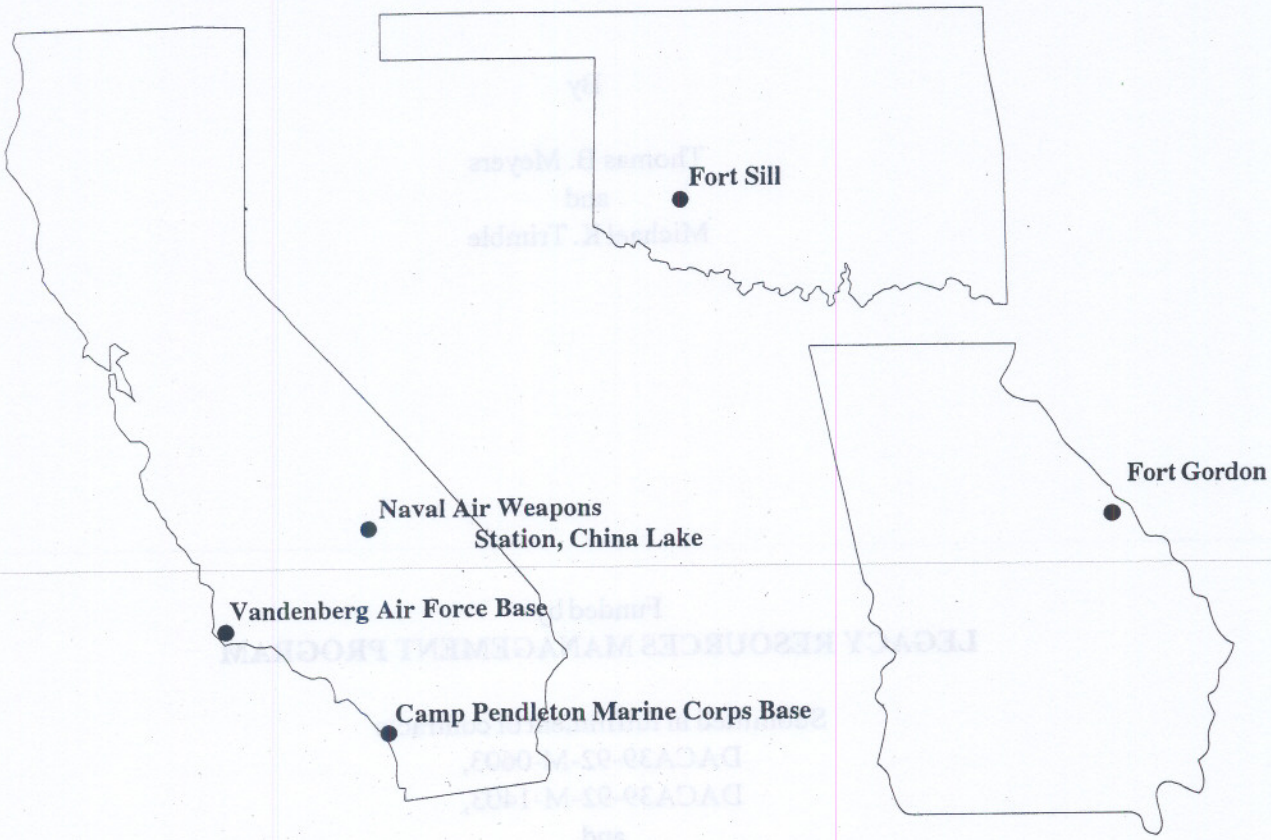
ARCHAEOLOGICAL CURATION-NEEDS ASSESSMENTS

Technical Report No. 1



U.S. Army Corps of Engineers

St. Louis District

Technical Center of Expertise in Archaeological Curation and Collections Management

ARCHAEOLOGICAL CURATION-NEEDS ASSESSMENTS FOR FORT SILL, OKLAHOMA, FORT GORDON, GEORGIA, VANDENBERG AIR FORCE BASE, CALIFORNIA, CAMP PENDLETON MARINE CORPS BASE, CALIFORNIA, AND NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA

By

Thomas B. Meyers
and
Michael K. Trimble

Funded by
LEGACY RESOURCES MANAGEMENT PROGRAM

Submitted in fulfillment of contracts
DACA39-92-M-0603,
DACA39-92-M-1403,
and
W81FWF-2-M006

U.S. Army Corps of Engineers
St. Louis District
Technical Center of Expertise in Archaeological Curation and Collections Management
Archaeological Curation-Needs Assessments
Technical Report No. 1

