Science is a private, non-profit institution founded in 1867 and located in Davenport, Iowa. The current facility was opened in 1964 and is located on a city property campus northwest of the Davenport downtown area, and is located immediately adjacent to the Davenport Museum of Art. The Putnam does not currently curate DoD or USACE archaeological collections, nor does the museum have any curation agreements with federal agencies.

Real Estate

The City of Davenport owns the property, including the campus and adjacent art museum. The Putnam leases from the city, on a 99-year renewable term. There are no significant restrictions to the use of the property. In fact, the Davenport Museum of Art is being pushed to move to a newer facility to be constructed downtown, and the Putnam is considering expansion into the art museum's current facility.

Administration

The Director and the President of the Board have the authority to commit the Putnam to a financial partnership. Funding for the museum is derived from a number of sources, including memberships, admissions, donors, and grants. Grant writing and tracking is a shared responsibility, conducted by the Director of Development and Marketing, the Director/Chief Executive Officer, and the Chief Curator/Curator of History. Collections management staff also participate in grant writing. Fundraising is similarly a shared responsibility, conducted by the Director of Development and Marketing, the Director/CEO, and the President of the Board.

Outreach and Education Programs

The Putnam education staff is large and includes two certified teachers for K-6 school programs. Programs consist primarily of classes targeted at children of grades K-6. Class topics focus on natural history, anthropology, biology, and history. Classes are rotated on a monthly basis. For adults, the Putnam offers a limited series of classes and travelogue presentations. Programs change on a monthly basis. Some programs for children are theatrically based.

Contributions

Toward a partnership, the Putnam could contribute staff, collections management policies, its newly developed collections management procedures, collections-based exhibits, and its facility and associated maintenance staff. DoD and USACE would be expected to provide facility and equipment setup costs. Contingent on the degree of collections usage, the Putnam would require funding for additional support staff.

Notes

The Putnam has a large facility with good room for exhibits and education-related activities. Several collections storage areas are filled with history collections, and a smaller storage area is filled with a variety of types of materials ranging from natural history to archaeology. The Putnam is experienced in maintaining large donated archaeological collections—particularly of exhibit quality. Most archaeological materials belong to one particular collection from the early 1900s consisting of Mississippian artifacts. Space, while a problem now, may be augmented within the next 3–4 years, as the Putnam considers renovating and using the adjacent Davenport Museum of Art. This facility is expected to be vacant soon but would require renovation.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

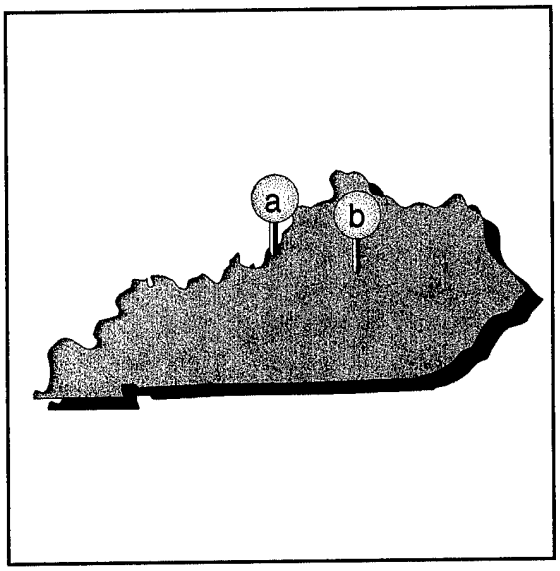
Table 13.2 lists the composite scores and the architecture, collections management, and administration scores for each Iowa institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 13.2
Summary of Decision Support Model Scoring—Iowa

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Office of the State Archaeologist, University of Iowa	**0.7951**	0.09130	0.25755	0.44625
Putnam Museum of Science and Natural History	**0.8110**	0.15608	0.27539	0.37950

14

Kentucky



Archaeological Materials (in cubic feet)

Department of Defense	150
USACE	750
TOTAL VOLUME	**900 ft³**
Number of Institutions Contacted	**4**

Institutions Assessed

a. Program of Archaeology, University of Louisville, Louisville

b. W. S. Webb Museum of Anthropology, University of Kentucky, Lexington

Background

A list of the facilities contacted in Kentucky is presented in Table 14.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 14.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Kentucky is presented in the following discussion.

Table 14.1
List of Institutions Contacted

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Murray State University				X
Program of Archaeology, University of Louisville				
Wickliffe Mounds		X		
W. S. Webb Museum of Anthropology, University of Kentucky				

Note: Locations visited indicated in **Bold**.

Program of Archaeology, University of Louisville

Architectural Summary

Site Conditions

Located at the northeast boundary of the University of Louisville (UL), the Program of Archaeology, Building 34, is in an area that is made up of mostly educational facilities. The site can easily be reached by I-65. South of the site is a large university warehouse, and the north is an office and two other institutional buildings. Limited space is available for building expansion, and parking is shared and very limited. Some landscaped areas exist on site. It is not in an earthquake or hurricane region, however, it is in a tornado zone.

Building Condition/Structural Adequacy

Building 34 serves both the University Program of Archaeology and maintenance equipment storage. The two spaces share a common wall and an opening with an overhead door. The facility is an early-1950s product, which is composed of a concrete foundation floor, concrete masonry unit walls, open-web steel joists, masonry compound panels and a tar roof. The building was originally used for a Ford Truck parts and services factory and store. Approximately one-third of the structure became the university archaeological curation facility in 1970. The building exterior is in reasonably good conditions due to the timely maintenance and renovation. There is a covered loading dock with overhead door at the rear of the elongated building.

The interior does not appear in as good shape as the exterior. The collections storage space, is not finished with ceiling or wall tiles. The interior space is divided into two sections, with 2,900-ft^2 of 4,861-ft^2 dedicated to collections storage, and the rest is used as laboratories and offices for non-archaeologists. The new partition walls are not plastered or painted. The curatorial staff chose not to finish the walls for their particular usage needs. The fluorescent lights are not ultraviolet filtered.

Code Requirements/Egress/ Accessibility

The UL does not meet most building code, life-safety, egress and accessibility requirements. Although the structure is constructed mostly of fire resistant materials, the fire control system is not adequate. Interior doors are not fire-rated. There is no sprinkler system, nor is there an automatic or manual-pull alarm system. Emergency lights are installed at the exits. The plumbing system meets code, but there is no drainage in the storage space or the laboratory/ processing area.

The building is not ADA-compliant. There is no ADA sign inside or outside of the building, no fire alarm, nor a strobe light to warn the hearing impaired. Additionally, restrooms are not ADA-compliant.

HVAC Systems

Although two heating and cooling units are operating to regulate the air in the laboratory area, the curatorial staff has no access to the thermostat. Ironically, the maintenance crew, who has the key to the thermostat, does not have access to the building. This results in uneven temperature control in the laboratory and office area.

Only one suspended gas heater is available for the entire collections space. There is no humidity control or monitoring device. In the collections storage area, there are four windows in the south wall; each has a thin layer of glass that poorly insulates the building interior. The overhead door and opening on the partition wall are not sufficient to stop the flow of air.

Fire Suppression and Detection

Only the mechanical room has an automatic sprinkler system. There are no smoke detectors or heat sensors in the laboratory, office, or collections storage areas. In all areas, there are type A, B, and C fire extinguishers. The partition walls consist of fire-rated materials such as CMU and gypsum plasterboard. Except for the two interior metal doors, interior doors are not fire-rated.

Security System

There are no motion detectors nor an intrusion alarm system. Security consists solely of key locks on doors.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Program of Archaeology at the University of Louisville is in the Curation Policy, which states that the facility should meet Federal guidelines for the curation of archaeological collections. Collections consist primarily of archaeological remains, with a significant portion being historical Euro-American remains.

Archaeological Collections Storage

Long-term collections storage is in a room (Room #8) adjacent to the laboratory areas. About one-third of the collections are on wooden shelving with open, wooden, drawers, and the rest are on adjustable steel shelving. Primary containers consist mostly (70%) of cigar boxes. The UL is switching to adjustable steel shelving, acid-free primary containers, and commercially available plastic, zip-lock bags as funding and staffing permit. Older (pre-1985) collections use paper bags for secondary containers. Collections are arranged by a range and shelf numbering system.

All human remains are in a separate, locked, room (Room #4). Adjustable steel shelving in this room holds the acid-free boxes.

Environmental Controls

The existing heating unit is not used. There is no cooling system. No humidity control nor monitoring exists. Fluorescent bulbs are unfiltered for ultraviolet light. There is no pest monitoring. The human remains room has both heating and cooling, but no humidity control. Fluorescent bulbs are unfiltered. Only the staff archaeologist has access to this locked room.

Range of Support Facilities for Archaeological Collections

Support facilities at the UL consist of a comparative human skeletal collection, a photo staging area, a copy of the Kentucky site survey records with all Kentucky USGS quadrangle maps with archaeological sites marked, a classroom area with work tables, a field equipment storage room (Room #6), a wet laboratory area, and a dedicated records room.

Staff Composition

Collection management staff consists of the staff archaeologist, who oversees the one to five College Work Study students per semester.

Administrative Record Keeping

Smithsonian trinomials are used. Administrative documents at the UL are in the records storage room in metal file cabinets. Artifact cards are on 5-x-7-inch acid-free (since 1991), note cards, using indelible ink or pencil. Maps are stored flat in a wooden map cabinet. The UL is in the process of switching to acid-free forms and file folders.

Associated Archaeological Documentation and Storage

Associated documents are also stored in the records storage room, except for records pertaining to human remains, which are, by state law, stored with the remains. These are in acid-free boxes. No copies of associated documents are kept.

Collections Management Policies

Written policies at the UL exist for loans, donations, treatment of human remains, acceptance, laboratory processing, and cataloging.

Administration Summary

Background

The University of Louisville has an anthropology department and the associated Program of Archaeology. The archaeology laboratory and curation facility is located on the edge of campus, in a converted industrial building. The University of Louisville is a state institution, in existence since 1797. The Department of Anthropology was established in 1968. The archaeology program focuses on contracted archaeological investigations. Currently, UL curates archaeological materials and documentation associated with Fort Knox, and the Louisville and Nashville Districts of USACE.

Real Estate

The archaeology laboratory and curation facility is located in a building and on property leased from private landowners, but is slated for acquisition by the university. Work on the building exterior is prohibited; internal work must be approved by the property owner.

Administration

UL has a multi-tiered approval process. Authority to commit the institution financially to a partnership

would go through the department chair, the dean of the appropriate school, and the UL Research Foundation director. The program is operated both on department budget funds and on contracts brought in by the staff. Grant writing is not often conducted because the program director is being asked to teach more and more. Archaeological contract investigations seem to be experiencing a change as well—a shift from Section 106 activities to more cemetery and forensics work. UL also has an Office of Sponsored Programs that is involved in fundraising activities.

Outreach and Education Programs

A small percentage of the director's time is considered public service, and this responsibility is tracked by UL. Public service includes lectures and presentations given to museums, schools, parks (e.g., Mammoth Cave), and video teleconferences.

Contributions

UL could contribute expertise, programs, floor space and education uses for the collections to a partnership. DoD and USACE would be expected to contribute funds for storage units, materials, and supplies.

Notes

The Program of Archaeology struggles under the burden of inadequate funding, but does well given the circumstances. It is a small archaeology program with marginal support from the university. Funding is largely provided by contracted investigations. Unfortunately, because the one staff member does most of the work, many policies and procedures, though adequate, remain unwritten.

W. S. Webb Museum of Anthropology, University of Kentucky

Architectural Summary

Site Conditions

Tobacco Warehouse (Long-Term Storage)

At the outskirts of the university campus, the long-term collections storage is in an old tobacco warehouse located in an urban area, mixed with commercial and residential activities. The environs appear to be newly redeveloped and are commercially active. There are new businesses nearby, such as stores, bank, office and apartment buildings. Due to development, the site has extremely limited space for building or parking expansions. In this large building on a relatively small site, there is no paved parking space, but only along-the-building parking. A gravel path along the building perimeter provides vehicle access.

The site is just off a busy street, US-68 or South Broadway. Export Street, which provides access to the facility, defines the north boundary, while a railroad borders the south or the back. Virginia Avenue, which leads to Broadway, marks the east edge, and a bank parking lot and two apartment buildings share the west property line.

William S. Webb Museum of Anthropology

In the heart of the university campus, the W. S. Webb Museum of Anthropology (WSWMA) operates an exhibit facility. There is no major street nearby, and there is no nearby vehicle access. The site is designed for pedestrian traffic only. Only a service road provides maintenance access to the back of the site that slops downward from the front. A stepped pedestrian walkway parallels the long side of the building, which is surrounded by landscaped areas. The site has limited space for expansion, and none for parking. The campus is not in any disaster zone.

Building Condition/Structural Adequacy

Tobacco Warehouse (Long-Term Storage)

The building is in moderate condition. Constructed as a warehouse in the 1957, the huge one-story building is still partly used as a tobacco warehouse, in addition to the curation facility and a recycling space. Since 1995, one third of the interior, or 21,600-ft^2, has been leased by the Department of Anthropology for long-term storage and office spaces. The building has a concrete foundation floor, brick walls, timber columns, roof joists and decking. The flat roof is a built-up type, consisting of tarpaper and gravel.

William S. Webb Museum of Anthropology (Exhibit Facility)

The building has been renovated and is maintained in very good condition. The two-story brick building with a basement serves the Department of Anthropology offices, museum, library, classrooms, and graduate student spaces. The structure is made of fire-resistant materials such as brick, concrete, and glass blocks.

Code Requirements/Egress/ Accessibility

Tobacco Warehouse (Long-Term Storage)

There are few exits in the collections storage area, and the egress distance is long. Areas such as bathrooms are handicap accessible. No ADA signs are installed inside or outside of the building. There are no emergency sound alarms or strobe lights to inform the blind or the hearing impaired.

William S. Webb Museum of Anthropology (Exhibit Facility)

The building meets most of the building code, egress, and accessibility requirements. There are exits at both front and back of the rectangular building, and egress is straightforward.

HVAC Systems

Tobacco Warehouse (Long-Term Storage)

Only the office space is supplied with regulated air by a central heating and cooling system. The other spaces have one gas heater each and no other heating and cooling system.

William S. Webb Museum of Anthropology (Exhibit Facility)

The building has a good heating and cooling system that also controls the humidity.

Fire Suppression and Detection

Tobacco Warehouse (Long-Term Storage)

The fire-suppression and -detection systems are adequate. There is an overhead wet-type sprinkler system. The automatic fire alarm system is built into the sprinkler system. If the sprinkler system is activated, the monitoring private company responds. Type A, B, and C fire extinguishers are located at exits and doorways. They are regularly checked and updated.

William S. Webb Museum of Anthropology (Exhibit Facility)

Fire detection is adequate for the building but suppression is not. Although there are smoke and heat detectors and fire extinguishers of type A, B, and C installed throughout the building, no automatic sprinkler system is present. The entire building is equipped with manual-pull alarms, emergency lights, and illuminated exit signs.

Security System

Tobacco Warehouse (Long-Term Storage)

There are no motion detectors or intrusion alarm system installed. There are neither dead-bolts nor key pads mounted at the doors. Building security is the responsibility of campus police.

William S. Webb Museum of Anthropology (Exhibit Facility)

The exhibit section of the building is equipped with security cameras and sound detectors. The video cameras run on a 24-hour cycle, and the tape is replaced each day. Sound detecting devices are installed in every showcase.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the William S. Webb Museum of Anthropology at the University of Kentucky state that the WSWMA "collects, preserves, studies, exhibits, and interprets artifacts that document many different aspects of human behavior." Collections consist primarily of prehistoric archaeological materials, including a large collection of prehistoric human remains. Some ethnographic materials are on display at the exhibit facility in Lafferty Hall, and there is a small comparative natural history collection.

Archaeological Collections Storage

Long-term collections storage is housed in one-third of a rented tobacco warehouse building off-campus (1020A Export St.), the middle one-third of which still houses tobacco. Adjustable steel shelving is used to house the mostly (90%) acidic boxes. Plastic zip-lock bags are used for secondary containers for about 65% of the collections, and the rest are in paper bags. Human remains are stored in a separate bank of shelves. Collections are arranged differently in three separate sectors. Two of the sectors are arranged by county, and the third is arranged by accession number.

Environmental Controls

There is heating but no cooling, and no humidity control in the long-term storage room at WSWMA. Fluorescent bulbs are unfiltered for ultraviolet light, but there are no windows. No written pest management plan exists, but sticky traps are kept in corners for rodent monitoring. Dust was not evident. No Materials Safety Data sheets are posted. All fire extinguishers have recently been inspected.

Range of Support Facilities for Archaeological Collections

Support facilities at WSWMA consist of an exhibit facility (exhibit cases have motion and sound detectors), an impending interactive teaching web site, office space, a darkroom, photograph staging area, wet laboratory and processing areas, electrolysis baths, loading dock, floatation tank, field equipment storage room, a GIS laboratory with large color scanner and printer, drafting and light tables. The "high security room" for microfilms of Works Progress Administration (WPA) documents, NAGPRA-related artifacts, and other items needing additional security, is alarmed with a key pad. The same building houses the Kentucky Archaeological Survey and the Office of State Archaeology, which assigns site numbers. The Office of State Archaeology has the master copies of quadrangle maps showing site locations, and copies of archaeological reports. The Department of Anthropology has an extensive library in Lafferty Hall that focuses on Kentucky archaeology.

Staff Composition

There are no full-time collections management staff. One part-time worker handles all requests for materials and coordinates curation. The secretary performs administrative curatorial tasks (40% FTE). Graduate students also perform some curatorial tasks, and volunteer workers are always supervised.

Administrative Record Keeping

Smithsonian trinomials are used. A unique accession number is assigned to each incoming collection, consisting of the last two digits of the year plus a four-digit number (not sequential by year). The year represents the year the materials were excavated, not accessioned. Administrative documents are kept in the secretary's cubicle. There is no inventory of collections. A card catalog is kept by county & state. A computer database is awaiting hardware upgrades. Paradox is used and WSWMA plans to switch to Microsoft Access. Back-ups are made "as needed" and a copy is kept in the same building. The database will be on a network, perhaps in the Spring of 1999, and three people will have access.

Associated Archaeological Documentation and Storage

Originals of WPA documents are in locked in Room 203 in Lafferty Hall (in the "library") in acid-free file folders and boxes in white cabinets. Microform copies of these are kept at the Export Street facility in a locked cage within the long-term storage area. The WPA photo archives are kept in the long-term storage area in metal file cabinets. Copies of the WPA photos are in the locked cage. Other associated documents are in the long-term storage area on metal shelves. In the late 1980's, documents began to be stored in acid-free, reinforced document cases of varying sizes and acid-free folders began to be used.

Collections Management Policies

Written policies at WSWMA exist for personal collections, acquisitions, minimum standards of acceptance, field curation, loans, collections access, deaccession/disposal, specimen labeling, and curation agreements.

Administration Summary

Background

The William S. Webb Museum of Anthropology, University of Kentucky is a university-based state institution. The university has been in existence since 1865 and the WSWMA was begun in 1931. Currently the WSWMA has a short-term agreement with USACE Huntington District for processing of archaeological materials. Informally, the WSWMA curates archaeological collections for Bluegrass Army Depot, Fort Knox, and the Louisville, Huntington, and Nashville Districts of the Corps of Engineers. Some staff are supported by various federal archaeological investigation projects.

Real Estate

The long-term storage facility and research laboratories and offices are located in a renovated tobacco warehouse off-campus. The warehouse is owned by Associates Warehouse, and is rented by the WSWMA. For five years, a lease has been drafted but not signed. Renovations to the warehouse have been completed by the property owner; costs are reclaimed through the rental agreement and spread over the term of the lease. Currently, there are restrictions to renovations of the warehouse. For example, renovations must consist of temporary modifications such as internal walls.

Administration

The University of Kentucky has personnel in place to commit the institution financially to a partnership. However, the signatory depends on the arrangement for the partnership. If it is a sponsored project (i.e., a grant) the director of the research foundation has the authority to commit. If it is another arrangement, a staff member from the chancellor's office or the president's office will have that authority. The University of Kentucky Research Foundation has many staff who assist faculty in tracking grants; however, faculty write their own proposals. The university also has a development office with the sole function of fundraising. The College of Arts and Sciences (including the Webb Museum) has a staff member to assist in raising funds as well.

Outreach and Education Programs

The WSWMA itself conducts guided tours of the laboratories and exhibits as the primary education program. However, the WSWMA is directly linked with the Kentucky Archaeological Survey (KAS), the Kentucky Heritage Council, and the university anthropology department. Both the anthropology department and the Kentucky Archaeological Survey are located on campus and share the same facilities. Resource-sharing ensures that archaeologists have duties that cross organizational lines, and can offer their expertise for education and outreach programs. Among the education and outreach programs are the following: an internet site, classroom outreach program, layman's publications, volunteer program, co-op program, and guided school tours. The WSWMA also runs the Experience Based Career Education Program, in which a high school student receives hands-on training in archaeology and curation. One student participates in the program each month.

Contributions

Toward a partnership, the WSWMA could offer expertise, institutional infrastructure, and a suitable

facility for the collections. The WSWMA could also offer collections management oversight and space. The facility with little effort could meet code and federal standards. However, if the warehouse were determined unsuitable, the university would be willing to talk about constructing a new facility. In return for curatorial services, DoD and USACE would be expected to contribute some financial support.

Notes

The director is attempting to raise the visibility of WSWMA to higher-level University administrators. Though the laboratory and long-term storage facilities are in a rented building, the institutional stability of WSWMA is apparent. The university's five-year plan includes a request for a new storage facility as a priority. Additionally, there are plans to upgrade the exhibits, which are currently outdated. The university typically pays for things of this nature by revenue bonds.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 14.2 lists the composite scores and the architecture, collections management, and administration scores for each Kentucky institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 14.2
Summary of Decision Support Model Scoring—Kentucky

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Program of Archaeology, University of Louisville	**0.4916**	0.05125	0.19961	0.24078
W. S. Webb Museum of Anthropology, University of Kentucky	**0.7845**	0.11022	0.25421	0.42011

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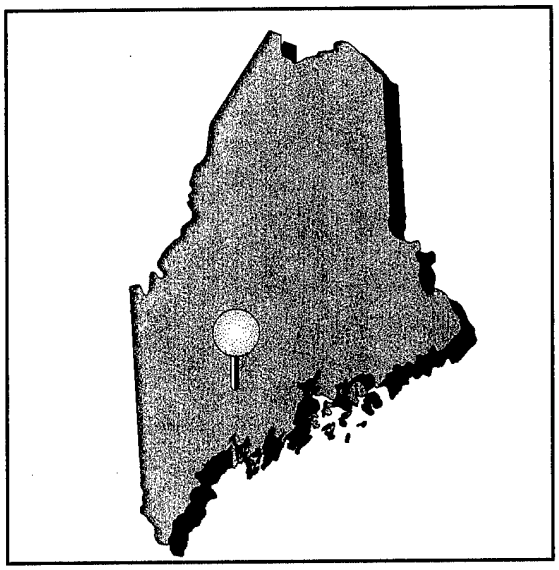
Maine



Archaeological Materials (in cubic feet)

Department of Defense	10
USACE	10
TOTAL VOLUME	**20 ft³**
Number of Institutions Contacted	**5**

Institution Assessed

Maine State Museum, Augusta

Background

A list of the facilities contacted in Maine is presented in Table 15.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 15.2, showing strengths of the institution. Pertinent information on the facility visited in Maine is presented in the following discussion.

Table 15.1
List of Institutions Contacted—Maine

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Arkansas Archeological Survey				
Colonial Penaquid State Historic Site	X			
Hudson Museum, University of Maine		X		
Peary-MacMillian Arctic Museum		X		
Maine State Museum				
University of Maine, Laboratory of Archaeology		X		

Note: Locations visited indicated in **Bold**.

Maine State Museum

Architectural Summary

Site Conditions

The Maine State Museum (MSM) is headquartered on the capital complex in Augusta, Maine. The MSM's curation operations are located in a nearby former state liquor warehouse. The warehouse is technically located in the adjacent suburb of Hallowell and is still owned and operated by the state. The MSM shares the building with the state lottery commission offices and storage for the state archives, state library, and state law library.

There is a large paved area for truck circulation and access to the two loading docks located on the north side of the facility. All of the users of the building share the common loading dock and staging area. This area also provides approximately 20 undesignated parking spaces for the MSM curation facility. Additional parking is located

at the front of the building for the lottery commission offices.

The state of Maine has recently completed a master plan for all of its real estate properties that addressed the future use of the warehouse. The plan calls for the library and archive storage areas to be relocated to the capital complex and for the lottery commission to be relocated to any number of retail office spaces available to the state. These plans leave the entire warehouse building available for expansion of the MSM curation facilities. The MSM has produced its own master plan study that echoes the existing state strategy while also calling for the future expansion of the warehouse building. The MSM's established place within the state's master plan and its own study promise the availability of desirable expansion space at the warehouse for its future curation needs.

Building Condition/Structural Adequacy

The MSM has effectively adapted 12,990-ft^2 of the building's 61,000-ft^2 for its curation use. Approximately 2,100-ft^2 is dedicated to archaeological processing and collections storage. The remainder of the space is divided between two laboratories and a large repository room dedicated to the MSM's large historical collections.

The building is a steel frame structure with concrete masonry unit exterior construction with a brick veneer. The interior space has a 15-foot clear height. The MSM archaeology space has 10 compactor shelving units for collections storage that are nearly full. Additional shelving units could be added to the existing system as the simplest solution for increased storage capacity. The space is well organized and maintained. This room is also used for records storage and collections processing. There were no hazardous building materials reported or observed and there are no floor drains in the building.

Code Requirements/Egress/ Accessibility

The MSM has occupied the curation facility since it renovated the space in 1988. This renovation and subsequent renovations have brought the building into compliance with the applicable building code, life-safety, and accessibility requirements (type II construction, mixed use, S-1, B). Emergency egress is provided by exits in both the history and archaeological curation area. Lighted exit signs and emergency lighting are located at each emergency exit. The single level warehouse structure is accessible in accordance with the Americans with Disabilities Act (ADA). The MSM curation areas are accessible through the main entrance and through the lottery commission offices. The exterior stairs at the loading dock entrance to the MSM space are not ADA-compliant.

HVAC Systems

The MSM had a new HVAC system installed for its space in 1988. The system uses a hot and chilled water system with air handler units (AHUs) throughout the space to distribute conditioned air. Electric chillers are located on the roof. The HVAC system uses hot water from the building's oil-fired boiler. The AHUs are equipped with a reheat coil for relative humidity control and high quality air filters. The system was designed with redundant capacity to compensate if one of the chiller units stops functioning. New and improved control systems were added in 1993 and have provided excellent service for the MSM's curation needs.

Fire Suppression and Detection

The curation facility is not equipped with an automatic fire suppression system. Manual pull alarms and smoke and heat sensors are located throughout the curation space. Fire extinguishers are also located throughout the space and are inspected monthly by state authorities. The fire alarm systems notify both the state Bureau of General Services (BGS) and the local Hallowell fire department.

Security System

The BGS provide security for the building's exterior and common spaces with intrusion alarms, motion detectors, and video monitoring. The MSM space is equipped with a separate security system that includes intrusion alarms with disarm keypads and motion detectors. The MSM system is also monitored by the BGS and the local Hallowell police department.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Maine State Museum is to "collect, preserve and research objects of Maine's natural and cultural history, and to interpret these collections in a responsible manner through educational programs, publications, exhibitions and outreach." Most of the collections relate to Euro-Americans, however the archaeological collections are significant, and Maine legislation states that "it is in the public interest to provide for the preservation and interpretation of archaeological artifacts and specimens for the benefit of the people of the State." The MSM is the state-designated repository for all archaeological remains owned by Maine.

Archaeological Collections Storage

The MSM collections are housed in a state-owned building (the "annex") about a mile from the exhibit museum. Shelving consists of movable, manual, compactor units. All artifacts are on the shelves in acidic boxes and secondary containers are an assortment of film cans, polystyrene boxes, and zip-lock bags. The annex also houses the archaeology work and laboratory areas. The analysis room has metal cabinets with wooden trays for collections currently being analyzed.

Environmental Controls

At the annex, relative humidity (RH) and temperature are monitored by hygrothermographs, two in the archaeology laboratory and others scattered throughout the storage building. Logs from these are kept and analyzed. Though the MSM goal is to keep RH at 50% and temperature at 68° F at all times, RH ranges between 18–60%, and temperature fluctuates between 64–72° F. Plans are being formulated to remedy these fluctuations. The staff cleans the archaeology lab each Friday. An integrated pest-management plan is in place, and the minor infestations and solutions are monitored and logged. Sticky pest strips are used for pest monitoring. Occasionally a contractor is brought in when chemical pesticides are deemed necessary. No pests have been found in the archaeology laboratory in the last seven years. Mercury vapor lamps are used to light the collections building. The building has no windows. Five fire extinguishers are located in the collections area, one in the archaeology laboratory.

Range of Support Facilities for Archaeological Collections

The MSM exhibit museum has ample parking and is located within walking distance of the Maine capitol building. The exhibit building has a conservation laboratory (with a conservator), a fume hood, photograph dark room, emergency shower, sinks, computer station, drafting tables, and an exhibit construction room. A large, covered loading dock expedites movement of large collections. Excavation equipment is kept in a separate room near the outer loading dock at the annex. A collection of reports and texts pertaining to the prehistory of Maine is kept in the archaeology laboratory. Large objects (farm machinery) are kept nearby on the campus of the state mental hospital.

Staff Composition

The archaeology staff at the MSM has two full-time positions, the chief archaeologist and curator of ethnography, and an archaeology assistant. The archaeology staff uses the expertise of the conservator and registrar.

Administrative Record Keeping

Catalog numbers are Maine USGS quadrangle map numbers, sequential from west to east and south to north, a sequential site number within the quadrangle, and then an artifact number (e.g., 29.9.5626). Objects are stored on the shelf by catalog number, and thus the catalog number incorporates object location. A computer database is kept in the archaeology laboratory by artifact type on Microsoft Access, stored on hard disk, backed up on Iomega Zip drives, also in the archaeology laboratory. The computer is not attached to a network. Associated documents from one site (Turner Farm—about one-half of the collections) have microfilm copies stored in the archives near the capitol building. Collections and associated documents have not been inventoried.

Associated Archaeological Documentation and Storage

Associated documents are kept in seven metal file cabinets in the archaeology laboratory. Photographs are in blue plastic binders in the archaeology laboratory. Maps are stored flat in metal cabinets.

Collections Management Policies

The MSM has policies for acquisitions, integrated pest-management, loan and deaccessions.

Administration Summary

Background

The Maine State Museum was founded in 1966 by the state legislature The institution can further trace its institutional history to 1836. The MSM does not currently hold any DoD/USACE archaeological materials. The U.S. Fish and Wildlife Service currently curates a very small collection at the MSM. The agreement for this material is annually renewable and does not provide any funding for curation at the MSM. The MSM is currently drafting an agreement with the Navy Historical Center for the curation of the materials from the Penobscott Expedition, a recently excavated revolutionary war battle site. The MSM is also the designated repository for the Maine Historic Preservation Commission.

Real Estate

The MSM's exhibits and main offices are located on the state capital complex in a 1972 building that is shared with the state library and archives. The MSM's curation facility is located in a nearby building that was formerly the state liquor warehouse. The building has been converted for use by the lottery commission offices and for repository space for the MSM and the state library and archives. As part of a recent state facility master plan, the MSM is scheduled to acquire additional space in the warehouse as the lottery, library, and archives operations are vacated as they relocate to other facilities at the state capital complex. The MSM has also commissioned its own master plan to program for the anticipated availability of additional repository and curation space.

Administration

The Museum Director could financially commit the MSM to a partnership with the DoD and the USACE and would also sign the resulting cooperative agreements. The director is responsible to the state museum commission who is part of the larger state cultural affairs commission. The appointments to these commissions are six years in length in order to remove political pressures from the state's cultural affairs and museum programs. The MSM has no staff exclusively dedicated to grant writing and fundraising. Individual staff members write and track their own grant proposals. The "Friends of the Maine State Museum" (Friends) provide grant writing and fund raising assistance to the MSM staff. The Friends organization is a private non-profit support organization that serves as the de facto MSM development and membership office.

Outreach and Education Programs

The MSM has extensive outreach and education programs. However, there is no staff member dedicated to archaeology education and outreach. There is a Visitor Services Group that interprets exhibits and presents programs to both adult and children's organized groups. Archaeology is a significant component of these programs including petroglyph rubbings and arrowhead making for children's groups. The MSM hosts over 30,000 visitors in organized groups each year in addition to over 100,000 individual visitors. The MSM publishes a newsletter that frequently includes archaeology topics. It also is consulting on a 12th grade and middle school history textbook for the state school system. The MSM also hosts archaeology field schools through its membership program. The MSM has also established a partnership with Maine public television and radio on its "Quest" science programs. A television series about Maine history is also in development. Archaeology is a significant component of these programs as well. One member of the archaeology staff also teaches at several local colleges and universities.

Involvement with Native Americans includes Native American Graves Protection and Repatriation Act consultation. The MSM is also developing a Native group image archive for research use at the museum. The MSM has an ongoing relationship with

the local Passamaquoddi tribe that has included exhibit preparation and public display at the reservation school. The MSM has also provided conservation services for artifacts brought by Native groups. Several Native groups have contributed exhibit design and artwork and craft demonstrations to the MSM's programs.

Contributions

The MSM could contribute staff expertise, storage space, and integration of DoDD/USACE collections into the museum's programs, including access for research and publication, exhibits, and internet access to the collection. The MSM would be willing to provide cost sharing for curation materials. In return, the MSM would expect the DoD/USACE to provide the appropriate documentation of the collection, operation and maintenance cost for the collection, and additional cost sharing for curation materials.

Notes

The MSM addresses a wide range of Maine topics, and archaeology constitutes a significant part of these programs. The MSM has a modern collections storage facility and excellent exhibits, which have been upgraded as the field advances. The MSM has quality exhibits, education and outreach programs, and relationships with Native groups. Additionally, MSM indicated an interest in housing collections from New Hampshire.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

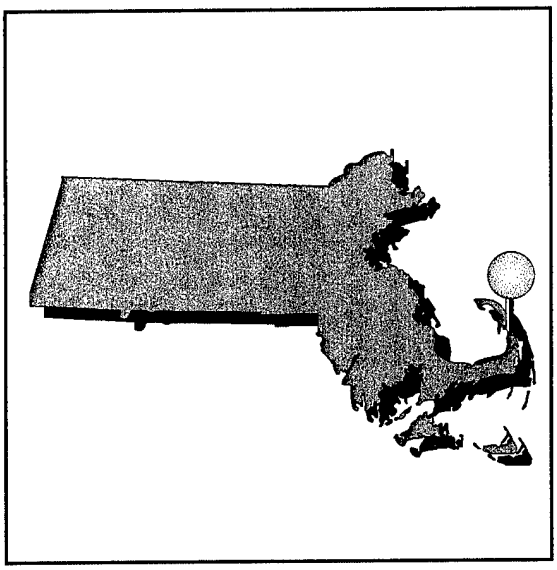
Table 15.2 lists the composite scores and the architecture, collections management, and administration scores for the Maine State Museum. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 15.2
Summary of Decision Support Model Scoring—Maine

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Maine State Museum	**0.8309**	0.15456	0.27845	0.39793

16

Massachusetts



Archaeological Materials (in cubic feet)

Department of Defense	30
USACE	0
TOTAL VOLUME	**30 ft³**
Number of Institutions Contacted	**21**

Institution Assessed

Cape Cod National Seashore, Wellfleet

Background

A list of the facilities contacted in Massachusetts is presented in Table 16.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 16.2, showing strengths of the institution. Pertinent information on Cape Cod National Seashore is presented in the following discussion.

Table 16.1
List of Institutions Contacted—Massachusetts

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Berkshire Museum		X		
Blue Hills Trailside Museum		X		
Cape Cod National Seashore				
Cape Cod Museum of Natural History		X		
The Children's Museum		X		
Concord Museum		X		
Fruitlands Museum				X
Harvard University Art Museums		X		
Heritage Plantation of Sandwich			X	
Massachusetts Historical Commission	X			
Massachusetts Institute of Technology		X		
Museum of Cultural and Natural History		X		
Museum of Science		X		
Peabody Essex Museum			X	
Peabody Museum, Harvard University		X		
R. S. Peabody Museum		X		
Pilgrim Monument and Provincetown Museum			X	
Plymouth Plantation		X		

Table 16.1
List of Institutions Contacted—Massachusetts (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Springfield Science Museum		X		
University of Massachusetts, Amherst		X		
University of Massachusetts, Boston		X		

Note: Locations visited indicated in **Bold**.

Cape Cod National Seashore

Architectural Summary

Site Conditions

Cape Cod National Seashore (CCNS) encompasses a large area and several facilities. The collections storage building is on the site of a first alarm air defense system created during World War II, now known as the Highlands Center. On a slight elevation, the 127-acre sandy area faces Cape Cod Bay, and the Atlantic Ocean, and is covered with short vegetation. Over 60 buildings are scattered throughout the Highlands Center, which was deactivated for use as a Department of Defense facility in 1985. One structure, an AT&T Building, was retrofitted in 1995–1996 for use as archaeological storage. The remaining wood and masonry facilities have been sitting empty and have been deteriorating to some degree.

Though most buildings on the Highlands Center have been inactive for years, the utilities have been maintained in a workable condition by the National Park Service. Some of the structures, particularly the ones constructed of masonry, could be easily renovated. CCNS is located in a hurricane region, although hurricanes are not a frequent occurrence.

Building Condition/Structural Adequacy

The AT&T building has 775-ft^2. It is constructed of masonry is in very good condition. It is a single story building with a 12-foot high ceiling, and approximately 18 inches of CMU and plasterboard walls with excellent insulation. Windows were eliminated in the storage room, and the thick wall creates an interior space that is maintains an even temperature. A few windows remain in the entry area. The built-up roof is a poured concrete slab supported by concrete columns resting on a concrete foundation and floor. The structural integrity is intact, and there is no evidence of water damage.

Code Requirements/Egress/ Accessibility

The storage meets most of the building code, egress, and accessibility requirements. The interior is logically laid out and properly circulated. Exits are located at the ends of aisles and are identified by lighted exit signs. There is wheelchair access to the entire building, including the bathrooms. There is no ADA signage, however.

HVAC Systems

The heating system is adequate, but there is no air conditioning. The three- or four-year-old central heating unit is in very good condition. It is monitored by a private company, which responses to system malfunction. The airtight condition of the storage area and thick exterior walls helps to maintain interior temperature consistency.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. Smoke detectors are installed throughout the building. Fire extinguishers of type A, B, and C are placed at easy to reach locations. However, there is no sprinkler system, nor heat sensors.

Security System

The security system is sufficient. A security system is installed at most of the openings to the storage room and is wired to the local police and a private security company. Motion detectors are also present. Security metal bars are installed on exterior windows. With barbed wire on top, an eight-foot high chain-link fence encloses the site, including the parking area. The gate is locked when no one is at the facility.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of Cape Cod National Seashore is "to preserve the...cultural and natural features...that characterize the Outer Cape, along with the associated scenic, cultural, historic, scientific, and recreational values." CCNS has also written plans "to foster stronger partnerships to protect and maintain archeological resources." CCNS has stewardship over a large geographic area, and has formulated a management plan for all locations. The Highlands Center, on a former military base, has been designated a special use area, where research, collections management, and outreach activities occur. Within this context, the Highlands Center is a part of CCNS that will strive to "foster creative work, research, education, environmental awareness, and stewardship of the land, for people of all ages." Collections are historic Euro-American, and about 400-ft^3 of pre-European North American.

Archaeological Collections Storage

Long-term storage is in a renovated building at the Highlands Center, which once housed an AT&T facility. Adjustable metal shelves are used to house Coroplast-brand archivally-stable corrugated plastic boxes. Secondary containers consist of "polyethylene zipper" bags with acid-free labels. Bags are placed in two tiers of artifact storage trays within each box.

Environmental Controls

The concrete block structure has heating but no cooling. Two portable dehumidifiers operate when needed. Hygrothermographs record temperature and relative humidity. Dataloggers will be installed that will directly input information on temperature and RH into a computer. The building has no windows. Pests are not monitored, but food is not allowed in the building.

Range of Support Facilities for Archaeological Collections

A small visitor center, on a property separate from the Highlands Center, has information for tourists, but no archaeological exhibits. Space is available for visiting researchers. A large roll-up door facilitates transport of large collections. Other support facilities consist of resources that are available to all NPS parks (e.g., the conservation facility at Harpers Ferry, WV).

Staff Composition

There is one full-time curator.

Administrative Record Keeping

Sites are designated by an undetermined state numbering system. Each collection is assigned a unique accession number. Documents are kept at the visitors center in loose-leaf binders. Larger documents are stored in flat map cases. Some documents are copied into microfiche form. The NPS Automated National Catalog System is currently used as a computerized database, but the Re:Discovery program will be used in the future. Data is stored on a fixed disk and the data is backed up as needed on to Iomega-brand Zip disks. Much of the data is yet to be entered into the database.

Associated Archaeological Documentation and Storage

Associated documents are stored in the same manner as administrative documents. Associated documents have been cataloged and inventoried.

Collections Management Policies

Written policies include acquisitions, minimum standards of acceptance, field curation guidelines, inventories, loans, exhibitions, conservation, packing, access to collections, security, and deaccessions.

Administration Summary

Background

Cape Cod National Seashore was established in 1961 by the U.S. Congress. The governing agency is the National Park Service. CCNS curates federally-owned collections exclusively. This summary will focus on an area of land known as the Highlands Center that currently has fields, many abandoned buildings, and is the location of the collections storage building. The Highlands Center is slated to become a "lifeways center" that will have exhibits, collections and research space to showcase Cape Cod.

Real Estate

The U.S. government owns the property, and none of the buildings located at the Highlands Center have been designated historic. Because the Highlands Center has been designated a "special use area," no covenants against construction exist. The current collections storage facility was renovated and collections were moved there in 1998. The building once housed an AT&T facility.

Administration

The superintendent has the authority to commit CCNS to a partnership agreement. There has been no financial deficit in the last five years. No one person is committed solely to writing and tracking grant proposals. CCNS personnel noted that fundraising is restricted.

Outreach and Education Programs

No individuals are involved exclusively in outreach programs. Outreach programs are limited to a visitor center that has descriptions of the beaches, ecosystems, and uniqueness of Cape Cod and the lifeways of the people there. Outreach will be augmented once the Highlands Center comes to fruition.

Contributions

CCNS could contribute floor space, a building that needs renovation, collaborative staff and some funding. In return, CCNS would expect operation and maintenance costs, renovation costs, a share of utilities, a full-time archaeology specialist/educator, shelving, and boxes.

Notes

Further participation in the project by CCNS will depend heavily on the type and locality of DoD/USACE archaeological materials. In 1999, a complete inventory of DoD/USACE collections (curated elsewhere) had yet to be completed. Nonetheless, the volume of DoD/USACE collections from Massachusetts will probably be very small. If most are not from Cape Cod, then CCNS will not want to participate, which may leave Massachusetts without an available partner institution. Staff at CCNS expressed that they would expect DoD/USACE to provide an addition, and/or renovation of an existing building at the Highlands Center. This may not be feasible if only a small amount of DoD/USACE materials is to be curated at CCNS.

There is no space for incoming collections, though existing collections are well-cared for. CCNS is sorely lacking curatorial staff. Volunteers are relied upon to perform basic tasks. Proper policies and procedures are in place. In addition, there is adequate protection for the collections.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

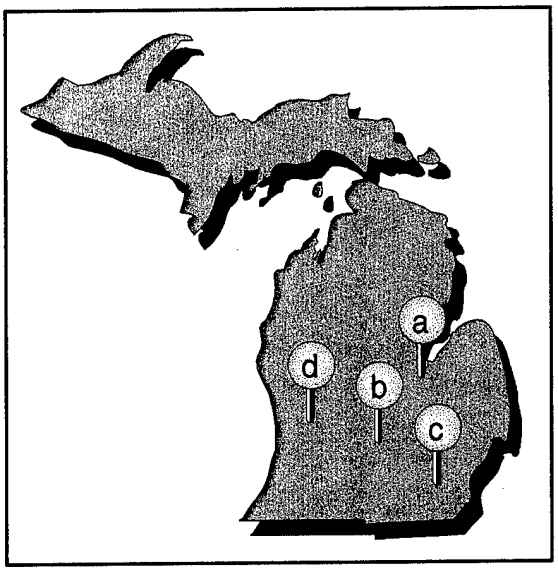
Table 16.2 lists the composite scores and the architecture, collections management, and administration scores for Cape Cod National Seashore. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 16.2
Summary of Decision Support Model Scoring—Massachusetts

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Cape Cod National Seashore	**0.6126**	0.10265	0.28423	0.22567

17

Michigan



Archaeological Materials (in cubic feet)

Department of Defense	26
USACE	4
TOTAL VOLUME	**30 ft³**
Number of Institutions Contacted	**20**

Institutions Assessed

a. Archaeological Commission of Saginaw County, Saginaw

b. Archaeology Section, Michigan Historical Society, Lansing

c. Museum of Anthropology, University of Michigan, Ann Arbor

d. Public Museum of Grand Rapids, Grand Rapids

Background

A list of the facilities contacted in Michigan is presented in Table 17.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A Summary of the Decision Support Model scores is presented in Table 17.2, showing strengths of each institution. Pertinent information on the facilities visited in Michigan is presented in the following discussion.

Table 17.1
List of Institutions Contacted—Michigan

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Archaeological Commission of Saginaw County				
Archaeology Section, Michigan Historical Society				
Center for Culture and Natural History		X		
Children's Museum/Detroit Public Schools		X		
Cranbrook Institute		X		
Dearborn Historical Museum			X	
Detroit Historical Museum			X	
Ella Sharp Museum	X			
Historic Fort Wayne	X			
Jesse Besser Museum			X	
Kalamazoo Valley Museum		X		
Kingman Museum			X	
Mackinac Island State Park Commission		X		

Table 17.1
List of Institutions Contacted—Michigan (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Michigan State University Museum		X		
Michigan Technical University				X
Museum of Anthropology, University of Michigan				
Muskegon County Museum				X
Public Museum of Grand Rapids				
Sloan Museum		X		
University of Michigan Exhibit Museum		X		

Note: Locations visited indicated in **Bold**.

Archaeological Commission of Saginaw County

Architectural Summary

Site Conditions

The Archaeological Commission of Saginaw County (ACSC) is located in the heart of downtown Saginaw, Michigan. There are 15 parking places on the south or rear of the building. About half of these spaces are dedicated to staff. Additional on-street parking is available. A covered loading dock is also located along the length of the south side of the building. Disabled access to the building is through a rear entrance on the dock.

The exterior of the building as well as the site are listed on the National Register of Historic Places. The restricted urban site along with the National Register status prohibits any expansion of the historic property.

Building Condition/Structural Adequacy

The ACSC building was constructed in 1898 as a U.S. Post Office in the style of a French Chateau. The eccentric building was extensively renovated in 1937 and has undergone minor renovations over the years. Currently, the large exhibit hall is nearing completion of its latest renovation. Other areas of the building have been recently renovated. The result is a facility that contains conflicting 19th century, 1930s, and contemporary features and finishes.

The two-story, 51,000-ft^2 building remains in good condition, especially considering its age. The building is a limestone and brick structure with a red slate roof. Portions of the roof and the building's exterior ornamentation have been recently renovated. The 1937 renovation included some concrete structural improvements.

The "Archaeological Commission" (ACSC) occupies several rooms in the basement of the building. ACSC space includes several offices, a laboratory/processing area, and a 500-ft^2 collections storage room. The Commission's existing collections are not expected to fill this room. An adjacent 500-ft^2 room is scheduled to become available for collections storage space. The rooms are all well maintained and organized, but have not been significantly updated since the 1930s renovation. The building is not equipped with floor drains and displayed no signs of major structural defects. Evidence of roof leakage was observed on the second floor. Museum staff reported that the leak has been repaired but the damage has not. Asbestos is suspected in the floor tiles throughout the building.

Code Requirements/Egress/ Accessibility

The historic structure does not meet all contemporary building and life-safety requirements. Open stairwells at each end of the building represent a fire hazard. Likewise, the lack of fire-rated corridors and stairs compromise emergency egress from the building.

The building is accessible in accordance with the Americans with Disabilities Act (ADA). A passenger elevator provides ADA access between each level. ADA-compliant restrooms have been added on the basement level. A wood constructed ADA ramp has been constructed at the rear entrance.

HVAC Systems

An oil-fired hot water boiler and radiators heat the building. Much of the building has no central air conditioning system. Many rooms have window air conditioning units, although the Commission's basement rooms have no air conditioning. Museum staff indicated that window units could be added to the basement rooms in order to meet DoD/USACE curation standards. Roof-top direct expansion condensers are added as each portion of the building is renovated. This incremental installation of updated HVAC systems could create a general inefficiency in the total system. With its current equipment, the Castle Museum does not have adequate HVAC systems. ACSC staff indicated that the massive masonry and stone structure helps to maintain constant temperature and relative humidity levels.

Fire Suppression and Detection

There are no automatic fire-suppression systems at the building. Recently inspected (June 1997) fire extinguishers are located throughout the facility. The building is also equipped with smoke sensors and manual pull alarms. The fire-detection systems are wired to a central monitoring station, a local security company, and then to the local fire department.

Security System

The building is secured by dead-bolt locks and keypad access at building entrances. In addition, the Commission's repository room is equipped with an intrusion alarm. The entire alarm system is wired directly to an in-house monitoring station and to a local security company which then notifies the local police department.

Collections Management Summary

Scope of Collections and Mission Statement

The Archaeological Commission of Saginaw County has six functions.
1. provide a repository for archaeological artifacts primarily from Saginaw County.
2. provide professional assistance to the amateur archaeologist.
3. provide exhibition facilities and/or programs primarily for the archaeology of Saginaw County
4. develop archaeological education programs
5. publish the findings and studies of both the professional staff and avocational archaeologists
6. conduct and review archaeological surveys or impact studies and preserve archaeological sites

The majority of collections at ACSC are Euro-American historic, such as those related to the fur traders.

Archaeological Collections Storage

Though most of the Euro-American artifacts are stored in a newly renovated building, archaeological collections are stored in the basement of the 1890's exhibit building. They are in a 600-ft^2 room. Metal shelving is used, and about half of the collections are in Hollinger-brand boxes, the other half in acidic cardboard boxes. Secondary containers consist mostly of acidic cardboard "jewelry" boxes (5 x 7.5 x 2 inches), with cotton for padding. Other secondary containers are plastic bags. Some ceramics are bare on metal shelving, with no dust barriers.

Environmental Controls

There is heating, but no cooling. Temperature and relative humidity (RH) are not monitored on a regular basis in the collection storage area. Only in the last two weeks has RH been monitored, and it ranged between 48–60%. Temperature was 72±1° F. The window in the storage area has blinds and is never opened, however the window in the adjacent laboratory room (Room 214/A) is opened on occasion. There is no written pest management plan, however a contractor sprays pesticide once/month.

Incoming collections are kept in a separate area in the other storage building. Fluorescent bulbs are filtered.

Range of Support Facilities for Archaeological Collections

Support facilities at the ACSC include a dark room and photographic staging area, a laboratory for inventory work, small library, a computer station, comparative chert collection, and drafting table. Exhibit preparation rooms, and audiovisual room, employee lounge, and an elevator are available. There is a loading dock on the first floor.

Staff Composition

Curatorial staff at ACSC include the director (an avocational archaeologist), a full-time registrar and a part-time archaeologist (Ph.D. candidate at Univ. of Mich.) who is working on the inventory of archaeological collections. The director attended one of the NPS collections management conferences in Harpers Ferry, WV.

Administrative Record Keeping

The inventory of archeological collections is in progress, and is about halfway completed. Archaeological collections consist primarily of small, locally-excavated remains, and some donations with limited provenience information. During the inventory, collections are being placed into Hollinger-brand boxes, with the "jewelry" boxes for secondary containers. Smithsonian trinomials are used as alphanumeric site designations. A unique accession number is in the process of being assigned to each collection. Accession files are in a metal file cabinet in the collection storage area. The archaeological catalog is an altered form used in the rest of the museum. In the future, object location will be incorporated into catalog. Each artifact is labeled. Maps are kept in a flat metal map cabinet in the collection storage area. No computer database is kept. The catalog is in the process of being duplicated.

Associated Archaeological Documentation and Storage

Archaeological documents are stored in the work room in metal file cabinets. CRM reports are stored in the 2nd floor vault. No duplicates are kept. Some of the associated field notes are in the possession of a former staff member. These may be returned to the ACSC.

Collections Management Policies

Written policies exist for acquisitions, loans, deaccessions, and labeling of artifacts.

Administration Summary

Background

The Archaeological Commission of the Historical Society of Saginaw County, Inc., was formed in 1976 as its own 501-C-3 organization. The commission was originally formed to provide repository space, exhibition facilities, and professional assistance to local archaeology matters, and to promote archaeological publications and education programs.

In 1986, this organization was converted as a commission of the separate 501-C-3 Historical Society of Saginaw County, Inc. The archaeological commission retains this status within the historical society and the Castle Museum of Saginaw County History. This distinction is nominal within the daily operations of the Castle Museum. The Archaeological Commission is the only commission of the historical society and functions as any other department in the Castle Museum's organization.

Real Estate

The Archaeological Commission occupies several offices and a repository room in the basement of the Castle Museum facility. Saginaw county owns and the historic structure. The building and its grounds are listed on the National Register of Historic Places. Potential expansion and renovation are limited by this status.

The historical society also owns a nearby warehouse building. This facility is only partly utilized and serves mainly as the Castle Museum's repository for its history and ethnographic collections.

Administration

The Castle Museum executive director has the authority to commit the institution to a partnership with the DoD/USACE, with approval from the board

of directors. The small eleven member staff has two administrative positions and two and a half positions dedicated to collections management including a half time archaeologist. The executive director and some Castle Museum volunteers share grant writing and tracking duties. The executive director and volunteers also share fund raising duties.

The Castle Museum operates on an annual zero-based budget that does not allow yearly deficits. The Castle Museum is almost entirely dependent on annual appropriations from the county. This dependence on annual funding inhibits the planning and implementation of long-term programs and initiatives. It seems that the administration is only able to dedicate part of its annual funding for improvements, so improvements have been completed incrementally over recent years.