1993

CONTENTS

Figures v

Tables vi

EXECUTIVE SUMMARY vii

ACKNOWLEDGMENTS xiii

1 INTRODUCTION 1

2 CAMP PENDLETON MARINE CORPS BASE, CALIFORNIA 5

3 FORT SILL, OKLAHOMA 31

4 NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA 47

5 VANDENBERG AIR FORCE BASE, CALIFORNIA 73

6 FORT GORDON, GEORGIA 99

7 FINDINGS SUMMARY FOR DEPARTMENT OF DEFENSE INSTALLATIONS 107

8 RECOMMENDATIONS 111

APPENDIX I—SURVEY QUESTIONNAIRE 113

APPENDIX II—COLLECTION-EVALUATION FORM 121

APPENDIX III—PROJECT REPORTS AND COLLECTIONS LOCATIONS: CAMP PENDLETON, CALIFORNIA 125

APPENDIX IV—PROJECT REPORTS AND COLLECTIONS LOCATIONS: FORT SILL, OKLAHOMA 131

APPENDIX V—PROJECT REPORTS AND COLLECTIONS LOCATIONS: NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA 135

APPENDIX VI—PROJECT REPORTS AND COLLECTIONS LOCATIONS: VANDENBERG AIR FORCE BASE, CALIFORNIA 143

APPENDIX VII—PROJECT REPORTS AND COLLECTIONS LOCATIONS: FORT GORDON, GEORGIA 171

FIGURES

Figure 1. Camp Pendleton artifacts are currently housed in an office supply closet. 7
Figure 2. Camp Pendleton archaeological collections are also housed in non-secure, open-office book shelves. 8
Figure 3. Interior of a collections box at Camp Pendleton. 9
Figure 4. A portion of univentoried records stored in a closet at Camp Pendleton. 11
Figure 5. Rusting cargo shipping containers house Camp Pendleton archaeological collections at San Diego State University. 14
Figure 6. Artifact storage containers at San Diego State University showing extensive water damage. 16
Figure 7. Disorganized Camp Pendleton collections housed at San Diego State University. 17
Figure 8. Deteriorating Camp Pendleton archaeological records. 18
Figure 9. Gallegos and Associates laboratory. 21
Figure 10. Artifact storage area in the Gallegos and Associates laboratory. 21
Figure 11. Photograph showing the contents of a primary container in Gallegos laboratory. 22
Figure 12. Gallegos and Associates records storage area. 23
Figure 13. Archaeological collections storage area at Fort Sill, Building 326. 33
Figure 14. Collections storage at Fort Sill. 35
Figure 15. Primary containers housing valuable bottle collection in the basement of Building 326. 35
Figure 16. Fort Sill archaeological records storage. 38
Figure 17. The Museum of the Great Plains. 41
Figure 18. Shelving and catalogued collections at the Museum of the Great Plains. 42
Figure 19. Records storage space in the Museum of the Great Plains. 44
Figure 20. Abandoned base housing is the primary repository at NAWS, China Lake..... 50
Figure 21. Exterior of metal shipping container that also houses collections at China Lake. 51
Figure 22. Wooden shelving in Base Facility #1. 53
Figure 23. Interior view of Base Facility #2. 54
Figure 24. Records storage area in Base Facility #1. 55
Figure 25. Ancient Enterprises houses some NAWS, China Lake collections in this rented shipping container. 68
Figure 26. Close-up view of the entrance to the Ancient Enterprises repository. 69
Figure 27. Interior view of the artifact storage repository for China Lake collections at Ancient Enterprises. 70
Figure 28. Interior view of a primary container. 76
Figure 29. Records and artifacts storage area at Vandenberg Air Force Base. 77
Figure 30. The Martin Marietta facility at Vandenberg Air Force Base is a prefabricated office building. 81
Figure 31. Primary containers at Martin Marietta. 82
Figure 32. Interior view of a primary container. 83
Figure 33. Records storage area at Martin Marietta. 84

Figure 34. Exterior view of Repository #2. 87
Figure 35. Shelving in Repository #1. 88
Figure 36. Shelving and primary containers in Repository #2. 89
Figure 37. Records at UCSB Repository #1. 90
Figure 38. Interior of the repository at UCLA showing the steps that have been taken to combat the water problems. 94
Figure 39. Shelving and primary containers at UCLA. 95
Figure 40. Collections storage area at Georgia Southern University. 104
Figure 41. The records storage area at Georgia Southern University. 105

TABLES

Table 1. Number and Types of Archaeological Repositories by Installation 107
Table 2. Location of Identified Artifact Collections by Volume in Cubic Feet 108
Table 3. Human Burial Collections from Inspected Military Installations 109

EXECUTIVE SUMMARY

PROBLEM

Archaeological collections recovered from Department of Defense (DoD) installations are a significant and non-renewable resource. Congress recognized this in 1966 with the passage of the National Historic Preservation Act, which mandates the protection of our archaeological resources and the perpetual curation of all archaeological remains and associated records. The archaeological remains and associated records constitute a collection, which is a legacy to the citizens of the United States. However, these valuable prehistoric and historic archaeological collections never receive the funding priority that ensures the professional care necessary for their long-term preservation. The result has been a steady deterioration of these resources in the attics, basements, and storage closets of most Department of Defense (DoD) installations and in countless substandard storage facilities, where many collections are being curated without proper compensation for museums and universities. The loss of these collections prevents educational and scientific use and ignores the considerable financial investment by the American public in their acquisition.

BACKGROUND

Department of Defense installations are responsible for the management of archaeological and historical resources that are located on and recovered from their properties. As mandated by Federal law, installations are required to ensure that archaeological materials and their associated records are curated in perpetuity. However, without professional guidance on how this mandate is to be accomplished, DoD installations give little or no attention to the maintenance of collections once projects are complete.

If the Federal curation regulation, 36 CFR Part 79, is to be successfully implemented, the Department of Defense can no longer ignore collections maintained in the public trust. Guidelines and standards are now available for use in the development of an agency-wide program that implements the legal mandate to protect the historical and cultural resources administered by DoD facilities. The creation of a process to comply with Federally mandated regulations for the permanent curation of archaeological collections was initiated by the DoD's LEGACY Resource Management Program. The LEGACY Program provided funds for the

curation-needs assessment study of collections at five installations. However, unless annual funding is programmed that sustains a commitment to a national DoD effort to inventory all DoD collections, long-term planning cannot be developed or implemented.

FINDINGS

Status of Physical Facilities

(1) Repository Adequacy: Collections from five DoD installations—Fort Sill, Oklahoma; Fort Gordon, Georgia; Vandenberg Air Force Base, California; Camp Pendelton Marine Corps Base, California; Naval Air Weapons Station, China Lake, California—are stored in at least 20 repositories, only three of which meet the minimum Federal standards for storage facilities, as described in 36 CFR Part 79. No on-base repository approached the minimum requirements.

(2) Repository Maintenance: Only two of the 20 repositories examined have scheduled maintenance programs. No on-base repository has such a program.

(3) Environmental Controls: None of the 20 repositories meet the minimum Federal standards for environmental maintenance.

(4) Security: Four of the 20 examined repositories meet minimum Federal standards for security of collections. No on-base repository approaches the minimum requirements.

(5) Protection from Fire and Water Damage: Only two of the 20 repositories examined meet minimum Federal standards for protection from fire and water damage. No on-base repository approaches the minimum requirements.

Status of Artifacts

No artifact collections currently meet existing Federal requirements for archaeological curation. Most collections are not processed adequately for long-term storage. Most collections have not been properly cleaned, labeled, or packaged. Only one installation has a functioning curation/collections-management program. One installation was in the process of instituting a curation- and collections-management program, but funding for this effort was withdrawn before any meaningful progress could be made. The majority of installations have little interest in, and in one instance

absolutely no commitment to, the curation of archaeological materials.

Status of Human Skeletal Remains

Most installation collections contain human skeletal remains. The location of the majority of these skeletal remains is not known, although reports indicate that these materials were recovered during fieldwork. The curation of these skeletal remains in no way meets the Federal curation standards in 36 CFR Part 79. A detailed study of project reports and associated documentation is necessary before the repatriation requirements—which have a November 1995 deadline—of the Native American Graves Protection and Repatriation Act (P.L. 101-601) can be met.

Status of Documentation

None of the installations or the repositories containing collections from these installations have complete and accurate records documenting the recovery and analysis of archaeological materials. In many instances, documentation associated with the archaeological materials was never submitted by the contracting agency or firm, nor have the installations requested their submission. In many instances documentary materials could not be located because of inadequate or nonexistent records-management programs. Few records are being cared for according to professional archival standards. These deficiencies have resulted in the permanent loss of installation records for archaeological collections, thus curtailing the ability of all facilities to manage their cultural resources.