Outreach and Education Programs

The Castle Museum sponsors several "living history" programs including the annual Voyagers re-enactment of fur trading era canoe travels. The Castle Museum's primary outreach is achieved through visitation to its museum and exhibits. The exhibits are wide ranging, from dated regional history exhibits to a recent temporary exhibition from the Smithsonian. There are no specific education or outreach programs, nor is there any staff dedicated to education/outreach efforts.

Contributions

The Castle Museum could contribute collections storage space, staff dedication and expertise, and integration of the collections into the commission's existing collections management systems. It could also offer cost sharing for improvements to the HVAC and shelving systems in the repository area.

Notes

The presence of the archaeological commission represents the Castle Museum's special interest in archaeology. However, the Commission is not very active but is currently focused on rehabilitating its small existing collections (150–200-ft^3). The ACSC labors under the strain of insufficient resources to accomplish its mission. It is clear that they are dedicated to proper care and exhibition of archaeological artifacts. Their best asset is their historic building, which may be used to bring in additional funding.

Archaeology Section, Michigan Historical Society

Architectural Summary

Site Conditions

Located in the Historic Loop of downtown Lansing, the Michigan Historical Center (MHC) occupies about one sixth of the block which is defined by Sycamore, Butler, Allegan, and Kalamazoo Streets. A service street divides the site into two halves, with most of the south half used for parking space. The north half is planned for the building and the landscaped areas. The adjacent areas are sparsely built, and consist of residential areas, office buildings, and a few businesses. The site has space for building expansion or a new facility. It is easily reached by I-496 and State Highway M-99. Downtown Lansing is located within a floodplain; therefore the threat of flooding is a concern for MHC.

Building Condition/Structural Adequacy

The 10-year-old MHC building is in very good condition. It is divided into two parts, with the library bigger than the museum. The two sections share a common entrance and lobby areas on the first floor. Two loading areas are provided for each section. There is a covered loading dock and a large freight elevator. The exterior veneers are made of sandstone and copper panels. The built-up roof is constructed of metal trusses, corrugated metal decking, concrete slab, EPDM, and gravel.

Code Requirements/Egress/ Accessibility

The metal frame and masonry-walled MHC meets all UBC and BOCA building codes, egress, and accessibility requirements. The layout is logically planned. Ramps, and entrances and elevators enable wheelchair accessibility. Isolated stairwells are included for emergency evacuation. Marked by illuminated signs, adequate exits are provided at

necessary locations. Emergency lighting is installed throughout the interior.

HVAC Systems

The HVAC systems are excellent. The building is effectively zoned and physically partitioned for climate and fire controls. The regulated air is supplied by the air handlers with variable air volume, and piped to the facility from an adjacent state building, approximately 200 yards from MHC. The boiler house is also in a separated structure nearby. Humidity controls are also sufficient. Desired degree of relative humidity can be adjusted. Two independent and alternatively operated electrical systems power the facility.

Fire Suppression and Detection

The fire detection and suppression systems are adequate. Smoke sensors are located in return air ducts, ceiling, and sprinkler heads. However, there are no heat sensors. Both automatic and manual-pull alarm systems are present and wired to and monitored by the local fire department. Regularly checked and updated fire extinguishers of type A, B, and C are available throughout the building. Several types of sprinkler heads are mounted at different parts of the building, including the wet-pipe, pre-action, single interlock type, which operates at 165° F. The low-temperature system is prompted to release the sprinkler cap at 140° F. Smoke is needed to trigger the charge of water, and 165° F is needed to discharge.

Security System

The security system is adequately equipped. TV cameras are installed at entrances, and a keycard is required to access the restricted areas. Motion detectors are in place and are wired to a central in-house location; however, they are not in use due to the heavy use of the building. There is no intrusion alarm system or dead-bolts.

Collections Management Summary

Scope of Collections and Mission Statement

The Archaeology Section is a part of the Michigan Historical Society (MHS), Bureau of History, of the Michigan Department of State. The organization is located in the Michigan Historical Center (MHC). The MHS mission statements include the maintenance of State Archives, the exhibit facility called the Michigan Historical Museum (MHM), the Office of the State Archaeologist (OSA), and the State Historic Preservation Office (SHPO). MHS provides "access, education, stewardship, and interpretation" for all of its collections. Archaeology collections are "parallel to, but separate from, the Historical Museum collections." A total of 2,270-ft^3 of archaeological collections are curated. MHS accepts collections only from Michigan and the surrounding waters of the Great Lakes.

Archaeological Collections Storage

Long-term storage of archaeological collections at MHS is on the 4th floor in a locked room. An artifact processing area is in the same room. Some collections are kept on adjustable metal shelves that line the walls. Artifacts on these shelves (shipwreck remains) are padded with Ethafoam-brand padding. Other collections are in metal drawers inside stationary steel cabinets (Steel Fixture Mfg. Co. brand). Most are in zip-lock bags. Artifacts are arranged by county in the cabinets.

Environmental Controls

Fluorescent bulbs are filtered for ultraviolet light and there are not windows. The room is locked, and there are no exhibits on the 4th floor. Temperature control is kept at 65° F. Relative humidity is controlled but infrequently monitored, and was observed to be 36%. No temperature or humidity logs are kept. A biodegradable insecticide is applied yearly. Field and diving equipment (necessary for work) are also housed in the same room. Food and drink is not allowed in the room. All areas are relatively dust-free.

Range of Support Facilities for Archaeological Collections

The best support facility for the Archaeology Section is the new MHS building which has exhibits, including archaeological. The building houses an employee lounge, field & dive equipment, work tables, Michigan topographic maps, exhibit preparation areas, site files, a library, a freight elevator, loading dock, and microscopes. Other divisions that the Archaeology Section can easily articulate with are also located in the same building are State Archives, OSA, and the SHPO.

Staff Composition

The Archaeology Section has the following full-time employees: state archaeologist, assistant state archaeologist, and historical archaeologist. Other sections also tangentially handle archaeology collections management, including the archives and the SHPO office. OSA employs student workers to aid in collections management.

Administrative Record Keeping

Smithsonian trinomials are used to designate sites, with an expanded version for underwater sites for this peninsula state. Accession numbers consist of an "A" for archaeology, then the year, plus a consecutive number. A database of associated archaeology documents are kept, and copies of the database are maintained. Archaeology archives are designated "AA." A collection number consists of the site number plus the accession number. Administrative documents are kept in two metal file cabinets, some in acidic and some in acid-free file folders. There is a card catalog system of 4-x-6-inch cards. An electronic database is maintained in ARGUS for all MHS collections, however there is a backlog of information to be entered. Artifact location information is kept in the database.

Associated Archaeological Documentation and Storage

Final reports, field notes, maps, photographs, and analysis records are curated. Final reports, correspondence, and photographic materials are kept in the Archaeology Library. Photographs of sites are in mylar sleeves. Slides are in binders with Light Impressions-brand archival sleeves. Field notes are in acid-free file folders by accession number, in metal file cabinets in Room M404.

Collections Management Policies

Policies for the Archaeology Section are separate from other MHS sections. Written policies exist for minimum standards of acceptance, archive management, accessioning, cataloging, database entry, loans, exhibits, conservation, collections access, security, pest-management, and deaccessions.

Administration Summary

Background

The Michigan Historical Society is housed in the Michigan Historical Center (MHC), and is a state institution that has been in existence since 1879. It occupies a large modern building in downtown Lansing; one wing is devoted to the state museum and associated facilities, while the other wing is dedicated to the state historical library. MHS has had an archaeological department since 1973. MHS has small archaeological collections from K. I. Sawyer Air Force Base and Detroit District, Corps of Engineers, which it curates informally.

Real Estate

The State of Michigan owns the building and the property occupied by MHS. Staff are not aware of any restrictions to the use of the property that would be problematic for building additions or renovations. The property is managed by a branch of the state legislature.

Administration

An administrative officer of MHS has the authority to commit the institution financially to a partnership. MHC operating funds are derived largely from state appropriations although some funding comes from memberships; donations, special events, grants, and other fundraising activities. Individual staff members write grant proposals, while two members in the archaeology department are tasked with tracking the proposals. Fundraising is conducted by the museum director, and also by a non-profit foundation.

Outreach and Education Programs

No MHS archaeology staff members are exclusively involved in outreach and education, although each has a lesser role in these activities. Programs include a periodical, a preservation workshop, a field school in the upper peninsula of Michigan operated through Michigan State University, exhibits at remote sites, Michigan Archaeology Day (lectures, movies, festival), and field lectures and demonstrations. For primary-school age children, MHS has the "Michigan on the Rocks" program, in which teaching collections are extensively utilized. Exhibits include a section on the prehistory and archaeology of Michigan.

Contributions

MHS could offer professional curation expertise and a modern curation facility to a partnership. Although MHS has only been in the building for 10 years, space for collections will be a problem in the near future. More immediately, the archaeology department could use assistance, and associated funds. A one-time fee to cover processing would also help with labor costs for student assistance.

Notes

The Archaeology Section can clearly handle the volume of collections from Michigan. They are particularly well-equipped to handle the underwater archaeology currently prevalent in Michigan. The new facility expedites curation and exhibition of archaeological artifacts. There has been some discussion with Michigan State University about a cooperative agreement for a shared collections facility. MHS is eager to form a federal partnership and gain the prestige and resources that might be garnered from such an arrangement.

Museum of Anthropology, University of Michigan

Architectural Summary

Site Conditions

The Museum of Anthropology at the University of Michigan (MAUM) operates two facilities on the Ann Arbor campus. The Exhibits Building is located in the heart of the main campus and is best accessed by pedestrians. Visitor parking is located two blocks east at a university parking deck. A large loading area and docks is located on the south side of the building. The restricted campus site and the historic nature of the 1929 Exhibits Building make it unlikely for expansion. Collections storage capacity could be increased with compactor storage units.

The Kipke Building where archaeological collections are held, is located on the University of Michigan's south campus. This area of campus is home to university services and operations. Railroad tracks bound the east edge of the property. Adequate visitor parking is available at the west, or front, of the Kipke Building. A covered loading dock is located on the north side of the building. The Kipke Building is also located on a restricted site that would make expansion of the building unlikely. The MAUM collections storage rooms at the Kipke Building are ideal for compactor storage units. MAUM staff also indicated that an adjacent room at the Kipke Building could become available to further increase the MAUM's collections storage capacity.

Building Condition/Structural Adequacy

Exhibits Building

The Exhibits Building is a five-story concrete frame structure with brick exterior construction. There were no signs of structural deficiencies and it is unknown if any hazardous building materials are present. The original wood doors and windows remain in the building. The condition of the roof is unknown, although there is no evidence of leaks in the MAUM space. The building contains paleontology and other natural history exhibits on the first three floors. The building is a large "V" in plan, with the main entry to the exhibits area located at the point of the "V". The MAUM occupies one wing of the building's third floor, approximately 22,000-ft^2 in area. Other natural history disciplines are located throughout the building.

The Exhibits Building is home to the MAUM offices and laboratories. A significant amount of ethnographic and other working collections are stored at the MAUM third floor space. Storage cabinets line the corridor and working collections are stored in each laboratory. Two of the laboratories have been recently renovated, while another is nearing completion. The improvements include new finishes,

laboratory tables and equipment, light fixtures, and new hot-water radiators and window air conditioning units. There is no central air conditioning or air distribution capability in the MAUM space.

Kipke Building

During the project team's visit, it was determined that the Kipke Building was the most likely building to be used for rehabilitation and long-term curation of DoD/USACE archaeological materials. The limited available space at the Exhibits Building would likely prohibit its use as the long-term repository. The focus of the architectural evaluation focuses on the Kipke Building with the understanding that some small amount of DoD/USACE material could be curated at the Exhibit Building as a working collection during specific research activities.

The MAUM occupy approximately 8,000-ft^2 in the Kipke Building. This area is divided between two 3,000-ft^2 collections storage rooms and a second level laboratory space that is accessible from the repository area. These rooms are ideally configured for the efficient installation of compactor shelving units. It was estimated that compactor shelving would approximately double the storage capacity of the MAUM at the Kipke Building. One of the storage rooms has an upgraded HVAC system and is used to curate especially fragile textiles and ethnographic materials. The building is also home to the university's campus safety and security department and the campus police dispatch.

The Kipke Building is a steel frame structure with concrete masonry unit (CMU) bearing walls. The roof is a standing seam system. There are no windows in the MAUM collections areas. The building was completely renovated in 1994 with most of the southern half of the building dedicated to the MAUM. The facility has no signs of structural deficiencies or hazardous building materials. A minor roof leak was observed in the collections room. The MAUM collections spaces are equipped with floor drains. The collections storage rooms were organized and well maintained.

Code Requirements/Egress/ Accessibility

The Kipke Building was renovated in 1994 and meets all of the applicable building, life-safety, and accessibility requirements (type II construction, mixed-use group). An emergency exit egress from the rear repository room and a fire rated corridor provides egress from the building. A fire-rated partition separates the second level laboratory area from the open stair leading to it from the repository. A passenger elevator provides disabled access to the second level from the building's main corridor.

HVAC Systems

The front repository room and second level repository are served by the building's HVAC system. The university provides hot and chilled water to the building which is then supplied to the multiple air handler units located throughout the building. These units have standard air filters that are changed regularly by university maintenance staff. Although the MAUM has no direct control over the HVAC systems in the front repository and laboratory areas, the building's system has been adequate for the rooms' needs.

The rear repository area is equipped with a separate high capacity air condenser that provides improved cooling capacity for the room. This system includes air-handling equipment that is located in the room and can be directly controlled by the MAUM according to its curation needs. This system has provided precise HVAC control for the delicate ethnographic and textile collections curated in the room.

Fire Suppression and Detection

The entire Kipke Building is equipped with a wet-pipe fire sprinkler system. There are manual and automatic detection systems that are wired to the university monitoring center and then to the local fire department. The building is equipped with audio and strobe alarms as well as emergency lights. These systems provide adequate fire-suppression and -detection for the MAUM spaces.

Security System

The MAUM share the Kipke Building with the university's campus safety and security department and the campus police dispatch. Access to the collections areas of the building is restricted. The MAUM spaces are equipped with dead-bolt locks, intrusion alarms, and keypad access. These security systems are monitored by the campus monitoring center, which is located in the Kipke Building, and

then to the university police department. The combination of security systems and campus security in the building provides an adequate level of security for the MAUM collections.

Collections Management Summary

Scope of Collections and Mission Statement

There is no written mission statement, but it is clear that research and teaching take precedence at the Museum of Anthropology at the University of Michigan. The MAUM has extensive archaeological and ethnographic collections from all over the world. Principal collections consist of human skeletons, baskets, Asian textiles and wood-based weapons. Separate research areas, called ranges, are zooarchaeology, ethnobotany, North American archaeology, Great Lakes archaeology, Asian archaeology, ethnology, human osteology, New World High Civilizations and Old World High Civilizations. All NAGPRA-related objects have been dealt with. No anthropological collections are excluded.

Archaeological Collections Storage

The bulk of collections are stored in a nearby building, the Kipke building. This building serves a variety of purposes including housing campus police. Each of the ranges have separate shelving units. Metal shelving painted with an archival paint (UV-B) is used. Some shelves are buckling under the weight of the mostly acidic boxes. Wooden cabinets line one of the walls. Textiles are stored using non-acidic packaging and polyvisquene dust barriers are used. Polyoelfin foam is used as padding for ceramics on some shelves.

The textile storage room (1224A) has metal shelving as above. Some of the ceramics are wrapped in polyvisquene. Some ethnographic and human skeletal collections are also stored here.

Environmental Controls

The collections storage area (Room 1224) at the Kipke Building is cooled and heated, but relative humidity (RH) is not monitored except in Room 1224A. There is one hygrothermograph in Room 1224A which read 65° F and 34% RH at the time of our visit. It is calibrated annually with a psychrometer. Food and drink is not allowed in the repository. Filtered fluorescent bulbs are in all areas and there are no windows. There is no written pest management plan, but University personnel handles pest control. No food is allowed in the repository. Incoming collections are handled by the head of each range, increasing pest risk. All areas were relatively dust-free.

Range of Support Facilities for Archaeological Collections

The MAUM is affiliated with a natural history exhibit building (the Ruthven building) which houses offices and the abovementioned ranges. Archaeology exhibits are small and are located on the third floor. Much research is done in the ranges on the fourth floor. Room 4037 is the Great Lakes Archaeology range, and has flat map storage, temporary storage in wooden cabinets, work tables, archaeological reports, Michigan site files, metal card catalog files, and metal file cabinets. Room 4032 is the Asian range which has wooden storage cabinets and metal cabinets in the hall. There are also glass plate negatives (n=4,500) from the Philippines in the hall. Room 4035 is the Human Osteology range. Room 4019 is the zooarchaeology range which houses comparative skeletal collections in metal vertebrate cabinets, temporary storage, work tables and sinks. Room 4045 houses the ethnobotany range and has comparative collections of wood and seeds. Room 4016 has a fume hood, sinks, equipment for isotope analysis, and temporary storage. A lounge and seminar room is in Room 4027. Room 4027 is a computer laboratory with web servers, scanners and a GIS computer. Room 4029 is a graphic arts room with a web server. Room 4029 houses a slide collection (n=20,000) in a metal locking cabinet. On campus, an excellent archaeological library is also available if needed.

In the floor above the collections storage area in the Kipke Building, there is a conservation laboratory (Room 2222) with sinks, distilled water, work space, and a well-labeled flammable chemical cabinet for acetone and ethanol.

Staff Composition

The eleven curators at the MAUM have dual appointments with the Department of Anthropology. The Great Lakes Archaeology range supports two graduate student research assistants (RA), and there are usually about 10 RA's total. There is a full-time conservator, but she is unpaid. The collections manager is full-time, but spends much of his time involved with computer work such as maintaining the web site for the MAUM. Much collections management work is undertaken by the RA's.

Administrative Record Keeping

Due to the long history of collecting anthropological artifacts, there have been (and will be) changes in the methods of administrative record keeping at the MAUM. First, there was a registration book with consecutive numbers through 3652 for each lot of artifacts. Next, each artifact was numbered in a book with preprinted numbers. This was found to be too cumbersome and so they switched to a single accession book per range. Unfortunately, there were sometimes repeat numbers among the ranges. Then the MAUM switched to hand-typed catalog cards, reproduced in triplicate. In 1985, accession files were implemented, and the catalog books abandoned. These accession files are stored in metal file cabinets in acidic folders, some with photographic negatives.

Catalog numbers have been tripartite since 1985, and are year-sequential number-artifact number. These serve as accession numbers.

The photographic collections have two systems—one for color slides and one for black-and-white negatives. These are numbered sequentially.

In the early 1980's, catalog information began to be kept on a mainframe computer on campus, using a program called Spire™. Next, database information was switched to the Paradox program, and the MAUM will switch to Microsoft Access soon. Currently the database is on a network server to which three people have access. This information is available via the World Wide Web. Tape backups are made weekly on a University of Michigan Unix system.

Physical access to the collection and purchase of images of the collection or from the photographic collection may be requested through a request form. Files and correspondence of James B. Griffin (a noted North American archaeologist) are stored in Room 1224 the Kipke collections storage area.

Associated Archaeological Documentation and Storage

Associated documents are stored in each range, separately.

Collections Management Policies

Over-arching written policies for the entire MAUM exist for accessioning, artifact labeling, photograph labeling, removal of labels, loans, requests for photographs, collections access, acquisitions, and deaccessions.

Administration Summary

Background

The Museum of Anthropology at the University of Michigan was founded in 1929 after being part of the Museum of Natural Sciences. The MAUM is almost exclusively a research institution with a large and diverse collection. A small amount of this archaeological material along with larger ethnographic and paleontological materials is exhibited in the university's Exhibits Museum. The MAUM is divided into seven research ranges that include: Great Lakes archaeology, Asian archaeology, ethnology, physical anthropology, New World High Civilizations, and Old World High Civilizations.

Real Estate

The MAUM occupies part of the larger Exhibits Museum on the University of Michigan's Ann Arbor campus. The MAUM also operates its collections storage facility from a renovated building on the university's south campus. Both facilities are owned and operated by the university. There are no restrictions on the use of either property.

Administration

The museum director has the authority to commit the institution to a partnership with the DoD/USACE, with approval from the Dean of the School of Liberal Arts and Sciences. The small MAUM staff is almost equally divided between administrative and

collections management personnel. Individual faculty members write and track their own grants that are administered through the university's grants office. This office includes a federal liaison as well as a DoD grants liaison. There is no fundraising done specifically by the MAUM. The University of Michigan conducts a host of fundraising activities through the office of the Vice President of Development. There has not been an operating deficit in any recent years.

The MAUM faculty members are half-time appointees that also have half-time appointments with the anthropology department. A large body of graduate students and research assistants supplement the permanent faculty body. The directorship of MAUM is a rotating appointment among faculty members.

Outreach and Education Programs

Faculty members' duties are divided between teaching through the anthropology department and research through the MAUM. Because of the MAUM's general educational mission, nearly all of its activities can be considered education/outreach. These programs include academic research, scholarly publications, and public open houses. The MAUM is also actively employing Internet technologies to expand its outreach. There are no staff members specifically dedicated to promoting education and outreach, although every faculty member could be considered devoted to education and outreach. There are no specific Native American outreach or education programs, although the MAUM actively recruits Native American Students.

Contributions

The MAUM could contribute available building space, promoted and controlled access to the collections, and professional standards of care for the materials. The MAUM could also contribute shared operation and management costs within its existing administrative systems.

In return, the MAUM would expect complete documentation of the collections, support in facilitating access to the collections, support for potential repository improvements, and potentially funding for compactor shelving systems.

Notes

Like other institutions in Michigan, the MAUM is a strong candidate for partnership. The MAUM is a well-known research and education institution in the field of archaeology. Resources for research on collections are unrivaled in Michigan. They have less permanent, full-time staff devoted to collection management than might be desirable, however this would not compromise care of DoD/USACE collections. Without any dedicated full-time staff or administrators, there are limited opportunities for setting and accomplishing any large-scale or long-term institutional goals at the MAUM. The MAUM would provide, almost exclusively, academic or scholarly access to the collections. Also, the absence of an active relationship with Native Americans is a deficiency at the MAUM.

The laboratories in the main museum building are undergoing renovation and receiving new equipment. The off-site storage building is newly completed and could provide sufficient amounts of quality space for the collections. The MAUM would be willing to accept collections from the Great Lakes region including Wisconsin, Illinois, Indiana, Ohio, western New York, and northern Pennsylvania.

Public Museum of Grand Rapids

Architectural Summary

Site Conditions

At the time of the project team's August 1998 visit, the Public Museum of Grand Rapids (PMGR) was planning a large capital project that will create a new repository/research center. The schematic design proposal plans to re-use the former 1930s museum building and adjacent property (Jefferson Street), in addition to a new three-story curation facility. The complex building program calls for a public reading room, collections and archives rooms, collections processing areas, and long-term curation rooms. The City of Grand Rapids and Kent County will join with the PMGR as partners. The city and county will use the new facility as their new archive center. The PMGR also hopes to attract other "tenants" to the new facility. Repository space has been programmed for these future state and federal agency tenants. The

potential DoD/USACE partnership is similar to the PMGR's current planning.

The new facility is estimated at 143,000-ft^2 in area at a cost of $17,661,138 ($123.05/ft^2), although funding for the project remains uncertain. The timing of the new facility is the most pressing issue in the project and decisions will need to be made quickly. PMGR will lose their existing collections storage facility to eminent domain as part of an interstate expansion through downtown Grand Rapids. PMGR currently estimates that they will need to vacate the existing repository by the end of 1999. One way or another, it appears that the PMGR will have a different collections storage facility within the next 18–24 months.

Within this context, the PMGR suggest that incoming DoD/USACE archaeology collections would be rehabilitated and temporarily curated at the Van Andel building, the PMGR's new main exhibit facility. Because the new curation facility remains in schematic design, and use of the existing repository will end with its impending demolition, the Van Andel building is the focus of the architectural evaluation. Where appropriate, notations about the future or existing facilities are made in this Summary.

The PMGR's Van Andel museum building is located on the eastern bank of the Grand River at the edge of Downtown Grand Rapids. Abundant public parking is available at a parking structure across from the building. A covered drop off lane at the front entry allows for comfortable access to the facility during inclement weather. A drive-in loading area and a conventional loading dock are located on the southwestern corner of the building. A large freight elevator provides access for materials and exhibits to the upper floors.

The riverfront site is thoughtfully landscaped and is well maintained. Land is available for expansion to the south of the building, but no plans to expand the 1994 facility were discussed by the PMGR administration. The building's vulnerability to flooding is uncertain.

If the proposed expansion of the former museum facility is completed as planned at Jefferson Street, there will be little chance to expand the research/curation facility on the restricted site. Sufficient loading facilities are currently accommodated in the proposal.

Building Condition/Structural Adequacy

The large four story 100,000-ft^2 structure was completed in 1994 at an estimated cost of $42 million. The construction was funded with an array of corporate, private, and civic sources. The first three floors are dedicated museum exhibits, gift shop, classrooms, and other public spaces. The southern end of the first level is the drive-in loading delivery area. The entire fourth level is dedicated to PMGR offices, laboratory, and exhibit preparation spaces. A small under-used storage room on the fourth level was suggested as a temporary repository for DoD/USACE material until the new curation facility was completed.

The building is a complicated concrete (1-way pre-stressed beams) and steel frame structure with concrete masonry unit and standard masonry exterior construction. The building is richly finished throughout and remains in excellent condition. There were no signs of structural deficiencies, neglect, leakage, or hazardous building materials. The proposed repository room has no floor drains.

Code Requirements/Egress/ Accessibility

The 1994 Van Andel museum building meets all of the applicable building, life-safety, and accessibility requirements (type II construction, B use group). Multiple exits provide emergency egress from the building. There are three emergency fire-rated stairwells in the building. A passenger elevator provides access between levels. All of the restrooms meet appropriate accessibility requirements.

HVAC Systems

Twin 160-ton on-site direct expansion condensers serve the Van Andel museum building. Hot water is supplied by the city. Heated water is supplied to baseboard radiator units located throughout the building. Chilled water is delivered to air handler units (AHUs). Two AHUs serve each level of the building and provide zoned control of the HVAC systems. The AHUs are filtered and provide relative humidity control.

Fire Suppression and Detection

The entire Van Andel museum building is equipped with a pre-action dry-pipe fire suppression system. Fire extinguishers are located throughout the building. Smoke detectors are located in the building's air handling system. Additional automatic fire detection devices are located throughout the building. The 24-hour on-site security station monitors the fire detection systems which also notify the local fire department.

Security System

The Van Andel museum building is secured with intrusion alarms and video surveillance that is monitored by the 24-hour security station. Security alarms are also wired to the local police department. Access to sensitive areas of the building is extremely restricted. Logs are maintained for access to exhibits and collections storage. A key card access system logs and identifies staff entry to these sensitive areas. The Van Andel museum features an ideal combination of security practices and equipment.

Collections Management Summary

Scope of Collections and Mission Statement

The Public Museum of Grand Rapids mission statement is "to collect, preserve, and present the natural, cultural, and social history of the region." Additionally, the purposes of the mission are 1) to enrich and delight the general public, 2) to encourage visitors to explore the historical, present and potential relationships between the natural environment and human culture; and 3) to enhance the quality of life in West Michigan. Collections range from archaeological to historic Euro-American. The principle collection is furniture. No types of collections are specifically excluded, however, if an incoming collection fits the mission statement of another institution better it is referred to that institution. Human skeletal remains of unknown cultural affiliation are curated. The PMGR would want detailed, specific, written, information and instructions for any NAGPRA-related items before they accept them for curation.

Archaeological Collections Storage

Currently, collections are stored in a building called the STAR building at 134 Grandville. This building will be demolished in September 1999. It is possible that if the PMGR enters into a contract with the DoD that collections will be held in the Van Andel building at 272 Pearl Street. This Summary is based upon projected renovations of the building at 54 Jefferson SE, called the Community Archives & Research Center (CARC).

The CARC is about 1.5 miles from the Van Andel building. Shelves are slated to be Delta, powder-coated metal construction, eight feet long and four feet deep. Movable shelving was discussed, and deemed to be too expensive, though a written document recommends it. Much of the archaeological remains are in their original (acidic) containers, and have a lower priority for storage upgrades (page 6 of recommendations). Cabinets currently have wooden drawers. Secondary containers are paper and plastic bags, and Tupperware containers. In either the CARC or the Van Andel building, a large loading dock and freight elevator will accommodate movement of large collections.

Environmental Controls

Temperature and relative humidity will be monitored and regulated at either the exhibit building or the CARC. Hygrothermographs will be used and calibrated by an electric psychrometer. Logs from these will be kept and analyzed. Pests are controlled by proper environmental control and pesticides are used as last resort. Incoming collections will be inspected before entering general storage. The CARC will have a separate holding area for incoming collections. To control dust, the PMGR plans to use a HEPA-filtered vacuum in addition to the normal HVAC air handler filters. Fluorescent lights are filtered.

Range of Support Facilities for Archaeological Collections

In the CARC, facilities will include two reading rooms, offices, work space, an auditorium a copier room, microform readers, an loading dock, holding room, a mail room, darkroom, and conservation lab. The Van Andel building has a darkroom, graphics lab, drafting room, an exhibit staging area, a new

acquisitions cage, a shower, loading area, an exhibit preparation room, a carpentry room, a metal shop, a paint shop with a charcoal-filtered exhaust, adhesive room and a freight elevator. The Native American exhibit was built using the recommendations of the western Michigan Anishinabek tribe, who regularly attend. Research on archaeological collections is done primarily by professors from Western Michigan University and Grand Valley State University.

Staff Composition

Curatorial staff at the PMGR consists of two full-time curator II, a full-time collections manager, a curator I, and a full-time collections management office assistant III.

Administrative Record Keeping

Archaeological collections consist primarily of small, locally-excavated remains, and some donations. Donated collections have limited provenience information and have been kept in original containers. Smithsonian trinomials are used as alphanumeric site designations, however do not have a field in the computerized data management system. The collections have been inventoried for NAGPRA-related items only. Accession, catalog, exhibit, deaccession, object location, and loan files are kept. Associated documents have not been inventoried. Computerized data management uses a Minisys program stored on a hard drive and backed up once a week on a tape drive, duplicated off-site. It is on a network to which eight people have access.

Associated Archaeological Documentation and Storage

The PMGR current keeps the site reports and field notes with the collections in the STAR building. Some are in the library in the anthropology section. No duplicates are kept.

Collections Management Policies

Collections policies are written for acquisitions, loans, ethics, inventories, insurance, access, and deaccessions. A collections committee oversees all collections management operations. No written pest management policy exists.

Administration Summary

Background

The Public Museum of Grand Rapids is self-described as "a 144-year-old, educationally driven museum of cultural and natural history." The PMGR's focus is on the city's history, specifically, and on the region in general. Its archaeological collections are limited and archaeology plays only a supplemental role in the PMGR's more comprehensive history and natural history efforts.

Real Estate

The PMGR opened a brand-new $42 million exhibit building in 1994. Currently, the institution is planning a $17 million expansion/renovation of the former exhibits building for use as a library/repository/research center. The PMGR has successfully partnered with the city and county archives in developing the project. A host of other agencies have expressed similar interest in the development of the facility.

Funding for the project remains uncertain, although decisions will need to be made quickly. PMGR will lose their existing collections storage facility to eminent domain as part of an interstate expansion through downtown Grand Rapids. PMGR currently estimates that they will need to vacate the existing repository by the end of 1999. One way or another, it appears that the PMGR will have a different collections storage facility within the next 18–24 months. Until the collections storage facility dilemma is resolved, the PMGR suggested that a specific underused laboratory space in the main museum building could be used as a temporary repository for any DoD/USACE collections.

Administration

The governing board of the PMGR has the authority to commit the institution to a partnership with the DoD/USACE. The PMGR's development office has one full time and two part time staff whose function is to write grant proposals and perform other fundraising activities. The accounting department has two full time and two part time staff who also track grants and produce final reports.

Outreach and Education Programs

The PMGR enjoys a positive relationship with local Native American communities. The PMGR has a Native American advisory committee that consults on museum activities. The PMGR estimates that one-quarter of its programs/exhibits are Native American related. A permanent exhibit has been developed entitled Anishinabek: People of this Place that explores the historic and contemporary Michigan Anishinabek culture. Even though PMGR's Native American relationships are very active and healthy, archaeology collections and programs are still limited to a supporting role in these efforts. Scholarly research in archaeology is increasing with the PMGR's relationship with Grand Valley State University's anthropology program. Primary/ Secondary education outreach is based on the museum's tour programs.

Contributions

Internally, the PMGR would approach a partnership with the DoD/USACE on a "project" basis. Within this arrangement, the PMGR would assign staff, hire consultants, and promote the collections within its existing programs.

The PMGR outlined the following contributions

- Floor space in a new, state-of-the-art storage facility soon to be built.
- Security
- Environmental control: limited light, temperature, humidity
- Supervised access to and use of collection by scholars, tribes, and the public. We encourage responsible access to our collections, and seek collaborative relationships with appropriate universities, government agencies, and scholars, etc.
- Arrange and administer curation/rehabilitation, including reprocessing, repacking, storage, inventory, appraisal (for insurance purposes), and insurance
- Ongoing staffing and administration of repository
- Credit DoD/USACE for any and all use of the collection by public/scholars

In return, the PMGR would expect.

- Funding for storage systems, e.g. cabinets, boxes, packing materials
- Staff funding for curation/rehabilitation, including reprocessing, repacking, relabeling, inventory, and storage, etc.
- Funding for appraisal (for insurance purposes)
- Annual fees for space rental and overhead
- Pro-rated insurance costs
- Any direct costs to PGMR incurred by NAGPRA compliance or USACE-approved scholarly curation.

Notes

The recent capital achievements at the PMGR demonstrate its institutional health and the broad support it enjoys among corporate, civic, and private boosters. The impending changes in PMGR facilities make it a difficult institution to accurately evaluate. However, the Van Andel building itself could also suitably handle DoD collections. The successful implementation of the current plans will largely dictate its suitability for partnership. It seems inevitable that these renovations will take place, but the length of time it takes to accomplish this goal remains in question.

The excellent relations with Native Americans from Michigan also make the PMGR attractive for DoD partnership. While archaeology is not a core segment of the institution's mission, archaeological materials should be well cared for and could be integrated into PMGR's existing quality programs.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which

account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 17.2 lists the composite scores and the architecture, collections management, and administration scores for each Michigan institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 17.2
Summary of Decision Support Model Scoring—Michigan

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Archaeological Commission of Saginaw County	**0.6003**	0.06344	0.23363	0.30323
Archaeology Section, Michigan Historical Center	**0.7232**	0.19152	0.29616	0.23548
Museum of Anthropology, University of Michigan	**0.6546**	0.19810	0.16151	0.29502
Public Museum of Grand Rapids	**0.8865**	0.19577	0.28820	0.40251

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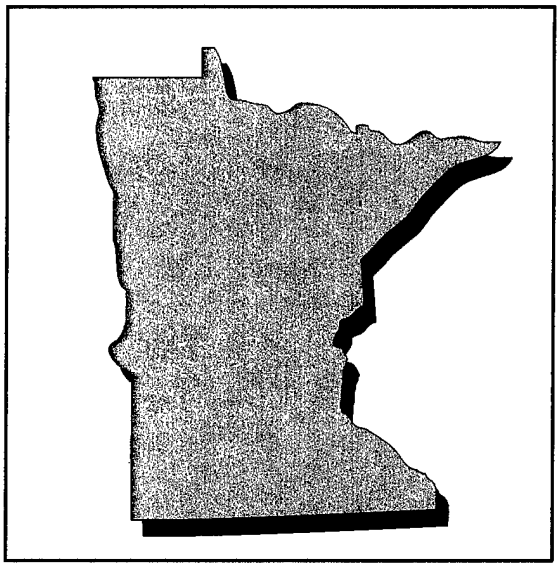
Minnesota



Archaeological Materials (in cubic feet)

Department of Defense	**0**
USACE	**43**
TOTAL VOLUME	**43 ft³**
Number of Institutions Contacted	**18**

No Institutions Assessed

Background

A list of the facilities contacted in Minnesota is presented in Table 18.1, including the reason(s) none were selected for an on-site evaluation.

Table 18.1
List of Institutions Contacted—Minnesota

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
E. P. Hatcher Museum, St. Cloud State University	X			
Goodhue County Historical Society				X
Minnesota Historical Society		X		
Otter Tail County Historical Society				X
Pipestone National Monument		X		
Science Museum of Minnesota		X		
University of Minnesota, Duluth		X		
University of Minnesota, Minneapolis			X	

Note: Locations visited indicated in **Bold**.

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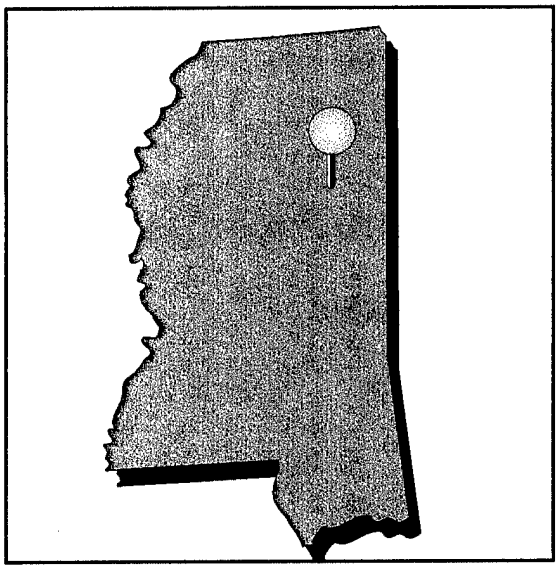
Mississippi



Archaeological Materials (in cubic feet)

Department of Defense	**0**
USACE	**4,401**
TOTAL VOLUME	**4,401 ft³**
Number of Institutions Contacted	**10**

Institution Assessed

Cobb Institute of Archaeology, Mississippi State University, Starkville

Background

A list of the facilities contacted in Mississippi is presented in Table 19.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 19.2, showing strengths of each institution. Pertinent information on the Cobb Institute is presented in the following discussion.

Table 19.1
List of Institutions Contacted— Mississippi

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Cobb Institute of Archaeology, Mississippi State University				
Cottonlandia Museum		X		
G. E. Ohr Arts and Cultural Center		X		
Grand Village of the Natchez		X		
Marshall County Historical Museum			X	
Mississippi Department of Archives and History		X		
Mississippi Museum of Art		X		
University Museums, University of Mississippi		X		
University of Southern Mississippi				X
Yazoo Historical Museum	X			

Note: Locations visited indicated in **Bold**.

Cobb Institute of Archaeology, Mississippi State University

Architectural Summary

Site Conditions

The Cobb Institute of Archaeology operates two facilities in Starkville, Mississippi. The exhibit hall and offices of the institute are located in a building on the Mississippi State University campus. The Cobb Institute also operates an off-campus archaeological collections curation facility. A gravel road provides access to the curation facility. The building site is surrounded by a six-foot high gated security fenced topped by barbed-wire. Approximately 10 parking spaces are available outside of the fence on the lawn area between the gravel road and the building. Inside the fenced area (also a lawn area), there is room for truck circulation, a covered loading area, and a separate garage structure that is used to store field equipment.

During the project team's visit and directly to the south of the curation facility, a new 1,000,000 gallon capacity water tower was under construction. After its completion, the large structure should have no impact on the curation facility. Despite the unadorned quality of the property, the site functions well and is an important asset to the Cobb Institute.

Building Condition/Structural Adequacy

The curation facility was constructed in 1986 at an approximate cost of $240,000. Much of the cost was supplemented by curation fees received by the Cobb Institute in a partnership with local USACE districts. The building was designed as a curation facility and was ahead of its time.

The building is a prefabricated structure with a concrete slab on grade foundation, steel structural members, and aluminum exterior cladding. The building is 100 feet in length with a 4,400-ft.^{2} footprint. The rear collections storage area is divided into two levels creating 5,430-ft.^{2} of total building area. In the collection storage area, the foundation is depressed to allow enough clearance for the two levels. The shelving units extend from the floor to the second level and serve as the structural elements for the mezzanine level floor above. The collections storage room appeared well kept, organized, and structurally sound. There is significant storage space available in this room. The 880-ft.^{2} processing area and the 880-ft.^{2} office areas provide adequate support space for the Cobb Institute's curation mission.

The simple structure also has thoughtful details that ameliorate the deficiencies of prefabricated structures in their use as curation facilities. The entire structure is properly insulated, with the collections storage area featuring an additional layer of insulation. The west wall of the building was constructed to allow its removal for future expansion. In addition, a special construction detail in the standing seam metal roof was executed in order to minimize the threat of water infiltration through the roof. The curation facility provides an effective environment for the curation of archaeological collections.

Code Requirements/Egress/ Accessibility

The curation facility appears to meet all of the appropriate emergency egress and building codes (type II construction, B and S-2 use group). The building is also sufficiently accessible to the disabled, although the building is not entirely compliant with the Americans with Disabilities Act (ADA). The single level facility is accessible for the disabled through the main entry door. Likewise, the office, restroom, processing areas are easily accessible. However, the stairs in the two level collections storage room make this area of the facility inaccessible to the disabled. There is a lift in the collections area that is used for moving collections between levels. This freight lift is not suitable for passenger use.

HVAC Systems

The entire curation facility is heated with a natural gas boiler and electric condensers for chilled water. Heated and cooled air is distributed through the repository in a closed system to minimize variations caused by the introduction of outside air supplies. A single air handling unit includes a reheat coil for humidity control for the repository.

A less sophisticated air handling unit serves the processing/office area. This unit does not have a closed recirculation system or a reheat coil for humidity control. Standard filters are used in both air handler units and are changed as needed.

Fire Suppression and Detection

The curation facility is equipped with a wet-pipe automatic fire suppression system. The repository area is fitted with floor drains in case of flooding from a fire or from a sprinkler failure. Both manual pull-alarms and automatic smoke and heat sensors are located throughout the building. The alarm system is wired to both the local fire department and a private security company. The entire alarm system has been upgraded since 1986.

Fire extinguishers are also located throughout the building, although some extinguishers have not been inspected since 1994. On balance, the fire suppression and detection systems adequately protect the facility.

Security System

Dead-bolt locks, intrusion alarms, and motion detectors are used to secure the curation facility. The security system is wired to a private security company that notifies the local and Mississippi State University police departments. Access to the repository area is further restricted with additional locks.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Cobb Institute of Archaeology is exclusively archaeological, focusing on Old World Middle Eastern and Southeastern United States. The Cobb Institute curates 6,000-ft^3 of archaeological materials, including collections for the USACE and the Naval Air Station Meridian.

Archaeological Collections Storage

Collections are housed primarily in a facility built in 1986 specifically for curation (Curation Laboratory), and Middle Eastern materials are stored at the on-campus exhibit facility (Cobb Institute Building) dating to 1972. The Curation Lab has 2,600-ft^2 of storage, and some of the shelves are empty. Collections are in acidic boxes, stapled together, on stationary enameled metal shelves, organized by row, rack, and shelf numbers. Everything is in boxes except for some metal objects. A variety of secondary containers are used, including paper bags, garbage bags, glass jars, aluminum foil, plastic vials, small acidic cardboard boxes, paper envelopes and zip-lock plastic bags. No windows exist in the storage area. Two vaults for special objects are at the on-campus facility, however, these have no humidity control. Adequate security measures are in place.

Environmental Controls

The temperature is maintained between 60–70° F, and relative humidity is monitored by a hygrothermograph that is calibrated every two years. A non-functional humidifier is present, however, Mississippi is rarely dry enough to warrant use of a humidifier. It is very humid in the summer, therefore both the AC and heating units run simultaneously, to reduce humidity. Standard HVAC filters are changed every few weeks.

Range of Support Facilities for Archaeological Collections

An office, processing laboratory, computer/drafting room, and covered loading dock are also located at the curation building. There are sealed windows with blinds. The exhibit area is located in the basement of the on-campus facility and has been closed for the past two years due to ground water infiltration. A conservation laboratory, darkroom, drafting room, processing laboratories, administrative and faculty offices, and classrooms are also at the on-campus facility.

Staff Composition

The staff consists of the director, two secretaries, and four full-time faculty members. The curator devotes one-quarter of the time to curation. Five doctoral, two masters, and two to six work-study students are paid to perform curatorial support tasks.

Administrative Record Keeping

Each collection is not assigned a unique accession number, rather, box numbers are assigned that incorporate location information. An electronic database (DBase II, III, and IV, switching to Microsoft Access) is maintained on a fixed disk in the curator's office at the curation facility, with a backup copy on 3.5-inch floppy disks in the curator's office at the on-campus location. Documents are inventoried to the (non-acidic) folder level, but items in each folder are not catalogued. Loan records are also maintained.

Associated Archaeological Documentation and Storage

Field notes and artifact inventories are catalogued by folder and stored in non-acidic cardboard boxes in acidic folders. These are all slowly being replaced with non-acidic storage materials. Maps and other oversized documents are stored in oak map cases also located in the artifact storage area. Photographs, negatives and transparencies are stored in hanging files within metal file cabinets. Some oversized paper records are rolled up.

Collections Management Policies

A written policy exists regarding minimum standards for acceptance of archaeological collections and associated documentation (written records, photographs), including curation fees. A written loan policy also exists.

Administration Summary

Background

The Cobb Institute of Archaeology is located on the Mississippi State University (MSU) campus and was founded in 1972. The Institute has archaeological collections from the Mobile and Vicksburg districts, and Naval Air Station Meridian. The Institute has agreements to curate the collections from the above entities.

Real Estate

The Institute is part of and is owned by Mississippi State University. Expansion or new construction is possible adjacent to the existing off-campus collections storage building to the west. The construction of a new 1,000,000 gallon water tower to the south precludes expansion in that direction. The Institute's original building on campus contains the only exhibition space and is located in the basement. Expansion of this building for additional exhibition space is possible, but collections are not stored here.

Administration

The Vice-President for Research at MSU could financially commit the institute to a partnership with the DoD and USACE. The same Vice President could sign a cooperative agreement. The university's Office of Sponsored Research writes and tracks grants. The private Development Foundation performs fundraising for the university. The institute itself draws on an endowment that provides funds for research and staff salaries. The endowment was created by two separate donations by the Cobb family. The total endowment is now over $1,000,000. The Institute's budget is about $125,000 a year. As part of the conditions of the endowment, the director of the institute must be a Middle Eastern archaeologist. The Institute has had difficulty in raising outside funds, since many believe that the endowment provides sufficient funds so that no fundraising is needed.

Outreach and Education Programs

The Institute's staff participate in outreach activities that include public lectures, presentations, and workshops for either adults or children. Tours of the Institute are performed for the public including Indian groups. The Institute's sole gallery for exhibits is currently closed to the public, but will eventually reopen with information on both Middle Eastern and southeastern archaeology. The Institute publishes a newsletter twice yearly which is sent to over 1,700 subscribers.

The Institute has consulted with Native Americans as part of its Native American Graves Protections and Repatriation Act compliance activities. The institute has worked with Native Americans for over 25 years, particularly the Choctaw Nation.

Contributions

The Institute could contribute its existing facility, staff expertise, utilities, and building maintenance. The Institute would expect the DoD/Corps to contribute equipment and funds for staff.

Notes

The Cobb Institute was a pioneer in building a curation facility to house archaeological collections. With the financial assistance of the Mobile District, the Cobb designed and constructed such a curation facility. The curation facility was a cost-effective and efficient design when it was constructed in 1986. This purpose-built facility incorporates many of the design elements found in more recent examples of curation facility planning and design. The result is a repository area that is efficient to heat, cool, manage and use; and a processing/office area that supports the curatorial functions of the building. The Cobb Institute would be interested in being a regional partner for DoD/USACE collections from Alabama, Tennessee, and Mississippi.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 19.2 lists the composite scores and the architecture, collections management, and administration scores for the Cobb Institute. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 19.2
Summary of Decision Support Model Scoring—Mississippi

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Cobb Institute of Archaeology, Mississippi State University	**0.7512**	0.19963	0.23817	0.31344

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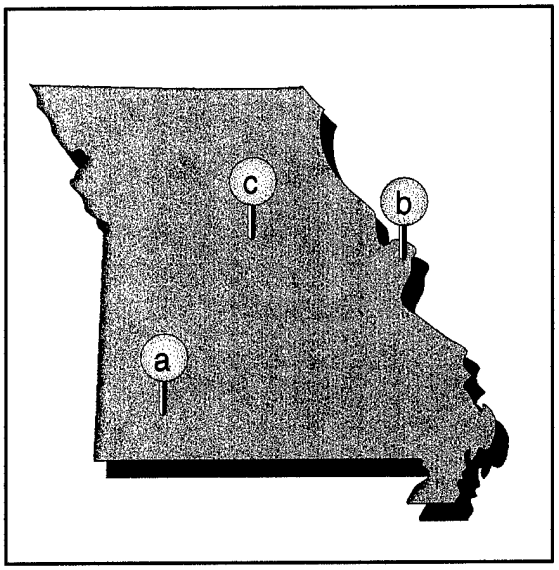
Missouri



Archaeological Materials (in cubic feet)

Department of Defense	268
USACE	3,369
TOTAL VOLUME	**3,637 ft³**

Number of Institutions Contacted 9

Institutions Assessed

a. Center for Archaeological Research, Southwest Missouri State University, Springfield

b. Missouri Historical Society, St. Louis

c. Museum of Anthropology, University of Missouri, Columbia

Background

A list of the facilities contacted in Missouri is presented in Table 20.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 20.2, showing strengths of each institution. Pertinent information on the facilities visited in Missouri is presented in the following discussion.

Table 20.1
List of Institutions Contacted—Missouri

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Center for Archaeological Research, Southwest Missouri State University				
Central Missouri State University				X
Jefferson National Expansion Monument		X		
Kansas City Museum		X		
Missouri Historical Society				
Museum of Anthropology, University of Missouri				
Ozark National Scenic Riverways		X		
Ralph Foster Museum		X		
St. Joseph Museum		X		

Note: Locations visited indicated in **Bold**.

Center for Archaeological Research, Southwest Missouri State University

Architectural Summary

Site Conditions

The Center for Archaeological Research (CAR) is located in a commercial strip mall within the perimeter of Southwest Missouri State University. The site occupies a small section of a large city block, and the space allows for building expansion. The surrounding area contains a mixture of education, commerce, and residences. Kimbrough Street defines the west border, and a large shared parking lot dominates the east border. The new university physical therapy building (under construction) is located on the north side, and a fast food restaurant is located on the south. Across Kimbrough Street there are some restaurants and shops. Interstate 44 is the nearest highway, located several miles to the northeast. Little landscaped area is present. The area is in a tornado zone, but not in an earthquake or flood region.

Building Condition/Structural Adequacy

The building is structurally sound, but needs upgrading. CAR provides space for storage, a library, artifact processing, research, and offices. Constructed in the 1950's, the larger section of the facility was originally a record store. Situated at a higher floor level, the smaller portion was built later and appears in better condition because of its 1996 renovation. Both sections are fabricated of masonry such as stone, concrete masonry unit, concrete, and brick. A connection was made between the two buildings via a door and a flight of steps in the 1996 upgrade.

The original record store part of the building still has the front glass wall. While both roofs are flat, their framing systems consist of slightly different materials. The main roof is made of open-web steel joists and metal decking, but the smaller roof is a wood truss system. In the main section, ceiling tiles are missing in a large area, exposing the fiberglass insulation. No evidence of leakage of any kind was found in the facility.

Code Requirements/Egress/ Accessibility

Egress is made easy by clear path layout and lighted exit signs. There are doors in both the front and rear of the building. A few battery back-up emergency lights are located above the exits. They are checked once or twice a year. Interior spaces are not effectively divided for fire or climate controls. Some of the partitions on the storage side are constructed of wood.

Although the facility is compliant with ADA in most areas, including the bathrooms and entrances, no elevator or ramp is available to bridge the different heights of the two building sections. ADA signage is inadequate both inside and outside the facility.

HVAC Systems

The HVAC systems are adequate on the storage side but not in the artifact processing area. Two separate systems regulate the interior climate. The heating and cooling system in the storage area was installed three years ago and is in good condition. The system used in the processing area is much older. In addition, a suspended gas-fueled space heater supplies most of the heat for the processing area. The heating and cooling unit is not enclosed in a room but is located adjacent to the shelves.

Fire Suppression and Detection

There is no sprinkler system. No heat sensors are present, but there are a few smoke detectors. Extinguishers of type A, B, and C are the only fire suppression means. Placed at easy-to-reach locations, they are regularly inspected and updated.

Security System

A central in-house alarm system is in place, monitored by a police substation a block away. In addition to dead-bolts at the main entrance doors, an access card is necessary to enter when the building is closed. The collections storage area is separated from the rest of the repository by metal doors. A few motion detectors are mounted at key spots.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Center for Archaeological Research at Southwest Missouri State University is to promote archaeology in Missouri. A more formal policy states that the "two primary functions are: (1) to assist the governmental and private sectors in performing cultural resource assessments that are mandated by federal and state legislation; and (2) to provide educational services within the academic community, as well as the multi-state region as a whole." The 1,764-ft^2 of collections are entirely archaeological.

Archaeological Collections Storage

Long-term collections storage at the CAR are on custom-made movable steel shelves. The steel shelving units have no mechanical devices to aid movement and are therefore hard to move. Primary containers are 12 x 14 x 15 inch, non-acidic, cardboard boxes. Secondary containers are 2-mil, zip-lock bags. Temporary collections storage is on stationary metal adjustable shelves in the processing area. Long-term storage is ninety percent full with 1,760-ft^3, and will soon be completely full.

Environmental Controls

CAR collections storage has both heating and cooling. Humidity is neither controlled nor monitored. Pests are not monitored, but the building is sprayed with pesticide once per month by university personnel. Windows line the two outer walls. Fluorescent bulbs are filtered. The storage area is cleaned every two months and as needed.

Range of Support Facilities for Archaeological Collections

Support facilities at CAR include an artifact processing area, a small comparative zooarchaeological collection, a library, a digitizing table, field equipment storage room, flotation tank, a slide/negative computer scanner, and a photograph staging room. There are no exhibits.

Staff Composition

The staff of CAR all operate on soft money, except for the director. There is a part-time laboratory supervisor and four or five research archaeologists. College Work Study students assist part-time with curation.

Administrative Record Keeping

Smithsonian trinomials are used to designate archaeological sites at CAR. Each long-term storage box is stamped with standard categories to be filled in with black permanent ink. A labeling policy is written and followed. Only donated collections get accession numbers, while collections generated by CAR receive project numbers. No computerized data management system is used, but a cross-referenced 4-x-6-inch card file is maintained by site number and by project number. No copies are kept of this card file.

Associated Archaeological Documentation and Storage

Site records, burial records, field notes, reports, maps, and photographic documents are housed at CAR. Copies exist only of reports, and these are on computer disks housed off-site. Hard copies of reports are in the library. Maps are stored in flat, metal map cases.

Collections Management Policies

Written policies at CAR exist for artifact packaging, labeling, and washing, and access to collections by visiting researchers.

Administration Summary

Background

Southwest Missouri State University has an active archaeological research section called the Center for Archaeological Research. CAR has been operating since 1975; the university itself was established in 1903. CAR has been active in federal archaeology since its inception, and has worked on a large number of projects. Most recently, CAR has conducted investigations for the Corps of Engineers. For curation, CAR has an informal agreement with the Missouri Department of Transportation, although it

curates a variety of other archaeological materials and associated documentation.

Real Estate

The State of Missouri owns the property and building where CAR is located on the university campus. There are no known restrictions to the use of the property that would affect building renovations or additions.

Administration

The Dean of the Graduate School and Sponsored Research, in addition to the President of the Board of Curators, has the authority to commit the institution financially to a partnership. CAR funding comes primarily from its archaeological investigation contracts. Some operating funds come from the university, but grants comprise another larger share. CAR staff write grants individually and together, and CAR and the university Office of Sponsored Research both track to proposals. University-level fundraising is conducted by the Vice President of University Advancement, the Director of Development and Alumni, and the Director of Sponsored Research. The CAR director also conducts fundraising activities.

Outreach and Education Programs

No individual staff members are dedicated to outreach and education. However, most staff members contribute to programs, particularly relating to active research. CAR maintains a web site, and conducts presentations to civic groups and universities. Eighth graders are targeted in a special "Wings" program. Furthermore, CAR conducts an annual archaeological field school, and assists the Ozark chapter of the Missouri Archaeological Society in meetings. CAR staff attend professional meetings and present research. Local TV presentations are also recorded occasionally.

Contributions

If CAR were to enter a partnership, the organization would be able to contribute primarily staff expertise and a professional curatorial environment. Southwest Missouri State University also offers institutional support in a stable research and education environment. The property and the building would be physical contributions to the partnership. DoD and USACE would be expected to provide annual maintenance costs and potentially a partial FTE for a collections manager. Shared costs would include materials and supplies. Additionally, if a new facility or building addition were necessary, DoD and USACE would be expected to cost-share with that responsibility.

Notes

CAR has a very active research program, and the staff are among the most respected in the region. However, only the director is funded by the university and the remainder of the staff are funded on soft money. While curation is important to CAR, the focus of the institution will remain to be archaeological investigation projects.

Missouri Historical Society

Architectural Summary

Site Conditions

The Library and Research Center at the Missouri Historical Society (MHS) is located in the city of St. Louis. Skinker Boulevard connects with I-64/40 about a mile south of the site and provides easy access. Access into the building is limited to front entrance or eastern side of the building. The surrounding environs are occupied by educational, residential, and institution/cultural buildings. The facility is designed to its zoning limit and thus no open space for building or parking expansion is available. Landscaped areas reduce the intensity of the urban setting. Parking is adequate on site—a 35-parking space lot, including four handicap spaces, in addition to street parking.

Building Condition/Structural Adequacy

The facility is in excellent condition. The building consists of two parts, the original 1927 synagogue and the 1991 annex. Both the old and new are constructed of masonry, including stone, cast-in-place concrete, CMU, and brick veneer. When the addition was constructed, the old building and mechanical systems were extensively renovated and upgraded.

The annex exterior was designed to match the original section in style and materials. As a result, their different building periods are indistinguishable on the exterior.

The interior condition is equally as sound as the exterior. No major defect was found. In the front basement wall, small water seepage, due to heavy rainfall, was being monitored.

Code Requirements/Egress/ Accessibility

The building meets almost all building codes, egress, and accessibility requirements. Most of the building areas is ADA-compliant except for a few places such as two bathrooms in the old building that can not be made wheelchair-accessible. Two elevators are too small for wheelchair users to operate on their own. Marked by illuminated signs, eight exits are oriented at east and south ends of the facility, provide clear and direct egress routes. Emergency lights are provided at necessary spots.

At the middle section of the building, a loading dock and parking area can accommodate a full semitrailer. Inside the loading area is a 10-x-12-foot freight elevator that provides access to all four stories. Ten-foot-wide, double-doors allow easy movement of bulky objects in or out of the large collections storage spaces, which have two additional exits.

HVAC Systems

The computerized HVAC systems are very effective and among the best. The computerized system automatically monitors the systems around the clock. In the controlling room, it gives a warning sound and printouts that warn of a potential problem, before a breakdown actually occurs. The automatic system also keeps records of the heating and cooling system, and allows for manual operation. Relative humidity is also controlled by the system. Each storage room is zoned and equipped with a separated supply air-duct system, including heat and steam valves that respond to the change of the relative humidity. Two sets of air filters are used; one pre-filters the intake air before it passes to the main filter. Both layers of filters are replaced on a quarterly basis.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. Most of the building is protected by an after-action sprinkler system and portable fire extinguishers. The only area that is not equipped with a sprinkler system is the domed library in the old building, which is a public reception area. Heat and smoke detectors are incorporated into the sprinkler system. Both automatic and manual pull alarm systems are in place, and the sound alarms have strobe light. Type A, B, and C fire extinguishers are placed at easy-to-reach locations, and they are checked and updated regularly. A standpipe system is also present.

Security System

The security system is sufficient. The facility has a 24-hour security monitoring system. During the business hours, access to the non-public areas is controlled by the security officer, who also monitors the eight surveillance cameras aimed at the exits, perimeter, and parking lot. A keycard is required to access each storage space. Intrusion alarms are installed at exit doors, and motion detectors are located inside the storage areas by the exits.

Collections Management Summary

Scope of Collections and Mission Statement

The Missouri Historical Society's mission statement stipulates that it "collects, preserves and interprets objects and materials pertinent to an understanding of the history of the St. Louis area, state of Missouri, Mississippi Valley, Louisiana Purchase and the American West." Collections consist primarily of Euro-American historic artifacts. Native American artifact collections are mostly the result of pre-1930 donations from local collectors.

Archaeological Collections Storage

Long-term collections storage is at a remote location from the exhibit building, the Library and Research Center. The majority of archaeological collections are kept in locking Delta-brand steel cabinets. Some of the collections are on adjustable steel shelves. Whole

pots are stored on individually-formed Ethafoam-brand padding. Muslin dust barriers are used for objects not in the cabinets. Lithic artifacts are individually stored in 4-mil, zip-lock bags. Boxes are not used for storage of artifacts. The storage area is full. However, much space can be created by increasing the density of cabinets/shelving, perhaps by using movable shelves.

Environmental Controls

The MHS Library and Research Center was last renovated in 1989–1991. Long-term storage rooms flank the centralized Reading Room on the north and south. Fluorescent bulbs are filtered and there are no windows. The HVAC system supplies heating, cooling, and humidity control. A humidity alarm in the HVAC system helps to guard against wide variations in relative humidity. A hygrothermograph (checked weekly) is kept in each of the storage rooms, and environmental records have been maintained for the last two years. Hygrothermographs are calibrated quarterly using sling psychrometers. Sticky traps are used to monitor mobile pests.

Range of Support Facilities for Archaeological Collections

Support facilities at the MHS include an exhibit facility in a museum/park district, a conservation laboratory, a darkroom, a photograph staging area, a digital scanner, a walk-in freezer for incoming collections, a freight elevator, a loading dock, and a fume hood. There is no archaeological research program.

Staff Composition

Full-time collections management staff consists of a Director of Collections and Conservation, an Objects Conservator, a Collections Manager, a Chief Curator, an Associate Curator of Native American Ethnology, a Curator of Special Initiatives, an Associate Curator, a Registrar, a Conservation Technician, and a Collections Assistant. The Associate Curator of Native American Ethnology is the only archaeologist, and this position is part-time.

Administrative Record Keeping

Smithsonian trinomials are used to designate archaeological sites at the MHS. Photographs are kept of all of the archaeological artifacts. Each collection is assigned a unique accession number in the format of year, sequential number by year, and another number, if needed (e.g., 1998-123-4321). Archaeological collections are kept on a separate database than that of other MHS collections. Some archaeological collections have catalog numbers as assigned by the University of Missouri, Columbia, since the entire collection was lent to that institution.

Associated Archaeological Documentation and Storage

Since most archaeological artifacts are the result of donated collections, associated documentation is fragmentary. Any associated documents are stored in Objects History Storeroom in metal file cabinets. All are in acid-free file folders, and have been copied onto acid-free paper. Both originals and copies are in the Objects History Storeroom. Black-and-white photographs are also in acid-free folders in metal file cabinets.

Collections Management Policies

Written policies at the MHS exist for acquisitions, minimum standards of acceptance, inventories, loans, exhibitions, conservation, emergencies, access to collections, security, integrated pest-management, deaccessions, and ethics.

Administration Summary

The Missouri Historical Society did not supply the assessment team with administration-related information. Therefore, this summary section and the associated decision support model score were not compiled.

Notes

The MHS has excellent policies and collections management procedures. A new building for exhibits, education and outreach will open in the year 2000. Though MHS is stable, well-funded, and has much to offer toward a partnership, it rarely handles research,

education, and outreach issues involved with Native American archaeology.

Museum of Anthropology, University of Missouri

Architectural Summary

Site Conditions

Set at the foot of a hill, the University of Missouri Museum Support Center (MSC) is located in the southern part of Columbia. Access to the site is by Rock Quarry Road, which connects Broadway Road and intersects with Stadium Road at the top of the hill. I-70 is about two miles east of the site, which can conveniently be reached. Carved from a rocky hill, the site opens to the west and north, which are wooded areas. Between the building and the bluff is a dividing space of about 60 feet, and approximately 100 feet of space exists south of the building.

Approached from the east, the site has approximately ten front parking spaces that are arranged in a circular format. Additional parking spaces are available on the south side of the site. There is no other structure nearby. This region is not considered to be in a natural disaster zone.

Building Condition/Structural Adequacy

Constructed in 1994, the 20,000-ft^2 MSC is in very good condition. It is a prefabricated warehouse, sheet-metal single-story building with a gable roof. Approximately 80 feet wide, the structure is constructed on a concrete foundation and supported by steel columns and beams. The front facade is characterized by a central inset of glass block and tile wall. The main entrance is made of metal-frame glass double doors. The corrugated exterior wall metal-sheets have a galvanized coating. Including exits and a few projected windows of double-sash and metal-frame at the research area, there are only a few openings on the structure. The west wall does not have any opening at all.

The interior is divided into two large sections, with the research space being subdivided into smaller offices. The University Herbarium shares about one quarter of the space. Separated by walls of metal studs and gypsum boards, the research area contains a few offices and the mechanical room. Immediately inside the main entrance is a small exhibit space with a tall ceiling.

The collections storage area has the largest undivided space. There is a small loading area at the south side of the building, and a double door provides access.

Code Requirements/Egress/ Accessibility

MSC meets building code, egress, and accessibility requirements but not all fire codes. It is designed as a mixed use of research/office space and low hazard materials storage (M, S-1, BOCA). There are four exits located at west, south, and north elevations. Two of the exits are located at the south, and no opening is installed at the west elevation, which faces the bluff. All building materials appear to be fire resistant, including steel, concrete, and gypsum. Exits are identified with lighted exit signs, but doors are not fire-rated. An emergency lighting system is not present, nor are there flashing strobe lights.

Wheelchair users can access the entire facility and the exterior. With handicap signs, bathrooms are accommodated with handicap installations such as handrails, standard stalls, and door hardware. A handicap sign is posted in front of the most convenient parking spot with a properly sloped ramp.

HVAC Systems

An electric forced-air system provides effective zoned temperature and humidity controls for the collections storage and research area. Both temperature and humidity controls are part of the university system, and they can be monitored and controlled from a central location. Standard 30% filtration filters are used and changed regularly.

Fire Suppression and Detection

MSC is fully protected by an automatic sprinkler system. Combined heat and smoke sensors are installed at the sprinkler heads, which can activate individually. If the sprinkler system is discharged, an alarm mounted on the exterior wall sounds. Clearly identified, fire extinguishers of type A, B, and C are located at convenient spots such as doorways and

corridors. The sprinkler system is inspected monthly, and the extinguishers are checked according to schedule.

Security System

Security protection is adequate. The facility has an intrusion alarm system installed at all openings, and it is monitored by a private security company. A dead-bolt lock is installed on the front doors. Access codes are required to enter the collections storage area, which is equipped with motion detectors at exits and aisles. Additionally, lockable metal storage cabinets are used.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the University of Missouri, Museum of Anthropology (UMMA) is "to serve as an educational resource for the university community as well as for Missouri residents and visitors through collection, conservation, exhibition, and outreach programs." In order to help accomplish these goals, UMMA has a facility called the Museum Support Center that houses documents, anthropological collections, labs and offices. The houses archaeological materials (75–80%), and ethnographic materials (20–25%). UMMA curates about 15,000-ft^3 of archaeological collections.

Archaeological Collections Storage

MSC archaeological collections are stored in acid-free boxes on adjustable metal shelving. Secondary containers consist of plastic zip-lock bags. Ethnographic collections are housed on Ethafoam-brand padding or on tissue paper on metal shelves. No dust/moisture barriers are in place.

Environmental Controls

The MSC has cooling, heating, and relative humidity (RH) control, set at 69° F and 30% RH, respectively. Fluorescent bulbs are not filtered for ultraviolet light, however there are no windows. Two digital thermometer/hygrometer units are monitored by collections managers. Cleaning is performed monthly. Sticky traps are used to monitor pests, and monthly spraying for pests is done.

Range of Support Facilities for Archaeological Collections

Support facilities at UMMA include a wet laboratory/incoming collections room, a hazardous materials cabinet, archaeobotanical laboratory, state archaeological site files, a conference room, and two fume hoods.

Staff Composition

Staff at UMMA consists of a collections manager (80%), a curatorial assistant (40%) and graduate students (10%).

Administrative Record Keeping

Smithsonian trinomials are used to designate archaeological sites. Each collection is assigned a unique accession number, and the location of a collection is identified in the catalog. Catalog cards are also used. Collections have been inventoried. A database is kept on a Macintosh-based computer, and UMMA is the process of switching to a FileMaker program. Separate databases are maintained for documents and artifacts. Electronic copies are kept in a different building on campus.

Associated Archaeological Documentation and Storage

Associated documents are kept in acid-free boxes with telescoping lids. Copies of associated documents are on acid-free paper inside acid-free folders. Photographic records are in polyethylene holders or mylar sleeves.

Collections Management Policies

Written policies at UMMA include accessions, minimum standards of acceptance, field curation guidelines, inventories, loan, access to collections, deaccessions, and box labeling.

Administration Summary

Background

The Museum of Anthropology at the University of Missouri, Columbia maintains an off-campus facility, the Museum Support Center. The MSC houses archaeological collections, the Archaeological Survey of Missouri, and shares space/facilities with a biology department of the university. The University of Missouri is a state institution dating to the mid-1800s. The Museum Support Center was opened in 1993. Currently, MSC houses archaeological collections for the St. Louis, Rock Island, Memphis, and Kansas City Districts of the Corps of Engineers, Fort Leonard Wood, U.S. Forest Service, and several Missouri state agencies.

Real Estate

The University of Missouri owns the property on which the Museum Support Center sits. There are no restrictions to the use of the property.

Administration

The university has a financial office to assist departments in activities such as partnership development. The Vice Provost of Research probably has the ultimate authority to make such an agreement. The Department of Anthropology receives funding for the Museum Support Center through a variety of means, including curation agreements, Missouri Archaeological Society dues, grants, and fundraising. The university also has a grant office that assists faculty with writing and tracking grants. Additionally, the university has a development office that raises funds for specific ventures.

Outreach and Education Programs

The Department of Anthropology sponsors the Missouri Archaeological Society, which has chapters throughout the state. Additionally, cooperation with the Missouri Department of Natural Resources facilitates development of workshops, and cooperation with the Corps of Engineers allows for outreach at USACE-managed lakes in Missouri. Individual staff additionally present lectures at schools, society meetings, and other events.

Contributions

UMMA could contribute the Museum Support Center, experience in curation, outreach and education programs, conservation/archives, and computer systems. DoD/USACE would in turn be asked to contribute direct and indirect costs for curation.

Notes

UMMA has among the best research facilities in Missouri. It has access to very good university-based resources, including the exhibit area. Because the Missouri Archaeological Survey is in the same building in the Museum Support Center, the collections receive considerable attention and use.

UMMA has a long relationship with the Corps of Engineers, particularly in the development of the Museum Support Center. The MSC itself is a solid curation facility designed to approach the standards outlined in 36 CFR Part 79. The existing facility would need very little modification accommodate additional DoD/USACE collections.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 20.2 lists the composite scores and the architecture, collections management, and administration scores for each Missouri institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 20.2
Summary of Decision Support Model Scoring—Missouri

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Arkansas Archeological Survey	**0.8991**	0.19810	0.29605	0.40491
Center for Archaeological Research, Southwest Missouri State University	**0.5336**	0.05054	0.19961	0.28347
Missouri Historical Society	**0.4941**	0.19694	0.29711	0.00000
Museum of Anthropology, University of Missouri	**0.8111**	0.11610	0.29019	0.40485

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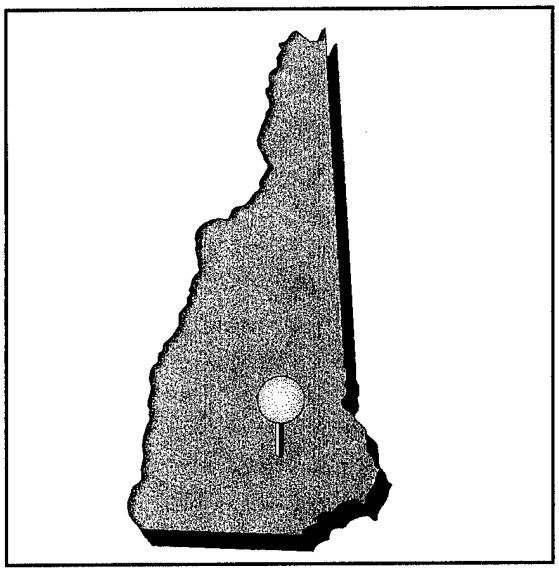
New Hampshire



Archaeological Materials (in cubic feet)

Department of Defense	16
USACE	0
TOTAL VOLUME	**16 ft³**
Number of Institutions Contacted	**4**

Institution Assessed

New Hampshire Division of Historical Resources, Concord

Background

A list of the facilities contacted in New Hampshire is presented in Table 21.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 21.2, showing strengths of the institution. Pertinent information on the facility visited in New Hampshire is presented in the following discussion.

Table 21.1
List of Institutions Contacted

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
America's Stonehenge		X		
New Hampshire Division of Historical Resources				
Hood Museum of Art, Dartmouth College		X		
University of New Hampshire				X

Note: Locations visited indicated in **Bold**.

New Hampshire Division of Historical Resources

Architectural Summary

Site Conditions

The New Hampshire Division of Historic Resources (NHDHR) is headquartered in a former hospital building near the state capital complex in Concord, New Hampshire. The NHDHR also operates a curation facility located several miles away near the Concord airport in a leased warehouse space. The lease has a two-year renewable term. EXACOM, the owner of the building, uses the remainder of the building for its own offices and circuit board assembly areas. The owner also leases smaller portions of its warehouse space to other local business.

The building is located adjacent to airport property. A public parking area is located at the north end of the property near the EXACOM office entrance. A large loading/truck circulation area for the main building is located on the south end of the property near the NHDHR curation facility entrance.

The NHDHR space has a separate loading dock and has constructed a wheelchair ramp to its entry for accessibility. The NHDHR has also designated four disabled parking spaces near the accessibility ramp. There is ample parking on the south lot with capacity for over 40 cars in undesignated spaces.

In addition to the limitations posed by the adjacent airport property, the leased space is not suitable for building expansion. However, collections storage could be increased with additional shelving units and with a compact shelving system. The NHDHR has secured funds to study the feasibility of either renovating a state hospital building near its main offices or building an entirely new curation facility.

Building Condition/Structural Adequacy

The NHDHR curation facility occupies the entire 4,150-ft^2 southern wing of the building. The simple single level structure has a raised concrete slab with concrete masonry unit and steel truss construction with a metal deck and flat roof system. The building is in modest disrepair. There are several leaks into the NHDHR space from the roof. Recent roof investigations have left the coping and flashing pieces out of place and increased the likelihood of water damage. Also, recent damage to the concrete masonry unit construction has created additional problems including bird nesting and intrusion into the curation space. The owners plan to replace the roof as part of a recent refinancing package for the property.

The space is divided between a small office area, restroom, large processing and records area, and a collections storage area that is partitioned with a locked chain-link gate. The overhead loading dock door is located in the collections storage area. There are no floor drains in the facility.

The NHDHR has occupied the leased space for approximately 19 months and has had limited staff to bring the curation facility into order. Staff described numerous plans to complete the installation of shelving units and the organization of the processing and records areas.

Code Requirements/Egress/ Accessibility

The leased space was renovated to meet state and local code requirements (type IV construction, B use group). Exits at the south and north end provide emergency egress from the NHDHR curation facility. An accessibility ramp provides wheelchair access to the main entry of the NHDHR space. The restroom has been renovated in compliance with the Americans with Disabilities Act.

HVAC Systems

The NHDHR space is equipped with an antiquated forced hot water heating system with floorboard radiators. It is uncertain if the system is operable. There is no air conditioning or air circulation system in the NHDHR space. An improved HVAC system should be a top priority for the NHDHR's curation facility.

Fire Suppression and Detection

The entire building is equipped with a wet-pipe automatic fire suppression system and two fire extinguishers that were inspected in April 1998. The fire-suppression system did not appear to be regularly maintained and may not be operational. There was a single manual pull alarm observed and an emergency light is located in the collections storage area. These alarm and life-safety systems were part of the previous tenant finishes and have not been designed or installed for the NHDHR curation facility needs.

Security System

The NHDHR curation facility is currently secured with a dead-bolt lock at each exterior entrance. The collections storage area is further secured with a locking chain-link gate. There are plans for partitioning a portion of the collections storage area for further separation of the repository space. The NHDHR is currently seeking bids for adding a security system to the space. The system has been specified to include intrusion alarms and motion detectors throughout the leased space.

Collections Management Summary

Scope of Collections and Mission Statement

The New Hampshire Division of Historical Resources archaeology laboratory houses mostly prehistoric and a few historic artifacts. The NHDHR would exclude collections from other states. All human skeletal material is scheduled to be repatriated within the year. The NHDHR was unable to provide a written mission statement.

Archaeological Collections Storage

Collections storage resides off-site in an area secured with a locked metal gate. The eight metal shelving units are new, and about half of the boxes are non-acidic. More shelves are being stored for future assembly. Boxes are stacked two-high on the shelves. Secondary containers consist primarily of 4-mil, polyethylene, zip-lock bags. A minority of the collections are housed in paper bags. On the floor in the aisles of the shelves, materials were being stored that impeded access to the collections on the shelves. The loading dock was clear of clutter.

Environmental Controls

Fluorescent bulbs were filtered in the collections storage area. Humidity was not monitored. Windows were not sealed. Birds were nesting under the eaves of the roof near the windows, and occasionally getting into the building. No written pest management plan existed, though the State Archaeologist stated that no objects have ever been infested at the NHDHR.

Range of Support Facilities for Archaeological Collections

The NHDHR has a loading dock, work space, a computer room, and separate office space. Field equipment is also available.

Staff Composition

Archaeological curation staff at the NHDHR consists of the state archaeologist and the deputy state archaeologist, neither of which devotes full-time to curation.

Administrative Record Keeping

No unique accession numbers are assigned, but will be in the future. No duplicate copies of any documents are made. Secondary containers have provenience information written on the bag as well as something inside the bag, preferably with a permanent marker (e.g., "Sharpie" pen). Some maps are stored flat in metal cabinets and some are stored rolled-up and vertical in boxes. The Smithsonian trinomial system is used, however the "quadrangle" system formerly was used and sites that had these designations now use both systems, cross-referenced. Site files are in metal cabinets in acidic folders. Catalog information is in a computer database (Unisys) with materials categories using codes following those of the National Park Service. Computer equipment is aging and unreliable. Data is stored on a hard drive and backed up on 3.5-inch floppy disks, kept in the same building. Plans exist to switch to a Windows-based computer database.

Associated Archaeological Documentation and Storage

Site reports are stored in metal cabinets, organized by town, author, and date, in acidic folders. Field notes are stored two ways: 1) if generated in-house, then in metal file cabinets; and 2) if generated outside, then stored in boxes in the collections storage area. Original field documentation for some collections are absent or in the possession of consultants. New standards of acceptance will require these documents be included.

Collections Management Policies

The NHDHR draft accession policy (as of 1991) incorporates minimum standards of acceptance and ownership issues. A laboratory manual details procedures for processing, cleaning, cataloging, labeling, and packing archaeological materials for storage. There is also a draft deaccession policy.

Administration Summary

Background

The New Hampshire Division of Historic Resources was founded in 1974 as the state historic preservation office. The NHDHR has existed within the New

Hampshire Division of Cultural Resources since 1984. The NHDHR does not currently curate any DoD or the U.S. Army Corps of Engineers (USACE) archaeological material and does not have any curation agreements with state or federal agencies. Federal highway collections are curated by the NHDHR without any formal agreement for their care. The newly developed Sargent Museum of Anthropology and Archaeology in Concord has signed a five-year agreement with the NHDHR to curate its archaeological collections. There are no fees associated with this agreement.

In 1996, the NHDHR organized a state-wide strategy taskforce to review the long-term management of federal archaeological collections. Several conferences were held with a variety of state and local federal agencies. These initial efforts largely established the legal responsibilities for collections and documented the limited efforts to meet the long-term curation requirements of each agency. In the meantime, the NHDHR has leased a warehouse to curate the collections, has secured an Interstate Transportation Enhancement Act (ISTEA) grant for improvements to the existing collections, and is using the ISTEA funds to conduct a feasibility study for future facilities.

Real Estate

The NHDHR currently leases a warehouse space for its curation use. The two-year lease agreement has just been renewed. Improvements to the space are possible with approval of the building owner, EXACOM. For its curation needs, the NHDHR is preparing to study the feasibility of either renovating a building on the state hospital grounds or constructing a new facility.

Administration

The director of the NHDHR could approve a partnership with the DoD/USACE. Final approval of the agreement would come from the state attorney general and the special Governor's council that oversees all state transactions over $5,000. The NHDHR staff suggest that this can be a cumbersome process. There is a grants manager within the NHDHR that supports the staff in pursuit of grants and fundraising.

Outreach and Education Programs

There is no staff dedicated to outreach and education programs. The NHDHR staff participate in education and outreach as part of their regular duties. These efforts include school visits and curriculum development programs for teachers upon request. The NHDHR also hosts adult workshops, archaeology field schools, state amateur archaeology programs. The NHDHR created a formal outreach program, the State Conservation and Rescue Archaeology Program (SCRAP), to promote public participation in research, management, and education.

The NHDHR has consulted with Native groups including pre-Native American Graves Protections and Repatriation Act (NAGPRA) and NAGPRA consultations. The NHDHR has also conducted informal consultations with Native groups on excavations. The NHDHR staff participates with Native groups on the advisory board for the newly created Sargent Museum. In general, NHDHR staff reported that lasting relationships with Native groups has been a challenge because of bitter disagreements and an ever-changing leadership within local Native groups.

Contributions

The NHDHR could contribute its staff expertise, accessibility and oversight of collections, with sharing of overhead costs. These contributions are based on the NHDHR securing a qualified facility for the long-term care of DoD/USACE archaeological collections. In return, the NHDHR would expect additional funds for improved shelving systems.

Notes

The NHDHR has made great strides during the last three years by securing a dedicated curation facility and gaining increased support from the state. Nevertheless, decades of archaeological collections neglect present an overwhelming challenge to the NHDHR. The collections storage space is leased. There is a possibility for a newly renovated curation facility. This would be a significant achievement for the NHDHR and would greatly improve their partnership potential. However, the current curation facility is rather inadequate with little potential for significant lasting improvement in the existing facility. At a minimum, the storage facility would

need improved climate control, administrative record keeping, and pest management.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 21.2 lists the composite scores and the architecture, collections management, and administration scores for the New Hampshire Division of Historical Resources. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 21.2
Summary of Decision Support Model Scoring—New Hampshire

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
New Hampshire Division of Historical Resources	**0.5458**	0.12699	0.20557	0.21325

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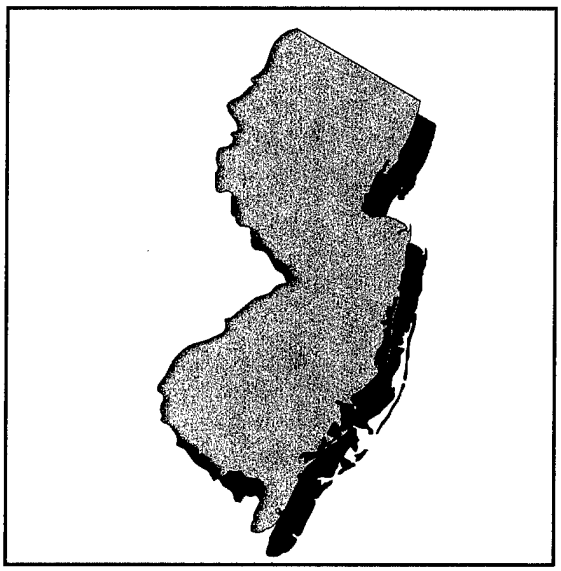
New Jersey



Archaeological Materials (in cubic feet)

Department of Defense	**24**
USACE	**13**
TOTAL VOLUME	**37 ft³**
Number of Institutions Contacted	**14**

No Institutions Assessed

Background

A list of the facilities contacted in New Jersey is presented in Table 22.1, including the reason(s) none were selected for an on-site evaluation.

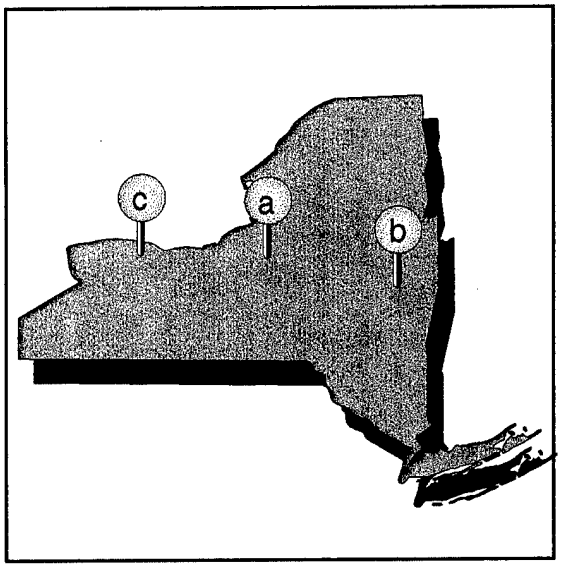
Table 22.1
List of Institutions Contacted—New Jersey

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
The Art Museum, Princeton University	X			
College of New Jersey		X		
Drew University		X		
Liberty Science Center		X		
Montclair State University Center for Archaeological Studies		X		
Morris Museum	X			
Morristown National Historical Park		X		
New Jersey State Museum		X		
Newark Museum		X		
Princeton University Museum of Natural History		X		
Rutgers University		X		
Seton Hall University		X		
William Patterson College			X	
Woodruff Museum of Indian Artifacts			X	

Note: Locations visited indicated in **Bold**.

23

New York



Archaeological Materials (in cubic feet)

Department of Defense	1,025
USACE	109
TOTAL VOLUME	**1,134 ft³**
Number of Institutions Contacted	**29**

Institutions Assessed

a. Archaeological Research Center, Syracuse University, Syracuse

b. New York State Museum, Albany

c. Rochester Museum and Science Center, Rochester

Background

A list of the facilities contacted in New York is presented in Table 23.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 23.2, showing strengths of each institution. Pertinent information on both of the facilities visited in New York is presented in the following discussion.

Table 23.1
List of Institutions Contacted—New York

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Adelphi University				X
American Museum of Natural History		X		
Archaeological Research Center, Syracuse University				
Binghamton University				X
Brooklyn Children's Museum		X		
Buffalo Museum of Science		X		
Buffalo State College		X		
Cornell University		X		
The Hispanic Society of America				X
International Museum of Ceramic Art		X		
Iroquois Indian Museum		X		
Jefferson County Historical Society		X		
Nassau County Division of Museum Services				X
New Windsor Cantonment State Historic Site				X
New York State Museum				

Table 23.1
List of Institutions Contacted—New York (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Office of Parks, Recreation, and Bureau of Historic Sites				X
Old Fort Niagara State Park		X		
Onondaga Historical Association		X		
Roberson Museum and Science Center		X		
Rochester Museum and Science Center				
Rockwell Museum		X		
Sainte Marie Among the Iroquois		X		
Schenectady Museum and Planetarium		X		
Seneca-Iroquois National Museum			X	
South Street Seaport Museum				X
Staten Island Institute for Arts and Sciences				X
State University of New York, Buffalo			X	
State University of New York, Stony Brook		X		
W. D. Strong Museum of Anthropology, Columbia University		X		

Note: Locations visited indicated in **Bold**.

Archaeological Research Center, Syracuse University

Architectural Summary

Site Conditions

Located on the Syracuse University campus, the Department of Anthropology occupies a small portion of Maxwell Hall. The Syracuse University Archaeological Research Center (SUARC) is a part of the Department of Anthropology. With a fully utilized basement, the four-story neoclassic building is situated on a hill that has a steep drop on the north side and has a long set of stairs leading to the bottom of the hill. South and east of the site are on level or slightly sloped ground, but to the west is a slope of varying elevation. The landscaped site has shrub and trees planted along the west side of the building.

A few university buildings are next to the site, including the Administration Building to the east or front entrance, and the Crause Fine Arts Building to the west. Separated by a parking lot, a 54,000-seat indoor football stadium is located to the south of the site. The site overlooks the city below to the north. Parking at the site is restricted and is limited to the opposite side of the newly added Eggers Hall; parking must be permitted. Both highways I-960 and I-81 are in proximity to the site, which is not considered to be in a natural disaster zone.

Building Condition/Structural Adequacy

Maxwell Hall was constructed in 1934 for the School of Citizenship and Public Affairs. The building still primarily serves the same department today. The masonry building is listed on the national historical registry. The Department of Anthropology occupies part of the basement and a few offices on the second floor. The collections storage area, the research lab, the library, and two small offices are located in the basement.

In 1995, Eggers Hall was added to the south of Maxwell Hall and via a bridge on the first floor. In between the old and new buildings, two sets of descending stairs create the necessary height for the underpath at sub-street level. Including its HVAC and roof systems, Maxwell Hall was renovated and upgraded in the same year when Eggers Hall was built.

The reinforced concrete column and metal beam structure is in good condition. Both the north

and east facades have a portico. Exterior walls are constructed of bricks and concrete blocks, and the interior is partitioned with gypsum plasterboards. The floors of five levels and stairs are poured concrete. There is no loading dock, and vehicle access is limited to the opposite side of Eggers Hall only.

Code Requirements/Egress/ Accessibility

Maxwell Hall meets fire codes and egress but not accessibility requirements. The structure is largely composed of non-combustible materials. Exits are identified by lighted signs, and strobe lights are installed to assist the hearing impaired. Egress is not generally a problem, as there are two stairwells located at both ends of the building. However, access is limited to wheelchair users because there is only one key-operated elevator, which is available to authorized personnel only. Ramps are not provided at each building although there is one in the basement. However, there is a ramp in the new building addition that connects Maxwell Hall on the south side. The bathrooms are ADA-compliant.

HVAC Systems

Two heating and cooling systems provide environmental control. Cool air is generated by two units in the building, and hot air is supplied by a central steam plant. Both basement and attic mechanical rooms have air handling units. The basement level has a ductwork system that distributes regulated air, but the remaining levels do not have such a system. Three layers of air filters are used, including bag and pleated types. The filters are monitored by computer and inspected monthly.

Fire Suppression and Detection

Fire detection is adequate, but there is no sprinkler system. Smoke detectors are installed in most rooms. The exception is the basement level, where a manual-pull alarm system is installed. The alarms and detectors are wired to the local fire department. Type A extinguishers are placed at different areas, and they are inspected annually. In addition, interior doors are not fire-rated.

Security System

Maxwell Hall has an effective security system. Intrusion alarms are installed at ground level openings and wired to a private security company. After 7 p.m., the building closes, and a keycard is required to enter the building.

Collections Management Summary

Scope of Collections and Mission Statement

The Syracuse University Archaeological Research Center mission statement is to "...maintain a well curated collection of archaeological resources in order to further our mission as a center for archaeological research and education. The facility is designed to serve as a long term repository for archaeological collections from New York and the Northeastern United States."

The SUARC has a small curation and archaeological investigation focus. Archaeologists number only two or three on staff, and the curation program is managed by only one. However, despite the department's size, the curation facilities are quite good. Archaeological materials and associated documentation are stored in a dedicated room that is only approximately one-half full.

Archaeological Collections Storage

Archaeological materials are housed in acid-free corrugated cardboard boxes, which are stored on compact metal storage units. Total capacity for boxes in the collections storage area is estimated at over 1,300, and current storage level is approximately 700 boxes. Secondary containers for artifacts consist of polyethylene, zip-lock bags, locking rigid plastic containers, and some aluminum foil and paper bags.

Environmental Controls

The SUARC curation room is equipped with heat and air conditioning, but no humidity monitoring or control. The targeted temperature range is from 68–75° F. A hygrothermograph is considered to be an important purchase for the near future. SUARC does not have an integrated pest-management plan.

Range of Support Facilities for Archaeological Collections

In addition to curation space, SUARC has an archaeological materials laboratory and a computer work space. The laboratory is equipped with sinks, a fume hood, a freezer, and tables.

Staff Composition

SUARC has one part-time curator and one part-time collections manager.

Administrative Record Keeping

SUARC maintains records for acquisition/ accessioning, catalog information, inventory, and object location. Records are stored in a computerized, networked database.

Associated Archaeological Documentation and Storage

Associated documentation housed at SUARC include artifact inventories, site records, field notes, maps, reports, and photographic records. Documents are stored in a storage cabinet in the collections storage area, or in the acid-free cardboard boxes with the materials themselves. Secondary containers general consist of vinyl three-ring binders.

Collections Management Policies

SUARC has forms which track accession numbers and loans. In addition, there is a written policy on preparation guidelines which addresses curatorial fees, accessioning, preparation, documentation, and contracts. SUARC also has packing/shipping procedures and a disaster emergency plan. Written policies for field curation guidelines, exhibition, conservation, access, consultation, deaccessioning, etc., are either in development or will be soon.

Administration Summary

Background

Syracuse University Archaeological Research Center has a young archaeology program, although the university has been in existence since 1871. Syracuse is a private university, and does not currently curate DoD or USACE archaeological materials and associated documentation. Archaeological collections are housed in Maxwell Hall, which is located on the main campus.

Real Estate

The university owns Maxwell Hall, which is a National Register property. In the most recent renovation of Maxwell Hall, the anthropology department secured basement space for a curation repository, and installed compact storage units. Similar renovations are possible, although major building renovations or additions are unlikely. SUARC has other buildings located south of the main campus that could be used for similar purposes.

Administration

The vice chancellor of the university has the authority to commit financially to a partnership. Currently, contracts are usually signed by another vice president (comptroller). Operating funds for the curation repository are generally acquired through university department allocations, contracts, and grants. Grant proposals are written by faculty, but assistance is provided by the Sponsored Program Department. The anthropology department has a specific liaison officer who can make recommendations on overhead percentages to the Sponsored Program Department. Fundraising is conducted by the university Development Office. To fill the current repository space, no authority above the anthropology department chair is necessary.

Outreach and Education Programs

SUARC is small, and is working to improve. Outreach and education programs are not yet extensive. Public excavations are the primary form of outreach. In terms of education, the collections are being utilized for teaching undergraduates, and for research by the graduate students. SUARC is beginning to establish a relationship with the Onondaga Tribe, and may assist them with producing a museum exhibit for their new cultural center.

Contributions

Syracuse University could contribute space to a partnership, and use of the materials in research. The

curation repository offers space for approximately 1,300-ft^3 of materials; currently however, the space is filled to approximately 700-ft^3. DoD and USACE would be expected to contribute annual maintenance fees based on collections volume. However, if the total collections exceeded the current repository capacity, DoD and USACE would be expected to cost share in another curation repository solution.

Notes

SUARC is a small, up-and-coming archaeological curation program. To date, curation staff have exhibited considerable savvy to acquire the current resources. SUARC is one of the few facilities that have available space for curation (approximately 700 boxes).

The Department of Anthropology is a part of the Syracuse University School of Citizenship and Public Affairs. This school offers unparalleled opportunities to expose public and government personnel to the nature of and background for the conduct of archaeology. Potential links between military archaeological collections stored at the university and with military officers and political figures in school at the university could have long-term positive impacts in these areas and in education.

New York State Museum

Architectural Summary

Site Conditions

New York State Museum (NYSM) is located in the New York State Government complex in downtown Albany. The site is located south of the Empire State Plaza. The slightly sloped and landscaped site has visitor parking and employee parking east and west of the building. Within the same block is the Governor's Mansion and a church cathedral, both of which are located east of the NYSM building. Open landscaping on site reduces the crowded feeling.

Adjacent use is mixed commercial and residential, consisting mostly of old townhouses and a few multi-story buildings. Access to NYSM is convenient; I-787 is located a few blocks east, and I-90 and I-87 are also within a mile, on the north and south respectively. The site is not situated in a floodplain, nor is it considered to be in a natural disaster region.

Building Condition/Structural Adequacy

The poured concrete building was constructed in 1974 and was designed for state archives, library, exhibit, and archaeological curation uses. The 11-story structure has several wide cantilever levels that extend to all four sides of the building, including the third, fifth, sixth, and top floors. The third floor has a wide exterior stair passing over a boulevard and connecting to the Empire State Plaza on the north.

The 1.2-million-ft^2 building appears to be in good condition, with no evidence of faults. The concrete structure is also built with other fire-resistant materials such as marble, stone, travertine, and concrete masonry units. The building exterior is covered by marble. The built-up roof is overlain with pre-cast pebble panels. Windows are equipped with fixed double-prong metal sash windows. Interior partition walls are made of plasterboards wrapped in sheet metal. On the south side of the building, is a one-story exhibit room extending beyond the main structure; its flat roof provides exterior space for visitors. The sizable loading area can accommodate many full-size trucks at the same time.

The Anthropological Survey Department (ASD) occupies about one-third of the third floor, which has the most floor space in the building. The other two-thirds of the space is used by the state professional licensure department, which is moving out of the building soon. The ASD will take over the space once it becomes available.

Code Requirements/Egress/ Accessibility

NYSM meets most building code, egress, and accessibility requirements. The structure is constructed of mostly fire-resistant materials, and adequate exits are provided at necessary locations. Most exits are identified with lighted signs. Although the wider-than-five-foot interior hallways are long, they are protected with fire rated wall panels. Fire escapes are isolated and separated by doors, none of which, however, are fire rated.

Accessibility is sufficient for wheelchair users. Ramps are provided on the exterior, and ADA signs identify the handicap parking spaces. Inside the building, elevators are equipped with braille, and bathrooms are installed with handrails and large-size

stalls. Strobe light fixtures are in place ready to assist the hearing impaired.

HVAC Systems

Heating and cooling systems are adequate, but humidity control is not. Because of the building's large size, separate systems are used to support different areas. As many as nine mixed-air systems support the facility, and they take in 20% fresh air to mix with 80% recycled air. While the first four stories are grouped and supported by one system, the floors above depend on a different system that is installed on the eighth or ninth floor. Located in the basement level, the mechanical room has nine air handling units that supply 101 independently operated variable air volumes (VAV), which have sensors that respond to temperature change. However, some of the VAV's may not function as well as when they were installed new, and may contribute to the variation of temperature in different areas of the building interior. This phenomenon is particularly evident during bright sunny days, when one side of the building is heated by the sun. The sides in the shade become cooler, or perhaps even cold.

Except for the supplementary heating generated at the window openings, the main heat source is ducted from a central boiler house located about a mile away from the facility. A central cooling facility supplies chilled air by way of pipes through an underground tunnel. Both the heating and cooling plants support other state government buildings nearby.

Although temperature control is adequate, humidity control is problematic. Because the original system design did not include a moisture removal function, excessive humidity has been a problem during summer months. Two years ago, an effort was made to correct the problem; a new system was added to control humidity. But the system was either too small to handle the large facility or never worked as was intended.

Fire Suppression and Detection

Only a portion of the basement is protected by a sprinkler system. Most of the floor space relies on standpipes and fire hoses for fire suppression. Semi-annually inspected extinguishers of type A, B, and C are placed at doorways and other easy to reach locations. Fire-detection is inadequate. There are smoke detectors installed throughout the building.

Security System

The security system is sufficient. Intrusion alarms are installed at most openings and wired to a central monitoring location. Security cameras run on a 24-hour cycle, and they are monitored at a control room, although the views are not recorded. Collection storage rooms are isolated and restricted to authorized staff only. Keycard access is required for entry. However, no motion detectors are installed in the building.

Collections Management Summary

Scope of Collections and Mission Statement

The New York State Museum "is dedicated to promoting inquiry and advancing knowledge in the fields of geology, biology, anthropology, and history, through the investigation of material evidence germane to New York State's past, present and future." The exhibit museum helps to achieve these goals. Collections include archaeology, ethnology, human osteology, history, geology (paleontology), and biology. NYSM curates 7,000-ft^3 of archaeological collections.

Archaeological Collections Storage

All NYSM collections and exhibits are housed in the same building. Archaeological and ethnographic collections storage are on the third floor, with restricted access. Ethnographic collections are on adjustable steel shelving on Ethafoam-brand padding, and each object has custom-made padding. Muslin dust barriers are in place. Archaeological collections are in Lane-brand metal cabinets with metal drawers. Collections are housed in archival-quality boxes (chrome paper-covered acid-free stock), however older materials are housed in mostly acidic containers such as paper bags. These are being re-housed as staff time permits.

Environmental Controls

Relative humidity and temperature are monitored by two dataloggers in the collections storage room, with additional monitoring in the exhibit area. Logs from

these are kept and analyzed. The HVAC system is scheduled to be renovated. Fume hoods and eyewash stations are available in two labs for chemical use. Access to storage areas is controlled by a card reader system. Pest control is handled through a contract company. Fluorescent bulbs are filtered for ultraviolet light, and there are no windows.

Range of Support Facilities for Archaeological Collections

A large, covered loading dock and freight elevator permits movement of large collections. Excavation equipment is kept in a separate room near the loading dock. NYSM has extensive exhibits, a document storage room, a computer room with a large digitizing table, computers, a wide printer, a photograph staging area, digital cameras, a human osteology laboratory, an education office, and a darkroom.

Staff Composition

The archaeology staff at NYSM consist of a curator, a curatorial assistant, a registrar, a collections manager, and lab assistants.

Administrative Record Keeping

NYSM has its own unique alphanumeric site designations. A unique accession number is to assigned each incoming collection. Objects are stored in the cabinets by county, then by site number. Administrative documents are stored in metal file cabinets in the document storage room. A computer database, including collection location information, is kept on a Multi-Mimsy program attached to a Local Area Network with no outside access. The database is backed up daily.

Associated Archaeological Documentation and Storage

Associated documents are kept in metal file cabinets in the document storage room. Maps are stored flat in metal cabinets. Photographs and slides are in plastic binders inside archivally-stable sleeves. Negatives are in a separate cabinet.

Collections Management Policies

NYSM has policies for standards of acceptance, cataloging, access to collections, loans, exhibitions, emergencies, security, and deaccessions.

Administration Summary

Background

The New York State Museum is housed in the same large building on the capitol complex. Plans to renovate are being finalized, and renovations should be complete in two to three years. Collections encompass archaeology, geology, biology and history. Anthropology collections began in 1843, as a result of the activities of Lewis Henry Morgan, a well-known anthropologist. NYSM currently curates a small amount of Department of Defense archaeological materials.

Real Estate

The state of New York owns the property. The building was completed in 1976. There are no restrictions for use of the property.

Administration

NYSM is a state-funded museum. The director of the NYSM has the authority to commit the institution to an agreement with the DoD/USACE. There has been no financial deficit in the last five years. The executive officer of the New York State Museum Institute is engaged full-time in grant writing and fundraising activities.

Outreach and Education Programs

The Education Department of NYSM organizes and coordinates a wide variety of community outreach programs, many of which focus on archaeology. Anthropological Survey staff regularly participate in these programs. The full-time Museum Specialist in Native American culture liaisons between NYSM and the Native American communities. NAGPRA consultation is directed by the full-time NAGPRA Coordinator. NYSM provides collections for exhibit on long-term loan to Native American museums in the state. Grade through high school students are targeted by programs held at the Education Center in

the building. Regular programs run by a New York Native American are offered to the public that focus on archaeology. A recent school project involved building a scale model of an Iroquois long-house, which integrated math, science, and botany.

Contributions

NYSM staff stated that staff expertise, part of the long-term storage space, and clerical staff could be contributed toward a partnership agreement. In return, NYSM would expect contributions toward a collections manager, cabinets, shelving, and storage materials.

Notes

NYSM is on the verge of renovating the anthropological collections storage area, as well as renovating the exhibit area. These renovations should be complete in the next three years. NYSM has been upgrading facilities and collections management practices when possible. Research, education, outreach, and exhibits are all housed in the same building, facilitating communications among all units at NYSM. The exhibit master plan is currently being revised, and should focus more on archaeological exhibits.

Rochester Museum and Science Center

Architectural Summary

Site Conditions

Away from the downtown area, Rochester Museum and Science Center (RMSC) occupies most of a large city block. Setting back from the northwest corner defined by East Avenue and Goodman Streets, RMSC is on a 13-acre lot that contains many facilities, including a planetarium, auditorium, administration, learning center, and two maintenance houses. The museum is much more visible on East Avenue than on Goodman Street because fewer trees obstruct the original front entrance. The new entrance is located on the west elevation, in between the old and new parts of the complex. It is behind a screen of trees and a lawn, and is not visible from the street. A covered loading dock is located at the parking lot near the front entrance.

The adjacent areas are mainly used for single-family houses and a few multi-story office and apartment buildings. A few stores are scattered nearby. Open space with trees and lawn are common characteristics throughout the area. Two large on-site public parking lots are available. The site is considered to be in an earthquake region.

Building Condition/Structural Adequacy

RMSC is in structurally sound and has no signs of damage. The facility was built in two stages—the original 1914 museum and the 1988 addition. Both sections are built of masonry materials, including concrete, stone, and concrete masonry units. The 105,000-ft^2 reinforced concrete cast has a built-up roofs covered by EPDM. Counting the basement and the mezzanine levels in the original part of the museum, the building actually has five stories, while it appears on the exterior to have only three stories.

The facility accommodates numerous functions, including exhibits, research areas, offices, a gift shop, and a cafe. Exhibits occupy most of the space. Though not originally planned as a repository, the structure is adequate to house the different kinds of collections. As many as nine storage rooms of various sizes are located at different levels, including the basement. The successful design of the new addition draws more than just museum visitors. With an exterior terrace defined by a cascade of plants, the well natural-lighted cafe at the basement level is an attraction by itself. Separated by a glass wall, the terrace is used as an out door café during the summer time. The pleasant setting attracts customers from nearby office buildings for lunch and refreshment.

Code Requirements/Egress/ Accessibility

RMSC meets certain codes, egress, and accessibility requirements but not all. It meets building code as a mixed-use facility with museum, office, and storage functions. It also meet egress requirements; as many as six exits are provided at different directions of the facility. The front entrance does not allow wheelchair access.

The original museum entrance, now closed, is also elevated by a flight of steps. Because of the inaccessibility of the entrances, the facility is not ADA-compliant even though it has two elevators.

HVAC Systems

Heating and cooling systems provide adequate zoned environmental control for the facility. Individual heating and cooling units are installed within the collections storage rooms, either at a corner or above the ceiling tiles. Electric operated units also regulate humidity at the same time. The electric operated water source heat pump system is used in the non-storage areas. Gas is also used for heating in the same system. Pleated air filters are checked every six months.

Temperatures are set at 68–70° F for both storage and non-storage areas, and humidity is programmed at fifty percent. The heating and cooling units were installed in 1988, 1991, 1993, and 1994. Liebert-brand units regulate humidity in a self-contained manner. There are venting hoods in research areas.

Fire Suppression and Detection

Both automatic and manual-pull alarm systems are installed, and smoke and heat sensors are also mounted throughout the building. Fire doors are used at each storage room and at critical fire separations. Only a small portion of the basement is protected by a sprinkler system; the remainder of the building is not protected by a suppression system. However, the structure is built of fire-resistant materials, and corridors are fire-rated to specification. Fire extinguishers of type A, B, and C are placed at easy to reach locations such as hallways and doorways. Extinguishers are inspected on a quarterly basis by outside contractors.

Security System

The security system is good. Intrusion alarms are installed at most entrances and exits. Approximately fifteen security cameras provide video coverage for both the inside and the outside of the facility. The security system is wired to and monitored by a private security company. Motion detectors are mounted at must-pass locations inside the storage rooms, which require keycards to enter. Only authorized staff members have access to the collections storage rooms. Lockable metal storage cabinets add security to the artifacts.

Collections Management Summary

Scope of Collections and Mission Statement

According to the Rochester Museum and Science Center's mission, RMSC "...creates inspiring, entertaining, and educational experiences, enabling visitors to explore science and technology, the natural environment, and our region's cultural heritage." Since the 1940s, the museum has focused on acquiring collections, creating exhibits, and conducting outreach and education. Collections, exhibits, and educational programs address anthropology, archaeology, biology, geology, history, and industry, primarily in the Genesee Region of western New York.

Archaeological Collections Storage

Archaeological materials are stored in the prehistoric archaeology "vault", which is located on the third floor of the main RMSC exhibit and offices facility. The "vault" is a secure, fire-protected, climate-controlled area. Three basic types of storage units are used to house materials. These include short high-quality metal locking cabinets with sliding adjustable shelves, tall metal locking cabinets, and open metal shelves. The short metal cabinets can be stacked for optimization of space.

In many cases, within each storage unit artifacts are protected by Ethafoam-brand padding. Other secondary containers consist of small acid-free or acidic cardboard boxes, and 4- and 6-mil, polyethylene, zip-lock bags, with interior acid-free label inserts and Ethafoam padding.

Environmental Controls

RMSC has a building-wide HVAC system consisting of heat, air conditioning, and humidity control. Humidity levels are digitally monitored, with hygrothermographs in the collections storage areas as a compliment.

RMSC has an integrated pest management plan. Traps are distributed throughout the facility at certain targeted areas. RMSC staff try to achieve an understanding of the ecology of the building. Once infestations are identified, they are pinpointed and controlled.

Range of Support Facilities for Archaeological Collections

Support facilities at RMSC include archaeology and anthropology laboratories, a collections and research laboratory, records and artifacts collections storage areas, a loading dock/freight elevator, and a conservation laboratory. Additional equipment includes a freezer, fume hoods, and processing areas.

Staff Composition

The RMSC staff is large and diverse. Operations and education departments compose a large percentage of the staff, as well as collections and research. Two registrars and two collections managers handle all collections in the museum, including archaeology. The anthropology curator oversees all archaeology collections. Additionally, archaeology collections are cared for and used frequently by RMSC Regional Heritage Preservation Program staff.

Administrative Record Keeping

RMSC maintains the following types of administrative records in a computerized, networked database: acquisition/accession files, catalog files, conservation information, environmental records, inventory records, exhibit information, deaccession files, object location information, and loan information. The museum uses the New York State Museum System of site identification, and tracks artifacts by an RMSC site number, which is associated with other numbers in the RMSC database. The RMSC site number is the key linking field.

Associated Archaeological Documentation and Storage

The museum maintains artifact inventories, archaeological site records, field notes, maps, reports, and photographic prints and slides. Working-copy records are stored in the Regional Heritage Preservation Program office. Storage units in this office consist of locking fireproof file cabinets. Records are organized by site number. Duplicate records on acid-free paper are housed in the archaeological storage vault, in standard-size acid-free cardboard boxes. These records are organized by site name.

Collections Management Policies

The following written collections management policies and procedures are maintained: mission statement, accession policy, minimum standards for acceptance, field curation guidelines, inventory policy, loan policy, exhibition policy, conservation policy, packing/shipping procedures, access/use policy, security guidelines, consultation policy, and deaccessioning policy.

Administration Summary

Background

Rochester Museum and Science Center is a private, non-profit institution chartered by the New York State Regents. It has been in existence since 1912, and became a corporate entity in 1967. To date, RMSC has not entered into any formal agreements with federal agencies to curate archaeological collections. However, the museum is the custodian for City of Rochester collections, and has been approached by several contract firms to see if the facility is qualified to store National Park Service archaeological collections. RMSC does not currently curate DoD or USACE archaeological collections.

Real Estate

The RMSC campus is owned partly by the museum, and partly by the City of Rochester. On the city-owned portions, the museum has a 30-year lease. The museum building is owned by the City of Rochester. The area is a historic preservation district, which may impact any plans for building modifications or renovations. Several blocks to the northeast of the RMSC campus is a nondescript warehouse building used for overflow storage and storage of history collections.

Administration

Either the president or treasurer has the authority to commit RMSC financially to a partnership with the federal government. Museum funding is derived from a number of sources, including Monroe County, memberships, admissions, donations, grants, and fundraising activities. RMSC has a development office that assists staff members in writing and tracking grant proposals. The development office is

also responsible for fundraising. Overall, the RMSC staff is large compared to most institutions and is organized into seven divisions, including finance, collections and research, development, marketing and public relations, preschool program, visitor experience team (education and programs), and planetarium.

Outreach and Education Programs

Several RMSC sections contribute to the museum outreach and education programs. These include a museums program department, a collections, records, and access committee, a resident research fellow program, and a department of community relations. Programs include Science Saturdays lecture series, Haudenosaunee (Seneca Indians) Lecture Series, and an extensive set of lectures/classes targeted at pre-K through 12th grade students. These lectures/classes range from self-guided and docent-guided museum programs to outreach and nature center programs.

Contributions

RMSC would be able to contribute its sizeable archaeological and comparative collections, its research capabilities, public access and education/ outreach programs, and some curation space. DoD/ USACE in return might be asked to provide equipment such as cabinets or other storage units for the collections, and computer hardware or software.

Notes

RMSC is a large, well-supported institution with an active education and research program. Storage facilities are modest, but can accommodate some additional collections. Overall, RMSC is a diverse institution with considerable resources and assets for a partnership.

RMSC has institutional stability, and considerable funding is provided by Monroe County. The institution has a large staff and impressive education and outreach programs. Programs and exhibits attest to a good working relationship with the Indian tribes of western New York.

RMSC has another off-site storage facility, which is being studied to determine its most appropriate use. The study is expected to be completed within a year. The masonry building was constructed in two or three different periods, with the earliest dated back to the 1900's. The middle section has two stories, and one of the two wings has a mezzanine level. The facility has a drive-up loading dock. Currently the facility is used for large size collections such as classic autos, history collections, or other bulk objects. The building needs some renovations to meet curation facility standards. On both sides of the structure, there are limited open spaces for potential building or parking expansion.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 23.2 lists the composite scores and the architecture, collections management, and administration scores for each New York institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 23.2
Summary of Decision Support Model Scoring—New York

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Archaeological Research Center, Syracuse University	**0.6514**	0.04259	0.24687	0.36198
New York State Museum	**0.8402**	0.10575	0.29446	0.44000
Rochester Museum and Science Center	**0.8896**	0.15573	0.30002	0.43388

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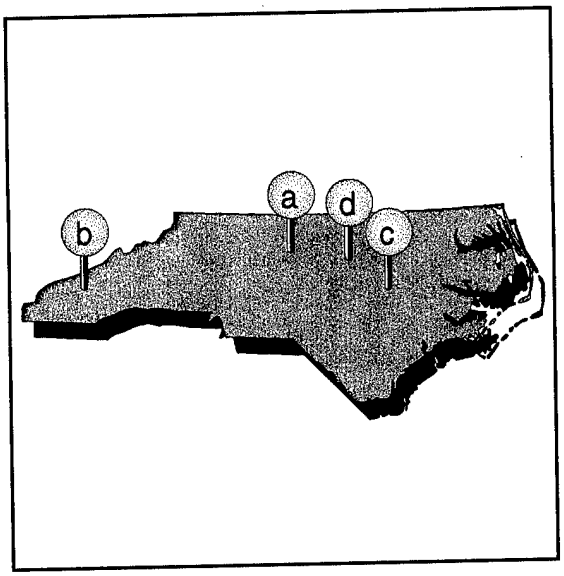
North Carolina



Archaeological Materials (in cubic feet)

Department of Defense	283
USACE	436
TOTAL VOLUME	**719 ft³**
Number of Institutions Contacted	**20**

Institutions Assessed

a. Archeology Laboratories, Wake Forest University, Winston-Salem

b. Museum of the Cherokee Indian, Cherokee

c. Office of State Archaeology, Raleigh

d. Research Laboratories of Anthropology, University of North Carolina, Chapel Hill

Background

A list of the facilities contacted in North Carolina is presented in Table 24.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 24.2, showing strengths of each institution. Pertinent information on each of the facilities visited in North Carolina is presented in the following discussion.

Table 24.1
List of Institutions Contacted—North Carolina

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Appalachian State University		X		
Archeology Laboratories, Wake Forest University				
Cliff of the Neuse State Park		X		
Discovery Place				X
Duke Museum of Art		X		
East Carolina University		X		
Guildford Courthouse National Military Park		X		
Historic Halifax		X		
Mint Museum of Art		X		
Museum of the Albemarle				X
Museum of the Cape Fear		X		
Museum of History		X		
Museum of the Cherokee Indian				

Table 24.1
List of Institutions Contacted—North Carolina (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Native American Resource Center		X		
Office of State Archaeology				
Research Laboratories of Anthropology, University of North Carolina				
Schiele Museum of Natural History		X		
State Historic Site Office		X		
University of North Carolina, Charlotte		X		
Wake Forest University Museum of Anthropology		X		

Note: Locations visited indicated in **Bold**.

Archeology Laboratories, Wake Forest University

Architectural Summary

Site Conditions

The Archeology Laboratories at Wake Forest University (ALWFU) are located on the southeastern edge of the Winston-Salem, North Carolina campus. Because of this location along the university's boundary, the site provides little possibility for effective expansion.

The ALWFU operates in a prefabricated structure located behind the Museum of Anthropology building. Six visitor parking spaces are located in front of the Museum of Anthropology. A parking area located between the Museum and ALWFU facility provides space for deliveries and loading as well as approximately twenty staff parking spaces. An uncovered loading dock is available for incoming collections and field equipment, although the interior loading area is currently used as graduate student work areas and lounge. Two separate prefabricated structures are located directly east of the ALWFU building and are used for field equipment storage and a dermestid colony. The site is maintained as needed by the university.

Building Condition/Structural Adequacy

The ALWFU building is a prefabricated steel frame structure sheathed with insulated corrugated metal panels. The roof is also a corrugated panel system with aluminum gutters and downspouts. There were no signs of leakage or structural defects in the prefabricated structure. The building was constructed in 1986, contains no hazardous building materials, and is not equipped with floor drains.

The 9,000-ft^2 building is divided metal stud and drywall partitions between the ALWFU (4,500-ft^2), the physical anthropology laboratory (3,000-ft^2), and shared classrooms, restrooms, library, and conference room. The ALWFU area includes office and work areas, collections storage area, document and map storage, and laboratory space in the large open area. The spaces are not well defined.

Code Requirements/Egress/ Accessibility

The simple prefabricated structure meets the applicable building type and code requirement (type IV construction, use group S-1). Three exits adequately provide emergency egress from the building. The building is accessible from an exterior sidewalk to the east and through a side entry door in accordance with the Americans with Disabilities Act requirements.

HVAC Systems

Three on-site direct expansion chillers and a natural gas heat unit provide heated and chilled water to three air handler units (AHUs) in the ALWFU building. An AHU serves the ALWFU space, the physical anthropology laboratory, and the office/classroom

area. The configuration creates limited zones within the entire building, however, the HVAC system in the ALWFU space is not zoned. This combined with the open floor plan could create micro-environments and make climate control with within the ALWFU space difficult. Standard air filters are used and replaced as needed by university maintenance personnel.

Fire Suppression and Detection

The ALWFU building has no automatic fire suppression system. There is a fire extinguisher located in the ALWFU, physical laboratory, and office/classroom space. The extinguishers had been inspected within the last year. There were no automatic fire detection or manual pull alarms observed in the building. The method of fire-detection at the ALWFU building remains uncertain and is currently inadequate.

Security System

The ALWFU building is secured with dead-bolt locks and Wake Forest University Police patrols. There are no intrusion alarms, motion detectors, video monitoring, or restricted access to collections at the ALWFU. The security systems at the ALWFU are inadequate.

Collections Management Summary

Scope of Collections and Mission Statement

The Archeology Laboratories at Wake Forest University mission statement is "to serve archeology, anthropology and public interests through its contributions to research." The highest priority of the institution is research, according to the director. The nearby Museum of Anthropology helps to serve these goals. ALWFU curates archaeological remains almost exclusively. Human skeletal remains are curated by the Physical Anthropology Lab (PAL), housed in the same building.

Archaeological Collections Storage

Collections storage is housed in the same room as the analysis area, computer stations, associated documents, comparative collections, and Directors office. The large room is partitioned by shelving units. Shelves are constructed of 2-x-4-inch lumber that spans between concrete blocks. Flap-lid acidic boxes rest upon the lumber. All artifacts are in boxes, some lined with plastic. Secondary containers are mostly 2-mil, zip-lock bags, however older collections still have paper bags. The analysis area has shelf space for temporary shelving. A large garage-type door allows movement of oversized items.

Environmental Controls

Humidity is not monitored. There is a cooling/heating system, however it appears not to be able to handle the volume needed. A dermestid colony is maintained in a storage shed five feet from the building for skeletonizing zoological specimens. Two sticky pest strips were deployed on either side of the entrance near the front door. The university sprays the foundation with pesticide twice a year. There is no automatic fire suppression system. Fluorescent bulbs are bare and skylights let in some natural light, however there are no windows. ALWFU staff performs cleaning as needed.

Range of Support Facilities for Archaeological Collections

Support facilities consist of a library/conference room in an adjacent area that has a separate air handling system. Books, an in-house card catalog, and a computer station are located in the library. The ALWFU has a photographic staging area, a small tank for electrolysis, some microscopes and calipers, and storage for field work equipment. The PAL is used for instruction and storage of human skeletal remains. This room has a fume hood, a top-loading refrigerator and a cabinet for slides. No food or drink is allowed in the PAL room. The adjacent Museum of Anthropology building has small exhibition areas and a small storage area for particularly valuable items.

Staff Composition

The ALWFU permanent staff consists of two individuals, the director and curator. The position of Lab Supervisor is now vacant. Graduate and undergraduate students are paid to assist with research and curation duties.

Administrative Record Keeping

A catalog is maintained on a per-site basis, including information on site number (Smithsonian trinomials), excavation unit, field specimen, and type(s) of artifacts. These are kept in plastic binders on a shelf in the analysis area. No copies exist of any records. There are no accession records. Written policy states that an artifact inventory is to be maintained. The director stated that there are deaccession files, loan files, and conservation information. Established policy for labeling the boxes includes the county, and site number. Written policy states that zip-lock bags should have the site number, excavation unit, field specimen numbers, type, weight, and count of the materials. Boxes are placed on the shelf by county, then by site number.

Associated Archaeological Documentation and Storage

Associated documents are stored in ten metal file cabinets in the collections storage area. These consist of site records burial records, field notes, photographs and slides. Maps are stored rolled-up in plastic drawers. No copies exist of associated documents, except electronic copies of reports.

Collections Management Policies

Written policies exist for labeling and washing artifacts, curation of fragile materials, visiting researchers, access to site files, use of collections, and outgoing loans. There is no pest management policy. The University has a hazardous materials program that inspects campus facilities for compliance.

Administration Summary

Background

Archeology Laboratories at Wake Forest University has been in existence since 1969. Though on a separate budget from the Anthropology Department, administratively they are a single unit. The other two units comprising the Anthropology Department are the Museum of Anthropology and the Physical Anthropology Laboratory. The Museum oversees the exhibit facility, located next door to ALWFU. ALWFU currently houses 110-ft^3 of archaeological collections for USACE Wilmington District.

Real Estate

Both the land and the building utilized by the archaeological laboratories are owned by Wake Forest University, a private institution. There are no restrictions to the building or the use of the property, except those imposed by the campus master plan. Any proposed changes would have to be approved by the university, on a case-by-case basis. Since ALWFU is on the fringe of campus, the property is not in a densely built area.

Administration

In order to enter into a curation agreement, the director of ALWFU would send a draft proposal to the Office of Research, which in turn would submit it to the Vice President for Administration. The proposal would next be sent to the comptroller, and then to the Dean of Arts & Sciences. Signatures from all four of these administrative units would be required. No one within the ALWFU commits full-time to writing grant proposals. The director performs these functions part-time with the help of graduate students. The University has a fundraising office that is responsible for fundraising activities for the campus. No financial deficit has occurred in the last five years.

Outreach and Education Programs

The staff do not devote their time specifically to outreach and education program. Staff works in close cooperation with the Museum of Anthropology for programs utilizing the collections curated at the archaeology laboratory. The exhibit facility has exhibits on ethnography and archaeology, focusing on North Carolina. Through this cooperative effort, the staff of the two agencies have developed lectures and presentations for groups of all ages, have assisted with the training of other museum staff from local repositories, and have developed and maintained both a web site and a teacher's newsletter. These include workshops, lectures, visits to ongoing archaeological digs, classes on Native American cultural change, portable exhibits, and arranging for volunteers at state parks. The museum staff is particularly involved with developing educational materials for local primary and secondary schools. Because there are no federally recognized tribes in the area, there has been no attempt to develop a Native American program.

Contributions

The ALWFU could potentially contribute land for construction, laboratory and office equipment, and some staffing (i.e., graduate students) to a partnership with the Department of Defense. In return, ALWFU would expect funds toward staffing, construction of a new facility, and supplies.

Notes

The strongest features of the ALWFU are the presence of a dedicated bioanthropology facility and an exhibit museum. The building and its execution reflect the ALWFU's excavation focus, with curation and its curation facilities as a ancillary part of the its operations.

The simple prefabricated structure was constructed as an inexpensive solution to the ALWFU's building needs. The ALWFU has no plans or perceived need for future expansion or for any significant renovation or improvement of the existing facility. The absence of a dedicated collections storage or repository room, the basic HVAC systems, the absence of fire-detection and -suppression equipment, hinder the ALWFU in its mission.

Museum of the Cherokee Indian

Architectural Summary

Site Conditions

The Museum of the Cherokee Indian (MCI) is located in Cherokee, North Carolina, in a somewhat remote area in the state's western mountains. Cherokee is approximately a 90-minute drive from Asheville, North Carolina, and is a popular tourist attraction in the western part of the state.

The MCI is located at a prominent intersection in downtown Cherokee. There is adequate parking on the site with over 80 spaces, including four disabled spaces and parking for three buses. A drop-off lane and loading area provide adequate space for automobile circulation. There is sufficient land on the southeast corner of the site for an addition to the building. The site is well maintained and is configured to accommodate a significant volume of visitors.

Building Condition/Structural Adequacy

The MCI facility was constructed in 1976 with an addition in 1993. The building is now 22,000-ft^2 in area. The museum has a library and office area, a small theater, a large exhibits area, a multi-purpose meeting room, gift shop, exhibit preparation shop, and collections storage area. The multi-purpose room, exhibit preparation shop, and collections storage area were part of the 6,000-ft^2 addition in 1993. The 12,000-ft^2 exhibit area was re-opened in June 1998 after a $3 million renovation ($250/ft^2). The renovated exhibits area appeared to be a top improvement for the MCI. The collections storage area is only 1,500-ft^2 in area. The MCI's existing collections occupy approximately half of the room's storage capacity.

The MCI building is a timber-frame and concrete masonry unit structure with a small second floor area. The building is clad with vertical wood siding, and is covered with a flat roof system with copper gutters and coping. The exterior of the building and its structure appeared to be in good condition. The building is not equipped with floor drains.

Code Requirements/Egress/ Accessibility

The 1993 addition and the 1998 exhibit area renovation have brought the building into compliance with current building, life-safety, and accessibility requirements (type 3 construction, B use group). A fire rated stairwell provides emergency egress from the second level office and library areas. A passenger elevator provides access for the disabled to the second level. New restrooms in compliance with the Americans with Disabilities Act have been added to the public/exhibit area during the 1998 exhibit renovation.

HVAC Systems

A large on-site electric chiller and natural gas boiler with multiple air handler units serves the 1977 portion of the building. The 1993 addition, including the collections storage room, is served by a separate chiller system. The climate control system is zoned and the collections storage area can be controlled

separately. The entire facility is equipped with reheat coils for humidity control.

Fire Suppression and Detection

The building is not equipped with an automatic fire suppression system. New fire detection equipment has been added as part of the 1998 renovation. Smoke and heat sensors as well as new fire extinguishers are located throughout the building and should be part of the building's annual fire inspection. The fire alarm notifies a local alarm service who then notifies the local fire department.

Security System

The MCI building is equipped with motion detectors throughout the building. The collections storage area is locked and public access is restricted. A keypad code provides access to the elevator and the second level of the building. Video monitors are located throughout the renovated exhibit area. The security alarm system is monitored by a local security company who then notifies the local police department.

Collections Management Summary

Scope of Collections and Mission Statement

The mission of the Museum of the Cherokee Indian is to "preserve and perpetuate the history, culture, and antiquities of the Eastern Band of Cherokee Indians." The MCI has been in existence since 1948. Collections consist of archaeological and ethnological artifacts pertaining to prehistoric, historic and modern Cherokee Indians.

Archaeological Collections Storage

The collections storage room at the MCI is small (1,500-ft^2). It was in disarray during our visit due to the opening of the new exhibit. Shelving units consist of metal frames and pressboard shelves. Primary containers consist of wooden crates and acidic cardboard boxes. Polystyrene sheets line some shelves. Cabinets are made of plywood and have numbered drawers. Inside these drawers artifacts are kept in cigar boxes and paper bags.

Environmental Controls

The collections storage room is kept at 75° F and has its own HVAC system. Relative humidity is monitored by a widely-available hygrometer. No charts are kept. Fluorescent bulbs are not filtered. There are no windows, reducing pest and ultraviolet risk. The doors are sealed. No food is allowed in the room. Glue board is used to trap pests, no pesticides are used due to inherent hazardous materials risk.

Range of Support Facilities for Archaeological Collections

Support facilities at MCI are primarily exhibit space and proper storage of important documents. There is a multi-purpose room used as a classroom/meeting room, which has a projector screen and video equipment. The library, available to visiting researchers, is well-stocked (4,000 books) focusing on eastern Cherokee material, and includes a full set of the sought-after Bureau of American Ethnology volumes. A new, state-of-the-art exhibit explains various aspects of Cherokee history. Digital imaging equipment has allowed the MCI to make digital images of all 120,000 artifacts. There is no dedicated research area.

Staff Composition

Staff at the MCI consists of the director, archivist (part-time), and collections manager (part-time), and exhibit support personnel. There is no archaeologist on staff, and the MCI uses faculty at nearby universities as consultants.

Administrative Record Keeping

Sites are listed by name and not given alphanumeric codes. Multiple copies exist of accession records. The catalog is maintained on a computer database (Embark) and a copy (on Iomega Zip disks) is in California at the house of the collections manager. This information is not on a computer network. An inventory was conducted a few years ago. Object location information for all artifacts are kept. Loan information is kept. Administrative documents are kept in a locked room adjacent to the library.

Associated Archaeological Documentation and Storage

Associated documents are kept in a locked room adjacent to the library in acid-free Hollinger-brand boxes on wooden shelves. Older materials are stored in polypropylene folders. No copies exist of these documents.

Collections Management Policies

No written policies for collection management exist.

Administration Summary

Background

The Museum of the Cherokee Indian is owned by the Eastern Band of Cherokee Indians and is non-profit. MCI is financially self-supporting. Before 1976, MCI was part of the Cherokee Historical Association. The building was constructed in 1976 and houses one of the most-visited tribal museums in the country (120,000 visitors per year). New state-of-the-art exhibits opened in the summer of 1998.

Real Estate

The property is owned by the Eastern Band of Cherokee Indians. Any additions or major renovations must be approved by the tribal building committee. Otherwise there are no restrictions to the use of the property.

Administration

The director of MCI has authority to commit to a financial agreement. No one has fundraising as a full-time position, however, the archivist and marketing director do so part-time. There has been no financial deficit in the last five years.

Outreach and Education Programs

The Eastern Band of the Cherokee tribe is the topic of all outreach activities. The new exhibits are the focus of outreach at MCI. A recent $3 million renovation created state-of-the art exhibits. The number of visitors to the exhibit in 1998 was expected to be 300,000. A Cherokee tribal member regularly gives free lectures relating to Cherokee culture within a 100 mile radius of the museum. These lectures are conducted for schools, organizations, and festivals. The "Tsa-La-Gi Ancient Village" is also owned by the same tribe and is in the same town. These exhibits show the lifeways of the tribe before Europeans arrived, and therefore show how archaeological artifacts may have been used. The archives are used by many members of the tribe for the purposes of geneological and real estate issues.

Contributions

MCI could contribute toward curation space, public access, the unique perspective of Native Americans, fundraising, interpretive and exhibit expertise, and educational outreach. In return, it would expect funds toward a collections manager, operation and maintenance, and curation materials.

Notes

Research and curation is a secondary concern of the museum and this is reflected in the facilities. With additional funding and attention, the collections storage area could be improved and its capacity increased. The strongest asset of the MCI is its new exhibit space, which is excellent.

MCI is located in the tourist town of Cherokee, thereby greatly increasing its public visibility. The National Park Service supported the new exhibits as part of its "Trail of Tears" program. During the visit, the Museum was completing the finishing touches before the exhibits' grand opening in June, 1998. This project has dominated the resources of the Museum and its staff, although new initiatives for education and research are a rising priority.

MCI is limited by its mission to serve the Cherokee people. Staff indicated that the institution would eagerly accept archaeological material of Cherokee origin, while it would likely need further consideration before accepting non-Cherokee collections.

Office of State Archaeology

Architectural Summary

Site Conditions

The North Carolina Office of State Archaeology (NCOSA) is currently located in a turn-of-the-century

home west of the state capital in Raleigh. This property has been renovated over the years for a variety of uses including its current configuration as NCOSA offices. The residential structure cannot provide adequate facilities for NCOSA operations. Visitor parking is limited and there is no designated repository space. Archaeological collections are stored haphazardly throughout the building and at an off-site facility that NCOSA staff describes as inadequate for their needs. Fortunately, the NCOSA will be relocating into a newly renovated facility that is scheduled to be completed by July 1998. The current residential facility will still serve as the NCOSA main offices. The NCOSA is planning to be completely relocated and operational in the renovated laboratory facility by the end of 1998.

Located on Lane Street just south of the state capital, the building is one of several state owned facilities on the block. The building's public entrance and drive-in loading area are accessed directly from Lane Street to the west. Set within the slope of a hill, the building has another loading door that provides access to the second story on the east side of the building. State vehicle and employee parking are located to the north and east of the Lane Street facility. Visitor parking is available on Lane Street but is very limited during business hours in downtown Raleigh. The dense urban site offers little opportunity for future expansion of the building, although collections storage space could be greatly increased within the existing plan.

Building Condition/Structural Adequacy

The Lane Street facility has an internal concrete frame structure with a brick exterior structure. Built in 1927 as the state's textbook warehouse, the two-story 14,400-ft^2 structure was most recently used as an exhibit shop and storage facility for the state Museum of History. The building is set within the slope of a hill, with the north and east sides of the first floor below grade. The west elevation fronts Lane Street and the south elevation is adjacent to a power company right-of-way.

The renovation of the Lane Street facility should provide the NCOSA an excellent laboratory and curation facility. The first floor is divided into a processing area, public reception area, laboratory, and office spaces. The entire second floor is dedicated to collections storage. The processing area is configured to facilitate the cleaning and preparing of collections as they move from the secured loading bay through the processing areas and finally to collections storage located on the second floor. A new elevator provides access from within the building to the second level. The introduction of dirty or otherwise contaminated collections into the repository is greatly reduced by separating the processing area and laboratories from the collections storage level. Compact shelving units could greatly increase the capacity of the 7,200-ft^2 second floor collections storage area. The public, laboratory, and office area on the first floor is designed to introduce the public to the professional practice of archaeology; to provide laboratories to visiting researchers; and to provide office space to several NCOSA staff who will be relocated to the Lane Street facility.

All of the large steel frame warehouse windows have been replaced with 1-inch insulated windows in aluminum frames. The building's brickwork requires minor tuck-pointing that will be part of the renovation. The flat rubber membrane (EPDM) roof with brick parapet was replaced in 1988 is in good condition and is not part of the 1998 renovation. The galvanized metal gutters and downspouts have been repaired and replaced as part of the 1998 renovation. There were no signs of leakage or water damage. The warehouse structure was inspected and certified as adequate for laboratory and collections storage needs. The building is not equipped with floor drains.

Code Requirements/Egress/ Accessibility

The 1998 renovation brought the Lane Street Warehouse into compliance with all of the applicable building, life-safety, and accessibility requirements (type IV construction, B use group). Three exits provide emergency egress from the first floor. Two exits provide egress from the second level collections storage area. A new elevator provides access to the second level from within the building. New restrooms and a new wheelchair ramp bring the building into complete compliance with the Americans with Disabilities Act.

HVAC Systems

The building is served by individual electric chillers and a steam pipe main that serves the entire site. New HVAC equipment and controls have been added during the 1998 renovation and have been integrated into the existing infrastructure. The laboratory/office area, the processing area, and the second level collections storage area are each equipped with an air handler unit with a reheat coil for relative humidity control. New ductwork adequately supplies the building with conditioned air. The system uses standard filters that will be changed regularly by state maintenance staff.

Fire Suppression and Detection

The building is not equipped with an automatic fire suppression system. New fire detection equipment has been added as part of the 1998 renovation. Smoke and heat sensors as well as new fire extinguishers are located throughout the building and should be part of the building's annual fire inspection. The new elevator shaft has a one-hour fire rating. The fire alarm notifies the State Capital Police Department dispatch who then notifies the local Raleigh fire department.

Security System

No security system has been designed or installed prior to the NCOSA occupying the Lane Street facility. The security system will be designed and installed after the NCOSA is able to relocate and adjust its operations to the renovated Lane Street facility. The security system will be wired to the State Capital Police Department. The system should include at minimum: dead-bolt locks, lockable storage cabinets, motion detectors, and intrusion alarms disarmed by a keypad.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the North Carolina Office of State Archaeology is that NCOSA will be "responsible for preservation of many of North Carolina's archaeological collections and their documentation. To ensure availability for researchers and the public, archaeological collections and records should be retrieved, processed, stored and handled in ways that will contribute to their long-term preservation."

Archaeological Collections Storage

The NCOSA is scheduled to move archaeological collections into a newly renovated building in June, 1998. Collections will be stored on the upper floor, and the lower floor will house support facilities. The team was able to tour the renovated facility, and reviewed the information on equipment slated to be used there. This summary is based on those projections.

Shelving units consist of steel frames (18 gauge, 8 x 3 x 8 feet) supporting three ¾-inch, five-ply plywood shelves. Artifacts are stored in acid-free boxes with telescoping lids. Secondary containers will consist of 4-mil, polyethylene bags. About ninety percent of current collections use acidic materials for secondary containers, and some incoming collections are in acidic boxes with artifacts in paper bags, however these are to be brought up to OSA standards. An overhead, garage door encloses the loading dock and allows secure loading/unloading of large collections.

Environmental Controls

The building has heating and cooling. Humidity will be monitored by three hygrometers that produce automatic printed logs, two downstairs and one upstairs in collections storage. The building's three air handling units provide relative humidity control. New sealed windows have thermopanes and have ultraviolet filters, as do the fluorescent bulbs. These factors greatly reduce ultraviolet risk. No written pest management plan exists, however incoming collections will be isolated in a room near the loading dock and food will be allowed only in the lounge. A freezer will be used to treat infested objects. The collections storage area is cleaned by NCOSA staff, while a state government contracting company will clean the lower level.

Range of Support Facilities for Archaeological Collections

NCOSA support facilities include a reception room, a loading dock, a lounge area, laboratories, records

storage, a conservation treatment area with fume hood, a few offices, a darkroom and photograph studio. Other NCOSA offices are at the 1870's building on Blount Street. Small comparative collections of zooarchaeological and geological materials will be stored in the lower level in seven metal, fire-proof, pest-proof, locking cabinets (78 x 58 x 32 inches) with metal drawers, some with non-acidic boxes for dividers. Additional storage for comparative collections and remains being analyzed will be kept in 40 x 27 x 38-inch metal cabinets with metal trays, upon which counter tops will be laid for work space.

Staff Composition

NCOSA staff consists of the State Archaeologist, four Archaeologist II positions, two archaeological technicians and an office manager. The archaeologists oversee the curation work done by a large group of volunteers.

Administrative Record Keeping

The NCOSA maintains the site files for North Carolina, which uses the Smithsonian trinomial system. A web site (http://www.arch.dcr.state.nc.us/curation.htm) details policies and administrative record keeping for prospective clients. Each incoming collection is assigned a unique accession number. The catalog is currently maintained on the DOS program Dbase, stored on 3.5-inch floppy disks. A backlog of data entry of about one person-year exists. Back-ups are on electronic tape medium (will be on Iomega Zip disks in the future) stored in the Archives building on Jones Street. The NCOSA will transfer its electronic data management to a commercially-available package such as Re:Discover or ARGUS. The NCOSA is scheduled to install a network of fifteen computers. Box location will be handled by a bar code system. The NCOSA maintains accession, catalog, conservation, inventory, loan and deaccession files. These will be in a locked room, some in fire-resistant file cabinets.

Associated Archaeological Documentation and Storage

Associated documents include all types, and will move to the renovated building. Maps will be stored flat or rolled. Files will be stored in acid-free folders. The catalog and inventory for these documents is in process. Copies are kept on microform in the archives building on Jones Street.

Collections Management Policies

Written policies exist for minimum standards of acceptance, washing, cataloging, packaging, collections access, conservation, labeling, storage of slides, maps, photographs/negatives, microforms, videos, and documents, and deaccession. Security guidelines are currently being drafted. The NCOSA has a long-standing policy regarding human remains.

Administration Summary

Background

The North Carolina Office of State Archaeology has been in existence since 1973. It was formerly part of the North Carolina State Museum, beginning in 1935. It is a unit of the Division of Archives and History, based in the state capital of Raleigh, and is a public institution. Collections are exclusively archaeological, and NCOSA has a state-mandated mission to care for them. The State Historic Preservation Office is a part of NCOSA. NCOSA houses collections for USACE Wilmington District and USMC Camp Lejeune. Long-term collections storage recently moved into a renovated building which meets the specifications of 36 CFR Part 79.

Real Estate

The state of North Carolina owns the properties. The long-term collections storage building is a few blocks away from the office building in downtown Raleigh. There are no restrictions to the use of the property.

Administration

The Department of Cultural Resources would have to approve any curation agreements. Applicable state governmental agencies would then be consulted to finalize the agreement. NCOSA is prohibited by state statute from a budget deficit, and hence has had none in the last five years. A full-time grants administrator writes and tracks grant proposals. Other staff also write grants. NCOSA submits budget requests, but is not allowed to raise funds independently.

Outreach and Education Programs

No individuals are involved exclusively in outreach programs, however, all staff devote two to eight percent of their time to outreach activities. These include lectures, tours, internet web site maintenance, and field schools. NCOSA also has an agreement with a local college (Peace College) to provide research experience and training for their students. Other outreach activities consist of programs for Elderhostel, primary/secondary schools, Native Americans, Boy Scouts, and museum exhibits and planning. These programs include maritime/underwater, historic and prehistoric aspects of archaeology.

Contributions

The state archaeologist stated that NCOSA could contribute space, staff expertise, supplies, operating costs, infrastructure (phones, security, etc.) and computer hardware/software. In return, it would expect funds to help pay for staff, digital imaging equipment, a local area network, and computers.

Notes

The NCOSA Lane Street facility is a model for efficiently renovated space for laboratory/collections storage use. The NCOSA has made great strides toward creating a facility in compliance with 36 CFR Part 79 and USACE Environmental Procedure 1130-2-540. The only significant shortcoming in the facility is the absence of an automatic fire suppression system. The only resources lacking, according to NCOSA staff, are a laboratory manager, a conservator, and some computer hardware/software.

The proximity to, and interaction with, high state governmental officials gives NCOSA a high political visibility. This increases the chances of NCOSA receiving appropriate funding. NCOSA has striven throughout the years to curate collections up to current standards, which have changed in the last few decades. The establishment of the renovated building represents a milestone in the formation of an appropriate facility for the research and care of archaeological collections.

Research Laboratories of Anthropology, University of North Carolina

Architectural Summary

Site Conditions

The operations of the Research Laboratories of Archaeology (RLA) are divided among three buildings on the University of North Carolina-Chapel Hill (UNC-CH) campus. Battle Hall is located on the campus' north boundary. The third floor of the building is used for several RLA graduate student and faculty offices. No collections are stored at Battle Hall. Alumni Hall is located just south of Battle Hall on the university's original quadrangle. Wilson Library is located further south of Alumni Hall in the heart of the UNC-CH campus.

All three facilities enjoy the UNC-CH's pedestrian setting, although there is little space for automobile circulation and access to any of the buildings. Visitor parking is even more limited, with only a handful of spaces available at a restricted university parking lot approximately 100 yards northeast of Alumni Hall. RLA staff members either do not have assigned parking or are assigned spaces at a faculty parking lot even farther east. A restricted university parking lot is located just east of Wilson Library. The library is the only RLA facility with a loading area.

Some combination of two possible forms of facility expansion is under consideration by the RLA. One scheme would create a new off-campus collection storage facility. The second would expand Alumni Hall to the east.

Building Condition/Structural Adequacy

Alumni Hall

Alumni Hall was constructed in 1901 with an ornate brick exterior and brick interior load bearing walls and a one-way concrete frame structure. The doors and windows are wood, perhaps original, with steel storm windows. The asphalt shingle roof has several dormers with decorated wood soffits and aluminum gutters. The university maintains the roof as needed. The three-story building is approximately 18,000-ft^2

in area, with the basement level partially below grade. The RLA has a special collections room and comparative collection area totaling 720-ft² in the basement. The RLA occupies the entire basement level and approximately half of the first level with its main offices, laboratories, special collections rooms, and faculty offices. A formal exterior stair leads to the main entrance on the first level. The remainder of Alumni Hall is used for general classroom and faculty office space.

There were signs of minor leakage in the special collections room, and some of the floor tiles may contain asbestos. In general, the historic Alumni Hall has been well maintained over the years and remains in good condition.

Wilson Library

Built in the 1930s, Wilson Library originally served as the main library for UNC-CH. In 1977, a nine-level stacks structure was added to the rear of the original building. In the early 1980s, the university constructed a new library building to serve as the main campus library and Wilson Library was designated as the special collections library.

The original 1930s portion of the building is a concrete frame structure with a limestone exterior with classical proportions and ornamentation. The interior features an ornate entry rotunda and reading room. The stacks levels are constructed of a concrete slab floor system supported by the structural columns of the steel shelving system. The exterior walls are a limestone veneer similar to the original portion of the building. Two similar stacks areas are divided by the addition's elevator core and a central reading area. Large windows in the reading areas allow natural light and ultraviolet radiation into the stacks levels.

The RLA occupies the entire seventh floor stacks area, including a total of 6,400-ft² of collections storage space, and approximately 2,000-ft² of laboratory processing area arranged in the central reading space. The stacks level is not maintained by the university. There were no signs of leakage or structural deficiency. The floor tiles may contain asbestos.

Code Requirements/Egress/ Accessibility

Alumni Hall

The 1901 Alumni Hall does not appear to meet all of the necessary building, life-safety, and accessibility requirements (type II construction, B use group). The emergency stairwells are not fire-rated. However, these stairwells provide adequate emergency egress from the building at the basement level in addition to the main entry on the first level. A passenger elevator was added in 1994 and provides access to all levels of the building. A wheelchair ramp provides access to the building from the north basement entrance. Restrooms are also accessible. Alumni Hall is fully accessible to the disabled but not completely compliant with the Americans with Disabilities Act (ADA) requirements.

Wilson Library

The Wilson Library has not been updated since the 1977 addition of the stacks levels. Nevertheless, the building appears to meet current building, life-safety, and accessibility requirements (type II construction, mixed use group, B, S-1). A fire rated stair provides emergency egress from the stacks levels. Passenger elevators provide vertical access between levels. The restrooms are accessible. Wilson library is fully accessible but is not fully compliant with ADA requirements.

HVAC Systems

Alumni Hall

The UNC-CH infrastructure provides heated and chilled water to the building. Multiple air handler units (AHUs) adequately deliver treated air throughout Alumni Hall. The university regulates the climate control systems at its central plant. The university changes standard air filters at each AHU on a regular basis. The HVAC system at Alumni Hall meets the RLA's basic climate control needs.

Wilson Library

The UNC-CH infrastructure provides heated and chilled water to the building. Multiple air handler units adequately deliver treated air throughout Wilson Library. The HVAC systems do not appear to have been upgraded since the 1977 addition and appear to receive only minimal maintenance. Because of the

delicate nature of the library's special collections, the university more closely regulates the building's climate control systems. The university changes standard air filters at each AHU on a regular basis. The HVAC system at Wilson Library appears to meet the climate control needs of the RLA collections.

Fire Suppression and Detection

Alumni Hall

Alumni Hall is not equipped with an automatic fire suppression system. Fire extinguishers are located throughout the facility and have been inspected within the last year. Fire detection systems have recently been during the 1990s. Heat and smoke sensors, manual pull fire alarms, and audio and strobe alarms are located throughout the building.

Wilson Library

Wilson Library is not equipped with an automatic fire-suppression system. Fire extinguishers are located throughout the facility and but have not been inspected within the last year. Fire detection systems appear to date to the 1977 stacks addition. The building is reported to meet the university's fire safety requirements. Heat and smoke sensors, manual pull fire alarms, and audio/strobe alarms and are located throughout the building.

Security System

Alumni Hall

The RLA secures each of its rooms in the building with a lock. Lockable storage cabinets provide additional security for sensitive collections. The UNC-CH police patrol the building regularly during off-hours. There are no intrusion alarms or motion detectors in the RLA areas of Alumni Hall. The limited security equipment, along with the RLA's practice of placing collections cabinets in the basement corridor and a significant volume of student traffic through the building, represent security deficiencies at Alumni Hall.

Wilson Library

Access to the stacks levels is highly restricted. Furthermore, the RLA's seventh level stacks area is restricted to library staff. A sophisticated security system is in place on the seventh level, including intrusion alarms and motion detectors that remains from the former fine arts storage use of the seventh level space. However, this security system is not activated. Nevertheless, the restricted access to the stacks levels, as well as the additional restrictions on access to the RLA space provide adequate security for the collections.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement at the Research Laboratories of Archaeology at the University of North Carolina, Chapel Hill, includes four functions; 1) "to expand knowledge of native peoples in the Americas, with particular emphasis on North Carolina and the south, 2) to train graduate and undergraduate students, 3) to inform the public about Indian culture and archaeology, and 4) to serve as a repository of archaeological collections." The RLA estimates that approximately fifteen percent of the collections storage area is available for additional collections.

Archaeological Collections Storage

The bulk of archaeological collections are stored on the 7th floor of Wilson Library building on campus. Shelving consists of metal library book shelves. Boxes are not stacked, are mostly acidic, and have both telescoping and flap lids. Boxes are stored by artifact type (ceramic, lithic, etc.). Secondary containers are heavy-duty paper bags, but they are slowly switching to plastic bags. There is a freight elevator for large or heavy materials.

Environmental Controls

The RLA collections storage area (7th floor, Wilson Library) has heating and cooling, however relative humidity is not monitored. The building is not open to the public. South-facing windows have curtains, but they were not drawn and the windows are never opened. Fluorescent bulbs have ultraviolet filters. There is no cleaning service. The RLA maintains Materials Safety Data sheets for darkroom users.

Range of Support Facilities for Archaeological Collections

RLA support facilities consist of offices and workspaces in the basement of the Alumni building on campus. Some offices are scheduled to move into nearby Battle Hall. A dedicated computer laboratory has digital imaging equipment from which a virtual excavation CD-ROM (Occaneechi Town) was produced. Room 107B houses contact prints in metal file cabinets. The hallway area has eleven upright metal cabinets that contain pre-European pots, some wtihout support and some with acidic cardboard support. Room 103 is a wet lab for processing incoming collections and has metal shelving and wooden file cabinets. Room 101 is a drafting room. Room 101A is a darkroom with film developing equipment. Room 112 houses the computer network server for the RLA, and special collections (shell & glass beads) on wooden shelves and in locking metal cabinets with mothballs for pest control. Room 111 is a ceramics laboratory with open metal shelving for the temporary storage. It also has metal cabinets for comparative zooarchaeological and ceramics. Room 105 is now used mostly for digital imaging and has a CD-ROM writable drive. Room 109 houses an in-house library and a network server for the building.

Staff Composition

The RLA is a unit equal to the department level within the UNC administration. Staff consists of four full-time workers (director, two research archaeologists and a secretary). Part-time staff consists of ten research associates, most with teaching appointments in the anthropology department. There is no collections manager, registrar, curator, or conservator. Student workers perform some curation and analysis work.

Administrative Record Keeping

A unique accession number is assigned to each collection. The RLA maintains a specimen catalog in ledger books. These are also entered into a computer database using Paradox 7.0 for Windows, stored on fixed disks. A back-up is on a fixed disk and a Iomega Zip disk at the home of one of the research archaeologists. The catalog is not on a computer network. Each box in storage has the catalog and accession number on it. A lettering system denotes box location. The color slide catalog is in plastic binders.

Associated Archaeological Documentation and Storage

Room 107A in the Alumni building houses associated archaeological documents, photographic negatives, site survey files, USGS maps, and burial forms. Room 101B houses color slides and some negatives in three metal cabinets. Associated documents have not been catalogued or inventoried. Copies of associated documents of only some sites are kept at various locations.

Collections Management Policies

Written policies exist for new site reporting cataloging, photograph labeling and filing, conservation of bone, and loans.

Administration Summary

Background

The University of North Carolina, Chapel Hill was founded in 1793. The Research Laboratories of Archaeology at the University was established in 1939 and is a public institution. It is separate from the Department of Anthropology, and differs from it by having a mission of interdisciplinary research, care for collections, and public outreach. Expansion plans include exhibit space and a more remote location for long-term storage of archaeological collections. In 1998, long-term collections were being moved into the 7th floor of Battle Hall, formerly library space. RLA currently curates 40-ft^3 of archaeological collections for USACE Wilmington District, and a small amount for Ft. Bragg.

Real Estate

The state of North Carolina owns the property. There are no restrictions to the use of the property, except for the campus master plan. This is decided on a case-by-case basis.

Administration

An official such as vice chancellor would probably have the authority to commit the institution to a financial agreement. The director of RLA would submit a request for this type of agreement. No one within the RLA commits full-time to writing grant proposals, however all staff at RLA work on grant-

writing part-time. The university has a contracts office that tracks and administers grants. There has been no financial deficit in the last five years.

Outreach and Education Programs

A very strong multimedia educational component has been created at RLA. RLA is integrally involved with the state-based Learners and Educators Assistance and Resource Network (LEARN). This program has developed a statewide, on-line computer network (http://www.learnnc.org) that electronically links K–12 institutions. Archaeology is mandated to be taught to 4th, 5th, and 6th grade students in North Carolina. Modules have been developed by RLA to be used by LEARN. An interactive CD-ROM simulating an archaeological dig (Occaneechi Town) has also been produced by RLA, and is for sale to the general public. RLA staff also perform more traditional outreach duties such as local lectures and hosting high school volunteers at archaeological digs.

Contributions

RLA could provide staff expertise on research and collection management, floor space, computers and equipment. In return, it would expect funds for operation and maintenance, shelving and floor space.

Notes

The RLA has recently initiated a fundraising campaign with the university for an addition to Alumni Hall and a new off-campus collections storage building. The fundraising goal is $4.5 million. Preliminary programming of the new facilities plan an addition to the east of Alumni Hall that would include a public exhibits, laboratories, and collections storage areas. The RLA hopes that a new RLA facility would consolidate its operations into a single facility and add to the cultural attractions already present on the north side of the UNC-CH campus. RLA staff indicated their interest in including DoD and USACE in this campaign. Unfortunately, there currently is no timetable for the expansion efforts. The new RLA facilities are several years away at best.

The RLA has a long and venerable history of archaeological research. However, it is running out of long-term storage space and could not accept additional collections without creating more space. Since curation is not the main focus, it has lagged behind other functions. RLA has used modern electronic formats well for outreach to non-university students, and this is its best feature.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

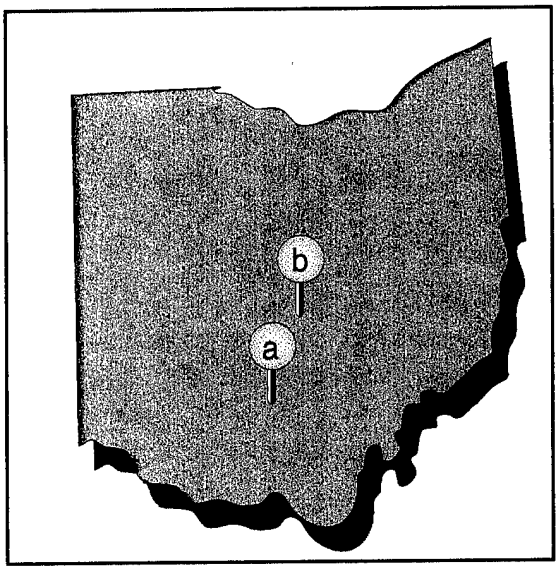
Table 24.2 lists the composite scores and the architecture, collections management, and administration scores for each North Carolina institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 24.2
Summary of Decision Support Model Scoring—North Carolina

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Archeology Laboratories, Wake Forest University	**0.4927**	0.05348	0.19829	0.24097
Museum of the Cherokee Indian	**0.6400**	0.15456	0.24989	0.23554
Office of State Archaeology	**0.7857**	0.15456	0.25600	0.37512
Research Laboratories of Anthropology, University of North Carolina	**0.7747**	0.14031	0.23410	0.40030

25

Ohio



Archaeological Materials (in cubic feet)

Department of Defense	5
USACE	140
TOTAL VOLUME	**145 ft³**

Number of Institutions Contacted **10**

Institutions Assessed

a. Hopewell Culture National Historic Park, Chillicothe

b. Ohio Historical Society, Columbus

Background

A list of the facilities contacted in Ohio is presented in Table 25.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 25.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Ohio is presented in the following discussion.

Table 25.1
List of Institutions Contacted—Ohio

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Allen County Museum			X	
Cincinnati Science Museum		X		
Cleveland Museum of Natural History		X		
Daytona Museum of Discovery	X			
Hopewell Culture National Historic Park				
Kent State University		X		
Miami University Art Museum			X	
Ohio Historical Society				
Ohio State University		X		
University of Cincinnati		X		

Note: Locations visited indicated in **Bold**.

Hopewell Culture National Historic Park

Architectural Summary

Site Conditions

Hopewell Culture National Historical Park (HCNHP) is located in a rural area that is near two large state prisons to the south and west. The Chillicothe River and a piece of undeveloped land define the east and north boundaries respectively. The site can easily be reached by State Route 104, which separates the park and the prison. Rt-104 leads to I-75, about a mile south of the site. The large park contains four buildings: exhibits, administration, maintenance, and resource management. While the exhibit building is located near and visible from Rt-104, the other three are clustered together toward the south edge of the site. Visitor parking is provided in front of the exhibit facility.

Building Condition/Structural Adequacy

The collections/laboratory building is structurally sound. The single story structure is used for general storage with a collections storage space in the basement, which is less than one-third of the first floor. The 1930s wood structure was rehabilitated in the 1950s. No structural defects or leaks are found. The attic is fully utilized. With a workroom, the building has five overhead doors; four are located in the front and one is located in the rear.

Code Requirements/Egress/ Accessibility

The structure does not meet all building, egress, and accessibility codes. Adequate exits are provided at necessary locations, and they are identified by exit signs. Most of the structure is constructed of fire-hazard materials. Only the ground level is wheelchair accessible. No elevator is provided for the collection storage and the attic spaces.

HVAC Systems

Only the collections storage area in the basement has a central heating and cooling system. The rest of the building is mostly unheated and has only one heating unit that is suspended from the fist floor ceiling, in the workroom. The building is poorly insulated, mainly because of the five overhead garage doors and the seams around them that allow air penetration. The roof is not insulated.

Fire Suppression and Detection

The fire-detection system is adequate, but the suppression system is not. Smoke and heat sensors are located in each room, and the alarm system is wired to and monitored by a private company, which relates the information to the local fire department. There is no sprinkler system. Only fire extinguishers of type A, B, and C are available throughout the building.

Security System

The security system is sufficient in the storage area. The collections storage room has motion detectors, an intrusion alarm, and a keycard access device. The alarm system is also monitored by a private security company. A dead-bolt is installed at the main entry door.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Hopewell Culture National Historic Park is to protect the prehistoric remains of a dynamic social and ceremonial phenomenon [Hopewell Culture]..." HCNHP is a part of the National Park Service (NPS). Additional objectives are to "promote cultural resource stewardship...promote research...and educate the public." HCNHP curates 800-ft^3 of archaeological materials, all of which are owned by NPS. A small modern comparative botanical collection is maintained.

Archaeological Collections Storage

HCNHP long-term storage of collections is in the basement of the Resource Management building. Steel specimen cabinets (Steel Fixture Mfg. Co. brand) rest on movable SpaceSaver-brand shelving.

Steel drawers in the cabinets accommodate 2-mil, zip-lock bags that hold artifacts. The drawers are lined with Ethafoam-brand padding. The storage room is almost completely full.

Environmental Controls

The HCNHP storage room has both heating and cooling, but no humidity control. Relative humidity is monitored by hygrometers in drawers and attached to the outside of cabinets. Log books of environmental conditions have been available since 1996. Future renovations call for a separate HVAC system and relative humidity (RH) control set to 30–40% RH. There are no windows, and most fluorescent bulbs have ultraviolet filters. Pests are monitored by observing sticky traps. The storage room is cleaned monthly.

Range of Support Facilities for Archaeological Collections

Support facilities at the HCNHP include an exhibit facility with archaeology as the focus, in the park with reconstructed earthen mounds. Other facilities include an artifact processing room, a flotation tank, field equipment, staff offices, and a GIS computer. The artifact processing area is slated to be renovated.

Staff Composition

Collections management staff consists of the full-time cultural resources chief and a part-time assistant. Other workers are part-time and seasonal. Interpretation staff includes the chief, a park ranger, and part-time seasonal workers.

Administrative Record Keeping

Smithsonian trinomials are used at the HCNHP. Each collection is assigned an accession number. There is no catalog system, but sometimes lot numbers are assigned to quantities of fragmentary remains. Each storage cabinet has a number and each drawer within a cabinet is also numbered to facilitate collection location. An electronic database program, Re:Discovery, is maintained for all collections, which is the NPS-sanctioned program. The database is not attached to a network. Electronic back-ups are stored both in a fireproof vault, as well as off-site in Harpers Ferry, WV. Hard copies of administrative documents are stored in one of the cabinets in long-term storage, or in a metal file cabinet. These are in acid-free folders.

Associated Archaeological Documentation and Storage

Topographic maps, aerials, large photographic prints and site maps are stored flat in metal map cases. Field notes and associated documents are in acid-free file folders in metal file cabinets. Copies of field notes are on acid-free paper in binders in the same building.

Collections Management Policies

Excellent polices at HCNHP are written for all of the pertinent areas of collections management, since HCNHP follows NPS guidelines. Some of these are available on the World Wide Web.

Administration Summary

Background

Hopewell Culture National Historical Park is part of the National Park System (NPS). It is an archaeological site with an associated museum. It was established in 1923 as the Mound City National Monument, and upgraded in 1992 to Hopewell Culture National Historical Park. No DoD or USACE collections are stored at HCHNP.

Real Estate

The federal government (NPS) owns the land and buildings. These properties are subject to Section 106 compliance before land-impacting activities can be initiated.

Administration

A contracting officer has the authority to commit HCNHP financially to a partnership. Operating funds for the park are largely derived from federal appropriations, although the entire staff is involved in some degree with writing grants and raising funds.

Outreach and Education Programs

No one park staff member is dedicated to outreach and education. All staff members participate in programs to some degree. Outreach and education includes evening and weekend programs (weekly), annual Archeology Day, annual National Parks Week (four days for 4th grade local school students, and summer programs for local school teachers. Additionally, HCNHP maintains a traveling trunk exhibit. Permanent exhibits were being changed at the time of the assessment team's visit.

Contributions

Hopewell Culture National Historical Park could contribute a professional curatorial environment. Federal archaeological collections would be curated according to the standards outlined by NPS in 36 CFR Part 79. DoD and USACE would be expected to contribute funding for collections maintenance, including staff time, supplies, special equipment, and floor space.

Notes

HCNHP is considering construction of a new building for archaeological collections and associated preparation and analysis activities. If HCNHP were to accept DoD/USACE collections from Ohio, a new collections storage area would need to be created. Collections management policies and procedures are exceptional, since HCNHP is a National Park Service facility. HCNHP would accept collections from anywhere in Ohio, and perhaps some from adjacent areas of other states.

Ohio Historical Society

Architectural Summary

Site Conditions

The off-site, long-term collections storage building is located within the city of Columbus, in a mixed-use area with institutional, commercial, and residential buildings. The site can easily be reached as it is between I-71 to the east and a railroad right-of-way to the west. Hudson Street defines the north edge of the site, while two similar warehouses, also owned by Ohio Historical Society (OHS), occupies the south. There are ample parking spaces on site. Space for expansion is available in the back of the building.

Building Condition/Structural Adequacy

The 1970's structure is in good condition. The pre-cast concrete-wall warehouse is divided into three sections with CMU wall. Since 1982, one third of the building has been used as the long-term collections storage with processing space. Out of the 5,150-ft^2, 3,575-ft^2 is used for storage, and the rest is for processing/research and an office. A mezzanine level is being added in the 15 foot high interior space. Resting on the concrete foundation, the steel-frame structure supports a flat roof, which is composed of open-web joist, metal decking, styrofoam insulation, and EPDM roof sheeting.

Code Requirements/Egress/ Accessibility

The building meets some building code, egress, and accessibility requirements. The building envelope is constructed of fire-resistant materials. However, the interior additions, such as the mezzanine level and cabinets, are constructed of wood, a fire-hazard material. The interior layout lacks a general planning scheme. Egress is hindered by a complicated layout and overcrowding. Except the mezzanine level, most areas are wheelchair accessible. A ramp and ADA signs are provided at the entrance and the two parking spaces. There is no ADA signage inside.

HVAC Systems

The HVAC systems are adequate in the processing/ research area but not in the storage space. There are two gas-fired central heating and cooling units mounted on the roof, one for the processing/research area and one for the storage. Only the processing/ research area has an air duct system which distributes regulated air to different locations. Filters are changed on schedule basis.

Fire Suppression and Detection

Heat sensors and an automatic fire alarm system are installed in both areas. The alarm system is not wired to the fire department nor is it monitored at an

in-house location. There is no sprinkler system of any kind. Regularly checked and updated fire extinguishers of type A, B, and C are the sole fire-suppression means found in the building. There are no smoke detectors.

Security System

The security system is adequate. There are motion detectors and an intrusion alarm system in place, tied to a in-house location and monitored around the clock by OHS security staff, who also patrols the site from 4 p.m. to 6 a.m. When the building is closed, a keycard is required to open the entrance door.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Ohio Historical Society (OHS) is "to promote a knowledge of archaeology and history, especially of Ohio." Collections consist primarily of archaeological and Euro-American historic artifacts. OHS curates over 1,000,000 archaeological objects.

Archaeological Collections Storage

Long-term collections storage is off-site (563 East Hudson) from the exhibit facility in a prefabricated steel structure. Most of the collections are on adjustable steel shelves, but about one-quarter are in wooden cabinets with wooden drawers. The steel shelving on the mezzanine level is partially supported by ground floor shelving underneath. Primary containers on the steel shelving are in non-acidic boxes, while primary containers in the wooden cabinets are mostly acidic using a variety of materials. Secondary containers are a mix of acidic paper bags, cigar boxes and zip-lock bags. The archaeological storage area is about sixty percent full.

Rolls of ethnographic textiles are kept in a special collections room adjacent to the lower level is locked. Shelves are wooden with wooden drawers.

Environmental Controls

The OHS storage facility has both heating and cooling, however there is no humidity control. Fluorescent bulbs are bare, but there are no windows. No chemicals are kept in the long-term storage area. Pest control consists of sticky traps in the special collections room.

Range of Support Facilities for Archaeological Collections

Support facilities at the OHS, include the Ohio Historical Center, consisting of a large exhibit facility with archaeology as a major focus, exhibit preparation areas, and offices. The state archives are stored at the OHS exhibit building. OHS houses site records of the Ohio Archaeological Inventory, though OHS does not assign site numbers. At the long-term storage facility, there is a loading dock, a photograph staging room, wet laboratory, float tank, fume hood, and space for visiting researchers. NAGPRA compliance necessitates having a bioanthropologist temporarily on-staff.

Staff Composition

Collections management staff consists of the curator of archaeology, a physical anthropologist, and a records collection manager. These are full-time positions.

Administrative Record Keeping

Smithsonian trinomials are used at the OHS. Each collection is assigned a unique accession number. Artifacts are cataloged and lot numbers are assigned. Currently, an IBM mainframe handles the electronic database. OHS will be switching to a different database program, Horizon, that will use codes for each artifact class. It will integrate all of the OHS collections into one database, and will be on a server that can be accessed by ten people. A back-up is kept in Utah on the premises of the software company that wrote the program.

Associated Archaeological Documentation and Storage

Associated documents have been cataloged, but not copied. They are in acid-free file folders inside

acid-free reinforced document storage boxes on metal shelves. Color slides are kept in the photograph staging room at the long-term storage facility. Maps are stored flat in wooden and metal map cabinets.

Collections Management Policies

Written policies at the OHS exist for acquisitions, scope of collections, minimum standards of acceptance, artifact processing, artifact packaging, accession numbering, cataloging, loans, access to collections, and deaccessions.

Administration Summary

Background

The Ohio Historical Society is a hybrid institution; technically, it is private, non-profit institution, but it has duties outlined in state law and receives 70–80% of its operating funds from the state. OHS was established in 1885 and is part the State Historic Preservation Office, the State Archives, and over 60 state historic sites. Currently, OHS curates collections from Wright-Patterson Air Force Base under a curation agreement. Other DoD and USACE archaeological materials and associated documentation stored at OHS include collections from Ravenna Army Ammunition Plant, and the Huntington and Pittsburgh Districts of the Corps of Engineers.

Real Estate

The State of Ohio owns the OHS properties, through the Arts and Sports Facilities Commission. There are no evident restrictions to the use of the property. The present curation annex, located a few miles away from the Ohio Historical Center complex, is rented.

Administration

The director, through the Board of Trustees, has the authority to commit OHS financially to a partnership. Approximately 70–80% of the OHS's operating funds are from the state. The remainder of the budget is derived from gifts, admissions, memberships, investments, subscriptions, and special events. OHS also encourages grant writing and fundraising. Staff individually write grants, and an OHS development office assists by facilitating and tracking proposals. Additionally, OHS has an entire department devoted to fundraising. Some support further comes from the Ohio Historical Foundation as a supporting organization.

Outreach and Education Programs

OHS is staffed with the Education Services Group. One archaeologist, an Archaeology Education Coordinator, is attached to this section. This staff member advises and assists with archaeology education and outreach programs; in particular, much emphasis is placed on the Distance Learning Program and the OHS web site. The Distance Learning Program is the flagship program. It is a real-time connection with schools across the state, where information can be transmitted interactively through various classes/presentations. Since many schools cannot afford to travel to Columbus, this program brings OHS to them. Through distance learning, the Smithsonian Institution and other sources of knowledge can be added as links. Other archeology programs consist of artifact kits, videos, slide shows, a lending library, and Discover Archaeology, a mock archaeological excavation in which children actively investigate an artificially-constructed archaeological site.

Contributions

OHS can contribute professional curation expertise, an exhibit facility, and an active outreach and education program to a partnership. Additionally, OHS can contribute a physical curation facility, if the volume of DoD and USACE archaeological collections is not too large. DoD and USACE might be expected to provide an annual maintenance fee that could assist with materials, labor, and overhead costs.

Notes

OHS has been in existence for a century with a primary mission in archaeology. The funding base for the institution is large and diverse, and appears quite stable. Most outreach/education emphasis is placed on the Distance Learning Program, which potentially impacts nearly the entire state population of primary and/or secondary school students.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 25.2 lists the composite scores and the architecture, collections management, and administration scores for each Ohio institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 25.2
Summary of Decision Support Model Scoring—Ohio

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Hopewell Culture National Historic Park	**0.7788**	0.07072	0.25755	0.45056
Ohio Historical Society, Ohio Historical Center	**0.7454**	0.09254	0.25104	0.40180

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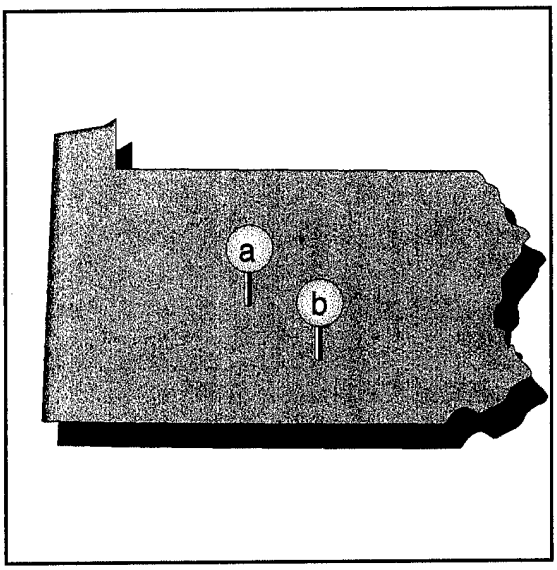
Pennsylvania



Archaeological Materials (in cubic feet)

Department of Defense	70
USACE	559
TOTAL VOLUME	**629 ft³**

Number of Institutions Contacted 16

Institutions Assessed

a. Matson Museum of Anthropology, Pennsylvania State University, State College

b. Pennsylvania State Museum, Harrisburg

Background

A list of the facilities contacted in Pennsylvania is presented in Table 26.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 26.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Pennsylvania is presented in the following discussion.

Table 26.1
List of Institutions Contacted—Pennsylvania

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Carnegie Museum of Natural History		X		
Fort Ligonier Association		X		
Gilman Museum			X	
Glencairn Museum: Academy of the New Church			X	
Hershey Museum		X		
Historical Society of Berks County		X		
Lehigh County Historical Society		X		
Matson Museum of Anthropology, Pennsylvania State University				
Mercyhurst Archaeological Institute				X
Mercer Museum of the Bucks County Historical Society		X		
North Museum of Natural History and Science			X	
Pennsylvania State Museum				
Philadelphia Museum of Art		X		
Reading Public Museum and Art Gallery			X	
University of Pennsylvania Museum of Archaeology and Anthropology		X		
University of Pittsburgh		X		

Note: Locations visited indicated in **Bold**.

Matson Museum of Anthropology, Pennsylvania State University

Architectural Summary

Site Conditions

The Matson Museum of Anthropology (MMA) is located at the western corner of the Pennsylvania State University Campus. It is surrounded by a multi-story parking garage, a wooded area, the Graduate Center, the Biomechanics Laboratory, and a hotel. No street leads to the site directly, with only a driveway providing vehicle access to the small loading area of the museum. From the south, the building is obscured by trees, but it is clearly visible from the north. The landscaped site has many underground utility lines. Collections are stored in the Carpenter Building.

Building Condition/Structural Adequacy

Constructed in 1969, the Carpenter Building was originally designed for classroom and faculty office uses. The six-story, rectangular, metal frame and brick veneer structure served the Economics and Social Science departments before the anthropology department moved in 1986. The structure is a steel frame and open-web joist, concrete floor, and flat roof with EPDM, and is composed of fire resistance materials, including steel, concrete, brick, and CMU. The interior space is partitioned with CMUs.

The new function of the Carpenter Building does not work well in the old form. A central hallway divides the interior space into two sides, with one side wider than the other. The wider section is now a museum, converted from classrooms, and the narrow side now consists of storage rooms, converted from offices. The former classrooms are now connected to each other with door openings.

Code Requirements/Egress/ Accessibility

The facility meets the building code, egress, and accessibility. Two flights of stairs are located at the ends of the hallway, providing exits to the outside. The main entrance is at the center of the building, and a small loading area is located in the back.

HVAC Systems

Heating is available centrally; cooling is dependent on individual in-room cooling units. There is no humidity control. The central heating unit tends to heat the building unevenly.

Fire Suppression and Detection

Fire-detection and -suppression systems are minimal. There are no smoke or heat sensors, nor a sprinkler system. There are, however, standpipe and fire extinguishers of water type. Additionally, there is a manual pull-alarm system.

Security System

The security system is adequate. Access to the museum floor is restricted by an elevator key. Two other exits are equipped with an intrusion alarm system that is tied to the university police. Each collections storage room is locked at all times. The display cases also have locks. A dead-bolt is used at the building's front entrance.

Collections Management Summary

Scope of Collections and Mission Statement

The goal of the Matson Museum of Anthropology at Pennsylvania State University is "to educate a wide audience about the rich diversity of contemporary human cultures, our ancestors, and the scientific explanations for human cultural and biological variability." Collections are archaeological and ethnographic, the majority of which are archaeological. The archaeology program focuses on complex societies of the Americas. MMA has a notable collection of hominid skeletal casts.

Archaeological Collections Storage

Long-term collections storage is located in various rooms (209C, 210, 211, 212, 215, 217, 218, 219, and 220) on the 4th floor of Carpenter Building totaling about 140-ft^2, in addition to collections of Central American and South American artifacts in the basement totaling about 1,480-ft^2. The following evaluation will discuss the basement and 4th floor facilities separately.

The 4th floor rooms listed above have metal cabinets in the middle of the small room and metal adjustable shelves lining the walls. Artifacts are padded on the open shelving with either bubble wrap, Ethafoam-brand padding, or acid-free tissue paper. Textiles are in acid-free boxes or stored rolled. Some ceramics are in wooden cabinets that have glass doors. No dust or vapor barriers are in place.

The basement storage area collections are housed on adjustable metal shelves. Mostly acidic boxes are used, and some of these have been crushed. Secondary containers consist of a variety of paper and plastic bags. These collections are under the direct control of the professors who excavated them.

Environmental Controls

Fluorescent bulbs are not filtered for ultraviolet light in the 4th floor rooms, but are in the basement. There are no windows in either space. There is heating and cooling, but no humidity control. Two portable dehumidifiers are used during times of extreme high humidity. No monitoring for pests exists.

Range of Support Facilities for Archaeological Collections

Support facilities at MMA consist of an exhibit facility, exhibit preparation room, and office space. Resources of the Department of Anthropology are also available, consisting of computer equipment, GIS equipment, a loading dock, and field equipment. Comparative botanical and zoological collections are also kept. Some laboratories in the building have eye wash stations. Departmental professors are asked for input regarding exhibit design.

Staff Composition

The director also oversees all collections management operations. One part-time worker assists her. Graduate student assistants work at the reception desk a few hours per week.

Administrative Record Keeping

All administrative documents (accession records, conservation information, inventory, exhibit information, object locations, correspondence, and loan information) are kept in the director's office in four drawers in two metal file cabinets. Mostly acidic file folders are used. Smithsonian trinomials are used. A unique accession number is assigned to each incoming collection, consisting of a consecutive number plus an item number. The item numbers work as a catalog number. A computerized database is kept for inventory and location information on Paradox. The data is stored on a hard drive and backed up every two weeks on floppy disks kept in the director's office. The database is not attached to a network.

Associated Archaeological Documentation and Storage

Associated documents are also in the director's office. Most of the collections housed on the 4th floor have been donated rather than excavated. Documents associated with collections in the basement are under the control of the professors who excavated them, and the disposition of these is uncertain.

Collections Management Policies

Policies were in draft form at the time of this report and are scheduled to be finalized in July 1999.

Administration Summary

Background

The Matson Museum of Anthropology is a part of the Department of Anthropology at Penn State University (PSU). MMA is state-affiliated; it receives state funding and support, but is relatively free from state control. The Department of Anthropology was established in the 1950's, and the Matson was begun in 1966. Currently the museum has no DoD or USACE archaeological collections or associated documentation. Some state cultural resource management-related collections are present in the museum's holdings, however.

Real Estate

Although the state of Pennsylvania owns the land on which the Carpenter Building sits, there is very little opportunity for expansion or modification activities. Carpenter is sitting on a wide array of underground steam pipes, which pose a significant problem for planning physical facilities modifications. This problem was encountered several years ago when the Department of Anthropology began discussions with

the university about a similar proposed expansion. However, Penn State University does own a large number of buildings on campus, and the associated land, which does provide multiple potential options.

Administration

Administrators at the university level have the authority to commit the institution to a financial partnership. While most funding is derived from state appropriations, PSU encourages grant writing by the faculty. There is a research office that tracks grants and facilitates the grant process. Additionally, development offices at several levels assist in fund raising, another form of funding on which the university relies. Specifically, development offices are available at both the College level (i.e., Arts and Sciences) and the university level.

Outreach and Education Programs

Outreach and education programs are not extensive, nor are they conducted on a regular basis. No staff are devoted to this function; rather, graduate students generally coordinate functions, particularly school-group and adult-group tours. Additionally, the Matson conducts an annual week-long archaeology camp for junior high school students, and an annual Children's Day for crafts and other activities. The permanent exhibit facility, while excellent, is difficult to access by non-university affiliated persons.

Contributions

Penn State University could potentially contribute land for construction and appropriate planning/architectural services. There is an additional prospect: there may be interest within the university to coalesce entomological, mineralogical, agricultural, and anthropological collections into a combined curation and museum facility. If this interest is significant, there would be university support for a shared-resources partnership. In this case, DoD and USACE would be expected to contribute funds for capital construction. With the current MMA status, DoD and USACE would be expected to contribute an annual volume-based fee for operations.

Notes

The best aspect of the MMA is its ability to present exhibits and information on cultures from around the world, thereby allowing a more complete view of anthropology as a discipline. Another favorable aspect is the research capabilities associated with the Department of Anthropology at Pennsylvania State University.

MMA's resources, funds, and facilities are limited. However, for such a small institution, the Matson has acquired significant ethnographic and archaeological collections. Policies need to be written, and collections housed in the basement need to have systematic procedures imposed upon them. Staff needs to be augmented. With program development and staff addition and involvement, outreach and education programs could be easily expanded.

Pennsylvania State Museum

Architectural Summary

Site Conditions

Adjacent to the Capital Building, the Pennsylvania State Museum (PSM) building is located in downtown Harrisburg. The Capital Complex consists of many multi-story state-government office buildings, which are scattered in three directions—north, east, and west. The area south of the site is occupied by private business and residential buildings. The neighborhood is densely built with no open space. Except for a few permitted and metered street parking spaces, there is no public parking in the immediate area. Parking garages are located within walking distance. The site has easy access and is defined by the streets of Commonwealth Avenue, Third, North, and Forster. Interstate 83 is about 1½ miles east of the site. There is landscaped area in the front of both entrances. PSM is two blocks away from the Susquehanna River, which occasionally overflows but does not reach the site. The museum is not situated in any major disaster region.

Building Condition/Structural Adequacy

PSM is a six-story, cylindrical, windowless (except the first floor) concrete structure. The Archaeology Department and its collections will move to the new 10-story Keystone Building in the same block, directly behind or north of the museum. Construction is underway, and the steel framing was near the

completion stage at the time of our visit. This evaluation is based upon current plans for construction.

New spaces for the Archaeology Department are on a below-grade level and on the fourth floor. The major part of the space is in the basement, approximately 18,000-ft^2 that will accommodate a work area, lab, computer workstation, office, collections storage, and storage room. A 1,800-ft^2 space will be used for collections storage on the fourth floor. The sub-street level is planned with three large covered loading docks that service the entire building. The new facility is scheduled to be completed in mid-2001, which is when the Archaeology Department will occupy the building.

The steel frame, masonry-panel wall building is a very large complex of over 320-x-320-feet with an atrium. Most of the building will be used for office space. An underground parking garage is included in the new facility, and it will serve permitted vehicles only.

Code Requirements/Egress/ Accessibility

The new Keystone Building will presumably comply with all building, egress, and accessibility codes.

HVAC Systems

The heating and cooling system will be zoned and in excellent condition.

Fire Suppression and Detection

Fire detection and suppression systems will meet all national fire codes.

Security System

It is uncertain what kind of security system will be installed and how it will function.

Collections Management Summary

Scope of Collections and Mission Statement

The Pennsylvania State Museum "serves the public by collecting and preserving artifacts and specimens which illustrate the natural and cultural history of the Commonwealth and interpreting Pennsylvania's heritage through exhibits and programs." It thus implicitly has an archaeology mission. PSM curates about 2 million objects, 88% of which are archaeological. Other major collection types include art, Euro-American historical, botanical, paleontological and geological. Unprocessed soil samples are excluded from long-term storage.

Archaeological Collections Storage

Long-term collections storage is slated to be moved into a building (Keystone Building) under construction adjacent to the exhibit (and current storage) building. This report is based on facilities slated to be installed the new building.

Shelving units for artifacts will be locking, open, adjustable, powder-coated metal on mechanized, movable bases. Label holders will be affixed to each shelving unit. The solvent-free powder coating will not off-gas formaldehyde or acidic compounds.

Most (80%) primary containers are currently acidic cardboard boxes. Secondary containers are also currently mostly acidic. All human remains are in archivally-sound containers. PSM is rehabilitating packaging into acid-free containers as time and money permit, consisting of 10 x 2.5 x 15-inch Hollinger-brand boxes and 4-mil, polyethylene bags with either twist-tie or zip-lock closure. If needed, Ethafoam-brand padding or acid-free tissue is used to pad artifacts.

Environmental Controls

No windows are in the storage areas. Overhead lighting will illuminate only while someone is in the aisle. Fluorescent bulbs will have ultraviolet filters. The building will have heating, cooling, and humidity control. Temperature and humidity data will be logged automatically by a digital reader, and the data will be downloaded monthly into a computer program for analysis. Nineteen dataloggers will be placed throughout the building. Pests will be monitored by traps. Pesticide is currently applied monthly, and a pest management company is consulted as needed.

Range of Support Facilities for Archaeological Collections

Support facilities at PSM will include a loading dock, a separate room for incoming collections (#G04), a

freight elevator, a wet laboratory with an octopus-type fume exhaust system, a dry laboratory, offices, a library room, a conference room, movable shelves with lateral files for record storage, and a photograph staging room (#G08). Flotation tanks will be maintained off-site. Conservation work is contracted out, however, a sealed, metal conservation cabinet contains textiles and other environmentally-sensitive collections. These shelves are lined with Ethafoam brand padding.

Staff Composition

PSM collections management staff consists of a full-time curator, a full-time collections manager, plus a part-time curatorial assistant. Four contract employees work full-time on curation, and eight volunteers work three days per week on curatorial duties.

Administrative Record Keeping

Smithsonian trinomials are used to designate archaeological sites. Reference books and documents are on adjustable metal shelves and two flat metal maps cases. Administrative documents are kept in metal file cabinets. A complete inventory of current artifact holdings is yet to be completed. Not all administrative documents (including photographic materials) are currently in archival-quality files or sleeves, but curation guidelines require that all incoming collections be housed in archival-quality materials. Ownership documentation is also required. A photograph catalog is kept for both prints and slides. A lateral file system is slated to be installed adjacent to long-term storage on high-density movable shelves.

Associated Archaeological Documentation and Storage

Field notes, site photographs, slides, maps, etc. are kept in metal file cabinets. Incoming associated documents are placed in archival-quality materials. Incoming artifact collections are required to have duplicates copies of all field notes, maps, etc., on archival-quality paper. Associated documents will be housed in the same building as collections.

Collections Management Policies

Written policies at PSM exist for minimum standards of acceptance, accessions, artifact cleaning, artifact labeling, artifact packaging, inventories, loans, ownership documentation, access to collections, and pest-management.

Administration Summary

Background

The Pennsylvania State Museum is a state institution, part of the Pennsylvania Historical Museum Commission. PSM was established in 1905, and currently occupies a cylindrical-shaped building in downtown Harrisburg. PSM curates archaeological materials and associated documentation for Letterkenny Army Depot, and the Baltimore, Pittsburgh, and Philadelphia Districts of the Corps of Engineers.

Real Estate

PSM is located on property owned by the Commonwealth of Pennsylvania. A new state government building (the Keystone Building) is currently being constructed adjacent to PSM, on property also owned by the state. Some museum facilities, including offices, laboratories, and curation space for archaeology, will be located in this new building. The archaeology department was involved in the design process and was able to incorporate special curatorial design needs into the overall plan.

Administration

The Pennsylvania State Museum Director or the Executive Director of the Pennsylvania Historical Museum Commission has the authority to financially commit to a partnership with the federal government. However, if the partnership is facilitated through PSM directly, there will probably be restrictions on how funding is spent. An alternative would be to facilitate the partnership through the Friends of the Museum support organization, which would likely not impose any similar spending restrictions.

PSM derives much of its funding from state appropriations, although grants and fundraising are important activities. No one on the PSM staff is dedicated to either role; rather, most of the staff write and track their own grant proposals, and the director

devotes much, but not all, of the position's time to fundraising. The Friends of the State Museum organization is also involved in fundraising for the institution.

Outreach and Education Programs

Although PSM does not have any archaeology staff members exclusively dedicated to education and outreach, it operates a number of programs, all supported at some level by the staff. Programs include Workshops in Archaeology, a curation symposium for contract archaeologists, distance learning for elementary/secondary school students, a PICTEL system, an annual public field school, presentations at local schools, and a Teach the Teacher program. In addition, the museum Education Department offers programs for younger students.

Contributions

Pennsylvania State Museum would be able to contribute its professional curatorial services, including a regulated and protected physical environment and appropriate collections management procedures and policies. DoD and USACE would be expected to assist with funding for staff support, which is sorely needed. PSM staff feel that without this additional assistance, they would not be able to accommodate additional curation responsibilities that would result from a partnership.

Notes

PSM is currently constructing a building to house offices and long-term curation space for the museum. This facility is slated to be state-of-the-art and will potentially exceed the standards set forth in 36 CFR Part 79. All appropriate collections management policies are in place; however, the amount of space available for incoming archaeological collections is uncertain. PSM clearly has adequate resources to contribute toward a partnership. The only resource lacking is adequate staff to rehabilitate existing collections to fulfill the high standards set forth by policy. The new building will house excellent curation facilities.

It is unlikely that PSM would be willing accept collections from outside Pennsylvania. It is mandated that the collections be from Pennsylvania. Second, although space in the new building was well planned with room for expansion, space could be limited depending on the volume of collections added as a result of a partnership.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 26.2 lists the composite scores and the architecture, collections management, and administration scores for each Pennsylvania institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 26.2
Summary of Decision Support Model Scoring—Pennsylvania

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Matson Museum of Anthropology, Pennsylvania State University	**0.5241**	0.06283	0.27162	0.18966
Pennsylvania State Museum	**0.9085**	0.19729	0.28121	0.43003

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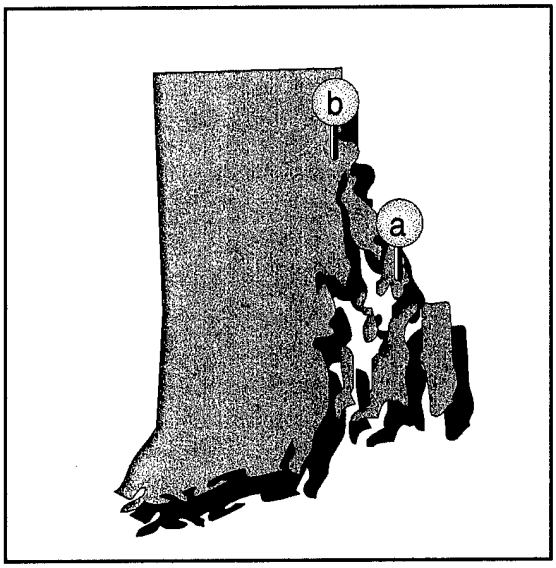
Rhode Island



Archaeological Materials (in cubic feet)

Department of Defense	3
USACE	12
TOTAL VOLUME	**15 ft³**
Number of Institutions Contacted	**5**

Institutions Assessed

a. Haffenreffer Museum of Anthropology, Brown University, Bristol

b. Public Archaeology Laboratory, Pawtucket

Background

A list of the facilities contacted in Rhode Island is presented in Table 27.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 27.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Rhode Island is presented in the following discussion.

Table 27.1
List of Institutions Contacted—Rhode Island

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Belcourt Castle		X		
Haffenreffer Museum of Anthropology, Brown University				
Museum of Natural History, Roger Williams Park				X
Public Archaeology Laboratory				
Rhode Island Historical Society		X		

Note: Locations visited indicated in **Bold**.

Haffenreffer Museum of Anthropology, Brown University

Architectural Summary

Site Conditions

Haffenreffer Museum of Anthropology (HMA) is located in a secluded wooded area adjacent to Mount Hope Bay. Near the small city of Bristol, the site can be reached by RI Route-136. A few private houses are scattered near the site, in which traces of the early people are preserved.

HMA has two permanent facilities, an exhibit/collection building and a long-term storage repository, built next to each other. The site provides ample parking. Space for building expansion or addition is available on the large site, which is located in a hurricane region, though occurrences are infrequent.

Building Condition/Structural Adequacy

The storage area is in a converted 89-year-old dairy barn. It is in moderate condition and was renovated for collection storage in 1969. With a mezzanine level, it is constructed of a wood frame, wood siding, and a concrete floor. Partitioned into many spaces, the first floor supports several activities, including offices, classrooms, research, and collections storage. Accessed by a wooden staircase, the mezzanine level is a single space that is used for collections storage with study areas. The first floor has been renovated with gypsum boards, but the mezzanine level is exposed, without any finishing. While the first floor has several wood frame windows, the upper level has only two, one on each of the long sides. Although the asphalt shingles are old, the steep-pitched roof keeps damage from occurring.

Code Requirements/Egress/ Accessibility

The ground floor is divided into several spaces, but there is no hallway connecting them. Therefore, interior circulation becomes a problem; unless all three exterior doors are used, one can not get to the second space without passing through the first. The structure is mainly composed of wood, thus presenting a fire hazard. The structure was not designed to support the full load capacity of collections storage.

The interior is not ADA-compliant. ADA signage is not found in the building and there is only one ADA space in the parking area. Only the first floor is wheelchair accessible, the mezzanine is inaccessible to wheelchairs because of the lack of elevator. The first floor is equipped with emergency lighting.

HVAC Systems

The building does not have a central heating or cooling system but has electric baseboard radiant heating and window cooling units on the first floor. The mezzanine does not have any heating or cooling device, and relies on two windows for ventilation.

Fire Suppression and Detection

There is no sprinkler system. There are, however, combined smoke and heat sensors on the first floor. Fire extinguishers of type A, B, and C are placed at easy-to-reach locations. The detection system is wired to and monitored by a private alarm company. Doors are not fire-rated, and most of the shelving is a fire hazard.

Security System

The security system is good. A security system is installed at all openings on the ground floor, and the alarm is wired to and monitored by a private security company. A code is required to disarm the system upon entering the building. The museum also has two silent alarms wired to the local police department. In addition to the dead-bolts at the entry doors, motion detectors are installed inside the building. Collections storage areas are restricted to authorized staff only.

Collections Management Summary

Scope of Collections and Mission Statement

The Haffenreffer Museum of Anthropology at Brown University adopted its current mission in 1992; it is "to educate Brown University students and the general public, through anthropological research on humankind, about cultural differences and human similarities...by teaching...exhibiting...conducting and publishing research...acquiring...and preserving artifactual and archival collections..." HMA currently holds about 2,400-ft^3 of archaeological collections, and about 2,000-ft^3 of ethnographic collections. Most of the ethnographic collections are from the donated private collections of Rudolf Haffenreffer (now deceased).

Archaeological Collections Storage

Collections storage rooms are located in two buildings on the campus of HMA. The variety of storage rooms results in uneven climate control. Generally, ethnographic collections are stored in rooms with better environmental controls than archaeological collections. Most ethnographic

collections are stored in rooms with heating, cooling and humidity monitoring. However the largest volume of archaeological material is housed in the attic of what was once a dairy barn.

In the "dairy barn" attic (3,200-ft^3), archaeological collections are on both metal and wooden shelves in a variety of acidic cardboard boxes which serve as primary containers. Different types of materials serve as secondary containers, including acidic cardboard trays with polyester lining, cotton lining, paper and polyethylene zip-lock bags.

Environmental Controls

Archaeological collections in the attic of the "dairy barn" are stored without environmental controls. Temperature and relative humidity fluctuate widely. There are no windows, but fluorescent bulbs are not filtered for ultraviolet light. Pests are not monitored regularly. Most of the wooden drawers in which collections are kept have padlocks. Portable charcoal-filtered air handling units are available for acetone use. A hazardous materials cabinet is also available.

Range of Support Facilities for Archaeological Collections

Support facilities at HMA include a faunal analysis room, a work room, a photographic developing laboratory at the Brown University Anthropology Department in Providence, a conservation laboratory, an exhibit preparation area, an isolation room, a library, and archaeological exhibits. Most artifacts have been photographed for archival preservation. A combination vault is available for valuable artifacts.

Staff Composition

Curation staff at HMA consists of a part-time director, a deputy director and curator, a collections manager, a move manager, a conservation assistant and a database coordinator. All of these positions rely on soft money for funding.

Administrative Record Keeping

Two different systems are used as numeric codes for archaeological sites: HMA began a consecutive numerical system that is still in use today, and a USGS quadrangle (quad) map system that uses the particular quad map plus the site number for the quad. A unique number is assigned to each collection, consisting of a four-digit year, plus a two-digit accession number, plus a three-digit object number, if needed. Accession, catalog, conservation, environmental, inventory, exhibit, loan and photographic information files are kept in the secretary's office in acid-free file folders in metal file cabinets. A computerized database is maintained in a DOS-based ARGUS program stored on a fixed disk. HMA will soon switch to ARGUS for Windows. A tape backup is made daily, weekly, and monthly, and a copy is kept off-site. A serial network is in place and three people have access to the data. All data has been entered into the database.

Associated Archaeological Documentation and Storage

Documents associated with archaeological collections from more recent excavations are treated separately from those associated with collections from Rudolf Haffenreffer. Associated documents from the Haffenreffer collections have been cataloged and inventoried, whereas those from excavations have not. Duplicate copies exist for Haffenreffer collections but not for documents associated with excavated materials.

Collections Management Policies

Written policies at HMA include acquisitions, minimum standards of acceptance, loans, access to collections, deaccessions and a Modification of Collection Policy" policy. No written pest management policy exists.

Administration Summary

Background

The Haffenreffer Museum of Anthropology was established at Brown University in 1955; Brown University has been in existence since 1761. Rudolf Haffenreffer was a private, wealthy collector with close ties to George Gustav Heye, founder of the Heye Foundation of the American Indian in New York (now a part of the National Museum of the American Indian). HMA and Brown University are both private institutions. HMA does not currently

curate DoD or USACE archaeological materials or associated documentation. However, Arctic archaeological collections are curated in accordance with a cooperative agreement with the National Park Service.

Real Estate

Brown University owns the Haffenreffer building complex, and all other potential candidate facilities to which HMA is considering transferring. For these Brown facilities, there are few to no restrictions to modifying the buildings for HMA use.

Administration

If resource allocation is within the capability of HMA, the director has the authority to commit the institution financially to a partnership. However, if resource allocation is outside the capability of the HMA and must be supported by the university, the authority to commit financially to a partnership rests within the higher levels of the university. HMA receives some funding through grants, which professors and various HMA staff write. The Brown University Office of Research Administration assists and tracks grant proposals. Fundraising for HMA is conducted primarily through the Brown University Office of Development.

Outreach and Education Programs

HMA has a fairly extensive outreach and education program which is led by program specialists and education specialists, and operated by over 30 docents. The education program touches over 7,500 primary school students a year in Connecticut, Massachusetts and Rhode Island. Education programs include sandbox site digging and the flagship program—experiential education. As part of this experience, students take on the cultural identity of a present or past cultural group and perform all functions necessary for survival and development of cultural identity (e.g., food, dance, song, crafts, etc.). The most important outreach program travels to hospitals, schools, and other community groups. HMA also oversees a museum studies program that includes both undergraduates and graduate students. Permanent museum exhibits focus on Rudolf Haffenreffer and his anthropology collections.

Contributions

For a partnership, HMA could contribute its overall institutional structure, physical facilities, outreach and education programs, and staff expertise. DoD and USACE would be expected to assist with funding for staff time, equipment, and floor space.

Notes

A brand-new exhibit and collections storage facility is scheduled to be constructed in the next ten years. The planned facility will encompass both HMA and the Center for Old World Archaeology and Art, a separate entity at Brown University. If this project comes to fruition, HMA would have much to offer towards a partnership. HMA could not contribute much floor space for DoD and USACE archaeological materials and associated documentation unless there is a monetary commitment by DoD/USACE. HMA can offer excellent outreach capabilities and programs, and long-term institutional stability. This, combined with the prestige associated with an Ivy-League university, makes HMA an attractive choice. The extent of collections usage would need to be addressed in a cooperative agreement.

Public Archaeology Laboratory

Architectural Summary

Site Conditions

Public Archaeology Laboratory (PAL) is located on a busy street that connects to I-95. The area is heavily commercialized yet has a quiet residential side. A gas station is situated immediately next to the site at the north, and a small street at the south divides the site and the single-family residential area at the south.

Clearly defined by vinyl-strip and chain-link fences in all four sides, the asphalt-paved area is about twice the size of the building footprint. There is a main gated access and a second access on a side street. Parking and circulation take up all the paved area in the enclosure. In addition to the on site parking, street parking is available on both sides of Lawn Ave. The cramped site has little room for landscaping. A number of evergreen shrubs planted

along the front and back facades serve as buffer to soften the hard and fully paved site.

Through it appears densely built, the site and building is effectively used and has appropriate auto circulation. The area is not considered to be in a major disaster zone.

Building Condition/Structural Adequacy

The three-story masonry building is in very good condition. The building's rectangular footprint has a total 72,000-ft^2 of floor space. The structure is composed of CMUs and poured concrete floors and roof. The exterior is brick veneer. The first floor of the early 1980's building is constructed into the ground approximately three feet. All openings are above street level, and most windows are non-operable. Gravel tops the built-up roof, and an aluminum sheet caps the low parapets.

The building plan is symmetrically divided into two sections by two stairwells, which provide excellent access. With the window strips extending from the first floor to the third, excellent lighting reaches the interior space. Because each interior space is effectively used, the small floor area houses numerous activities, including offices, conference rooms, a library, collections storage, a conservation laboratory, and a computer laboratory.

Code Requirements/Egress/ Accessibility

PAL meets most building code and egress requirements, although not accessibility requirements for wheelchair users. The building has a simple and clear interior layout. Marked by lighted exit signs, the two central stairwells allows excellent circulation and egress. The permanent structure is constructed of fire resistant materials, and the spaces are separated by gypsum plasterboards.

However, the building does not meet ADA requirements — the structure is not wheelchair accessible. No ramp is provided to allow wheelchair to access the split-level first and second floors. There is no elevator, and the bathrooms are not ADA-compliant. Only the parking space is labeled with an ADA sign.

HVAC Systems

The facility has excellent heating and cooling systems. Installed on the roof in 1998, six heating and cooling units allow for zoned controls to different areas. Filters are changed every three months.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. Combined smoke and heat sensors are installed throughout the building. Annually checked fire extinguishers of type A, B, and C are placed near exits and doorways. The detection system is wired to and monitored by a private alarm company. However, a sprinkler system is absent. No doors are fire-rated, and the wood frames are fire hazard.

Security System

The security system is adequate. The alarm system, which is monitored by a private security company, was recently upgraded. The system is installed at all exits on the first floor. Dead-bolts are also used at the two entrances, and motion detectors are mounted throughout the building. Access to the storage room is restricted. On the building exterior, two chain-link fence gates to the site are locked during non-working hours.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement at the Public Archaeology Laboratory is to become, by 2001, the "recognized leader in cultural resource management in New England." Collections are entirely archaeological (approximately 1200-ft^3), and the storage area has no room for incoming artifacts.

Archaeological Collections Storage

All collections are housed in the basement of the PAL building. Metal, adjustable shelves are used to hold the primary containers, which are constructed of acid-free cardboard (Hollinger-brand). Secondary containers consist of plastic, zip-lock bags.

Environmental Controls

The storage room has fluorescent lights filtered for ultraviolet. The windows are never opened and are covered to prevent ultraviolet light damage. All bulbs in the building produce energy-efficient full-spectrum light. The building has heating, cooling and relative humidity (RH) control. At the time of our visit, the temperature was 70° F and RH was 41%, and the values are logged daily.

Range of Support Facilities for Archaeological Collections

Support facilities at PAL include field equipment, a flotation room, a faunal analysis room, a work room, a computer room with three stations, a graphics department with a wide printer for posters, an adequate library and an employee lounge. There are no exhibits.

Staff Composition

The lab supervisor functions as a collections manager, and there are several individuals involved in collections management work on a project-by-project basis. All four principle investigators oversee the proper curation of collections generated by the projects they implement.

Administrative Record Keeping

Two different systems are used as alphanumeric signifiers for archaeological sites: the Smithsonian trinomial system, and a system unique to Rhode Island. This Rhode Island system is "RI-_ _ _ _ _," using a consecutive number for each new site found in Rhode Island. Rhode Island is such a small state that this system is viable. Each incoming collection is assigned a unique accession number, consisting of a consecutive number for each project, then a box number, then an artifact (or lot) number (e.g., 101.97.32). The third number functions as a catalog number. Administrative documents are kept in the document storage room in both vertical and lateral metal file cabinets. A computerized database is maintained in a DOS-based FoxPro program stored on a fixed disk. A tape backup is made both daily and weekly, and a copy is kept off-site. Only one person has total access to the data, and a password system is in place.

Associated Archaeological Documentation and Storage

Associated documents at PAL are kept in the library, and have neither been cataloged nor inventoried. No copies are of documents kept, except for electronic copies of reports.

Collections Management Policies

No policies are written, however procedures are adequate.

Administration Summary

Background

Public Archaeology Laboratory is an archaeological investigation firm formed in 1982 from the dissolution of an archaeological cultural resource management unit at Brown University. PAL has non-profit status because of its outreach and education programs. PAL currently curates archaeological materials and associated documentation recovered from Fort Devens, Camp Edwards, and the New England District of the Corps of Engineers.

Real Estate

The president of PAL owns the property the firm occupies. There are no restrictions to the use of the property or restrictions on modification.

Administration

The president has the authority to commit the firm financially to a partnership. Funding is derived from archaeological investigation contracts and grant proposals. Fundraising is not a standard procedure for acquiring operating funds. All staff are involved in writing grant proposals.

Outreach and Education Programs

PAL conducts a number of outreach/education programs. Staff members regularly speak at local schools and civic organizations. PAL also assists in curriculum development for 8th and 9th grade students. PAL also targets middle schools for assistance-learning in archaeology. Students in this program assist PAL staff in a variety of tasks. PAL also holds

an Archaeology Week program which includes tours and experiential archaeology. Additionally, PAL produces video programs on archaeology for the local Public Broadcasting System station.

Contributions

PAL could contribute an established, well-maintained facility, laboratory space, and staff expertise. DoD and USACE could contribute the costs of operation and maintenance of the collections.

Notes

PAL is a private institution that operates as a contracting firm, though it maintains non-profit status due to its outreach programs. There is an education coordinator, whose presence is central to maintaining the non-profit status. The PAL building, which is a formerly held offices, is also owned privately by the PAL president.

PAL operates efficiently and has good collections management techniques and lacks only space for incoming collections. Administration at PAL is compact, perhaps allowing for quicker turn-around time related to budget requests and workflow.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 27.2 lists the composite scores and the architecture, collections management, and administration scores for each Rhode Island institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 27.2
Summary of Decision Support Model Scoring—Rhode Island

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Haffenreffer Museum of Anthropology, Brown University	**0.6936**	0.03534	0.26139	0.39686
Public Archaeology Laboratory	**0.6215**	0.15269	0.24602	0.22281

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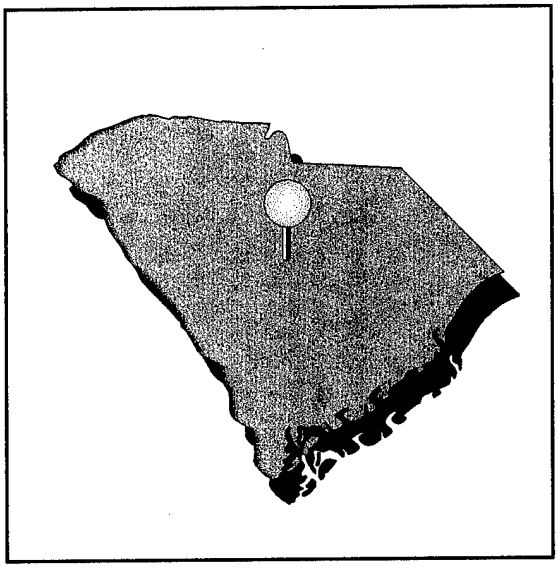
South Carolina



Archaeological Materials (in cubic feet)

Department of Defense	871
USACE	411
TOTAL VOLUME	**1,282 ft³**

Number of Institutions Contacted 6

Institution Assessed

South Carolina Institute for Archaeology and Anthropology, Columbia

Background

A list of the facilities contacted in South Carolina is presented in Table 28.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 28.2, showing strengths of the South Carolina Institute for Archaeology and Anthropology. Pertinent information on both the facility is presented in the following discussion.

Table 28.1
List of Institutions Contacted—South Carolina

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Charles Towne Landing	X			
Charleston Museum		X		
Chester County Historical Museum	X			
Old Exchange Building			X	
South Carolina Department of Parks, Recreation, and Tourism				X
South Carolina Institute for Archaeology and Anthropology				

Note: Locations visited indicated in **Bold**.

South Carolina Institute for Archaeology and Anthropology

Architectural Summary

Site Conditions

South Carolina Institute for Archaeology and Anthropology (SCIAA) offices are located in downtown Columbia on Pendleton Street, about a mile from the long-term storage. The office building is privately owned and is leased to the Institute. Set back about 20 feet from the street, the building was erected to fit the elongated lot, which measures approximately 50-x-145-feet. Only metered street spaces are available for parking.

The long-term storage building is located in an industrial area. One small street leads to the north of the site, and it is blocked off by a railroad track. The rear (south) of the repository is defined by an alley of approximately 6-foot wide.

Within the chain-link fence enclosure is a paved lot shared by all three spaces—repository, field equipment storage, and university storage. The parking area is partially being used as a scrap metal recycling area, but the debris is gradually being removed. The space could be converted back to a parking lot. The region is in a 500-year flood zone. It may also be in a hurricane zone but is not considered to be in an earthquake area.

Building Condition/Structural Adequacy

Pendleton Street Building

Built in the early 1970's, the 4,750-ft^2 structure is composed of steel frame and masonry unit (CMU) walls with brick veneers. Original construction is Type 2, section 403.0, BOCA. The brick veneer needs cleaning and tuck-pointing. The prefabricated steel frame and beam system supports the gable, corrugated sheet-metal, roof. Gutters and downspouts are installed around the roof.

Extensive renovations and maintenance have been done. A hallway divides the interior spaces. The elongated building has multiple offices, and other research and processing areas. Two interior staircases connect the first and second floors in the front (south) and the rear (north). The rear staircase leads to a small basement that is used as a temporary collection storage area. Parts of the small basement are also used as mechanical and communication utility rooms. The first and second floors are in good condition, but the basement is not. Water damage on the foundation wall and ceiling is observable. A shower stall is located in the basement for emergency use.

Collections Storage

The long-term storage area occupies about half of the building. There are no windows in the repository space. The interior is divided into three spaces by two partitions constructed of wood framing, a layer of plywood and a wire screen. (Use Group S, 310.0, BOCA.). The fluorescent lights are not filtered. Exposed batt-type fiberglass insulates the roof.

There is no loading dock nor overhead doors in the long-term storage. Instead, a loading area with an overhead metal door is provided in the next space — the equipment storage area. In the long-term storage, the original loading dock with the overhead door still in place, is now sealed. Two small offices and a unisex bathroom were added to the repository.

The building is in good condition and shows no sign of leakage. However, according to the building manager, the roof has chronic leak that is evident only during heavy storms or rain. The concrete slab floor has no drainage.

Code Requirements/Egress/ Accessibility

Pendleton Street Building

The building meets some life-safety and accessibility codes but not others. The entrance and exit are located at both ends of the building, creating clear and easy egress. Exits are marked with signs. The building construction is all fire resistant materials, and the spaces are divided and sealed with fire-rated doors. However, there is no elevator, and this does not allow accessibility for wheelchair users. To compensate, a staff member individually assists wheelchair users and brings the material or information to them.

Collections Storage

The storage area may not meet the building code, life-safety or egress requirements. There is only one doorway. The 95-foot main aisle ends at the back wall. There is only one emergency light. The facility is not compliant with ADA. No handicap signs are present on site. The entry door is not wheelchair accessible, nor is the bathroom.

Although the original walls are fire-resistant, the added partition and office walls are not. These non-structural walls are built of wood studs and a layer of plywood.

HVAC Systems

Pendleton Street Building

The 1995 natural gas boiler supplies heat while the 1998 central-air system supplies cooling. Fiberglass panel filters are replaced every six months. There is no humidity control.

Collections Storage

There is no cooling system. Two natural gas units provide heat. Because these units are suspended from the steel beams above the shelves, they may not

distribute air evenly to the localized areas within the large building envelope. The air handling filters are replaced on an as-needed basis. Two large electric fans are installed in the back wall of the repository, and ventilate the entire building, including the field equipment and university storage spaces.

Fire Suppression and Detection

Pendleton Street Building

No sprinkler system is installed; additionally, there are no smoke and heat sensors. Only a few new water-type fire extinguishers are available. The city and University police department respond to fire alarms.

Collections Storage

The repository has adequate fire detection and suppression systems. Wired to the fire department and monitored by the University police department, manual and automatic alarms are installed at necessary locations. Water and chemical fire extinguishers are located near the entrance. The building is equipped with a sprinkler system.

Security System

Pendleton Street Building

The security system may not be adequate in this building. There is no intrusion alarm. Only dead-bolts and locks are installed on the exit doors. An emergency exit alarm is on the back door.

Collections Storage

The security system is sufficient for the repository. A dead-bolt is installed in the only entry door. Key card or an entry code is required to open the door. Two motion detectors are mounted on the metal beams above the central aisle. The intrusion alarm system is directly tied to and monitored by the University police department.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement for the South Carolina Institute of Archaeology and Anthropology comes from a mandate from the state. SCIAA shall be responsible for "creating and maintaining the South Carolina Statewide Archaeological Site Inventory including the site numbering system for the inventory and for curating the archaeological collections of the State." "...[it] shall conduct or cause to be conducted archaeological field or laboratory investigations or both at his discretion on behalf of an in the best interests of the State..." Collections are primarily archaeological. SCIAA curates 8,000-ft^3 of archaeological material.

Archaeological Collections Storage

Long-term collections storage is in an off-campus building. Metal, adjustable, shelving holds the mostly acidic, 1.5-ft^3 boxes, stacked, up to five boxes high. Some of the secondary containers are 2-mil, zip-lock bags, and some are paper: upgrading continues as collections are accessed. Boxes are arranged in two ways; 1) alphabetically by county then sequential by site number, and 2) by project number.

Environmental Controls

There is heating, but no cooling system. Fluorescent bulbs are unfiltered for ultraviolet light. No humidity control exists. There is no pest monitoring, but University exterminators spray regularly.

Range of Support Facilities for Archaeological Collections

Support facilities at the SCIAA include the state site files, USGS quadrangle maps, a dry laboratory, a wet laboratory, offices, an extensive non-lending library focusing on South Carolina archaeology, a lounge, and computers with GIS programs. There are no exhibits. The collection storage area has an adjacent archaeological storage room with diving equipment, water pumps, and woodworking equipment.

Staff Composition

Collection management staff consists of a conservator/deputy state archaeologist, an information manager who handles the site files, and the curator.

Administrative Record Keeping

Administrative documents at the SCIAA are kept in the curator's office in metal file cabinets. Site files are in the site files room in black Steelcase-brand file cabinets.

Associated Archaeological Documentation and Storage

Associated documents are organized by site number in the project records storage. Duplicates of records are temporarily kept in Fellowes-brand boxes. Slides and 4-x-5-inch black-and-white negatives are in three metal file cabinets organized by site number. The slides are in archival-quality sleeves, and 4-x-5-inch prints are in original packaging. Thirty-five millimeter black-and-white photos are housed in the same files with paper records.

Collections Management Policies

Written policies at the SCIAA exist for loans, acceptance, artifact cleaning and packaging, site designation, provenience designation, lab processing, specimen numbering, cataloging, and filing procedures.

Administration Summary

Background

The South Carolina Institute of Archaeology and Anthropology is the state repository for archaeological collections, and has been in existence since 1963 when it was created by state legislation. It is closely associated with the University of South Carolina. The Institute curates collections from a number of federal agencies, including the Corps of Engineers, Savannah and Charleston Districts, U.S. Navy, U.S. Marine Corps, U.S. Air Force, National Park Service, and U.S. Fish and Wildlife Service. SCIAA has curation agreements in place for most collections.

Real Estate

Both the SCIAA headquarters and curation facility are located on the university campus. Remaining facilities are remote office or research elements. The "Pendleton" building is the headquarters, and is located on the university campus. This building is privately owned, and leased to the university in five-year increments. The off-campus state curation facility is university owned, and has no real restrictions to use, although for improvements or other actions, SCIAA would need to go through university channels for approval.

Administration

The SCIAA Director and State Archaeologist would be the signatory for a financial commitment, although proper approval channels would be through the sponsored research office. Funding for SCIAA is through a variety of means, including state allocations, research grants, fundraising, contracts, and curation agreements. All staff assist in grant writing, and the university business office tracks proposals. The sponsored research office assists staff members in writing grants. Fundraising is generally conducted at the university level by the Associate Director for Development, and by a resources trust board. There has been success in the past in obtaining funds on a project by project basis.

SCIAA is organized into five specific departments, including (1) Office of State Archaeologist, (2) Underwater Archaeology Division, (3) Savannah River Archaeological Research Program, (4) Research Division, and (5) Cultural Resource Consulting Division.

Outreach and Education Programs

SCIAA is involved in a number of outreach and education programs. Each SCIAA director has outreach duties, and each staff member participates in the programs. Additionally, the Assistant Director for Development is responsible for coordinating the South Carolina Archaeology Week and South Carolina Archaeology Month programs. Presentations for public groups and schools are frequent, and primary and secondary schools are targeted with the "Can You Dig It" book, posters, activity sets, exhibits, and speaker's bureau. There is also a teach the teachers program for primary and secondary instructors. SCIAA also has a publications program for both the layman and professional arenas.

Contributions

SCIAA gets matching funds from the state legislature which would cover the staff labor, materials, and equipment. SCIAA can contribute a professional curatorial environment, outreach and education programs, and staff expertise. DoD and USACE would be expected to contribute matching funds for a building, staff, equipment, and materials, contingent upon the funding situation and the associated negotiations.

Notes

The SCIAA is the only institution having enough resources to warrant a site visit in South Carolina. Unfortunately, the long-term collections storage facility has no climate control, but SCIAA is in the process of planning renovations to create a more appropriate storage facility. Many upgrades would be needed before any collections from DoD/USACE could be stored there. If the plans are solidified and acted upon, SCIAA would be an excellent partner.

SCIAA does not have adequate space for existing DoD/USACE collections from South Carolina. The limited staff works well with the resources available. Proper policies are in place, and the staff tries to comply with them as time permits.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 28.2 lists the composite scores and the architecture, collections management, and administration scores for the South Carolina Institute for Archaeology and Anthropology. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 28.2
Summary of Decision Support Model Scoring—South Carolina

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
South Carolina Institute for Archaeology and Anthropology	**0.7139**	0.11582	0.22705	0.37101

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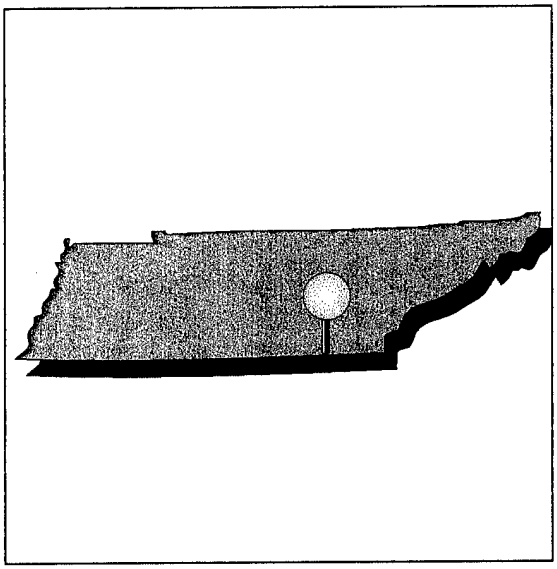
Tennessee



Archaeological Materials (in cubic feet)

Department of Defense	20
USACE	240
TOTAL VOLUME	**260 ft³**

Number of Institutions Contacted 22

Institution Assessed

Chattanooga Regional History Museum, Chattanooga

Background

A list of the facilities contacted in Tennessee is presented in Table 29.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 29.2, showing strengths of the Chattanooga Regional History Museum. Pertinent information on the facility is presented in the following discussion.

Table 29.1
List of Institutions Contacted—Tennessee

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Belle Meade Plantation		X		
C. H. Nash Museum - Chucalissa		X		
Chattanooga Regional History Museum				
Children's Museum of Oak Ridge		X		
Cumberland Science Museum		X		
Discovery Center		X		
Fort Loudoun State Park		X		
Frank H. McClung Museum, University of Tennessee		X		
The Hermitage: Home of Andrew Jackson		X		
Memphis Pink Palace Museum and Planetarium		X		
Museum of Appalachia				X
Museum of East Tennessee		X		
The Parthenon		X		
Pinson Mounds State Archaeological Area		X		
Red Clay State Historical Park		X		
Tennessee State Museum		X		
Tennessee State Division of Archaeology		X		

Table 29.1
List of Institutions Contacted (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Tennessee Valley Authority		X		
University of Memphis		X		
University of Tennessee, Chattanooga		X		
University of Tennessee, Knoxville		X		
Vanderbilt University	X			

Note: Locations visited indicated in **Bold**.

Chattanooga Regional History Museum

Architectural Summary

Site Conditions

Chattanooga Regional History Museum (CRHM) is located in downtown Chattanooga, three blocks from the Tennessee River. The area is densely built with a museum, hotels, office buildings, and an unpaved parking lot. On the other side of 4th Street, several vacant shops are attached to the one-story Tennessee Valley Agency Building. The Hunter Museum of Art and the Tennessee Aquarium are within half a mile radius. CRHM occupies the north corner of the block, which is defined by Chestnut and 4th Streets. The site is near the Towing Museum at the east and the Creative Discovery Museum at the north, diagonally across the intersection. South of the site is an unpaved parking lot used by the multi-story hotel across Chestnut Street.

The 16,000-ft^2 CRHM building was first constructed as a schoolhouse in 1910 and then used as a vocational college until the 1930s. It was abandoned during the 1970s until CRHM took it over in the late 1980s. The exhibits opened in 1990. Three-quarters of a million dollars were spent on rehabilitation of the facility. No formal storage room exists in the three-story building. While the second floor serves the regional history and artifacts exhibits, the basement provides space mainly for a woodshop, in addition to a small collections storage area.

The CRHM building is a few feet back from the sidewalk to create a landscaped buffer at the front entrance. The site has a paved 35-space parking lot around the east and south of the building. A addition can be built onto the notch of the L-shaped structure. Metered street parking is also available along 4th Street. The site is just off Highway 58 and within half a mile from US-27. It is not within a natural disaster region.

Building Condition/Structural Adequacy

The stone-base and brick structure consists of a poured concrete basement floor, wood first and second floors with carpet overlay. While the original partition walls are brick, the later additions are gypsum board. With low parapet walls, the built-up roof is covered with an EDPM. The first and second floors have 12 foot ceilings, but the basement ceiling height is seven feet or shorter, including the ductwork and piping.

The structurally sound building needs considerable maintenance on both sides of the exterior walls. Wall cleaning and tuck pointing are necessary, and the roof may need repair. Several spots of water damage are on the interior walls. The building has many metal-frame double-hung windows on the first and second floors, but some of them are concealed behind the panels of the exhibit spaces and are thus invisible from the interior.

Code Requirements/Egress/ Accessibility

The building meets some building code, egress, and accessibility requirements but not others. The interior is logically arranged with two wooden stairs located next to the exits. Four exits provide egress on the first

floor in all four directions, in addition to two exits in the basement. The interior doors are wood and are not fire rated.

Bathrooms are not wheelchair accessible. There is no elevator, but there are two small electric lifts, which provide wheelchair access from the parking lot to the first floor and to the second floor. A staff member is required to operate the lifts. Only the parking lot and the outside lift are labeled with ADA signs. The interior has no such signage.

HVAC Systems

Climate control is accomplished by centralized heating on the 1st and 2nd floors, and individual cooling units on the separate floors. The basement climate is controlled by window heating and cooling units. The addition of ductwork is restricted by the low ceiling.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. There are combined smoke and heat detectors throughout the interior. Emergency automatic and manual alarms are installed at various locations. They are monitored by a private security company. Fire extinguishers of type A, B, and C are provided at easy-to-reach locations. There is no sprinkler system.

Security System

The security system is adequate. Intrusion alarms are installed at all openings at the street level and wired to the same private company that monitors the fire alarm system. Security cameras scan the interior during opening hours, and they are monitored by the staff in the office.

Collections Management Summary

Scope of Collections and Mission Statement

The Chattanooga Regional History Museum mission is to "collect, preserve, research, interpret and display the written, spoken, pictorial and artifactual record of Chattanooga and the Tri-State Region from earliest times to the present." Collections are mostly Euro-American historical and contemporary artifacts. CRHM also curates natural history and art collections. Archaeological collections consist of about 6,000 objects. The majority of collections relate to the Tennessee Valley Authority and the Civil War, but include art, geology and natural history. All collections from the Chattanooga region are accepted.

Archaeological Collections Storage

Long-term collections storage at CRHM is in the basement of the exhibit building in downtown Chattanooga. Shelving consists of metal adjustable shelves. Archaeological artifacts are in acidic boxes. If necessary, boxes are lined with acid-free tissue. Textiles are in acid-free boxes. Secondary containers are a mix of zip-lock and paper bags.

Environmental Controls

No windows are in the storage areas, and fluorescent bulbs are filtered for ultraviolet light. The storage area has centralized heating and cooling, and portable dehumidifiers. The basement location tends to mitigate wide swings in temperature and humidity. Environmental controls are targeted at 67–77° F, and 50–55% relative humidity. Humidity is monitored by a hygrometer once a month. Visquene dust barriers are in place over most shelving units. Some dust is generated by the adjacent exhibit preparation and carpentry areas.

Range of Support Facilities for Archaeological Collections

Support facilities at CRHM include a exhibits in the downtown museum district and a gift shop. A passenger elevator can be used for transporting artifacts. A sand blaster is available for conservation of metal artifacts. There is no loading dock. The basement area has exhibit preparation areas, used also for exhibit case manufacture. Food is restricted to an employee lounge.

Staff Composition

CRHM collections management staff consists of a collections manager and a curator. Occasionally, interns from the University of Tennessee, Chattanooga are used. A conservator and laboratory assistant are contracted on an as-needed basis.

Administrative Record Keeping

No alphanumeric codes are used to designate archaeological sites. Collections are stored on the shelves by size, not by content. Different box sizes are labeled A, B, C, or D. A unique accession number is assigned to all collections, consisting of the year, a yearly sequential number, plus a sequential item number (e.g, 97.107.11). The accession cards are stored in metal card catalog cabinets. A computerized database is maintained using FileMaker Pro program on Macintosh computers. Fields include size, weight, condition, history, period of use, donor and the Chanal system of artifact categorization. Two fireproof file cabinets are used to store rare document storage and computer backups. Photographic files (n=3,000) are in metal file cabinets in the curator's office in file folders.

Associated Archaeological Documentation and Storage

No associated documents are kept, though provenience information is recorded in the accession cards. These are housed in the exhibit preparation room in the basement, in metal card catalog file cabinets. There is also a metal cabinet for flat storage of oversized documents.

Collections Management Policies

Written policies at CRHM exist for accessions, standards of acceptance, inventories, loans, exhibitions, artifact conservation, emergencies, collections access, security, pest management and deaccessions.

Administration Summary

Background

Chattanooga Regional History Museum is a private, non-profit institution located in downtown Chattanooga. The museum emphasizes history, but also maintains exhibits on the prehistory and natural history of the southeastern Tennessee region. Currently, CRHM does not curate DoD or USACE archaeological materials or associated documentation. Furthermore, archaeological collections at the museum are small. CRHM has had experience with a state-level partnership, where the museum staff prepared exhibits and conducted rehabilitation of archaeological materials.

Real Estate

The CRHM building was constructed in 1910 and was used as a school house through the 1930's. Although the institution has been in existence for twenty-one years, CRHM has been in its present location only since 1985. The building has been extensively renovated. CRHM has a perpetual deed with the City of Chattanooga that states as long as the current building houses the history museum, CRHM will hold the deed. CRHM cannot sell the property. However, the institution could leverage the city to use the building as an annex for collections if another building were developed as a museum.

Administration

The Executive Director/Chief Financial Officer has the authority to commit the institution financially to a partnership with the federal government. The Executive Director also writes and tracks grant proposals, and together with the Board of Directors conducts fundraising activities. These sources of income, coupled with admissions and donations comprise the bulk of the institution's income.

Outreach and Education Programs

CRHM employs a director of education and operates a number of outreach and education programs using the assistance of a number of volunteers. These programs include a traveling trunk program (1999 focus is archaeology), archaeology lessons, group and special program tours, an adult education program, bus tours, a history program, and special exhibits.

Contributions

CRHM could offer professional curation expertise, and the assistance of the University of Tennessee–Chattanooga for artifact analysis. CRHM needs an another full- or part-time collections manager or curator. Additionally, there currently are no funds for shelving, boxes, or secondary containers. Space also poses a problem, as the museum has only one small collections storage area that is shared with exhibit construction functions.

Notes

Though CRHM is a small institution, it is in the process of becoming larger and more visible. The recent growth of the city, coupled with the creation of a tourist area downtown has increased its chances for success. The director estimates that an initiative to create a new exhibit and storage facility has a 60–70% chance of realization in the next five years. This project is in the early planning stages. The possibility of a joint project with the University of Tennessee-Chattanooga also exists, which would bring in the archaeological expertise needed. All proper policies and procedures are in place. CRHM staff is knowledgeable concerning proper curation procedures, and lacks only proper facilities and/or funding.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 29.2 lists the composite scores and the architecture, collections management, and administration scores for the Chattanooga Regional History Museum. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 29.2
Summary of Decision Support Model Scoring—Tennessee

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Chattanooga Regional History Museum	**0.7348**	0.14265	0.28013	0.31203

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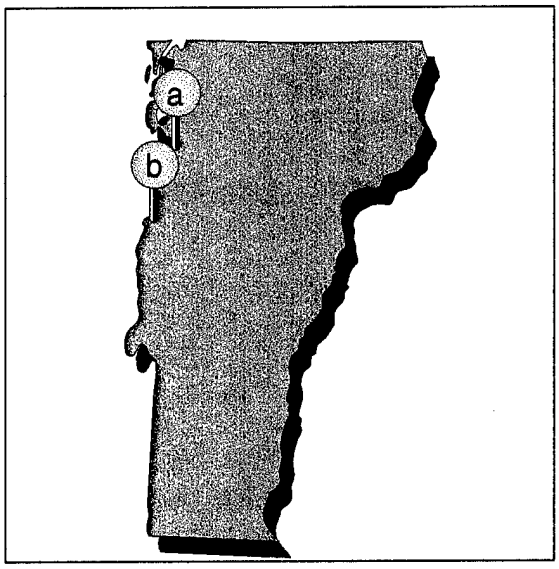
Vermont



Archaeological Materials (in cubic feet)

Department of Defense	0
USACE	4
TOTAL VOLUME	**4 ft³**
Number of Institutions Contacted	**5**

Institutions Assessed

a. Consulting Archaeology Program, University of Vermont, Burlington

b. Lake Champlain Maritime Museum, Basin Harbor

Background

A list of the facilities contacted in Vermont is presented in Table 30.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 30.2, showing strengths of each institution. Pertinent information on both of the facilities visited in Vermont is presented in the following discussion.

Table 30.1
List of Institutions Contacted—Vermont

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Consulting Archaeology Program, University of Vermont				
Division for Historic Preservation		X		
Fairbanks Museum and Planetarium		X		
Lake Champlain Maritime Museum				
Vermont Historical Society Museum		X		

Note: Locations visited indicated in **Bold**.

Consulting Archaeology Program, University of Vermont

Architectural Summary

Site Conditions

The Consulting Archaeology Program (CAP), is part of the Department of Anthropology at the University of Vermont. Collections storage is on the fifth floor of a large five-story masonry building (Williams Hall), and is situated at the east edge of a common area. Two other multi-story buildings, Billings and Old Mill, are in close proximity and are oriented to the north and south of the site, respectively.

The building site is slightly elevated, with the east and west sloping down several feet. It is clearly defined by service streets on all four sides. Sidewalks cut through the lawn with a few trees planted in front and rear of the building. Campus can be reached by

US-Route 2, and I-89 is the nearest highway. The site does not appear to be threatened by any major natural disaster.

Building Condition/Structural Adequacy

Williams Hall is in good condition and no evidence for breech of structural integrity was observed. The five-story masonry building was constructed as a science building in 1896. It is a load-bearing type with a stone base, poured concrete floors, brick walls, steel interior framing, and a steep slate-shingled intersecting roof. Williams Hall is classified as a historic building, which is protected and restricted by historic preservation laws. Altering its exterior or the site use is strictly regulated.

Currently, the first four floors are occupied by the Art Department, and the fifth floor is used by the Anthropology Department, which sets aside two 15-x-16-foot rooms for artifact storage. The T-shaped structure appears like a Neoclassical Cathedral because of the design. A series of small columns, arches, and terra-cotta reliefs decorate the front facade. The interior spaces are organized by a main and some secondary corridors, which terminate with three fire escapes. In an undisrupted vertical space, two central sets of metal stairs connect the floors.

Code Requirements/Egress/ Accessibility

The 103-year-old Williams Hall meets code requirements; the structure is constructed of fire resistant materials such as concrete, stone, brick, and steel. Adequate egress is provided, and the interior is logically arranged. However, wheelchair accessibility is poor, and there is no ADA signage.

The rear entrance is wheelchair accessible, but the only elevator has problems that frequently cause breakdowns. There is no fire separation between the floors; the centrally located stairs are not isolated. Doors are not fire-rated.

HVAC Systems

The heating system is sufficient, but there is no cooling system or humidity control. A campus boiler facility supplies steam through a crawl-space to the radiant heating system in the building. On the first floor a pumping station forces the steam to circulate through the five-story system. No zoned environmental control is available.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. Smoke and heat detectors are installed. An automatic sprinkler system protects the entire building. Regularly inspected and updated fire extinguishers of type A, B, and C are placed at easy-to-reach locations.

Security System

No dead-bolts are on the wooden storage doors, only key locks. The storage rooms are separated by a hallway, and they are enclosed by a wall made of gypsum boards on one side only, a layer of wire mash, and wood studs. About two feet from the ceiling, the separating walls are sealed but fenced with a wire mesh, which allows air travel.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Consulting Archaeology Program at the University of Vermont is "to identify, evaluate, and develop management plans for prehistoric and historic sites that may be affected by various types of construction..." Collections are entirely archaeological, and there is very little space for incoming collections.

Archaeological Collections Storage

Long-term collections storage at CAP is in two rooms on the 5th floor of an 1896 building, William Hall. Adjustable metal shelving holds a mix of acidic and non-acidic cardboard boxes for artifacts. No artifacts are bare on the shelves. Secondary containers consist of a mix of acidic paper bags and plastic, zip-lock style bags.

Environmental Controls

Minimal heating and cooling systems are in place, but no humidity control or monitoring exists. The rooms

have unfiltered fluorescent bulbs that are only turned on while the rooms are occupied. There are no windows. Pests are not monitored regularly, though there is university-wide pesticide treatment on a regular basis.

Range of Support Facilities for Archaeological Collections

Support facilities at CAP include offices, a small reference library, comparative lithic and animal skeletal collections, and a wet laboratory. There is no exhibit facility.

Staff Composition

Staff at CAP consists of the Archaeology Program Specialist and a few part-time laboratory assistants. The University provides some security and custodial staff.

Administrative Record Keeping

A state-based system is used to designate archaeological sites. This is the state abbreviation followed by a two-digit county abbreviation, then a site number within that county (i.e., VT-_ _-_ _). Vermont is a small enough state that this system is viable. Each incoming collection is not assigned a unique accession number, rather they are assigned unique shelf numbers.

Administrative documents are kept in non-archival folders in the CAP office space at 112 University Heights in metal file cabinets. No copies are kept. The office space is carpeted, the fluorescent bulbs are filtered, and the space is heated and cooled. A computerized database is maintained on Microsoft Excel for Windows, and the fields are shelf location, site number, project information, and box contents. The database is backed up onto Iomega Zip disks as needed and kept on-site. The database is not attached to a network.

Associated Archaeological Documentation and Storage

Associated documents are also kept in metal file cabinets. These have neither been inventoried nor cataloged. Flat storage is available for oversized documents. No copies of documents are kept, except for electronic copies of reports.

Collections Management Policies

Policies are written for accessions, minimum standards of acceptance, loans, and access to collections.

Administration Summary

Background

The University of Vermont Consulting Archaeology Program is self-funded, but is also part of the semi-public state school. The university was founded in 1790. CAP is located in the University Heights section of campus, while the curation facility is in the art and anthropology building on the campus proper. CAP currently curates archaeological materials and associated documentation for Ethan Allen Firing Range and Camp Johnson (Vermont Army National Guard) and for the New England and New York Districts of the Corps of Engineers.

Real Estate

The University of Vermont owns the campus building in which the archaeological collections are located. There may be restrictions to the use of the building or associated modifications; Vermont has strict special land-use laws and requirements for open space.

Administration

If a partnership is established through a contract, the Office of Sponsored Programs has the authority to commit the institution financially. If the partnership is established through a legal agreement, the Provost can commit the institution financially. CAP staff write grants to supplement contract funds, and the Office of Sponsored Programs assist in tracking the proposals. Fundraising is conducted at the university level.

Outreach and Education Programs

CAP does not have a staff member exclusively dedicated to outreach and education programs. Programs include a Vermont Archaeology Week and programs associated with CRM projects. CAP staff have also conducted walking tours of the Ethan Allen Range. CAP also conducts a classroom teachers program (e.g., ceramics, flint-knapping, and exhibits).

Contributions

CAP would be able to contribute space in the current archaeological collections building. DoD and USACE would be expected to contribute funds towards maintenance costs.

Notes

CAP is a small institution, and serves as the only unofficially state-sanctioned archaeological repository in the state. Top-level administration at the University of Vermont is not aware of the facilities needed for adequate archaeological curation. Collections management practices are limited by lack of funds and resources, but additional policies could be written.

The university is discussing plans for a new facility for CAP. This new facility could potentially be a cost-sharing venture between the university, DoD and USACE, and the U.S. Forest Service, Green Mountain National Forest.

Lake Champlain Maritime Museum

Architectural Summary

Site Conditions

Lake Champlain Maritime Museum (LCMM) encompasses four acres of rural land on the east shore of Lake Champlain. The site is surrounded by trees on three sides, and the south side is defined by a road and open farmland beyond. Located in a remote area, the site is not clearly identified; some visitors may have difficulty finding it. The museum can be reached by Basin Harbor Road, which connects another local road that ends at VT-22A, which eventually leads to US-7.

The site retains its natural setting, but has many buildings. Crushed stone is the prime paving material throughout the site, including parking space and all paths. No concrete slabs are used, but a few large stone slabs cover a small portion of the paths. Except for the original stone building, the other eleven structures are wood frame construction. All are one-story buildings. Including a few model ships and an old engine on display, the structures appear in two groups, with a center space and the parking lot in front. The clay-based soil has a tendency to shift and prevent proper water drainage. The site is not in a major natural disaster region.

Building Condition/Structural Adequacy

The Nautical Archaeological Center (NAC) houses collections and was expanded in 1997. The 5,400-ft^2 building is in very good condition. The newest section contains a conservation laboratory, a conference room/library, and a below-grade collections storage area. The floor strength is designed to support the conservation laboratory, which may sometimes hold heavy artifacts. The wood-frame structure includes laminated girders, poured concrete foundation walls and floors, gypsum plasterboards, and wood siding. The gable roof is covered by sheet-metal panels. A wooden staircase connects the windowless storage area and the main floor.

The older section of the building is used as exhibition space for underwater archaeology. Wood decking serves as the floor. Double-sash, wood-frame windows are used around the building. There is no loading dock but instead is open space directly in front of the storage entrance.

Code Requirements/Egress/ Accessibility

NAC meets most building codes, construction type requirements, and egress requirements. There are as many as five exits located on different ends of the facility. Accessibility may be a problem for wheelchair users. Only the front entrance is provided with a wooden ramp; the rear exit has a short flight of steps that prevent wheelchair access. Although the first floor bathroom is wheelchair accessible, handrails are not installed on the interior, making it not fully ADA-compliant. A few ADA signs can be found throughout the museum, including the parking lot.

HVAC Systems

Heating systems provide sufficient environmental controls. The oil-fueled heating unit supplies hot water to the radiators located throughout the building. Since the system is not forced-air, there are no air ducts. The below-grade storage rooms are both

heated and cooled. A dehumidifier is used to control humidity levels.

Fire Suppression and Detection

Fire-detection and -suppression systems are adequate. The storage area is equipped with an automatic sprinkler system. Combined heat and smoke sensors are mounted throughout the building. The fire alarm system is monitored by a private company, which also responses to the security alarms. Regularly checked and updated fire extinguishers are placed near doorways, and emergency lighting is readily available, in addition to lighted exit signs.

Security System

The security system is sufficient. It is monitored by the same private company that responds to the fire alarms. Both security and fire systems are set up for remote control. Access to the storage area is restricted to authorized staff members only. Doors secure each end of the stairs.

Collections Management Summary

Scope of Collections and Mission Statement

The lengthy mission statement at the Lake Champlain Maritime Museum has four foci: (1) to identify and preserve for future generations a central body of knowledge, sites, and artifacts pertinent to the maritime history of the Lake Champlain region; (2) to sponsor, coordinate, or otherwise support research projects necessary to protect or better understand the maritime history, cultural resources, prehistory, and history of the Lake Champlain region; (3) to create and maintain a public facility for the interpretation, conservation, and exhibition of related data and artifacts; and (4) to promote creation of conservation laboratories to appropriately support maritime research in the Lake Champlain region. Collections are mostly related to Euro-American history and focus on the nautical archaeology of Lake Champlain. Long-term collections storage rooms are about half full.

Archaeological Collections Storage

Long-term storage at LCMM is in the basement of the conservation building. Adjustable metal shelves are storage units for non-acidic cardboard boxes. Polyethylene, zip-lock style, bags are used for secondary containers. Some artifacts are padded with Ethafoam-brand padding to retard breakage.

Environmental Controls

The storage rooms are heated, cooled, and controlled for relative humidity. At the time of our visit, climate was 73° F and 36% relative humidity (RH). Climate is monitored via a digital hygrometer and thermometer. The incandescent bulbs are unfiltered for ultraviolet light; however, there are no windows. Pests are monitored with sticky traps and ant traps. In the conservation laboratory, a hygrometer and log is kept to ensure the metal artifacts are not exposed to a humid environment.

Range of Support Facilities for Archaeological Collections

Support facilities at LCMM include extensive exhibits, a conservation laboratory, a darkroom, fume hoods, a document storage room, an isolation room for incoming collections, and a library.

Staff Composition

Staff consists of a curator, a conservator, a registrar, a curatorial assistant, and many volunteers.

Administrative Record Keeping

A state-based system is used to designate archaeological sites. This consists of the state abbreviation followed by a two-digit county abbreviation, then a site number within that county (i.e., VT-_ _-_ _). Each incoming collection is assigned a unique accession number, consisting of the year, accession number and item number. Some administrative documents are kept in the document storage room in the basement, which has heating, cooling and RH control. Environmental logs are kept in the conservation laboratory. Administrative documents are currently being inventoried and have not been cataloged. They are in acid-free folders. An electronic database is maintained on PastPerfect for

Windows. The information is stored on a hard drive and backed-up onto a Iomega Zip drive weekly. The copy is stored in a different building on-site. The database is not attached to a network. A 12-year backlog of data is yet to be entered into the database.

Associated Archaeological Documentation and Storage

Associated documents at LCMM are also currently being inventoried and are housed in the document storage room. Some field reports are housed in the library, with electronic copies at the respective collaborative institution. No other duplicates exist.

Collections Management Policies

Written policies exist for acquisitions, field curation, inventories, loans, exhibitions, disasters, access to collections, security, and deaccessions. No written pest management policy exists.

Administration Summary

Background

The Lake Champlain Maritime Museum is a young institution that focuses on nautical archaeology in the Lake Champlain area. It is a private, non-profit museum that has been experiencing phenomenal growth since its inception in 1984. LCMM has been designated by the Vermont State Historic Preservation Office as a repository to curate and conserve artifacts on their behalf. Currently the museum does not house DoD or USACE archaeological materials or associated documentation. However, LCMM does have a contract with the Corps of Engineers' Vicksburg District to conserve certain artifacts.

Real Estate

The Basin Harbor Club, a 100-year old summer resort owns the land on which LCMM sets. Some members of the Basin Harbor Club Board of Directors were museum founders. The land is on a 100-year lease, which can be amended if necessary. LCMM works closely with the Club, and there are only a few potential restrictions to the use of the property such as waterfront use and food service.

Administration

The Executive Director and the Board of Directors have the authority to commit the institution financially to a partnership. LCMM derives funds from a variety of means, including memberships, contracts, grants, exhibit admissions, contributions, and fundraising. The Director of Development assists staff in managing grant proposals, and conducts fundraising activities.

Outreach and Education Programs

LCMM has one of the most extensive museum education and outreach programs encountered during the Curation Options Project. LCMM conducts the following types of programs: summer "theme" day camps for children of different age groups; winter outreach presentation programs; field study programs for classroom groups; an Elderhostel program including lectures, demonstrations, and hands-on activities; a variety of courses and workshops ranging from piloting and navigation to blacksmithing and boat building—over 40 different courses; canoe treks; boat adoptions (for maintenance); boat races; a lecture series; special events such as boat shows, festivals, photography, Native American storytelling, history reenactments, etc.; curriculum kits to be loaned for teaching; field trips; and an on-site coloring book for children.

Contributions

LCMM could contribute floor space, security, staff expertise, outreach programs, and a staffed conservation laboratory. DoD and USACE contributions are open for discussion. For potential contributions, the museum suggests equipment, capital, space rental, annual maintenance fees, and conservation support.

Notes

LCMM is a small but rapidly growing museum dedicated to, although not exclusively focused on, maritime archaeology on Lake Champlain. Since opened to the public in 1986 with one building, LCMM has grown to over 12 buildings. The museum enjoys tremendous support from the surrounding communities. Education and outreach programs are very extensive and target all age groups ranging from

the youngest children to elderly adults. Additionally, LCMM emphasizes its conservation program, which is integrated into its education program and conducted in an open laboratory—essentially as an interactive museum exhibit.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 30.2 lists the composite scores and the architecture, collections management, and administration scores for each Vermont institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 30.2
Summary of Decision Support Model Scoring—Vermont

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Consulting Archaeology Program, University of Vermont	**0.5670**	0.10423	0.19961	0.26320
Lake Champlain Maritime Museum	**0.8953**	0.19653	0.29832	0.40047

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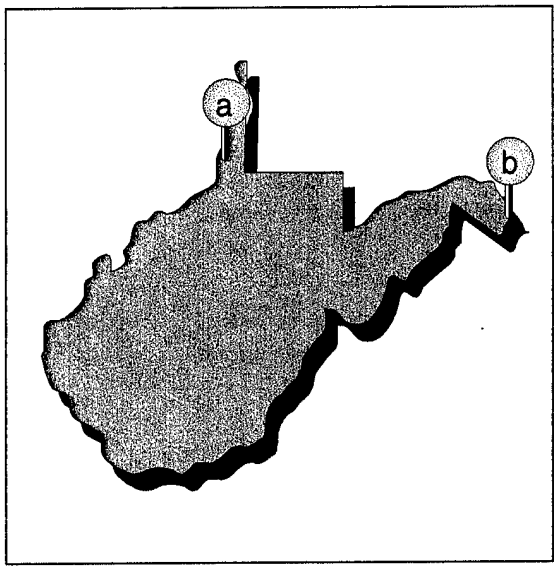
West Virginia



Archaeological Materials (in cubic feet)

Department of Defense	1
USACE	286
TOTAL VOLUME	**287 ft³**

Number of Institutions Contacted 3

Institutions Assessed

a. Grave Creek Mound Historic Park, Moundsville

b. Harpers Ferry National Historic Site, Harpers Ferry

Background

A list of the facilities contacted in West Virginia is presented in Table 31.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 31.2, showing strengths of each institution. Pertinent information on both of the facilities visited in West Virginia is presented in the following discussion.

Table 31.1
List of Institutions Contacted—West Virginia

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Grave Creek Mound Historic Park				
Harpers Ferry National Historic Site				
Huntington Museum of Art				X

Note: Locations visited indicated in **Bold**.

Grave Creek Mound Historic Park

Architectural Summary

Site Conditions

The slightly sloped 7.2-acre Grave Creek Mound Historic Park (GCMHP) extends across a large city block of Moundsville, West Virginia. The small street on which the site is located, cuts through a mostly grassy lot near the west boundary. At the south section of the mound base stands a former stone-construction museum, which is now abandoned. A paved lot provides abundant parking and room for vehicle circulation.

The mixed use of the immediate locality consists of a school, a penitentiary (no longer in use), and single-family residential houses. No commercial activity is located nearby. An elementary school sets at the north of the site, while single-family houses are to the south. The large old penitentiary is located to the east, and more single-family houses are to the west. The site can easily be reached from WV Route 2 and OH Route 7. The site is not considered to be in a natural disaster zone.

Building Condition/Structural Adequacy

The 1978 masonry structure appears to be in very good condition. No major defects were observed. The one-story museum encompasses the major part of the facility: 10,400-ft^2 of the 16,000-ft^2 first floor total. Adding the small second floor space, the total building area is about 19,000-ft^2. A metal frame and tinned vinyl sheet-roofed atrium connects the two sections. On the first floor of the north side, is a museum, and the south is used as an auditorium, a gift shop, and an office. Above these spaces, there is a 500-ft^2 collections storage room and a small processing area.

Both sections are constructed of reinforced concrete from floor to roof, and the exterior walls are covered with brick veneer. The museum has four levels that are arranged in sequence and connected by ramps. The entire facility has only one window, which is designed to provide views of the prehistoric mound.

Code Requirements/Egress/ Accessibility

The facility meets most building codes, egress, and accessibility (life-safety) requirements. The structure consists of non-combustible materials. Interior circulation is logical, and adequate exits are provided at different locations. Lighted exit signs indicate the ways out of the building. Emergency lights are also mounted at critical locations. Most of the building is wheelchair accessible, including the bathrooms. There is no loading dock in the facility, nor formal processing and research areas. There is no elevator, although ramps in the museum lead to the second floor.

HVAC Systems

HVAC systems are adequate for overall climate control but not as separate microclimate systems. The centralized automatic heating and cooling system is zoned; however, it is currently set on a single space format. Humidity is controlled by the central HVAC system.

Fire Suppression and Detection

The south side of the facility has sufficient fire detection and suppression systems; however, the north does not. With heat sensors in the sprinkler heads, a wet-pipe sprinkler system protects the auditorium, office, gift shop, and storage areas. Fire extinguishers of type A, B, and C are located throughout the building. They are checked and updated monthly. Because the north side, or exhibit area, is mostly open space, it does not have a sprinkler system or smoke detectors.

Security System

The electronic security system is adequate but is currently not being utilized to its fullest capability. The system can be set for each individual room.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Grave Creek Mound Historic Park as mandated by the State of West Virginia, is "to advance, foster, promote, identify, register, acquire, mark and care for historical, prehistorical, archaeological and significant architectural sites, structures and objects in the state ..." The majority of collections are prehistoric archaeological, and GCMHP houses archaeological materials for USACE Huntington District.

Archaeological Collections Storage

Long-term collections storage is in a room with wall-to-wall carpeting. Most boxes sit on the floor with no shelving, sometimes stacked five high. Boxes are mostly acidic. Secondary containers consist of a mix of paper and nonarchival plastic bags. Much space can be created by the addition of shelving.

Environmental Controls

The collections storage room has heating, cooling, and RH control. However, RH fluctuates between 21–75% throughout the year, and mold is a problem. Fluorescent bulbs are bare, and one sealed window

lets in natural light, increasing ultraviolet risk. Smoke detectors, a sprinkler system, and a portable fire extinguisher are present. The carpet is vacuumed every two weeks. Pest control is maintained by a monthly spraying of the pesticide Cyfluthrin. Rodent poison has been placed strategically.

Range of Support Facilities for Archaeological Collections

Support facilities at GCMHP include an exhibit facility with auditorium, a fume hood, and an archaeological materials processing area with sinks. There is no archaeological research program.

Staff Composition

Collections management staff at GCMHP consist of the Cultural Facility Manager. No archaeologists are on staff.

Administrative Record Keeping

Administrative records are kept adjacent to the collections storage room. Smithsonian trinomials are used to designate archaeological sites. Catalog cards are stored in seven acidic boxes. Very few non-acidic file folders are used. Collections are not assigned unique accession numbers. No copies are kept of administrative records. An electronic database exists only for Huntington District collections.

Associated Archaeological Documentation and Storage

Associated archaeological records are kept in six metal file cabinets next to the collections storage room. Very few non-acidic file folders are used. No copies are kept of associated records.

Collections Management Policies

Written policies at GCMHP exist for acquisitions, inventory, loans, disasters, access to collections, security, and deaccessions.

Administration Summary

Background

Grave Creek Mound Historic Park was built adjacent to a famous earthen mound. It is part of the West Virginia Division of Culture and History. However funds to build adequate exhibits have yet to be provided. Since archaeology is the raison d'être, collections are exclusively archaeological.

Real Estate

The state of West Virginia, Department of Natural Resources owns the property. Originally begun in the early 1970's, the proposal was that it be a joint venture between the City of Moundsville ($^2/_3$) and Marshall County ($^1/_3$). The project fell apart when the City realized it did not have the funds to contribute toward the project. The building was completed in 1978. There are no restrictions for use of the property.

Administration

The Commissioner of the Division of Culture and History has the authority to commit the institution to an agreement with the DoD/USACE. There has been no financial deficit in the last five years. Only one person engages (part-time) in grant writing and fundraising activities.

Outreach and Education Programs

No individuals are involved exclusively in outreach programs. The best aspect of outreach at the GCMHP is the mound itself, since it is such a prominent feature of the site. It is also across the street from a former prison complex that attracts visitors regularly. The public facility has few exhibits. The Cultural Facility Manager visits and gives presentations to elementary, grade, and high school students (about 25,000 students per year), and civic groups.

There are no recognized Indian tribes in West Virginia. However, a tobacco ceremony was recently held in the long-term storage area by a group of Appalachian natives.

Contributions

The Cultural Facility Manager of GCMHP stated that staff expertise, part of the long-term storage area, and clerical staff could be contributed toward a partnership agreement. In return, GCMHP would expect contributions toward the modernization of the building (including a new HVAC system), staff salaries, shelving, insect management, boxes, bags, and curation supplies.

Notes

GCMHP clearly suffers from a lack of adequate financial support. Collections management policies are in place, but need to be more formalized. The Cultural Facilities Manager handles all aspects of managing the museum, including collections management, and more staff are needed for curation and exhibits. The addition of an education coordinator, a curator, and funds for exhibits would greatly improve outreach. With more funding, GCMHP could become a feasible partner.

The building is ready and waiting for archaeological exhibits. At a minimum, shelves need to be purchased. There is space for archaeological research, though equipment is lacking. If the load-bearing capacity of the current long-term storage room is found to be capable of bearing high-density movable shelving, it may be that a new storage area need not be created.

Harpers Ferry National Historic Site

Architectural Summary

Site Conditions

The boundaries of Harpers Ferry National Historic Site (HFNHS) are located within three states: West Virginia, Virginia, and Maryland. The topography is mountainous and rugged. The historic site is on the point of land where the Shenandoah River converges with Potomac River. At the upstream point of the rivers' convergence stands the Lower Town Historical District, which consists of a few dozen restored 19th century buildings.

The site can be reached by Washington Street, which connects U.S. Route 340. Three historical buildings, two two-story mansions with basements and a three-story school building, are partially being used for offices and storage. Artifacts and paintings are stored in a basement of one of the mansions. These stand-alone buildings occupy sizable landscaped and slightly sloped lots. All three are located within a 10-minute walk from each other. The site does not contain off-street parking for visitors but a few inset spaces are available for the park staff.

Because any DoD collections would likely be housed in a building called the Shipley School, the Shipley School is reported on here. The lot occupied by the Shipley School is graded so that the front entrance is at the first floor and the rear entrance is at the second floor level. The building's rear facade is not built against earth but rather is at the bottom of an earthen slope. This keeps water from seeping through the structure walls, and allows more natural light to reach the first floor interior. A parking lot with approximately 50 spaces is located at the rear or west of the building and accessed from Fillmore Street. The school is neighbored by a house and a Baptist church in the north and south respectively. Sparsely built, the tranquil neighborhood constitutes aging single masonry houses.

Building Condition/Structural Adequacy

Erected in 1912, Shipley School sets back about 100 feet form Washington Street, and is accessed by a sidewalk. The 20,325-ft^2 structure is composed of mostly fire resistant materials, including, stone, brick, and steel. Only the floor joists and some of the interior wall studs are made of wood. It has large metal-mullion swing (up/down) type windows on all four sides. The built-up roof contains asphalt and felt. The concrete first floor and the wooden floors above are covered with a layer of membrane or EPDM.

Though not being actively used for anything other than partial storage for years, the building is structurally sound with no evidence of structural integrity failure. However, minor faults do exist, such as missing wall bricks and mortar, and a few broken window panels. The building has a clear ceiling height of about 14 feet at each level, and it is divided into rooms of various sizes. Central hallways circulate the interior with stairs at the ends that provide access to other levels.

Between the building and the street is a landscaped area. No parking spaces are available in front of the building. There is no loading dock facility for the building.

Code Requirements/Egress/ Accessibility

The building does not meet most of the building code, egress, and accessibility requirements. Most of the building's systems remain off. The lack of an elevator classifies the building as not ADA-compliant.

HVAC Systems

The oil-fueled boiler has been shut down since 1992, and the oil tank has been drained of its fuel. The building does not have a cooling system; ventilation relies on window openings.

Fire Suppression and Detection

Smoke detectors are installed, but they are inoperable. No heat sensors are in place. There is no sprinkler system, nor are any fire extinguishers present.

Security System

The security system is adequate. An access code is required in order to disarm the alarm before entering the building. Motion detectors are installed at key points and monitored by the park police.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of Harpers Ferry National Historical Site is "to preserve, protect and manage the Park's historic and prehistoric sites and structures, its natural and cultural landscapes, as well as its historic objects and museum collections, for the education, edification and benefit of the public..." Additionally, HFNHS encompasses NPS facilities that service all NPS parks nationwide. Due to the proximity of these service facilities, HFNHS may be considered to be a national center for curation for the NPS. The majority of collections are Euro-American archaeological.

Archaeological Collections Storage

Long-term storage of collections is in several buildings. Most archaeological artifacts are in an off-site facility known as the Museum Resource Center, just outside Washington, DC. We were unable to visit this facility during our appointment. Other buildings that store (mostly architectural) collections are in HFNHS.

On-site collections are in the basement of Lockwood House. Only one door allows access. Lane brand locking metal cabinets hold the metal drawers on which collections are placed. Primary containers are acid-free white boxes, and secondary containers are 2-mil, zip-lock bags. Collections in the Museum Resource Center are similarly stored.

Environmental Controls

Lockwood House has heating but no cooling. Relative humidity (RH) is controlled through the use of portable humidifiers and dehumidifiers. Temperature and RH are monitored by digital readers that are directly connected to a computer for monitoring. Climate records have been kept since 1975. At the time of our visit the temperature was 65° F and RH was 55%, and is targeted at 60–75° F and 40–50%, respectively. Fluorescent bulbs are filtered for ultraviolet light. The windows are never opened and have heavy curtains to block light. Furniture is stored on adjustable metal shelves, and visquene is used as a vapor barrier. Some rare books are kept in two rare book cabinets with locking glass doors, gaskets, ventilation. Sticky traps are used to monitor rodents and insects.

Range of Support Facilities for Archaeological Collections

Support facilities at HFNHS consist of exhibits, a visitor center with ample parking, a Bomb Shelter that stores copies of all NPS catalogs, and an exhibit Design Center. The archaeological laboratory (in Wager House) has offices, a computer room, temporary storage space, metal flat map storage and MSD sheets. Within an easy drive of HFNHS is the Conservation Center for all NPS parks. The resources of this facility include fume hoods, cleaning sinks for large objects, a central de-ionization unit, an on-demand water heater, photograph staging equipment, microscopes, stainless steel wheeled

storage units, a chromatography unit, and an infrared spectroscope.

Staff Composition

Collections management staff at HFNHS include the exhibit designers and conservators at adjacent facilities, an archeologist, part-time curators, and technicians.

Administrative Record Keeping

The building that stores administrative records has heating and cooling but no humidity control. A centralized RH control system is scheduled to be installed in 1999. Fluorescent bulbs are filtered. Administrative records are kept in metal lateral files. Some documents are in Fireking-brand fireproof cabinets. Copies of all reports and catalogs are kept in a separate building and have been inventoried and cataloged. All photos have been scanned onto a CD. Smithsonian trinomials are used to designate sites. The program Re:Discovery is used as a computerized database, and the data is backed up as needed.

Associated Archaeological Documentation and Storage

Associated documents are stored as above. Copies of field notes are not kept.

Collections Management Policies

All pertinent policies are written. An emergency plan and a pest management plan are in draft form.

Administration Summary

Background

Harpers Ferry National Historical Site is part of the National Parks system, and consists of federally-owned land in West Virginia, Virginia, and Maryland. Park headquarters and the majority of structures are in West Virginia. The park was established in 1944, and the congressional legislation specifically addresses the establishment of a museum at Harpers Ferry. Today the park maintains historic sites, structures and objects, prehistoric sites and structures, and provides exhibits, living history demonstrations, archival and library research assistance, guided tours, educational programs, publications and waysides. Harpers Ferry emphasizes six major themes, including John Brown's Raid, Industrial History, the Civil War, African-American History, Transportation History, and Natural History. The storage facility at Harpers Ferry curates archeological, history, natural history, paleontology, geological materials. The park does not currently curate DoD or USACE archaeological collections.

Real Estate

Harpers Ferry encompasses over 2,200 acres within West Virginia, Virginia, and Maryland. The land is federal, National Park Service. The primary restrictions to development revolve around Section 106 compliance. Some areas of the park would be "off-limits" to modification, and historic structures would require renovation according to Advisory Council guidelines. However, there are existing historic structures that provide opportunity and potential for such a project.

Administration

The Superintendent and the Contracting Officer have the ability to enter Harpers Ferry into a financial partnership with another federal agency. Funding is primarily congressionally appropriated, although some operating and project funds are acquired through fundraising and grants. Several staff members write grant proposals, while the Budget Department manages associated funds. The Historical Association also seeks and manages grants. Fundraising is conducted, although primarily by the Historical Association. Activities include events such as concerts and "period" balls.

The park director manages four overall programs at Harpers Ferry: Public Relations/ Education, Interpretive Functions, Archeology Program, and the Curatorial Program. Interpretive Functions includes two subprograms—visitor services and living history.

Outreach and Education Programs

Harpers Ferry employs an education coordinator, and over 15 directly associated staff. Living History is one of the largest programs, and includes volunteer assistance. Regular park programs are combined with a variety of other educational programs. For example

the park conducts the Schoolhouse Ridge program for 5th graders. Other programs include career days in local schools, a Junior Ranger program, an award-winning Web site, an artist-in-residence program, and a co-op program with other National Park Service (NPS) parks which emphasizes the development of junior high-level classroom programs and lesson plans. The Harpers Ferry Web site won an award for 2nd best in NPS. The Harpers Ferry Historical Association provides aid to the park, in terms of financial, staff support, and publication/printing, and other organizations provide opportunity for further outreach and education (i.e., Friends of Harpers Ferry, National Parks Foundation, and Civil War Trust).

Contributions

Harpers Ferry would primarily be able to contribute professional staff and support at the national level and from a variety of organizations. Outreach and education programs are also a strength. The museum is accredited by the American Association of Museums. Further, capital improvements could receive matching funds, and an in-house architect at Harpers Ferry would facilitate potential curation solutions. DoD and USACE would potentially be asked to contribute funding for capital improvement, annual operations and maintenance, and direct labor associated with collections rehabilitation.

Notes

Lockwood House was formerly a model upon which a course on collections management was based. NPS staff from across the nation came to HFNHS to learn collections management techniques. Additionally, nearby is an NPS conservation facility, which would allow for swift conservation of archaeological materials.

Although Harpers Ferry does not currently maintain a facility that meets 36 CFR Part 79 standards for archaeological curation, the park has much potential in terms of structures with promise for adaptive reuse for this purpose. Collections management policies and procedures are exemplary. However it would be desirable to consolidate all long-term storage into one facility, and an initiative to accomplish this has been shelved. Staff suggested that because parts of HFNHS are in Maryland, Virginia, and West Virginia, HFNHS may be considered to be a facility in all three states.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

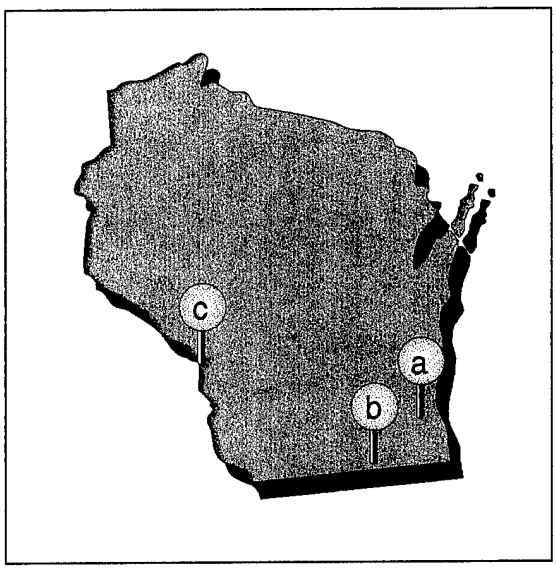
Table 31.2 lists the composite scores and the architecture, collections management, and administration scores for each West Virginia institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 31.2
Summary of Decision Support Model Scoring—West Virginia

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Grave Creek Mound Historic Park	**0.5761**	0.13245	0.23121	0.21240
Harpers Ferry National Historic Site	**0.6339**	0.09678	0.29907	0.23807

32

Wisconsin



Archaeological Materials (in cubic feet)

Department of Defense	53
USACE	93
TOTAL VOLUME	**146 ft³**
Number of Institutions Contacted	**14**

Institutions Assessed

a. Historic Resource Management Services, University of Wisconsin, Milwaukee

b. Logan Museum of Anthropology, Beloit College, Beloit

c. Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse

Background

A list of the facilities contacted in Wisconsin is presented in Table 32.1, including the reason(s) some were not selected for an on-site evaluation.

Comments

A summary of the Decision Support Model scores is presented in Table 32.2, showing strengths of each institution. Pertinent information on each of the facilities visited in Wisconsin is presented in the following discussion.

Table 32.1
List of Institutions Contacted—Wisconsin

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
Camp Five Museum Foundation		X		
Chippewa Valley Museum				X
Great Lakes Archaeological Research Center		X		
Historic Resource Management Services, University of Wisconsin, Milwaukee				
Kenosha Public Museum				X
Logan Museum of Anthropology, Beloit College				
Milwaukee Public Museum		X		
Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse				
Neville Public Museum of Brown County			X	
Oneida Nation Museum				X
Oshkosh Public Museum				X

Table 32.1
List of Institutions Contacted—Wisconsin (Continued)

Institution	Preliminary Questionnaire Reasons not Visited			
	No Response	Not Interested	Questionnaire Not Returned	Limited Resources
State Historical Museum of Wisconsin			X	
University of Wisconsin, Madison		X		
University of Wisconsin, Oshkosh		X		

Note: Locations visited indicated in **Bold**.

Historic Resource Management Services, University of Wisconsin, Milwaukee

Architectural Summary

Site Conditions

Historic Resource Management Services (HRMS) is located in an off-campus building, the Kenilworth Building, originally designed as a Ford Motor Co. manufacturing plant in the 1920s. The Kenilworth Building is a large warehouse-like building with open spaces partitioned during subsequent renovations, and high, open ceilings. Ductwork, piping, and electrical utilities are all exposed. Environmental controls, security, and fire suppression are all very rudimentary. However, the university has already approved, funded, and is proceeding with a plan to renovate an existing building, Sabin Hall, on the main campus. It is expected that the renovations will be completed in November 2000. Therefore, the remainder of this summary will deal with the site and space to be renovated.

Sabin Hall, is located on the east side of the University of Wisconsin, Milwaukee, campus. Constructed in 1927, Sabin Hall is listed on the Milwaukee municipal register of historic buildings although it is not listed on the National Register of Historic Places. The interior will be extensively modified. However, although doors and windows will be replaced, the character and integrity of the façade will be strictly maintained. A parking lot, accessed by a drive along the north side of the building, is located in the rear, or west and south sides, of the building. There is no loading dock and heavy loads would have to be unloaded, carried across a wide entry sidewalk through double-glass doors.

Building Condition/Structural Adequacy

Sabin Hall was constructed in 1927 as a classroom building for the geology department. The basement and first floor structure is of stone construction. The exterior is a brick veneer. The Sabin Hall basement area, where the artifact storage will be, is partitioned with stud and plasterboard walls.

UWM has developed plans to renovate the building into anthropology offices, classrooms, laboratory, and collections storage space. The design includes 2,300-ft^2 for collections storage, 110-ft^2 for storage of human remains, 358-ft^2 for document storage and processing, and 274-ft^2 for photograph archives and viewing. In addition, there will be approximately 1,500-ft^2 of laboratory space for the processing and analysis of collections and remains.

The renovation plans include removal of all asbestos and hazardous materials. At present, HVAC water piping and plumbing pass through the intended artifact storage areas. However, review of the demolition and design plans indicate that all piping will be removed from this space. Only fire suppression piping will pass through the artifact storage area. The plans call for the installation of floor drains.

Code Requirements/Egress/ Accessibility

The Sabin Hall renovations will address all of the applicable building and life-safety code requirements. Three exits will provide emergency egress from the

ground floor. Two main entries on the south side will provide egress to the exterior from offices and artifact storage and an exit on the north will provide similar.

The entire Sabin Hall space will be accessible for the disabled. A passenger elevator provides access to each level according to the Americans with Disabilities Act (ADA). Restrooms, electrical outlets, and other systems will be renovated to meet ADA standards.

HVAC Systems

Sabin Hall will be served by off-site chilled water and high pressure steam lines. Standard air filters will be utilized although a maintenance schedule has not been developed at this time. The present design is for a variable air volume system with terminal hot water reheat coils to be operated 24-hours per day. Booster humidifiers will be provided in the zone ductwork for the artifact storage area to maintain humidity during the winter months. The UWM facilities staff will provide regular maintenance of the HVAC systems.

Fire Suppression and Detection

The entire Sabin Hall space will be equipped with a wet-pipe sprinkler system. ADA-compliant manual pull alarms and strobes and automatic smoke and heat sensors will comprise the fire detection system. The present, conventional zoned fire detection system will be replaced with an addressable fire alarm system.

Security System

It is uncertain at this time how the Sabin Hall facility will be protected with respect to intrusion alarms, dead-bolts, disarm keypads, motion detectors, etc. The original plans included a security system which has been deleted from the plans for cost savings.

Collections Management Summary

Scope of Collections and Mission Statement

Historic Resource Management Services at the University of Wisconsin, Milwaukee, "provides comprehensive cultural resource management (CRM) services to private, state, and federal clients. It has been in existence for 25 years, and is the archaeology section of the Department of Anthropology. Collections are exclusively archaeological, focusing on Wisconsin, however the Department of Anthropology, that HRMS is a part of, curates some ethnological collections.

Archaeological Collections Storage

Archaeological collections were, at the time of St. Louis District's visit, housed in the off-campus Kenilworth building, formerly used for a variety of non-academic, industrial endeavors. HRMS is scheduled to move into a renovated building, Sabin Hall, by the year 2001. This evaluation is based on projected equipment and space at Sabin Hall.

Long-term storage is currently located in a mezzanine area above the southeast Wisconsin archaeology area. Primary containers are Hollinger boxes. Secondary containers consist of plastic, zip-lock bags labeled with permanent ink. Other secondary containers consist of "McKraken" boxes of various sizes which are acid-free. Fluorescent bulbs are unfiltered for ultraviolet light. The renovated (2,300-ft^2) room in Sabin Hall will have some movable shelving.

Temporary storage for collections being worked on are in wooden drawers in acidic cardboard trays, arranged by county. Storage from CRM projects is stored in some acidic and some Hollinger-brand boxes.

Environmental Controls

Temperature and relative humidity (RH) are slated to be monitored by at least one hygrothermograph, and controlled by the HVAC system. Microclimates will be maintained in special drawers for items such as metal, in which gauges will monitor temperature and RH. There are only two windows which will be sealed. Fluorescent lights will be filtered for ultraviolet light. The campus Risk Management department will inspect for pests on a regular schedule. Food will not be allowed in the collections storage room.

Range of Support Facilities for Archaeological Collections

Support facilities at HRMS will consist of a loading dock, darkroom, photograph staging room, computer room, classroom, records storage room, artifact processing laboratory, floatation room, faunal/floral laboratory, human skeletal laboratory, a library, drafting room, and equipment storage rooms. No exhibit facility is planned.

Staff Composition

Curatorial staff at the HRMS a collections manager, and graduate student assistants. Four professors with the Department of Anthropology manage the workers.

Administrative Record Keeping

The Smithsonian trinomial system is used to designate sites. The catalog numbering system (under revision) consists of the year the collection was accessioned plus a sequential letter to denote the particular collection (e.g., 73-J). In the case of contracted CRM curation, the year plus a sequential number is used (e.g., 73-3). Lot numbers are used to denote a particular provenience within a site. Administrative records are currently kept in a small room in the Kenilworth building. They are scheduled to be moved into the renovated Sabin building. Five metal file cabinets house correspondence involving the curation of CRM materials and plastic binders are used to for storing the catalog. No procedures are in place for copying the catalog, but some duplicates exist. No computer database is used.

Associated Archaeological Documentation and Storage

Some maps are stored rolled-up in the document storage room. Quadrangle maps of Wisconsin are stored flat in metal map cases, and both aerial and site maps are stored flat in wooden cases, all in the Wisconsin archaeology room. Associated documents are in acidic boxes stored next to the collection which they belong to. Copies of reports are on a wooden shelf adjacent to the document storage room.

Collections Management Policies

Collections policies are written for photographic storage procedures, map storage, catalog numbering, acceptance of incoming collections, access to collections, and security guidelines. No written pest management policy exists.

Administration Summary

Background

Historic Resource Management Services at the University of Wisconsin, Milwaukee has been in existence since 1971, beginning with Melvin Fowler's famous Mound 72 excavations at the Cahokia site in Illinois. HRMS is a state-designated repository for collections from southeastern Wisconsin, and also regularly curates materials from CRM projects. Collections are exclusively archaeological, though the larger Department of Anthropology, of which it is a part, does curate ethnographic collections.

Real Estate

The Board of Regents at the University of Wisconsin owns the property. The building HRMS is slated to move into (the Sabin building) will be renovated. It is an historic building, however is not on the National Register therefore there are no restrictions on the inner structure. The façade must remain historic.

Administration

The dean of the graduate school would have the authority to commit the institution to a financial agreement. The director of HRMS would submit a request to the dean. No one at HRMS solely writes grants proposals, however staff at the graduate school office track grant proposals and aid in their submission, if requested. There has been no financial deficit in the history of the program.

Outreach and Education Programs

No exhibit facility exists, and there are no plans to create one. Outreach consists of American Institute of Archaeology meeting held monthly on campus, newsletters to Milwaukee Public Schools with a 4th and 5th grade target, reaching 75 children in three weeks. In 1997, a slideshow demonstration was

shown to 1,200 school children. An educational packet is sent to grade school teachers who inquire. No individuals are involved exclusively in outreach programs.

Contributions

HRMS could provide the use and storage of materials in a university setting, including research on the collections. When they move into the renovated Sabin building, all of the resources available to the Department of Anthropology would be easily accessible. In return, HRMS would expect an unspecified percentage of overhead costs and staff salaries.

Notes

The HRMS is on the verge of a new era in curation. The renovated facility should meet with federal standards for curation and supply ample opportunity for research. The scheduled move into the renovated Sabin building will be a big improvement for the whole Department of Anthropology. If the HRMS move is complete by the time the DoD/USACE is ready to negotiate with an institution in Wisconsin, HRMS would have excellent facilities to contribute.

Logan Museum of Anthropology, Beloit College

Architectural Summary

Site Conditions

The Logan Museum of Anthropology (Logan) is located in a building in the south central area of the campus of Beloit College. The building was originally the War Memorial building. A complete renovation of the space was completed in 1995. The Logan is joined to the Godfrey Anthropology Building (Godfrey) by an enclosed walkway. The exhibit space and some collections storage is in the Logan while the bulk of collections storage is in the basement of Godfrey. There is a parking circle to the southwest of the building with limited parking. There is no loading dock. The entrance to the Logan is through Godfrey on the north and through the original entrance on the east. The campus is part of an historic district which would limit expansion to some extent. However, sufficient space exists for expansion or new construction, if necessary.

Building Condition/Structural Adequacy

The 1867 War Memorial Building was built to commemorate the soldiers killed during the Civil War. The Godfrey building was completed in 1974. A complete renovation of the Logan was completed in 1995. This included the construction of "The Cube", a glass-enclosed conservation and collections storage area, and a complete upgrade of the HVAC system.

The Logan is constructed of quarried limestone with the striae exposed for a "parchment" effect. While visually striking, the exposed striae of softer stone weather more rapidly due to their differential rate of erosion. The roof is slate and was reconditioned in the 1992–95 renovations. The foundation is constructed of structural limestone with a cement floor poured inside the original structure. Concrete pillars also help support the first floor. The second floor is supported by a series of steel ornamental pillars surrounding "the cube." The windows are of stained glass with a covering pane of glass.

The Godfrey has a concrete pillar and beam construction with a brick veneer exterior. Doors and windows frames are of extruded aluminum. The basement area is subdivided by cement block partitions.

Neither the Logan nor Godfrey facilities contain hazardous building materials. Neither building displayed structural defects. Fire suppression, plumbing, and HVAC water piping are routed throughout the Logan/Godfrey space, including the collections storage room. All of these plumbing systems were installed as part of the renovations made from 1992 to 1995. Both facilities are equipped with floor drains.

Code Requirements/Egress/ Accessibility

The Logan/Godfrey space appears to meet all of the applicable building and life-safety code requirements. Four exits provide emergency egress from Logan/ Godfrey. The main entry of Logan provides egress to the exterior from the exhibit area, an entry to Godrey provides egress from both buildings, the main entry to

Godfrey provides egress from the classroom/office area, and an emergency exit provides egress from the processing area and collections storage room.

The entire Logan/Godfrey facility is accessible for the disabled. A passenger elevator provides access to the upper level according to the Americans with Disabilities Act (ADA). The first level restrooms have been renovated to meet ADA standards.

HVAC Systems

The Logan/Godfrey space is served by the Beloit College's physical plant's on site electric chillers and natural gas boilers. The entire system was updated during the 1992–95 renovations. Separate HVAC systems serve the Logan and Godfrey spaces. A special low-humidity room has its own filtration and dehumidification system. Standard air filters are changed as needed. Climatic conditions are monitored electronically and can be adjusted remotely. The Beloit College facilities staff provides regular maintenance of the HVAC systems. The mechanical spaces are very well maintained.

Fire Suppression and Detection

The entire Logan/Godfrey space is equipped with a wet-pipe sprinkler system. Manual-pull alarms and automatic smoke and heat sensors comprise the fire detection system. The fire detection systems were updated as a result of the 1992–95 renovations of the buildings. The fire detection system is wired to the Beloit College public safety office, which then notifies the local fire department. A fire department substation is within close proximity to the facility.

Security System

The Logan/Godfrey facility is protected with intrusion alarms, dead-bolts, disarm keypads, and motion detectors. The security system is wired directly to campus security. Only security personnel have the codes for the keypads and therefore only they can open the Logan facility without triggering the alarm.

Collections Management Summary

Scope of Collections and Mission Statement

The Logan Museum falls under the aegis of the larger Beloit College Museums whose mission statement is to serve "the campus and larger communities through collections and field research, exhibitions, publications, educational programs, and through the support of other cultural groups and activities." This rather broad mission is narrowed to anthropology in the case of the Logan Museum. Collections are about 40% ethnographic and 60% archaeological and are world-wide in scope. No Euro-American historic collections are accepted.

Archaeological Collections Storage

Collections are stored in several areas. Due to limited space, ethnographic collections from New Guinea are temporarily stored in the basement of the Wright Art Museum, on metal shelves with foam padding where needed. There is also open storage (called "the cube") as a part of the exhibits in the Logan Museum Building, consisting mostly of ceramics, padded with polystyrene, on glass shelves. On the second floor of the Logan building, exhibits were in transition at the time of our visit. Comparative collections of lithics and pottery are in shielded drawers in order that people could see the objects up-close. The "Low Humidity" room contains human skeletal material, metal, and some pottery. Ethnology collections (textiles) are kept on movable shelving. Paleolithic collections are kept in a separate room in metal cabinets. Archaeological collections are kept in a locked cage on particleboard shelves in acidic boxes. Secondary containers consist of some paper bags, some zip-lock bags, and some smaller trays ("jewelry boxes"). Ethafoam-brand padding is used when appropriate.

Environmental Controls

A hygrothermograph in "the cube" is calibrated annually. Lighting in the cube is filtered and fiber-optics are used to maintain a low-light environment. The "Low Humidity" room is kept at 35% RH, and has filtered fluorescent lighting. The archaeological

collections are housed in a room with filtered fluorescent lighting and sealed windows, though there were no curtains. Sticky traps are used to monitor insects, and the College sprays pesticide on a regular schedule. Food is not allowed in collections storage areas.

Range of Support Facilities for Archaeological Collections

Support facilities at the Logan consists of exhibit space with proper environmental controls, a nearby art exhibit museum (the Wright Museum of Art), classroom space, and a conservation laboratory (the "analytical laboratory") with fume hood, sink, cabinets, shower/eye wash, and countertops. The processing area has cabinets, a sink, washer/dryer, a shower/eye wash, and work tables. An isolation room is dedicated to incoming collections to check for infestation. There are two artifact preparation laboratories, one for "dirty" collections, and one for "clean" collections. There is also a small exhibit preparation room. There is no loading dock, but there is a freight elevator.

Staff Composition

Curatorial staff at the Logan consists of the full-time curator, who trains anthropology students on-the-job in the techniques of proper curation. There is also a conservator position which was vacant at the time of our visit.

Administrative Record Keeping

The Smithsonian trinomial system is used to designate sites. Catalog numbers consist of the year the collection was acquired, followed by a sequential accession number (by year), then an artifact number (e.g., 1988.13.1234). Sometimes a lot number is assigned to collections that would be cumbersome to number individual pieces (e.g., lithic debitage). A copy of the catalog files is kept in the basement. Administrative records and pertinent correspondence are kept in the basement near the conservation laboratory in five metal file cabinets and in plastic binders. All file folders are non-acidic. No computer database is used.

Associated Archaeological Documentation and Storage

Maps are stored rolled-up in the curator's office. Field notes are stored in acid-free grey boxes over the metal file cabinets in the records storage area.

Collections Management Policies

Collections policies are written for acquisitions, field curation guidelines, inventories, exhibitions, access, conservation, and security. No written pest management policy exists.

Administration Summary

Background

The Logan Museum of Anthropology has been in existence since 1894, though archaeological collections have been held since 1846. It is a part of the larger Beloit College Museums. Since anthropology is the raison d'être, collections are exclusively ethnological and archaeological.

Real Estate

Beloit College owns the property, which has been designated an historic district. This requires that any building permits be reviewed by an historical commission. Memorial Hall was built in 1867 and the Godfrey Wing of Memorial Hall was added in 1974. Renovations of both structures were completed in 1995. Though enough space exists for current collections, there is insufficient space for incoming collections.

Administration

The Board of Trustees of Beloit College has the ultimate authority to commit the institution to an agreement with the DoD/USACE. The Dean of the college would submit such a request to the president, who in turn would submit the request to the Board of Trustees. There has been no financial deficit in the last five years. College professors write and track grants with support from the College development department.

Outreach and Education Programs

No individuals are involved exclusively in outreach programs. The best aspect of outreach at the Logan Museum is the exhibit facility, which is open to the public. The highlight of exhibits is "open storage," whereby visitors can view ceramics in long-term storage simultaneously on exhibit. An anthropology web site is scheduled to be working soon. Tours of the mounds on campus are given by appointment. The comparative lithic drawers offer people a chance to view up-close the qualities of lithic artifacts.

Native Americans recently helped to interpret materials from a Wisconsin excavation. An Ojibwa request for return of archaeological remains was honored, and a Siouxan woman came to the Logan to perform a ceremony with one of the artifacts.

Contributions

The director of the Logan Museum stated that they could contribute a student assistant and laboratory equipment. In return, the Logan Museum would expect DoD/USACE to contribute toward the construction of a new curation facility.

Notes

The Logan has kept up with curation standards as they have changed over the years. Collections would be well-cared for and exhibited at the Logan. However, the biggest drawback is that they have no space and would expect DoD/USACE to contribute toward a new curation facility. The Logan is obviously committed to archaeology, anthropology, and the excellent care of collections, however has few resources to contribute toward a partnership.

The construction of the "cube" within the structure of the 19th century building which houses the Logan is an innovative adaptation of the space, providing climate control, storage, and exhibit space in a more easily controlled environment. While the capacity of the collection storage area could be expanded through the use of compacting storage units, there is little potential for expansion without the construction of a new long-term storage area.

In the time passed since the on-site evaluation, the director has stepped down from his position. The current director may have a different attitude toward a partnership with DoD/USACE. This will need to be ascertained if negotiations are entered into.

Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse

Architectural Summary

Site Conditions

The Mississippi Valley Archaeological Center (MVAC) is located on the campus of University of Wisconsin, La Crosse. All functions are housed in one building. It is surround by campus facilities, including the central power plant. The site is accessed by East Avenue, which ends at the south of the site. Other nearby highways are I-90, US-16, and US-14/61. There are only three parking spaces on site, in addition to the metered street parking. The nearest parking area is a shared lot, located about 500 feet north of the site. The site is not in a region threatened by natural disasters.

Building Condition/Structural Adequacy

The rectangular masonry building was originally constructed as part of the university power plant. Its foundation is heavily reinforced with thick concrete to support the tons of coal. Walls are made of solid brick, and the new penthouse is wrapped in sheet metal. The flat roof is constructed of pre-cast concrete slabs and covered with EPDM. The building was later adopted by the archaeology department and renovated for laboratory, research, and collections storage areas.

The two-story 9,900-ft^2 building has a penthouse. The first floor level has a height of about 15 feet, including the high open-web metal joists, which told up approximately one-third of the height. North side of the building has a small second floor, which is used as a collections storage space. Concrete stairs are located at the two ends of the building, providing access to the basement and exterior.

The main space has partition walls that extend to about half of the space height. Small buffer zones are provided at both entrances by a masonry wall and fire-rated doors. The 1998 renovation upgraded the entire building and the mechanical system, which has a new air exchange unit. New

windows were installed on all sides of the building, providing excellent natural lighting for the first and second floor spaces.

Code Requirements/Egress/ Accessibility

MVAC meets codes and egress, but not wheelchair accessibility requirements. Construction is of fire-resistant materials such as concrete, brick, metal joist, metal stud, and gypsum plasterboard. Bathrooms are handicap accessible and labeled with signs. Each exit is identified with an illuminated exit sign, and emergency lights are installed. However, the lack of an elevator restricts ADA access to the first level. An exterior ramp with handrails is provided. The three parking spaces are marked with handicap signs.

HVAC Systems

The heating and cooling systems are adequate. In addition to the baseboard heating along the building perimeter, majority of the heat and cold air are generated at the adjacent power plant and vented to ACL. The incoming air is mixed with fresh air at the air exchange system located at the penthouse, and then it is distributed to different locations of the facility. Pleated and 80–85% pocket filters are used. Although the system was upgraded in the 1998 renovation, it has no humidity control.

Fire Suppression and Detection

Automatic and manual fire alarms are installed throughout the building. Smoke and heat sensors of "Edward System" or EST 2, are used. Monthly-inspected fire extinguishers of type A, B, and C are placed at exits and stairways. Space separation doors are fire-rated, and the building construction are non-combustible. Two exits, front and back, are provided for egress, and both are identified by illuminated exit signs. The fire alarm system is wired to campus police.

The facility does not have an automatic suppression system. Fire pipe hook-ups are in the basement.

Security System

MVAC does not have an intrusion alarm system or motion detecting device. Cameras are not installed. Dead-bolt locks are installed. Campus police patrols the area during off hours.

Collections Management Summary

Scope of Collections and Mission Statement

The mission statement of the Mississippi Valley Archaeological Center at the University of Wisconsin, La Crosse, is "to provide education about the science of archaeology and the ancient cultures of the upper Mississippi River Valley to the general public, teachers, undergraduate students, and pre-collegiate students; to conduct research and exploration of archaeological sites and artifacts; to preserve archaeological artifacts of ancient cultures which flourished within the upper Mississippi Valley; and to provide a regional center to promote an understanding of the prior inhabitants of this region." MVAC houses a total of about 1,500-ft^3 of solely archaeological materials.

Archaeological Collections Storage

Archaeological collections are housed in the basement of the building, a former power plant. Wooden shelves are used to store primarily acidic cardboard boxes with either flap or telescoping lids. Secondary containers are either zip-lock or plastic bags with twist-tie closure.

Environmental Controls

There is heating and cooling, but no relative humidity control. Fluorescent bulbs are not filtered for ultraviolet light, however there are no windows. Some microclimates are maintained in a few of the exhibit cases on the 1st floor, but none in long-term storage. Doors and windows are sealed. Pest control is on an as-needed basis, and there is no regular use of pesticides.

Range of Support Facilities for Archaeological Collections

Support facilities at MVAC include a library with topographic maps, fume hood, comparative faunal and botanical collections, high-powered microscopes, computer room, flotation room, and a large amount of field equipment. One of the best aspects of MVAC is the Education Department.

Staff Composition

Curatorial staff at MVAC include five research archaeologists, the laboratory director, and many part-time, student curatorial assistants.

Administrative Record Keeping

The Smithsonian trinomial system is used to designate sites. A unique, three-part acquisition number is assigned to each incoming collection. The last two digits serve as a catalog number. Collections are arranged on the shelves by county. Administrative records are kept in the basement. Files are kept for acquisitions, catalogs, conservation, inventories, exhibits, deaccessions, and loans. A computerized collections management database is used, and the program is Microsoft Access 97.

Associated Archaeological Documentation and Storage

Some associated documents at MVAC are in fireproof metal file cabinets in the basement. All field photographs, slides, and negatives are in archival storage sleeves. Archaeological reports are arranged by project on metal shelving, also in the basement.

Collections Management Policies

MVAC collections policies are written for artifact labeling, accessions, field curation guidelines, packing/shipping procedures, and access to the collections. No written pest management policy exists.

Administration Summary

Background

The Mississippi Valley Archaeological Center at the University of Wisconsin, La Crosse has been in existence since 1982, though in another form existed previously. MVAC is both a state and federally designated repository for archaeological collections. It curates collections for the U.S. Fish and Wildlife Service, U.S. Army Reserve (Fort McCoy), and the U.S. Army Corps of Engineers. Collections are exclusively archaeological.

Real Estate

The State of Wisconsin owns the property, and there are no formal restrictions to the use of the property. The 1939 building was originally a power plant, and is on the state inventory of historic properties. Notification is necessary for renovations. Any renovations should satisfy the requirements of the campus master plan.

Administration

The executive director would have the authority to commit the institution to a financial agreement with DoD/USACE. Other administrative officials at the University of Wisconsin, La Crosse would also be required to sign. At least one individual at MVAC writes and tracks grant proposals, in addition to the university-based Department of Grants and Contracts. There has been no financial deficit in the history of the program.

Outreach and Education Programs

The outreach program targets the K–12 school system as well as the public. One full-time and one part-time staff implements outreach programs. These programs are all open to Native Americans, and the school districts in the tribal areas receive extensive information about the program. Three Native Americans are on the Board of Directors of MVAC to provide coordination between archaeologists and Native Americans. The Ho-Chunk Nation sponsors Native American students to attend MVAC education programs, including students in the public and high school field schools. Native Americans coordinate with MVAC in sponsoring Archaeology Day each year, providing Native American demonstrators, speakers, singers, and craftspeople. The La Crosse school district has a 10-year agreement with MVAC to help teachers impart archaeology to their students. The MVAC web site, in addition to a number of

regular mailings and pamphlets, helps in these outreach efforts.

Contributions

MVAC could provide staff expertise, research and outreach capabilities, utilities (electricity, water, and environmental control), and equipment such as computers, scanning electron microscopes. In return, MVAC would expect funding for additional staff, shelving (perhaps movable), and facility upgrades.

Notes

MVAC has been able to garner resources for the recent renovation of the building they occupy. This bodes well for the continued existence of a large and growing program. Long-term storage space is limited, even though building renovations and expansion have just been completed. The facility upgrades show that MVAC staff is concerned about the long-term care of the collections.

Outreach capabilities and relations with Native American are outstanding. More permanent curatorial staff is needed. MVAC may be a good choice for collections from Minnesota, since no institution in Minnesota was interested in the Curation Options Project.

Decision Support Model Summary

Decision Support Model (DSM) scores for institutions were used as supplements to the information presented in the text of this report, for the purpose of objectively evaluating the potential for partnership with the federal government. Additionally, these scores allow for quantitative comparisons of facilities on an individual basis, or over state or region. DSM values are weighted by category, and should be viewed as secondary, support information. Refer to Chapter 2 for an explanation of the DSM structure, and to Table 2.1 for a list of the weighted categories and associated ratios of those categories, as they comprise the DSM value. In sum, DSM scores were produced for three areas—architecture, collections management, and administration, which account for 20%, 30%, and 50%, respectively, of the total DSM score.

Table 32.2 lists the composite scores and the architecture, collections management, and administration scores for each Wisconsin institution. Table 3.2 lists the other institution composite DSM values by state for comparative purposes.

Table 32.2
Summary of Decision Support Model Scoring—Wisconsin

Facility	Composite Score (Max = 1.0)	Architecture (Max = 0.20)	Collections Management (Max = 0.30)	Administration (Max = 0.50)
Historic Resource Management Services, University of Wisconsin, Milwaukee	**0.7559**	0.18248	0.19961	0.37385
Logan Museum of Anthropology, Beloit College	**0.6056**	0.11422	0.28106	0.21035
Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse	**0.7733**	0.13665	0.24413	0.39247

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Summary and Options

Introduction

The Curation Options Project was initiated by the Department of Defense (DoD) and the Army Corps of Engineers (USACE), as the first step in exploring the options associated with a department-wide solution to the national challenge of the long-term curation of DoD and USACE archaeological collections. During the course of Phase II of the project, 346 potential partners in 28 eastern states were identified. However, most were eliminated after determining their capabilities and willingness to participate. During 1998–2000, field visits were performed at the remaining 58 institutions to gather information from potential partners that expressed a willingness to discuss, in detail, the implications of a curation partnership with DoD and USACE. Two states (Minnestoa and New Jersey) had no institutions willing to participate. Data were collected on building systems and architecture, collections management policies and practices, and administrative aspects of each institution. None of the potential university-based partners appears on the recent DoD "List of Institutions of Higher Learning Ineligible for Federal Funds" (*Federal Register*, January 28, 1998, Vol. 63, No. 18, Page 4226). All 58 institutions should therefore be eligible to receive funds for long-tem curation of DoD archaeological collections.

Options

The original guidance for the project requested that all states in the Phase II project area be visited so that at least one potential partner could be identified in each state. Based on this guidance, the St. Louis District performed field visits to 58 individual institutions in 22 states between 1988 and 2000. Thirty of these 58 institutions could serve as potential partners with modifications to their existing facilities, collection management practices, and/or staff. The remainder of the institutions may require more extensive measures to effectively implement a partnership for the curation of DoD and USACE archaeological collections.

If implementation of any of these studies is directed, consideration should be given to establishing more than one partner in the state of Florida, and potentially Alabama, Georgia, and Mississippi because of the volume of DoD/USACE archaeological material within those states.

In addition to the Individual State Option, St: Louis District also suggests an additional option be considered, the Mixed/Regional Option. This option draws from the same 30 institutions identified for the Individual State Option. The Mixed Option is composed of 21 institutions that provide the pool of choices for five regional partners and 10 individual state partners.

There are a number of considerations that may suggest implementation of the Mixed/Regional Option over the Individual State Option. These considerations might include (1) cost effectiveness, (2) volume of collections, (3) regional collections similarities, or (4) accessibility of the partnering institution. Not all states will have an institution willing or capable of forming a partnership with DoD/USACE; such situations may not be discovered until well into the negotiation phase of implementation. Additionally, some states may not have a large enough volume of DoD/USACE collections to warrant implementation of a partnership in that state. In these cases it may be cost effective to consolidate that state's collections with another potential partner. DoD/USACE may also choose to keep collections of similar cultural groups together in a partnering institution within that culture

area, as opposed to taking the collections outside that area. DoD/USACE may also wish to carefully consider the utility of consolidating collections with a partner that is located in an area of the state to which it may be difficult for students, researchers, and Native Americans to travel.

Because long-term curation has been a neglected aspect of archaeology for the last 100 years in the United States, institutions are seeking to upgrade facilities to comply with current curation standards. Negotiations for curation services should be entered into carefully, and with the knowledge that curation functions have been grossly underfunded for many years.

Individual State Option

The following 30 institutions constitute the proposed potential partners for the Individual State Option (Figure 33.1). These institutions are suggested as the most appropriate potential partners in each state for the purpose of curating DoD and USACE archaeological collections.

Alabama	Office of Archaeological Services, University of Alabama, Tuscaloosa
Arkansas	Arkansas Archeological Survey, Fayetteville
Connecticut	Mashantucket Pequot Museum, Mashantucket
Delaware	Delaware State Museums, Dover
Florida	Archaeology Institute, University of West Florida, Pensacola and/**or** Florida Museum of Natural History, University of Florida, Gainesville
Georgia	Laboratory of Archaeology, University of Georgia, Athens
Illinois	Illinois State Museum, Springfield
Indiana	Indiana State Museum, Indianapolis
Iowa	Office of the State Archaeologist, University of Iowa, Iowa City
Kentucky	W.S. Webb Museum of Anthropology, University of Kentucky, Lexington
Maine	Maine State Museum, Augusta
Massachusetts	Cape Cod National Seashore, Wellfleet
Michigan	Archaeology Section, Michigan Historical Society, Lansing **or** Public Museum of Grand Rapids, Grand Rapids
Minnesota	no interested institutions
Mississippi	Cobb Institute of Archaeology, Mississippi State University, Starkville
Missouri	Museum of Anthropology, University of Missouri, Columbia
New Hampshire	New Hampshire Division of Historical Resources, Concord
New Jersey	no interested institutions
New York	New York State Museum, Albany **or** Rochester Museum and Science Center, Rochester
North Carolina	Office of State Archaeology, Raleigh
Ohio	Ohio Historical Society, Ohio Historical Center, Columbus
Pennsylvania	Pennsylvania State Museum, Harrisburg
Rhode Island	Haffenreffer Museum of Anthropology, Brown University, Bristol
South Carolina	South Carolina Institute for Archaeology and Anthropology, Columbia
Tennessee	Chattanooga Regional History Museum, Chattanooga
Vermont	Lake Champlain Maritime Museum, Basin Harbor
West Virginia	Grave Creek Mound Historic Park, Moundsville
Wisconsin	Historic Resource Management Services, University of Wisconsin, Milwaukee **or** Mississippi Valley Archaeology Center, University of Wisconsin, La Crosse

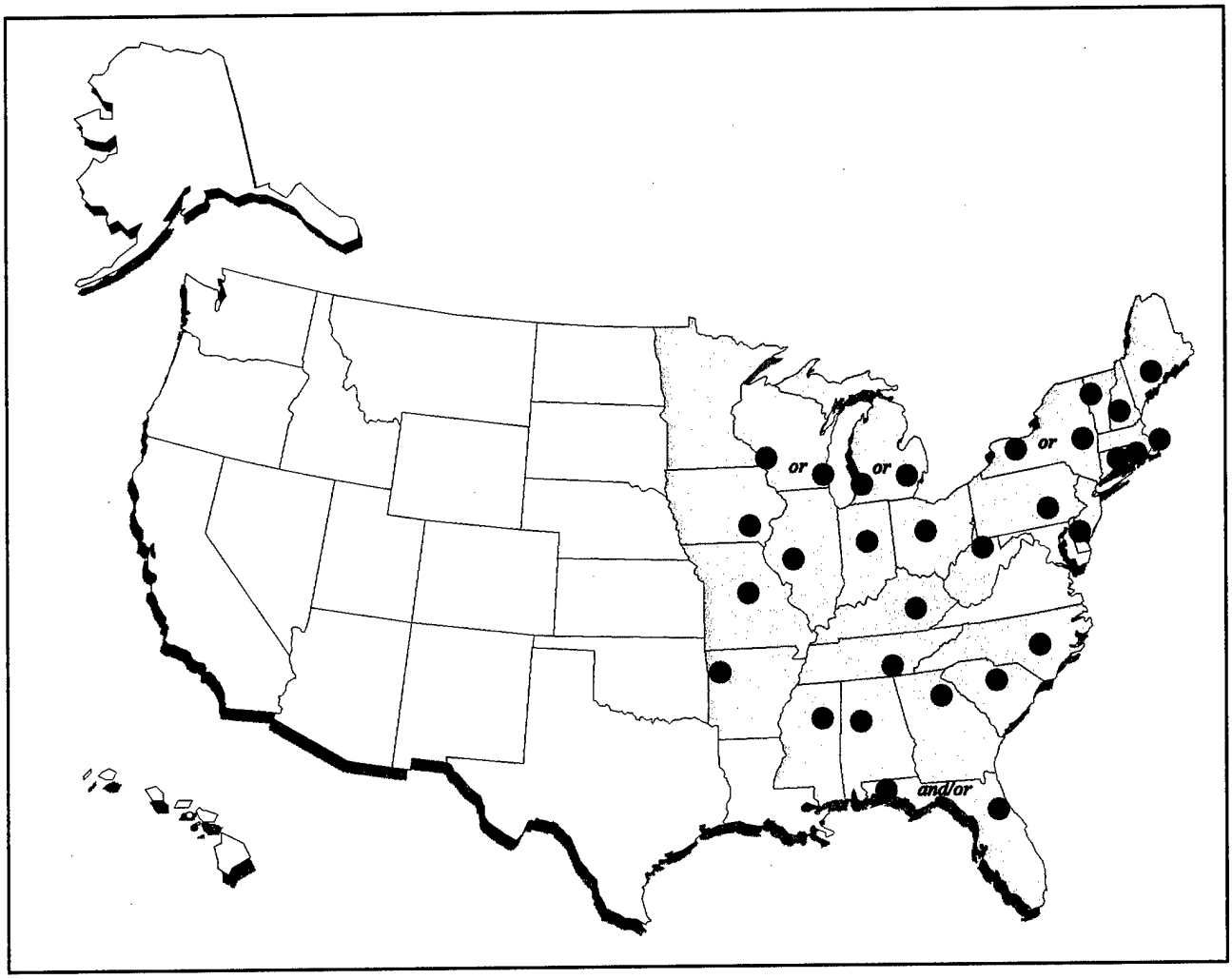


Figure 33.1. Individual State Option – Suggested Potential Partnering Institution Locations

Mixed/Regional Option

The best alternative to designating at least one partner in each state visited during Phase II is a Mixed/Regional Option, which as presented here identifies 21 institutions to potentially serve five regions and 10 individual states (Figure 33.2). The suggested regional partners would provide curation services for DoD/USACE archaeological collections from one or more nearby states. All other potential partners would provide curation services for DoD/USACE archaeological collections only from the state in which the partner is located. The proposed partners in the Mixed/Regional Option are as follows.

Alabama	Office of Archaeological Services, University of Alabama, Tuscaloosa
Arkansas	Arkansas Archeological Survey, Fayetteville
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Mashantucket Pequot Museum, Mashantucket, Connecticut
Delaware, New Jersey, Pennsylvania	Pennsylvania State Museum, Harrisburg
Florida	Archaeology Institute, University of West Florida, Pensacola **or** Florida Museum of Natural History, University of Florida, Gainesville

Georgia	Laboratory of Archaeology, University of Georgia, Athens
Illinois	Illinois State Museum, Springfield
Indiana, Michigan, Ohio, West Virginia	Indiana State Museum, Indianapolis **or** Archaeology Section, Michigan Historical Society, Lansing **or** Public Museum of Grand Rapids, Grand Rapids, Michigan **or** Ohio Historical Society, Ohio Historical Center, Columbus
Iowa, Minnesota, Wisconsin	Office of the State Archaeologist, University of Iowa, Iowa City **or** Mississippi Valley Archaeology Center, University of Wisconsin, Lacrosse
Kentucky, Tennessee	W.S. Webb Museum of Anthropology, University of Kentucky
Mississippi	Cobb Institute of Archaeology, Mississippi State University, Starkville
Missouri	Museum of Anthropology, University of Missouri, Columbia
New York	New York State Museum, Albany or Rochester Museum and Science Center, Rochester
North Carolina	Office of State Archaeology, Raleigh, North Carolina
South Carolina	South Carolina Institute for Archaeology and Anthropology, Columbia

Options Summary

The potential partners identified in any of the aforementioned options could provide high-quality professional collections management services to DoD and USACE pending modifications to their existing curation programs and/or facilities. These options and the associated recommended institutions are summarized in Table 33.1. DoD/USACE would increase their administrative control over their archaeological collections, including their ability to use these collections in interpretive programs for the public. Establishing partnerships with these capable institutions would ensure compliance with the standards of care outlined in 36 CFR Part 79. Access to the collections will also be possible, in most cases for the first time, because inventories will be created that describe the contents of these collections. These inventories will then allow the interpretive programs to be created and focused on specific audiences. In this way our national heritage assets will be preserved, properly cared for and made available to the public in a variety of formats be it for tribal access, interpretive displays, web sites, or educational programs.

DoD/USACE Directive

Finally, DoD/USACE should consider issuing an agency-wide directive to their Major Commands (MACOM), Major Subordinate Commands (MSC), and Field Activities (FA), that emphasizes the need to properly curate both existing and new archaeological collections. Each MACOM, MSC, and FA should indicate to its respective installations which repository their new archaeological collections should be sent to, and that these collections should be prepared according to the standards for collection acceptance agreed to between the repository and DoD/USACE. If these standards are not met, the repository will not accept the collections.

Reference Cited

United States Government

1998 "List of Institutions of Higher Learning Ineligible for Federal Funds." Federal Register, Volume 63, Number 18 (January 28), page 4226.

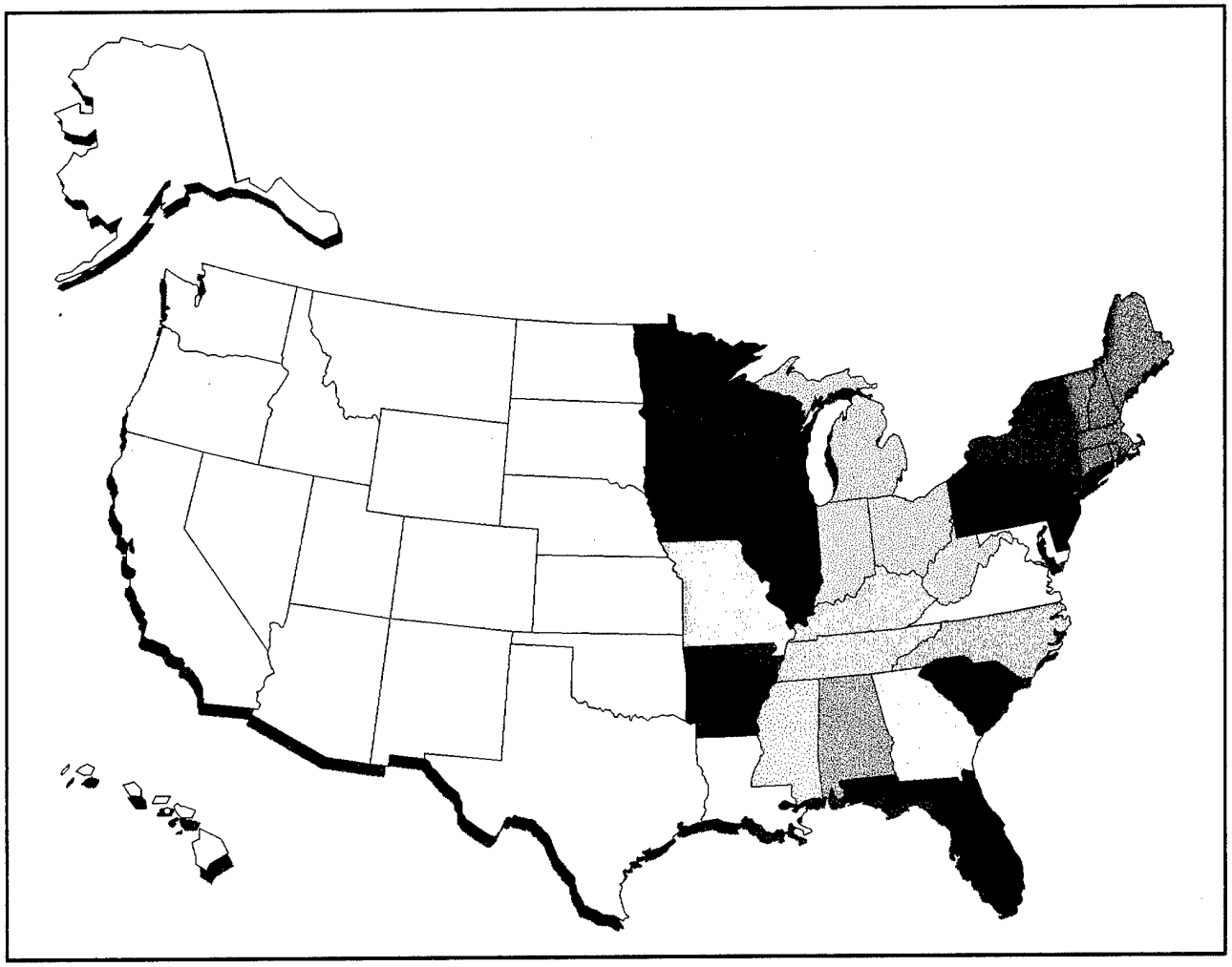


Figure 33.2. Mixed/Regional Option – Suggested Groups of States and Individual States

Table 33.1
Summary of Curation Options and Associated Recommended Institutions

State	Institution	Location	Option	
			Individual State	Mixed/Regional
Alabama	Office of Archaeological Services, University of Alabama	Tuscaloosa	√	√
Arkansas	Arkansas Archeological Survey	Fayetteville	√	√
Connecticut	Mashantucket Pequot Museum	Mashantucket	√	√
Delaware	Delaware State Museums	Dover	√	
District of Columbia	no interested institutions			
Florida	Archaeology Institute, University of West Florida	Pensacola	√	√
–or–	Florida Museum of Natural History, University of Florida	Gainesville	√	√
Georgia	Laboratory of Archaeology, University of Georgia	Athens	√	√

Table 33.1
Summary of Curation Options and Associated Recommended Institutions (Continued)

State	Institution	Location	Option	
			Individual State	Mixed/Regional
Illinois	Illinois State Museum	Springfield	√	√
Indiana	Indiana State Museum	Indianapolis	√	√
Iowa	Office of the State Archaeologist, University of Iowa	Iowa City	√	√
Kentucky	W.S. Webb Museum of Anthropology, University of Kentucky	Lexington	√	√
Maine	Maine State Museum	Augusta	√	
Massachusetts	Cape Cod National Seashore	Wellfleet	√	
Michigan	Archaeology Section, Michigan Historical Society	Lansing	√	√
	–or–			
	Public Museum of Grand Rapids	Grand Rapids	√	√
Minnesota	no interested institutions			
Mississippi	Cobb Institute of Archaeology, Mississippi State Univeristy	Starkville	√	√
Missouri	Museum of Anthropology, University of Missouri	Columbia	√	√
New Hampshire	New Hampshire Division of Historical Resources	Concord	√	
New Jersey	no interested institutions			
New York	New York State Museum	Albany	√	√
	–or–			
	Rochester Museum and Science Center	Rochester	√	√
North Carolina	Office of State Archaeology	Raleigh	√	√
Ohio	Ohio Historical Society	Columbus	√	√
Pennsylvania	Pennsylvania State Museum	Harrisburg	√	√
Rhode Island	Haffenreffer Museum of Anthropology, Brown University	Bristol	√	
South Carolina	South Carolina Institute for Archaeology and Anthropology	Columbia	√	√
Tennessee	Chattanooga Regional History Museum	Chattanooga	√	
Vermont	Lake Champlain Maritime Museum	Basin Harbor	√	
West Virginia	Grave Creek Mound Historic Park	Moundsville	√	
Wisconsin	Historic Resource Management Services, University of Wisconsiin, Milwaukee	Milwaukee	√	
	–or–			
	Mississippi Valley Archaeology Center, Universitynof Wisconin, La Crosse	La Crosse	√	√

Appendix 1
Project Forms

Preliminary Questionnaire

Name/address of institution:

Name/title of respondent:

Telephone/Fax number:

1. Does the institution curate archaeological, anthropological, or ethnographic collections?

2. If yes, how long has the institution curated archaeological collections?

3. Does the institution curate federal archaeological collections?

4. If yes, how long has the institution curated federal archaeological collections?

5. Does the institution's mission statement include archaeological, anthropological, or ethnographic collections?

6. Describe the staff and the percentage of their time devoted to archaeological collections.

7. What is the size of the institution's archaeological holdings (ft^3)?

8. What is the size of the institution's federal archaeological collections?

9. Describe the range of support facilities available for the archaeological collections.

10. Is the institution a state or federally mandated repository for archaeological collections?

11. How much space is devoted to collections management support services (ft^2)?

12. How old is/are the buildings?

13. Does the institution have any outreach programs for the Native American community? If yes, describe the range and focus of these outreach programs.

Grading Sheet for Preliminary Questionnaire

Name/address of institution:

POC:

Date:

1. Scope of Collections

   Acceptable__Not Acceptable__

2. Experience in the Curation of Archaeological Collections

   Preferable__ Acceptable__ Not Acceptable__

3. Curation of Federal Archaeological Collections

   Preferable__ Acceptable__

4. Experience in the Curation of Federal Archaeological Collections

   Preferable__ Acceptable__ Not Acceptable __

5. Mission Statement

   Acceptable__Not Acceptable__

6. Composition and Professional Qualifications of Staff

   Preferable__ Acceptable__ Not Acceptable__

7. Size of Archaeological Holdings

   Preferable__ Acceptable__ Not Acceptable__

8. Size of Federal Archaeological Holdings

   Preferable__ Acceptable__ Not Acceptable__

9. Range of Support Facilities Available for the Archaeological Collections

   Preferable__ Acceptable__ Not Acceptable__

10. State of Federal Mandated Repository

Preferable__ Acceptable__

11. Ft^2 of Space Devoted to Collections Management Support Services

Preferable__ Acceptable__ Not Acceptable__

12. Age of the Building

Preferable__ Acceptable__ Not Acceptable__

13. Range and Focus of Outreach Programs

Preferable__ Acceptable__ Not Acceptable__

Total_____
Rank_____

Grading Criteria for Preliminary Questionnaire

Responses to the Partnership Questionnaire will be evaluated using the following set of minimum standards potential partners are expected to meet.

These standards will be used to evaluate all questionnaires. Responses will be graded preferable, acceptable, or not acceptable. A point value (preferable=3, acceptable=2, not acceptable=1) will be assigned to each of these responses to determine a total score. A total of 39 points are possible. If an institution receives a score of 25 or lower, it will be eliminated from the list. The top four institutions in each state will be contacted to arrange a visit.

a. Scope of Collections

Acceptable: Institution curates archaeological, anthropological, or ethnographic collections.

Not Acceptable: Institution does not curate archaeological, anthropological, or ethnographic collections.

b. Experience in the Curation of Archaeological Collections

Preferable: Institution has at least 15 years experience in the curation of archaeological collections.

Acceptable: Institution has at least 10 years experience in the curation of archaeological collections.

Not Acceptable: Institution has less than 10 years experience in the curation of archaeological collections.

c. Curation of Federal Archaeological Collections

Preferable: Institution curates federal archaeological collections.

Acceptable: Institution does not currently curate federal archaeological collections.

d. Experience in the Curation of Federal Archaeological Collections

Preferable: Institution has at least 15 years experience in the curation of federal archaeological collections.

Acceptable: Institution has at least 10 years experience in the curation of federal archaeological collections.

Not Acceptable: Institution has less than 10 years experience in the curation of federal archaeological collections.

e. Mission Statement

Acceptable: Institution's mission statement includes archaeological, anthropological, or ethnographic collections.

Not Acceptable: Institution's mission statement does not include archaeological, anthropological, or ethnographic collections, or institution does not have a mission statement.

f. Composition and Professional Qualifications of Staff

Preferable: Institution has all of the following funded positions: curator, collections manager, registrar, and conservator.

Acceptable: Institution has at least two of the following funded positions: curator, collections manager, or registrar.

Not Acceptable: Institution has only one of the following funded positions: curator, collections manager, or registrar.

g. Size of Archaeological Holdings

Preferable: Institution has more than 1,000 ft^3 of archaeological collections.

Acceptable: Institution has at least 500 ft^3 of archaeological collections.

Not Acceptable: Institution has less than 500 ft^3 of archaeological collections.

h. Size of Federal Archaeological Holdings

Preferable: Institution has at least 500 ft^3 of federal archaeological collections in their holdings.

Acceptable: Institution has at least 200 ft^3 of federal archaeological collections in their holdings.

Not Acceptable: Institution has less than 200 ft^3 of federal archaeological collections in their holdings.

i. Range of Support Facilities Available for the Archaeological Collections

Preferable: Institution has all of the following: designated collections storage areas, processing labs, conservation labs, research facilities, general work and office areas.

Acceptable: Institution has at least three of the following: designated collections storage areas, processing labs, conservation labs, research facilities, general work and office areas.

Not Acceptable: Institution has two or less of the following: designated collections storage areas, processing labs, conservation labs, research facilities, general work and office areas.

j. State or federally Mandated Repository

Preferable: Institution already is a state or federally mandated repository for archaeological collections.

Acceptable: Institution is not a state or federally mandated repository for archaeological collections.

k. Ft^2 of Space Devoted to Collections Management Support Services

Preferable: Institution has at least 10,000 ft^2 of space devoted to collections management support services.

Acceptable: Institution has at least 5,000 ft^2 of space devoted to collections management support services.

Not Acceptable: Institution has less than 5,000 ft^2 of space devoted to collections management support services.

l. Age of the Building

Preferable: Building is less than 50 years old.

Acceptable: Building is between 50-75 years old.

Not Acceptable: Building is more than 76 years old.

m. Range and Focus of Outreach Programs

Preferable: Institution has outreach programs for the Native American community concerning cultural issues, repatriation, and exhibit design, if applicable.

Acceptable: Institution has outreach programs for the Native American community concerning cultural issues and repatriation.

Not Acceptable: Institution does not have outreach programs for the Native American community concerning cultural issues and repatriation.

Architectural Questionnaire

Date_____

Facility Name:_____

Address:_____
City/State/Zip:_____
Representative's Name:_____Phone_____
Building
Age:_____Comments_____

A. Pre-Visit

Telephone conversation—(if applicable, and if POC is available)

1.POC _____ 2. Title:_____
3.Phone No._____
4.Are Plans Available:_____ 5. Type:_____
6.Gen.Comments:_____

B. Site Inspection

1. Adequate Parking Now? _____
2. Comments_____
3. Disabled Parking and Access to entrance?_____
4. Adequate Automobile Circulation? _____
5. Adequate Truck Circulation Space?_____
6. Is there a loading dock?_____ Protected?_____
7. Space for expansion @ site
   a.Building _____
   b.Parking _____

8. Adequate exterior lighting?_____

9. Comment _____

_____

10.Site Maintenance:

a. Pavement cracking Yes _____ No_____

b. Landscaping Maintained Yes_____ No_____

c. Overall cleanliness_____

11. Availability of utilities: Nat. Gas____ Water_____ Electricity_____ Telephone_____ Fibre Optic _____

12. Are Electric and Telephone service underground?_____

13. Is trash area a. screened?_____ b. Maintained?_____

14. Overall appearance of site:_____

15. Gen. Comments: _____

_____

_____

_____

_____

(Excellent,Good,Fair,Poor _____

_____

C. Site Diagram (sketch bldg, roads, parking)

D. Utilities

1. Sewer _____ 2. Septic _____ 3. Water by a. well _____ b. City main _____
4. Electric service _____ 5. Underground? _____ 6. Nat. Gas? _____ 7.Propane? _____ 8.Other? _____
9. Comments: _____

(Excellent, Good, Fair, Poor) _____

E. Accessibility for ADA

1. No. parking spaces _____ 2. Van spaces _____ 3. Parking signage? _____
4. Path-of-travel to front entrance? _____ Distance? _____
5. Access via front entrance? _____ Ramps? _____
7. Adequate ADA signage? _____
8. Exiting devices for deaf/blind? _____
9. Elevator in compliance? (Braille, height of controls) _____
10. Comments: _____

(Excellent,Good,Fair,Poor) _____

F. Exterior Building Conditions

1. Are walls,windows,doors,roof maintained? _____

2. Wall material: _____
3. Door material: _____
4. Window type, material: _____
5. Roof fascia, and soffit type: _____
6. Type of roof: _____ 7.Age of roof: _____
8. Gutters/downspouts: _____ 9.Skylights? _____
10.Equipment of roof? _____ Type: _____

(Excellent,Good,Fair,Poor) _____

G. Architectural/Structural

1. General Condition _____ 2. Major use _____
3. Bldg. area (total) _____ 4. No. occupants _____
5. Bldg Type (structure, UBC type) _____
6. Foundation type _____ 7. Floor Framing type _____
8. Wall framing type _____ 9. Roof framing type _____
10. Appearance of any foundation settlement? _____
11. Appearance of structural integrity (Defects?) _____
12. Appearance of structural condition _____
13. Logical path of travel (artifacts) _____
14. Logical layout for people _____
15. Separation of public/artifact space _____
16. Ease of Bldg expansion _____
17. S.F. curation storage (archaeological/ethnographic) _____
_____
_____
18. S.F. "empty storage" _____
_____
_____
19. % Total bldg. area _____ 20. Clg. ht. @ storage _____ 21. Cu. ft. storage _____
22. Ease of storage expansion _____
23. Centralized storage, or dispersed to other sites? _____
_____
24. Door types: _____
25. Window types: _____
26. Total # windows @ storage area: _____
27. Dust control at vestibules? _____
28. Other functions of bldg: _____
29. Amount of public usage (heavy, moderate, light) _____
30. General maintenance/condition of storage rooms: _____
31. General maintenance/condition of non-stor. rooms: _____
32. Evidence of leaks (clgs, walls, floors, pipes): _____
_____
33. Rough estimate of bldg cost per s.f.: _____ Rationale: _____
_____
34. Seismic up-grade? _____ Date _____ Describe _____
_____
35. Comments: _____
_____
_____
_____
_____
(Excellent, Good, Fair, Poor) _____

H. Environmental Concerns

1. Asbestos present?_____
2. Lead paint present?_____ 3. Other matls?_____
4. Hazardous material on site?_____ 5. Disposal Problems?_____
6. Comments:_____

(Excellent, Good, Fair, Poor) _____

J. H.V.A.C.

1. Type of system (stor. areas)_____
_____ 2. Year Installed:_____
3. Type of system (non-stor. areas)_____
_____ 4. Year installed:_____
5. Fuel used _____
6. Filters used? Changed? _____
7. Distribution of ducting adequate?_____
8. Temp. at storage areas _____ 9. Temp. at non-storage areas _____
10. Rel. Hum. @ stor areas_____ 11. Rel. Hum. @ non-stor areas _____
12. Venting for hoods at research areas?_____
13. General cleanliness/maintenance of system: _____
14. Comments:_____

(Excellent, Good, Fair, Poor)_____

K. Plumbing

1. Floor drains/backflow preventer at stor rooms?_____ 2. Other areas?_____
3. Water quality (Filters/treatment)_____
4. Pipe insulation @ unheated areas?_____
5. Pipe maintenance/condition _____
6. Evidence of leaks? _____
7. Comments:_____

(Excellent, Good, Fair, Poor)_____

L. Electrical Systems

1. Amount of power to bldg: _____
2. Cost per month (if available) _____
3. Grounding system (3-prong plug?) _____ 4. Age of rehabs _____
5. U.V. Filters at fluor. lighting at storage rooms? _____
6. Are lights turned off most of time @ storage rooms? _____
7. Type of lamps used at storage rooms _____
8. General condition of electrical systems/lighting _____
9. Comments: _____

(Excellent, Good, Fair, Poor) _____

M. Site and Regulatory/Code Concerns

1. Ease of site location _____
2. Close to major highway _____
3. Adjacent site use: Residential _____ Commercial _____ Industrial _____ Educational _____
Other _____
4. Property ownership _____
5. Part of an Historic District? _____
6. Parking requirements _____
7. Problems with parking expansion? _____
8. Any known planning requirements in general? _____
9. Landscaping/Open space requirements? _____
10. Sewer/water/other moratoria? _____
11. Trash/landfill requirements? _____
12. Water usage problems? _____
13. Hillside/view blockage problems? _____
14. Lot coverage/allowable area problems? _____
15. Special Fire Dept. requirements? _____
16. Other requirements? _____
17. Comments (by responsible agencies/contacts): _____

(Excellent, Good, Fair, Poor) _____

N. Fire Safety/Life Safety Systems

1. Number of exits: _____
2. Alarm system type (manual, automatic) _____
3. Wired to Fire Dept?_____ 4. Smoke sensors?/Locations _____
5. Heat sensors?/Locations _____
6. Suppression system type (wet/dry mist) _____
7. Extinguishers_____ 8. Type/location _____
9. Fire extinguishers last checked (date):_____
10. Sprinkler system last checked (date): _____
11. Non-combustible construction?_____ Required? _____
12. One-hr corridors?_____ Required? _____
13. Approved fire dampers in evidence?_____
14. Fire rated doors? _____ Required?_____
15. Emergency lighting system?_____
16. Flashing strobe light?_____
17. Lighted exit signs? _____
18. Dead-end corridors longer than 20'? _____
19. Open stairwells to corridors/assembly spaces?_____
20. Open/unprotected elevator shafts to corridors_____
21. Fire separation walls?_____ Required?_____
22. General Comments_____

_____

_____

_____

_____

_____

(Excellent, Good, Fair, Poor) _____

O. Security Systems

1. Building: Open attic or closed?_____
2. Open return plenum or closed _____
3. Hard/soft finish at exterior? _____ 4. TV cameras?_____
5. Dead-Bolts?_____ 6.Key pads?_____
7. Lockable storage cabinets?_____
8. Motion detectors? _____
9. Intrusion alarms at most openings?_____
10. Alarms tied to central in-house location? _____ 11.To police?_____
12. Private security company?_____
13. Comments: _____

a_____

(Excellent, Good, Fair, Poor)_____

Architectural Scoring Sheet for the Decision Support Model

INSTITUTION:_____

REGION: _____ STATE: _____

EVALUATOR: _____ DATE: _____

I. Architectural Criteria

A. Systems

1. *Fire Suppression System*

____ Adequate = Building has all of the following: adequate and fully operational sprinkler system and fire extinguishers that have been inspected within the last two years.

____ Poor = Building does not have all of the following: adequate and fully operational sprinkler system and fire extinguishers that have been inspected within the last two years.

Rationale:

_____

_____

2. *Fire Detection and Alarm System*

____ Good = Building has all of the following: a series of manual pull alarms and automatic heat and smoke sensors that are wired to a local Fire Department.

____ Fair = Building has manual pull alarms and smoke sensors that are wired to a local Fire Department.

____ Poor = Building does not have all of the following: manual pull alarms and smoke sensors that are wired to a local Fire Department.

Rationale:

_____

_____

3. *Building HVAC System*

____ Adequate = the building has an HVAC system that has all of the following: an adequate number of zones, good temperature control, air movement, filtration and distribution.

____ Fair = the building has an HVAC system that provides few zones and minimal temperature control.

____ Poor = the building does not have an HVAC system that provides zones and minimal temperature control. Or building has no HVAC system.

Rationale:

_____

_____

4. *Security System Guidelines*

____ Good = Building has all of the following: operational intrusion alarms at major building openings that are wired to a local security company or Police Department and restricted access to collections storage areas.

____ Fair = Building has an operational intrusion detection system that is wired to a local security company or Police Department.

____ Poor = Building does not have the following: an operational intrusion detection system that is wired to a local security company or Police Department.

Rationale:

_____

_____

B. Structure

5. *Fire Safety : Building Construction*

____ Adequate = The building's construction follows standards for UBC and BOCA=s construction types, corridors, and doors.

____ Poor = The building's construction does not follow standards for UBC and BOCA=s construction types, corridors, and doors.

Rationale:

_____

_____

6. *Hazardous Building Components*

____ Adequate = Building does not contain any of the following materials: asbestos floor tiles, asbestos insulation, lead paint, lead piping, or PCBs (from transformers).

____ Poor = Building contains any of the following materials: asbestos floor tiles, asbestos insulation, lead paint, lead piping , or PCBs (from transformers).

Rationale:

_____

_____

7. *Building Structural Adequacy*

____ Adequate = Building has no observable major structural defects

____ Poor = Building has one or more observable major structural defects

Rationale:

_____

_____

8. *Plumbing/Drainage/Waterproofing*

____ Good = Building has all the following: operational roof and floor drainage systems, plumbing and exterior drainage systems that are in good repair, and no evidence of leakage.

____ Fair = Building has the following: an operational roof drainage system, plumbing and exterior drainage systems that are in good repair, and possible evidence of minor leakage.

____ Poor = Building does not have all of the following: an operational roof drainage system and plumbing and exterior drainage systems that are in good repair. Building shows evidence of substantial leakage.

Rationale:

_____

_____

C. Other

9. *Building Egress*

____ Adequate = The building's egress follows the standards of UBC and BOCA

____ Poor = The building's egress does not follow the standards of UBC and BOCA

Rationale:

_____

_____

10. *Handicap Accessibility*

____ Good = Most or all areas of the building are accessible to the disabled

____ Fair = Major areas of the building are accessible to the disabled

____ Poor = Building is not accessible to the disabled

Rationale:

_____

_____

11. *Regulatory and Site Problems (for eventual expansion)*

____ Good = Site is suitable for building expansion with minimal difficulties

____ Fair = Site is suitable for building expansion with difficulty

____ Poor = Site is not suitable for building expansion

Rationale:

_____

_____

Collections Management Questionnaire

Recorded by:

Repository Name:

Date of Visit:

Evaluation Team:

Personnel Contacted (name/title):

Environment

Is relative humidity monitored? If yes, describe procedures.

If hygrothermographs are used, where are they located?

Are hygrothermographs calibrated? If yes, how often?

Are charts from hygrothermographs analyzed? If yes, how often?

Are any special climate zones maintained? If yes, describe.

Comments:

Particulates

Are filters used in the HVAC system? If yes, what kind?

How often are filters changed?

Are storage and work areas dust-free? Yes/No. Describe.

Are devices used to protect artifacts on open shelving from dust? Yes/No. Describe.

Are doors and windows sealed? Yes/No. Describe.

If doors and windows are not sealed, are they ever opened? Under what circumstances?

Comments:

Fire Protection

Describe the fire detection/suppression systems and their locations.

Are any flammable liquids or materials kept in the collections storage area? Describe.

If so, in what kinds of containers are they stored?

Comments:

Health and Safety Issues

Are Materials Safety Data (MSD) sheets available for all chemicals used in the repository?

Describe how chemicals are stored.

Are hazardous chemicals clearly labeled? Yes/No. Describe

What safety protection measures are in use?

Are areas restricted for exclusive chemical use? Yes/No. Describe.

Are fume hoods located in laboratories where chemicals are used?

Are eyewash stations/emergency showers located in laboratories where chemicals are used?

If so, are they appropriate for the types of chemicals used? Yes/No. Describe.

Comments:

Security

Describe the security systems.

Is additional security provided for fragile or valuable items? Yes/No. Describe.

Comments:

Pest Management

Does the repository have an Integrated Pest Management plan? Yes/No. Attach if available.

Is food allowed in the repository? If yes, where?

Describe the maintenance schedule for cleaning.

What is the inspection schedule for collections?

How are infested objects treated?

Comments:

General Collections Information

Does the repository curate the following types of collections?
Check if present.

__Art
__Archaeological
__Botanical
__Ethnographic
__Human skeletal
__History
__Natural history
__Paleontological
__Other:

What are the principal collections in the repository's holdings?

Are any types of collections excluded from curation? Explain.

Estimate the number of archaeological collections in the repository's holdings.

Does the repository have off-site storage for oversized objects?

Comments:

Archaeological Collections Storage

Storage area name_____Room number_____

Describe the layout of the collections storage area.

What types of materials are stored in this room?

What types of shelving units are used?

What types of cabinets are used?

Are shelves and drawers padded? If yes, what materials are used?

What types of containers are used to house archaeological collections?
Primary Containers? Secondary Containers?

Does the repository have an established policy or procedure for labeling primary and secondary containers and artifacts? Describe or attach if available.

Comments:

Human Skeletal Material

Does the repository curate human skeletal material? If so, are any of the collections Native American?

What percentage of human skeletal remains are federal? Nonfederal?

Is the associated documentation curated by the repository?

If not, where is the associated documentation located?

Comments:

Collections Management Policies and Procedures

Does the repository have any of the following written policies and procedures? Attach copy, if available.

__Mission Statement
__Accession/Acquisition policy
__Minimum standards of acceptance
__Field curation guidelines
__Inventory policy
__Loan policy
__Exhibition policy
__Conservation policy
__Packing/shipping procedures
__Disaster/emergency plan
__Access/use of collections policy
__Security guidelines
__Consultation policy
__Integrated Pest Management plan
__Deaccession/disposal policy
__Others:

Comments:

Describe what happens to a new collection once it arrives at the repository.

Is each collection assigned a unique accession number?

Are objects catalogued? If yes, describe the catalogue system.

Is the location of a collection or an object identified in the accession file or catalogue?

Is there a site-record administration system for archaeological collections?

__Smithsonian trinomials
__State, county, city numbers
__Multiple systems
__Other:

Comments:

Access/Use of Collections

Is access to the collections monitored and limited? Explain.

Are the collections accessible to researchers and scholars? Under what circumstances?

Are Native American collections accessible to Native Americans? Under what circumstances?

Comments:

Packing, Shipping, and Receiving

Does the repository have a loading dock?

Is the loading dock secure? Describe.

Describe the loading dock and the receiving area.

Does the building have a logical path of travel for deliveries?

Is there a holding area for collections in transit?

Are incoming collections isolated? Explain.

Comments:

Exhibition Space

Describe the exhibit space.

Is the exhibit area climate monitored? Describe.

Are archaeological materials displayed? Describe.

Comments:

Records and Associated Archaeological Documentation

Does the repository maintain the following types of records? Check if present.

__Acquisition/accession files
__Catalog information
__Conservation information
__Environmental records
__Inventory records
__Exhibit information
__Deaccession files
__Object location information
__Loan information
__Photographs, slides, etc.
__Other:

Does the repository maintain the following types of associated archaeological documentation? Check if present.

__Artifact inventories
__Archaeological site records
__Burial records
__Field notes
__Maps
__Photographs and slides
__Reports
__Others:

Comments:

Describe where records and associated archaeological documentation are stored.

How accessible are records and associated archaeological documentation?

How secure are records and associated archaeological documentation?

How are records and associated archaeological documentation stored?

If file cabinets are used, are they fire-resistant?

Has associated archaeological documentation been catalogued? If yes, describe.

Has associated archaeological documentation been inventoried?

Is there a duplicate copy of records and associated archaeological documentation? Hard copy or electronic copy?

Where is the duplicate copy stored?

Comments:

Computerized Data Management

Does the repository use automated data processing techniques to manage its collections? Describe.

What medium is used to store data?

Are back-ups made of records? How often?

Is a back-up copy stored off site? Where?

Is the computer on which collection records are stored attached to a network?

If yes, how many people have access to this information?

Is there a backlog of collections data to be entered into the computer? Describe.

Miscellaneous questions

What is the repository's highest priority concerning archaeological collections (e.g., recovery, curation, education, research, exhibition)?

Are there any future plans for renovations or expansion of existing facilities? Describe.

Staff

Describe the administrative or governing body of the institution. Obtain a diagram or flowchart if possible.

How large is the staff? Full time? Part time?

__Curator
__Curatorial Assistant
__Registrar
__Collections Manager
__Conservator
__Archivist
__Lab Assistant
__Security
__Operations/custodial
__Other:

In your opinion, does the institution have adequate staff to manage and care for existing archaeological collections? Explain.

In your opinion, are adequate resources and equipment available to manage and care for existing archaeological collections? Explain.

Laboratory/Special Purpose Room

Describe the function of the room.

Describe the layout of the room.

What kinds of furniture and equipment are in use?

__Countertops
__Storage cabinets
__Shelving units
__Examining tables
__Sinks
__Eyewash station
__Emergency shower
__Deionized water unit
__Washer/Dryer
__Fumehoods
__Dust Collectors
__Freezer
__Computers
__Microscope
__Photographic supplies
__Others:

Infrastructure Scoring Sheets for the Decision Support Model

INSTITUTION:_____

REGION: _____ STATE: _____

EVALUATOR:_____ DATE: _____

II. Infrastructure Criteria

A. Archaeological Collections

1. *Scope of Collections*:

____ Excellent = Institution curates the following: archaeological plus either anthropological or ethnographic collections.

____ Adequate = Institution curates archaeological collections.

____ Poor = Institution does not curate archaeological collections.

Rationale:

_____

_____

2. *Environmental Controls*

____ Adequate: Collections are stored in an area where temperature and relative humidity are regulated and monitored on a regular basis.

____ Poor: Collections are stored in an area where temperature and relative humidity are not regulated and monitored on a regular basis.

Rationale:

_____

_____

3. *Archaeological Collections Storage*

____ Adequate: Archaeological collections are stored in a manner that protects them from ultraviolet radiation, particulates, biological pests, and general neglect (including but not limited to breakage from compression, water damage, and infrequent housekeeping).

____ Poor: Archaeological collections are stored in a manner that does not protect them from ultraviolet radiation, particulates, biological pests, and general neglect (including but not limited to breakage from compression, water damage, and infrequent housekeeping).

Rationale:

_____

_____

B. Administrative

4. *Mission Statement:*

____ Excellent = Institution has a mission statement that encompasses the following: archaeological collections plus either anthropological or ethnographic collections.

____ Adequate = Institution has a mission statement that encompasses archaeological collections

____ Poor = Institution does not have a mission statement that encompasses archaeological materials.

____ Not acceptable = Institution does not have a mission statement.

Rationale: _____

_____

5. *Composition of Staff*

____ Excellent = Institution has all of the following funded (full-time, permanent) positions: curator, collections manager, registrar, and conservator.

____ Adequate = Institution has all of the following funded (full-time, permanent) positions: curator, collections manager, and registrar.

____ Poor = Institution does not have all of the following funded positions (full-time, permanent) positions: curator, collections manager, and registrar.

____ Not acceptable = Any of the following positions are part-time, temporary, or not funded: curator, collections manager, or registrar.

Rationale:

_____

_____

6. *Administrative Record Keeping*

____ Excellent = Institution maintains all of the following types of administrative records: acquisition/ accession records, catalog information, collection inventories, object location information, loan information/ agreements, and deaccession/disposal records.

____ Adequate = Institution maintains all of the following types of administrative records: acquisition/ accession records, catalog information, object location information, and deaccession/disposal records.

____ Poor = Institution does not maintain all of the following types of administrative records: acquisition/ accession records, catalog information, object location information, and deaccession/disposal records.

Rationale:

_____

_____

C. Collections Management

7. *Range of Support Facilities for Archaeological Collections:*

____ Excellent = Institution has all of the following: designated collections storage areas, processing labs, conservation labs, research facilities, general work and office areas.

____ Adequate = Institution has all of the following: designated collections storage areas, processing labs, general work and office areas.

____ *Poor* = Institution does not have all of the following: designated collections storage areas, processing labs, general work and office areas.

Rationale:

_____

_____

8. *Collections Management Policies*

____ Excellent = Institution has all of the following written collections management policies: accession policy, a disaster/emergency plan, access/use of collections policy, Integrated Pest Management Plan, and a deaccession/disposal policy.

____ Adequate = Institution has all of the following written collections management policies: accession policy, a disaster/emergency plan, Integrated Pest Management Plan, and a deaccession/disposal policy.

____ Poor = Institution does not have a written accession policy, disaster or emergency plan, and a deaccession policy/disposal policy.

____ Not acceptable = Institution has no written collections management policies.

Rationale:

_____

_____

9. *Associated Archaeological Documentation*

____ Excellent = Institution maintains all of the following types of associated archaeological documentation: archaeological site files, field notes, artifact inventories, reports, and photographs/slides.

____ Adequate = Institution maintains all of the following types of associated archaeological documentation: field notes, artifact inventories, and reports.

____ Poor = Institution does not maintain all of the following types of associated archaeological documentation: field notes, artifact inventories, and reports.

Rationale:

_____

_____

10. *Administrative Records and Associated Archaeological Documentation Storage*

____ Adequate: Institution stores all administrative records and associated archaeological documentation in a manner that will protect them from fire, theft, damage, and destruction.

____ Poor: Institution does not store all administrative records and associated archaeological documentation in a manner that will protect them from fire, theft, damage, and destruction.

Rationale:

_____

_____

Administrative Questionnaire

Date:_____

Recorder:_____

Person(s) interviewed and title(s):_____

_____

Institution:_____

I. Background

1. *Have you participated in any similar projects with state, federal or DoD agencies including the Corps?*

_____

_____

_____

_____

2. *Are you a private, local/county, state, or federal institution?*

_____

_____

3. How long has the institution been in existence?

_____

_____

4. Do you currently curate Department of Defense or U.S. Army Corps of Engineers archaeological collections? If yes, from what agencies and/or districts?

_____

_____

II. Real Estate

1. *Who owns the property?*

2. *Are there any restrictions to the use of the property, e.g. requirements for open space, covenants against construction, etc.?*

III. Financial/Administrative

1. *Does a representative from your institution have the authority to commit the institution financially to a partnership with the DoD/Corps for a curation facility?*

2. *Does your institution have one or more individuals whose function is to write and track grant proposals for outside sources of funding?*

3. *Does your institution have one or more individuals whose function is fund raising?*

4. *What percentage of the total budget of the Anthropology Division or if there is no separate Division, for the institution as a whole, would you estimate goes towards administration?*

5. *What percentage of the total budget of the Anthropology Division or if there is no separate Division, for the institution as a whole, would you estimate goes towards archaeological collections management?*

6. *What percentage of the permanent full time staff of the Anthropology Division or if there is no separate Division, for the institution as a whole, is classified as administrative?*

7. *What percentage of the permanent full time staff of the Anthropology Division or if there is no separate Division, for the institution as a whole, is classified as archaeological collections management?*

8. *Has your institution had a deficit in its operating budget in the last five years?*

IV. Agreements

1. *What kind of agreements do you currently have for curation of federal archaeological collections? If the DoD/Corps requested that you sign a cooperative agreement, could a representative from your institution sign such an agreement?*

V. Outreach

1. *Do you have an individual(s) that is (are) exclusively involved in archaeology outreach/education programs? How many and what are their duties?*

2. *What kinds of archaeology outreach/education programs currently exist? Describe.*

3. What would you consider the significant, specialized, or outstanding features of these archaeology outreach/education programs?

4. *Do you have experience working with Native Americans? Describe.*

5. *Do you have archaeology programs for primary and/or secondary schools. Describe.*

VI. Supporters

1. Who are your primary boosters/supporters?

VII. Contribution

1. What would you contribute to a curation facility and the maintenance of DoD/Corps collections? What do you expect the DoD/Corps to contribute? e.g. equipment, staff, floor space, operation and maintenance costs, etc.

2. *What are the costs of curating _____ cubic feet of archaeological materials from DoD/Corps lands if these materials require total rehabilitation, e.g. replacement of boxes, rebagging, repacking, and recataloging? The costs should include materials, labor, operation and maintenance of the repository, and long term maintenance of the materials. Of these total costs, what portion will the repository absorb and what portion would the DoD/Corps absorb?*

Additional Comments:

Information to Include For Estimating Rehabilitation and Maintenance Costs of Department of Defense and Army Corps of Engineers Archaeological Collections

When estimating the costs for curating Department of Defense and U.S. Army Corps of Engineers archaeological collections, two separate cost estimates should be calculated since the federal government cannot pay for curation services in a lump sum at the beginning of a curation agreement. The first estimate should include those costs associated with the rehabilitation of the collections. The second estimate should include the costs for maintenance of those collections after they are rehabilitated.

Institution: _____

Date: _____

Total Rehabilitation cost: _____

Total Maintenance cost: _____

Rehabilitation

The following list of items is not complete and serves only as a guide. Items should be eliminated or added as needed to fit a particular repository. The estimate should be based on _____ cubic feet of material to be rehabilitated. It may be useful to present the estimate using one cubic foot as the standard unit of measure multiplied by the total number of cubic feet to be rehabilitated.

1. Materials that hold the collections (archival boxes, plastic bags, folders, padding material) _____

2. Materials to catalog the collections (pens, ink, solvents, hoods, tables) _____

3. Staff time (hourly wage, fringe benefits) _____

4. Operation and maintenance of the facility (heating, air conditioning, utilities, security) _____

5. Overhead _____

6. Insurance (fire, theft) _____

7. Rental space _____

8. Computers (hardware and software) _____

9. Other (list) _____

Total Rehabilitation _____

Annual Collection Maintenance

The following list of items is not complete and serves only as a guide. Items should be eliminated or added as needed to fit a particular repository. The estimate should be based on _____ cubic feet of material to be maintained. It may be useful to present the estimate using one cubic foot as the standard unit of measure multiplied by the total number of cubic feet to be maintained.

1. Staff (hourly wage, fringe benefits) _____

2. Operation and maintenance of the facility (utilities, security) _____

3. Materials to store the collections (shelving, fireproof cabinets) _____

4. Overhead _____

5. Insurance (fire, theft) _____

6. Cataloging system (computers, local area network) _____

7. Other (list) _____

Total Maintenance | |

Grand Total (Rehabilitation and Maintenance Costs) | |

Administrative Scoring Sheet for the Decision Support Model

INSTITUTION:_____

REGION: _____ STATE: _____

EVALUATOR: _____ DATE: _____

I. Background

1. Have you participated in any similar projects with state, federal or DoD agencies including the Corps?

____ Excellent = The institution has participated in a similar project with another federal or DoD agency for the curation of archaeological collections.

____ Adequate = The institution has participated in a similar project with another state agency for the curation of archaeological collections.

____ Poor = The institution has not participated in a similar project with any state, federal or DoD agencies for the curation of archaeological collections.

Rationale:

_____

_____

2. Are you a private, local/county, state, or federal institution?

____ Excellent = State or federal institution

____ Adequate = Private or local/county institution

Rationale:

_____

_____

II. Real Estate

1. Who owns the property?

____ Excellent = State or federal

____ Adequate = Private or local/county

____ Poor = Not owned by the curating institution

Rationale:

_____

_____

2. Are their any restrictions to the use of the property, e.g. requirements for open space, covenants against construction, etc.?

____ Adequate = No

____ Poor = Yes

Rationale:

_____

_____

III. Financial/Administrative

1. Does a representative from your institution have the authority to commit the institution financially to a partnership with the DoD/Corps for a curation facility?

____ Excellent = An individual or group of individuals within the immediate bureaucratic structure of the institution such as the governing board and below, has the authority to financially commit the institution to an agreement with the DoD for a curation facility.

____ Adequate = An individual or group of individuals outside the immediate bureaucratic structure of the institution has the authority to financially commit the institution to an agreement with the DoD for a curation facility.

____ Poor = Two or more branches of government must be involved in committing the institution to any financial commitments.

Rationale:

_____

_____

2. Does your institution have one or more individuals whose function is to write and track grant proposals for outside sources of funding?

____ Excellent = Two or more individuals are involved in grant writing/tracking.

____ Adequate = The institution has one individual whose job is to write/track grant proposals.

____ Poor = No one on staff is involved in grant writing.

Rationale:

_____

_____

3. Does your institution have one or more individuals whose function is fund raising?

____ Excellent = Two or more individuals are involved in fund raising.

____ Adequate = The institution has one individual whose job is to raise outside funds.

____ Poor = No one on staff is involved in outside fund raising.

Rationale:

_____

_____

4. What percentage of your total budget would you estimate goes towards administration?

____ Excellent = 15%–25%

____ Adequate = 26%–50%

____ Poor =0%–14%, or over 50%

Rationale:

_____

_____

5. What percentage of your total budget would you estimate goes towards archaeological collections management?

____ Adequate = 25%–75%

____ Poor = 0–24% or 76–100%

Rationale:

_____

_____

6. What percentage of your permanent full time staff is classified as administrative?

____ Excellent = 15%–25%

____ Adequate = 26%–50%

____ Poor = 0%–14%, or over 50%

Rationale:

_____

_____

7. What percentage of your permanent full time staff is classified as collections management?

____ Adequate = 25%–75%

____ Poor = 0%–24% and 76%–100%

Rationale:

_____

_____

8. Has your institution had a deficit in its operating budget in the last five years?

____ Adequate = No

____ Poor = Yes

Rationale:

_____

_____

IV. Agreements

1. What kind of agreements do you currently have for curation of federal archaeological collections?

____ Excellent = The institution has one or more existing curation agreements with Department of Defense agencies including the Army Corps of Engineers.

____ Adequate = The institution has one or more existing curation agreements with non-DoD federal agencies.

____ Poor = The institution has no curation agreements with any federal agencies.

Rationale:

_____

_____

V. Outreach

1. Do you have an individual(s) that is (are) exclusively involved in archaeology outreach/education programs? How many and what are their duties?

____ Excellent = One or more full time, permanent staff are devoted exclusively to outreach/education programs. These programs include Native Americans.

____ Adequate = One or more staff that devote less than full time to outreach/education programs. These programs may only ephemerally involve Native Americans.

____ Poor = No staff are involved in outreach/education programs.

Rationale:

_____

_____

2. What kinds of archaeology outreach/education programs currently exist?

____ Excellent = Programs exist for the general public and separate programs exist for Native Americans.

____ Adequate = Programs exist only for the general public.

____ Poor = The institution has no outreach/education programs.

Rationale:

_____

_____

4. Do you have experience working with Native Americans?

____ Excellent = Native American heritage programs, advisory board and consulted for NAGPRA.

____ Adequate = Limited interaction with Native Americans working with the institution's archaeological collections.

____ Poor = No experience with Native Americans.

Rationale:

_____

_____

5. Do you have archaeology programs for primary and/or secondary schools?

____ Adequate = Yes

____ Poor = No

Rationale:

_____

_____

VI. Contributions

1. What would you willing to contribute to a curation facility in partnership with the DoD?

____ Excellent = The institution could contribute staff, floor space, funds for an addition or new facility, and operations and management costs.

____ Adequate = The institution could contribute funds for an addition or new facility and operations and management costs.

____ Poor = The institution could only contribute funds for an addition or new facility.

____ Not Acceptable = Not willing to contribute anything.

Rationale:

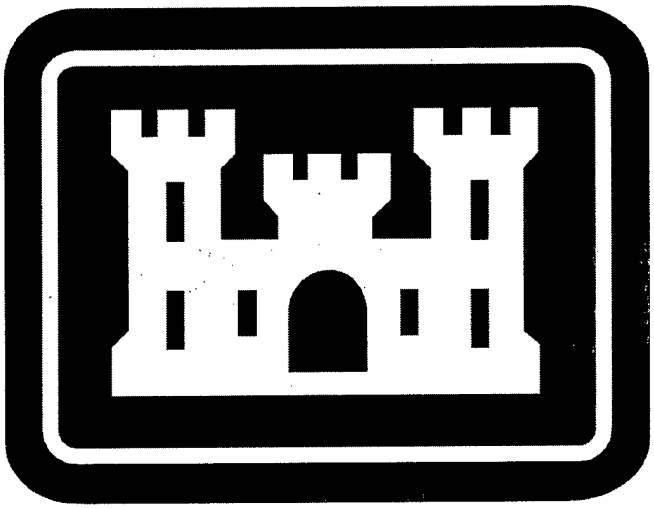
_____

_____

Appendix 2

Decision Support Model Documentation

Curation Center Partnership Program



Decision Workshop Documentation Addendum August 14-15, 1996

Standard Development and Weights

During the August 14 and 15, 1996 workshop, members of the DoD Curation Options team developed standards and assigned standard weights for each criterion in the decision model. The standards represent alternatives within a decision criteria that can be chosen to score or rate each institution. For example, choices or standards within the Building HVAC Criteria include:

(1) Adequate–Operational and in good repair
(2) Fair–Few zones and minimal temperature control
(3) Poor–No or poor HVAC system

The standards were developed to cover the total range of options for each criteria. Each institution could then be scored by selecting the appropriate standard without exception.

To assign a score or points for each standard, the group was asked to assign 0 points to the lowest or unacceptable standard and 100 points to the highest standard within each criterion. Intermediate standards were assigned points based on the group's judgment within the 100 point range. The Analytic Hierarchy Process (AHP) used to develop the model and import it into the RADSS software converts the points to a relative weight based upon their criterion weight. The highest standard is assigned the total relative weight and the lower standards a relative proportion based on the group's scoring. For the Building HVAC Criteria, with a weight of .00516, the highest standard (1) Adequate-Operational and in good repair, receives the total number of criterion points or .00516. The lowest standard (3) Poor-No or poor HVAC system, receives no points, and the intermediate standard receives 40% of the total points or .002064. Total possible score for each institution, assuming that the best standard is chosen for each criterion is 1.000.

The following table, Table 2A.1, provides detail for each criterion, listing the criteria and criteria definitions, standards and standard definitions, and appropriate weight.

Editor's Note: Table 2A.2, at the end of Appendix 2, was compiled by the St. Louis District from the raw data presented by TASC. This information is divided into the three categories, architecture, collections management, and administration, and the various factors are listed according to weight within each category. Scores for each class of answers are also presented.

Table A2.1
Decision Support Model Evaluation Measures

Fire Suppression System Factors	0.04390	Fire Suppression System including sprinkler systems, fire extinguishers, and their inspections
Adequate–Operational and in good state	0.04390	Building has all of the following: adequate and fully operational sprinkler system and fire extinguishers that have been inspected within the last two years
Poor–Not Operational or in good state	0.00000	Building does not have all of the following: adequate and fully operational sprinkler system and fire extinguishers that have been inspected within the last two years
Fire Detection and Alarm System Factors	0.08388	Fire Detection and Alarm System which includes pull alarms, heat and smoke detectors, and wiring to local Fire Department
Fair–Manual pull alarm and smoke detectors	0.03355	Building has manual pull alarms, and smoke sensors wired to the local Fire Department
Poor–Doesn't have pull alarms/smoke sensor wired	0.00000	Building does not have all of the following: manual pull alarms and smoke sensors that are wired to a local Fire Department
Good–Wired pull alarms, heat and smoke detectors	0.08388	Building has all of the following: a series of manual pull alarms and automatic heat and smoke sensors that are wired to a local Fire Department
Building HVAC Factors	0.00516	Building Heating, Ventilation, and Air conditioning Factors
Adequate–Operational and in good repair	0.00516	Building has an HVAC system that has all of the following: an adequate number of zones, good temperature control, air movement, filtration, and distribution
Poor–No or poor HVAC system	0.00000	Building does not have an HVAC system that provides zones and minimal temperature control, or building has no HVAC system
Fair–Few zones and minimal temp. control	0.00206	Building has an HVAC system that provides few zones and minimal temperature control
Security System Factors	0.01410	Security System Guidelines including intrusion alarms, and restricted access to collections and storage area.
Good–Wired intrusion alarms and restricted access	0.01410	Building has all of the following: operational intrusion alarms at major building openings that are wired to a local security company or Police Department and restricted access to collections storage areas
Poor–No intrusion alarms wired to local security	0.00000	Building does not have the following: an operational intrusion detection system that is wired to a local security company or Police Department
Fair–Wired intrusion alarms/no restricted access	0.00564	Building has an operational intrusion detection system that is wired to a local security company or Police Department
Fire Safety: Building Construction Factor	0.02313	Describes if building construction meets UBC and BOCA codes
Adequate–Follows UBC and BOCA Standards	0.02312	Building's construction follows standards for UBC and BOCA's construction types, corridors,and doors
Poor–Does not follow UBC and BOCA Standards	0.00000	Building's construction does not follow standards for UBC and BOCA's construction types,corridors, and doors

Table A2.1
Decision Support Model Evaluation Measures (Continued)

Hazardous Building Components Factors	0.00159	Hazardous Building Components including asbestos, lead paint, lead piping, PCBs, etc.
Adequate–No hazardous building components	0.00159	Building does not contain any of the following materials; asbestos floor tiles, asbestos insulation, lead paint, lead piping, or PCBs (from transformers)
Poor–Building contains hazardous components	0.00000	Building contains any of the following materials: asbestos floor tiles, asbestos insulation, lead paint, lead piping, or PCBs (from transformers)
Building Structural Adequacy Factors	0.01280	Building Structural Adequacy including major structural defects
Adequate–No major structural defects	0.01280	Building has no observable major structural defects
Poor–One or more major structural defects	0.00000	Building has one or more observable major structural defects
Plumbing/Drainage/Waterproofing Factor	0.00381	Plumbing/Drainage/Waterproofing factors including roof and floor drainage systems, plumbing and external drainage systems, and evidence of leakage throughout the building
Good–Operational systems and no signs of leakage	0.00381	Building has all the following: operational roof and floor drainage systems, plumbing and exterior drainage systems that are in good repair, and no evidence of leakage
Poor–No or non-operational systems and leakage	0.00000	Building does not have all of the following: an operational roof drainage system and plumbing and exterior drainage systems that are in good repair. Building shows evidence of substantial leakage.
Fair–Operational systems but signs of leakage	0.00229	Building has the following: an operational roof drainage system, plumbing and exterior drainage systems that are in good repair, and possible evidence of minor leakage
Egress Building Factors	0.00823	Describes if building egress follows UBC and BOCA standards
Adequate–Building Egress follows UBC & BOCA stds.	0.00823	Building's egress follows the standards of UBC and BOCA
Poor–Building Egress does not follow UBC and BOCA	0.00000	Building's egress does not follow standards of UBC and BOCA
Handicap Accessibility Factors	0.00070	Describes handicap accessibility of the building
Fair–Major areas are accessible to disabled	0.00035	Major areas of the building are accessible to the disabled
Poor–Building is not accessible	0.00000	Building is not accessible to the disabled
Good–Most or all areas accessible to disabled	0.00070	Most or all areas of the building are accessible to the disabled
Regulatory & Site Problems (for expansion)	0.00269	Regulatory and site problems related to eventual expansion
Good–Minimal difficulties for building expansion	0.00269	Site is suitable for building expansion with minimal difficulty
Poor–Site is not suitable for building expansion	0.00000	Site is not suitable for building expansion
Fair–Suitable for expansion with difficulty	0.00081	Site is suitable for building expansion with difficulty

Table A2.1
Decision Support Model Evaluation Measures (Continued)

Scope Of Collections Factors	0.11485	Describes scope of collections including whether institution curates archaeological, anthropological, or ethnographic collections
Excellent–Curates arch., anthro., and ethno.	0.11485	Institution curates the following: archaeological plus either anthropological or ethnographic collections
Adequate–Curates archaeological collections	0.09762	Institution curates archaeological collections
Poor–Does not curate archaeological collections	0.00000	Institution does not curate archaeological collections
Environmental Controls Factors	0.00885	Describes institution's environmental controls and monitoring for temperature and humidity
Adequate–Regulated and monitored environment	0.00885	Collections are stored in an area where temperature and relative humidity are regulated and monitored on a regular basis
Poor–Temp. and Humidity not regulated or monitored	0.00000	Collections stored in an area where temperature and humidity aren't regulated and monitored on a regular basis
Archaeological Collections Storage Factors	0.01841	Describes how institution stores Archaeological Collections to protect them from ultraviolet radiation, particulates, biological pests and general neglect
Adequate–Collections are stored adequately	0.01841	Archaeological collections are stored in a manner that protects them from ultraviolet radiation, particulates, biological pests, and general neglect (including but not limited to breakage from compression, water damage, and infrequent housekeeping)
Poor–Collections are not stored adequately	0.00000	Archaeological collections are stored in a manner that does not protect them from ultraviolet radiation, particulates, biological pests, and general neglect including but not limited to breakage from compression, water damage, and infrequent housekeeping
Mission Statement Factors	0.11402	Describes institution's mission statement
Excellent–Mission S. for Arch., & Anthro or Ethno.	0.11402	Institution has a mission statement that encompasses the following: archaeological collections plus either anthropological or ethnographic collections
Adequate–Mission statement for archaeological col.	0.09691	Institution has a mission statement encompassing archaeological collections
Poor–No mission statement for archaeological col.	0.00000	Institution does not have a mission statement for archaeological materials
Composition Of Staff Factors	0.00798	Describes the type of staff funded by the institution
Excellent–Curator, collect mgr, registrar, conserve	0.00798	Institution has all of the following funded (full-time, permanent) positions: curator, collections manager, registrar, and conservator
Adequate–Curator, collect mgr, and registrar	0.00718	Institution has all of the following funded (full-time, permanent) positions: curator, collections manager, and registrar
Poor–No full time curator, collect mgr, & registr	0.00000	Institution does not have all of the following funded (full-time, permanent) positions: curator, collections manager, and registrar
Not Acceptable–Pt-time curator/collect mgr/regist	0.00000	Institution has any of the following positions part-time or not funded: curator, collections mgr., or registrar

Table A2.1
Decision Support Model Evaluation Measures (Continued)

Administrative Record Keeping Factors	0.02011	Describes administrative record keeping including: acquisition/accession records, catalog information, object location information, and deaccession/disposal records
Excellent–Maintains all types of admin records	0.02011	Institution maintains all of the following types of administrative records: acquisition/accession records, catalog information, collection inventories, object locationinformation, loan information/agreements and deaccession/disposal records
Adequate–Maintains most types of admin records	0.01709	Institution maintains all of the following types of administrative records: acquisition/accession records, catalog information, and deaccession/disposal records
Poor–Does not maintain required admin. records	0.00000	Institution does not maintain all of the following types of administrative records: acquisition/accession records, catalog information, object location information, and deaccession/disposal records
Range of Support Facilities	0.00147	Range of Support Facilities for Archaeological Collections including storage areas, processing and conservation labs, research facilities, general and office areas
Excellent–Institution has all types of facilities	0.00147	Institution has all of the following: designated collections storage areas, processing labs, conservation labs, research facilities, general work and office areas.
Adequate–Institution has adeq. support facilities	0.00132	Institution has all of the following: designated collections storage areas, processing labs, general work and office areas
Poor–Intitution has limited support facilities	0.00000	Institution does not have all of the following: designated collections storage areas, processing labs, general work and office areas
Collections Management Policies	0.00851	Describes institution's collections management policy for accession policy, disaster/emergency plans, access/use of collections policy, integrated pest management plan, anddeaccession/disposal policy
Excellent-Collections Management Policies	0.00851	Institution has all of the following written collections management policies: accession policy, a disaster/ emergency plan, access/use of collections policy, integrated pest management plan, and deaccession/ disposal policy
Adequate-Collections Management Policies	0.00681	Institution has all of the following written collections management policies: accession policy, a disaster/ emergency plan, integrated pest management plan, and deaccession/disposal policy
Poor-Collections Management Policies	0.00085	Institution does not have the following written collections management policies: accessionpolicy, a disaster/ emergency plan, integrated pest management plan, and deaccession/disposal policy
Not Acceptable-No written Col. Mgmt. Policies	0.00000	Institution has no written collections management policies
Associated Archaeological Documentat	0.00291	Describes archaeological documentation including: site files, field notes, artifact inventories, reports, and photographs/slides
Excellent-Maintains all types of arch. documents	0.00291	Institution maintains all of the following types of associated archaeological documentation: archaeological site files, field notes, artifact inventories, reports, and photographs/slides
Adequate-Maintains some arch documentation	0.00261	Institution maintains all of the following types of associated archaeological documentation: field notes, artifact inventories, and reports
Poor-Does not maintain associated arch. documents	0.00000	Institution does not maintain all of the following types of associated archaeological documentation: field notes, artifact inventories, and reports

Table A2.1
Decision Support Model Evaluation Measures

Administrative Records and Associated Documents	0.00291	Administrative Records and Associated Archaeological Document Storage including protection from fire, theft, damage, and destruction
Adequate-Stores all adm. records and doc safely	0.00291	Institution stores all administrative records and associated archaeological documentation protected from fire, theft, damage, destruction
Poor-Does not store safely	0.00000	Institution does not store all administrative records and associated archaeological documentation protected from fire, theft, damage, destruction
Authority To Commit Institution to DoD	0.04192	Does a representative from your institution have the authority to commit the institution financially to a partnership with the DoD for a Curation facility?
Excellent-Person/group within can commit inst.	0.04192	An individual or group of individuals within the immediate bureaucratic structure of the institution such as the governing board and below, has the authority to financially commit the institution to an agreement with the DoD for a Curation facility
Adequate-Person/group outside can commit inst.	0.03144	An individual or group of individuals outside the immediate bureaucratic structure of the institution has the authority to financially commit the institution to an agreement with the DoD for a Curation facility
Poor-Two or More Branches of Govern. Required	0.01048	Two or more branches of government must be involved in committing the institution to any financial commitments
Grant Writing and Tracking For Outside	0.00944	Does your institution have one or more individuals whose function is to write and track grant proposals for outside sources of funding?
Excellent-Two or more individuals	0.00944	Two or more individuals are involved in grant writing/tracking
Adequate-One individual for grant writing/tracking	0.00708	One individual is involved in grant writing/tracking
Poor–No one on staff is involved with grant writing	0.00000	No one on staff is involved in grant writing
Fund Raising	0.01690	Does your institution have one or more individuals whose function is fund raising?
Excellent–Two or more individuals for fund raising	0.01690	Two or more individuals are involved in fund raising
Adequate–One individual for fund raising	0.01268	The institution has one individual whose job is to raise outside funds
Poor–No one is on staff for outside fund raising	0.00000	No one on staff is involved in outside fund raising
Administrative Staff Percentage	0.00591	What percentage (%) of Full-time Staff is classified as administrative
Excellent–15% to 25%	0.00591	Excellent–15% to 25%
Adequate–26% to 50%	0.00355	Adequate–26% to 50%
Poor-0%–14%, or Over 50%	0.00000	Poor–0% to 14%, or Over 50%
Collections Management Staff Percentage	0.02159	What percentage (%) of your staff is classified as collections management?
Adequate–25% to 75%	0.02159	Adequate–25% to 75%
Poor–% to 24% or 76% to 100%	0.00000	Poor–0% to 24% or 76% to 100%

Table A2.1
Decision Support Model Evaluation Measures (Continued)

Outreach/Education Programs Adequately	0.06612	Do you have and individual(s) that is (are) exclusively involved in outreach/education programs? How many and what are their duties?
Excellent–1 or more full-time; Native Amer. Prog.	0.06612	One or more full-time, permanent staff that are devoted to outreach/education programs.These programs include Native Americans
Adquate–1 or more less than full-time; less N. Am.	0.03967	One or more staff that devote less than full time to outreach/education programs. These programs may only ephemerally involve Native Americans.
Poor–No staff involved with outreach/education	0.00000	No staff are involved in outreach/education programs
Similar Project Participation With State, Federal, or DoD Agencies	0.00459	Have you participated in similar projects with state, federal, or DoD agencies?
Excellent–Participated with Fed or DoD	0.00459	The institution has participated in a similar project with another federal or DoD agency for the Curation of archaeological collections
Adequate–Participated with state agency	0.00230	The institution has participated in a similar project with another state agency for the Curation of archaeological collections
Poor–Has not participated in similar project	0.00000	The institution has not participated in similar project with state, federal, or DoD agencies for the Curation of archaeological collections
Federal Archaeological Collections Agreements	0.02472	What kind of agreements do you have for Curation of federal archaeological collections?
Excellent–1 or more agreemnts with DoD/Army Corps	0.02472	The institution has one or more existing Curation agreements with the Department of Defense agencies including the Army Corps of Engineers
Adequate–1 or more agreemnts with non-DoD fed.	0.02222	The institution has one or more existing Curation agreements with non-DoD federal agencies.
Poor–No Curation agreements with federal agencies	0.00000	The institution has no Curation agreements with any fed agencies
Partnership With DoD	0.13036	What would you be willing to contribute to a Curation facility in partnership with the DoD?
Excellent–Staff, floor space, new fac. funds, O&M	0.13036	The institution could contribute staff, floor space, new/additional facility funds, and operations and management costs
Adequate–Funds for add/new fac. and OandM costs	0.06518	The institution could contribute funds for an addition or new facility and operations and management costs.
Poor–Funds for addition or new facility only	0.01304	The institution could only contribute funds for an addition or new facility
Not Acceptable–Not willing to contribute anything	0.00000	Not willing to contribute anything
Administrative Budget Percentage	0.00318	What percentage (%) of total budget would you estimate goes towards administration?
Excellent–15% to 25%	0.00318	Excellent–15% to 25%
Adequate–26% to 50%	0.00159	Adequate–26% to 50%
Poor–0% to 14%, or Over 50%	0.00000	Poor–0% to 14%, or Over 50%

Table A2.1
Decision Support Model Evaluation Measures (Continued)

Collections Management Budget Percentage	0.01417	What percentage (%) of your total budget goes towards collections management?
Adequate–26% to 50%	0.01417	Adequate–26% to 50%
Poor–0% to 24% or 76% to 100%	0.00000	Poor–0% to 24% or 76% to 100%
Deficit In Last Five Years	0.00100	Has your institution had a deficit in its operating budget in the last five years?
Adequate–No	0.00100	No, the institution has not had a budget deficit in last 5 yrs
Poor–Yes	0.00000	Yes, the institution has had a budget deficit in last 5 years
Outreach/Education Programs	0.02797	What kinds of outreach/education programs currently exist?
Excellent–General public & separate for Native Am.	0.02797	Programs exist for the general public and separate programs for Native Americans
Adequate–General public only	0.00839	Programs exist only for the general public
Poor–No outreach/education programs	0.00000	The institution has no outreach/education programs
Native American Working Experience	0.09151	Do you have experience working with Native Americans?
Excellent–Exentsive experience working with N. Am.	0.09151	Yes—Extensive experience working with Native Americans
Adequate–Some experience working with N. Am.	0.05490	Some experience working with Native Americans
Poor–Little or no experience working with N. Amer.	0.00000	Poor-Little or no experience working with N. Amer.
Primary/Secondary Schools Programs	0.00855	Do you have programs for primary and/or secondary schools?
Adequate–Yes	0.00855	Yes—programs exist for primary and/or secondary schools
Poor–No	0.00000	No programs for primary and/or secondary schools exist
Institution Type Factor	0.02119	Are you a private, local/county, state, or federal institution
Excellent–State or federal institution	0.02119	State or federal institution
Adequate–Private or local/county institution	0.01059	Private or local/county institution
Property Ownership Factor	0.00667	Who owns the property?
Excellent–State or federal ownership	0.00667	State or federal ownership of the property
Adequate–Private or local/county ownership	0.00500	Private or local/county ownership of the property
Poor–Not owned by the curating institution	0.00000	Not owned by the curating institution
Property Use Restrictions Factors	0.00420	Are their any restrictions to the use of the property, eg. requirements for open space, covenants against construction, etc.?
Adequate–No restrictions	0.00420	No, there are no property use restrictions (open space, covenants)
Poor–Yes there are restrictions	0.00000	Yes, there are property use restrictions (open space, covenants)
Not Acceptable–No mission statement	0.00000	Institution does not have a mission statement

Table A2.2
Decision Support Model Categories/Associated Scores

Administrative	Excellent	Adequate	Good	Fair	Poor	N/A	Best Possible
Partnership with DoD	0.13036	0.06518	000000	000000	0.01304	0	0.13036
Native American Working Experience	0.09151	0.05490			0		0.09151
Outreach/Edu. Programs Adequately Staffed	0.06612	0.03967			0		0.06612
Authority to Commit to DoD Partnership	0.04192	0.03144			0.01048		0.04192
Outreach/Education Programs	0.02797	0.00839			0		0.02797
Federal Arch. Collections Agreements	0.02472	0.02222			0		0.02472
Collections Management Staff %		0.02159			0		0.02159
Institution Type	0.02119	0.01059					0.02119
Fund Raising Staff	0.01690	0.01268			0		0.01690
Collections Management Budget %		0.01417			0		0.01417
Grant Writing and Tracking Staff	0.00944	0.00708			0		0.00944
Primary/Secondary Edu. Programs		0.00855			0		0.00855
Property Ownership	0.00667	0.00500			0		0.00667
Administrative Staff %	0.00591	0.00355			0		0.00591
Similar Project Particip. w/State, Fed., DoD	0.00459	0.00230			0		0.00459
Property Use Restrictions		0.00420			0	0	0.00420
Administrative Budget %	0.00318	0.00159			0		0.00318
Deficit in Last Five Years		0.00100			0		0.00100
						SUBTOTAL	0.49999
Collections Management							
Scope of Collections	0.11485	0.09762			0		0.11485
Mission Statement	0.11402	0.09691			0		0.11402
Administrative Record Keeping	0.02011	0.01709			0		0.02011
Archaeological Collections Storage		0.01841			0		0.01841
Environmental Controls		0.00885			0		0.00885
Collections Management Policies	0.00851	0.00681			0.00085		0.00851
Composition of Staff	0.00798	0.00718			0	0	0.00798
Associated Archaeological Documents	0.00291	0.00261			0		0.00291
Admin. Records and Assoc. Doc. Storage		0.00291			0		0.00291
Range of Support Facilities	0.00147	0.00132			0		0.00147
						SUBTOTAL	0.30002
Architectural							
Fire Detection and Alarm System	0.08388			0.03355	0		0.08388
Fire Suppression System		0.04390			0		0.04390
Fire Safety: Building Construction		0.02312			0		0.02312
Security System			0.01410		0		0.01410
Building Structural Adequacy		0.01280			0		0.01280
Egress Building		0.00823			0		0.00823
Building HVAC		0.00516		0.00206	0		0.00516
Plumbing/Drainage/Waterproofing			0.00381	0.00229	0		0.00381
Regulatory & Site Expansion			0.00269	0.00081	0		0.00269
Hazardous Building Components		0.00159			0		0.00159
Handicap Accessibility Factors			0.00070	0.00035	0		0.00070
						SUBTOTAL	0.19998
					TOTAL POSSIBLE		**0.99999**

Appendix 3

DoD and USACE Archaeological Curation-Needs Assessment Reports

Anderson, Lara, Karolyn Kinsey, Marc Kodack, Eugene Marino, Jennifer Riordan, Barbara Smoyer, and Kelly Wissehr

2000 *An Archaeological Curation-Needs Assessment of Military Installations in Select Eastern States, Volumes 1-2.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 23. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: Armed Services installations in Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, West Virginia, and Wisconsin.

Bade, Mary J. and Kenneth L. Shingleton, Jr.

1999 *An Archaeological Curation-Needs Assessment for the U.S. Navy, Atlantic Division, Naval Facilities, Engineering Command.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 14. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Navy, Atlantic Division installations in North Carolina, Puerto Rico, Virginia, and West Virginia.

Drew, Natalie M.

1995 *An Archaeological Curation-Needs Assessment for the U.S. Air Force, Air Mobility Command.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 6. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Air Force Air Mobility Command installations in California, Delaware, Illinois, Indiana, Maryland, Montana, North Dakota, New Jersey, New York, South Carolina, and Washington.

Drew, Natalie M., with contributions by Rhonda Lueck, Eugene A. Marino, and Christopher B. Pulliam

1996 *An Archaeological Curation-Needs Assessment for Headquarters, Air Combat Command, Volume 1.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 10. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Air Force Air Combat Command installations in Arizona, California, Florida, Louisiana, New Mexico, South Carolina, Virginia, West Virginia, and Washington.

Felix, Susan S., Amy E. Halpin, Kelly L. Holland, Eugene A. Marino, Steve McSween, D. Lynn Murdoch, Julia A. Samerdyke, Kenneth L. Shingleton, Jr., and Sylvia Yu
2000 *An Archaeological Curation-Needs Assessment of Military Installations in Selected Western States, Volumes 1-2.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 20. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: Armed Services installations in Alaska, Arizona, Colorado, Hawaii, Kansas, Louisiana, Nevada, New Mexico, Oklahoma, Texas, and Utah.

Halpin, Amy E. and Kelly L. Holland
1997 *An Archaeological Curation-Needs Assessment for the U.S. Navy, Engineering Field Activities, West and Northwest, Naval Facilities Engineering Command.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 9. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Navy, EFA West and EFA Northwest installations in California, Nevada, Oregon, and Washington.

Marino, Eugene A. and D. Lynn Murdoch
2000 *An Archaeological Curation-Needs Assessment for the U.S. Navy, Engineering Field Activity, Chesapeake Division.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 19. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Navy EFA Chesapeake installations in Maryland and Virginia.

Marino, Eugene A.
1997 *An Archaeological Curation-Needs Assessment for Headquarters, Air Combat Command, Volume 2.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 10. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Air Force, Air Combat Command installations in Arkansas, Georgia, Idaho, Missouri, Nebraska, Nevada, North Carolina, North Dakota, South Dakota, and Texas.

Meyers, Thomas B. and Michael K. Trimble
1993 *Archaeological Curation-Needs Assessments for Fort Sill, Oklahoma, Fort Gordon, Georgia, Vandenburg Air Force Base, California, Camp Pendleton Marine Corps Base, California, and Naval Air Weapons Station, China Lake, California.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 1. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Militello, Teresa M. and Natalie M. Drew
1996 *An Archaeological Curation-Needs Assessment of Cape Canaveral Air Force Station, Florida.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 7. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Slaymaker, Charles M. and Natalie M. Drew
1996 *An Archaeological Curation-Needs Assessment for Fort Riley, Kansas.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 4. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

U.S. Army Corps of Engineers, St. Louis
1997 *An Archaeological Curation-Needs Assessment for Fort Irwin, Naval Air Station,* North Island, Edwards Air Force Base, and Marine Corps Air-Ground Combat *Center, Twentynine Palms.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 5. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

1999 *An Archaeological Curation-Needs Assessment for the Legacy Resource Management Program.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 8. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: Armed Services installations in California, Oregon, and Washington.

In press *U.S. Army Corps of Engineers Archaeological Collections Condition Assessment.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: U.S. Army Corps of Engineers, all 50 states.

Wissehr, Kelly H., Kenneth L. Shingleton, Jr., Jeremy L. Goldstein, Mary J. Bade, and Sylvia Yu
1999 *An Archaeological Curation-Needs Assessment for the Legacy Resource Management Program.* U.S. Army Corps of Engineers, St. Louis District Archaeological Curation-Needs Assessment Technical Report No. 15. Michael K. Trimble and Christopher B. Pulliam, Series Editors. U.S. Army Corps of Engineers, St. Louis District, St. Louis, Missouri.

Project Area: Armed Services installations in Idaho, Maryland, Montana, Virginia, and Wyoming.