Status of Repository Management Controls

Base facilities have virtually no control over the collections for which they are responsible. Only one installation had a record of accessioned materials; the others had no accession records. None had any written record of where their collections were located. No installation collections have ever been inventoried. Basic policy and procedure statements for artifact curation, records management, loans, and inventories were also non-existent. Museum and university repositories usually had accession records and loan procedures for their collections, but few had artifact-curation, records-management, or inventory guidelines.

CORRECTIVE ACTIONS

A number of corrective actions are necessary to bring DoD installations into compliance with 36 CFR Part 79 and the Native American Graves Protection and Repatriation Act (P.L. 101-601). These actions include the following.

(1) Immediate appropriation of funds at the service level for meeting the requirements of P.L. 101-601. Attention to this action is especially critical since the summaries must be completed by November 16, 1993, and the inventories by November 16, 1995.

(2) The establishment or designation of a mandatory DoD Technical Center of Expertise coordinating center to function as the lead center for all installations attempting to comply with the requirements of 36 CFR Part 79 and P.L.101-601. With the staff and expertise already in place, we suggest that the U.S. Army Corps of Engineers, St. Louis District be designated as the lead Technical Center of Expertise. The St. Louis District can implement and assist DoD installations with:

(a) The identification and systematic inventory of all archaeological collections and associated records recovered from DoD properties, including all human remains, associated and unassociated funerary objects, sacred objects, and objects of cultural patrimony;

(b) The identification and consolidation of all archaeological collections and associated documentation affected by base realignment and closure (BRAC) actions; and

(c) The rehabilitation and/or conservation of artifact collections and the archival preservation of collection documentation and reports.

(3) The consolidation of appropriate DoD archaeological resources into regional curation centers where it is determined that existing facilities cannot meet the collection standards set forth in 36 CFR Part 79. Regional centers for long-term curation of DoD archaeological resources are the most cost-effective means of meeting these curation requirements.

(4) The immediate development and funding for a prototype regional curation center for the temporary consolidation of all collections held by military installations scheduled for closure as a result of the base realignment and closure requirements. BRAC

collections can be permanently curated within a facility where the BRAC facility is located, but only if a regional curation center exists and meets the criteria of 36 CFR Part 79. We propose that the prototype center be designated as the regional collections center for the geographic area in which it is constructed.

CONCLUSIONS

The proposed corrective actions will permit DoD to meet minimum Federal requirements for the adequate long-term curation of archaeological collections in a systematic fashion. The curation costs should be shared by one or more of the services willing to invest in the preservation of these valuable resources. Currently those few installations that are addressing curation are using disparate strategies, none of which will produce standard inventory or care for the collections. By adopting the comprehensive, systematic approach, DoD has the opportunity to not only standardize archaeological curation but also to implement a curation program that will serve DoD's needs well into the next century.

ACKNOWLEDGMENTS

The following individuals are thanked for their contributions to this report. Without their assistance this work would not have been completed.

CAMP PENDLETON MARINE CORPS BASE, CALIFORNIA

Lynn Christenson, South Coastal Information Center, San Diego
John Cook, Brian F. Mooney Associates, San Diego
Dennis Gallegos, Gallegos & Associates, San Diego
Kathie Graler, Camp Pendleton
Dawn Lawson, Camp Pendleton
Pam Maxwell, U.S. Army Corps of Engineers, Los Angeles District
Neil Robinson, U.S. Army Corps of Engineers, Mobile District
Jerry Schaefer, Brian F. Mooney Associates, San Diego
Sue A. Wade, RECON, San Diego
Dan Whitney, San Diego State University
Andy Yatsko, U.S. Naval Air Station, North Island, San Diego

FORT GORDON, GEORGIA

William Bowen, Georgia Department of Transportation, Atlanta
Chad Braley, Southeastern Archeological Services, Athens
Alan Braswell, Fort Gordon
David Crampton, U.S. Army Corps of Engineers, Savannah District
John Ehrenhard, I.A.S., Atlanta
Pete Faust, Southeastern Archeological Center, Tallahassee, Florida
Tom Gresham, Southeastern Archeological Service, Athens
Dave Hally, University of Georgia, Athens
Lewis Larson, West Georgia College, Carrollton
George Lewis, Mount Pleasant, South Carolina
Pam Mathews, New World Research, Fort Walton Beach, Florida
Sue Moore, Georgia Southern University, Statesboro
Theresa Pagloine, Georgia Department of Transportation, Atlanta
Eric Poplin, Brockington & Associates, Mount Pleasant, South Carolina
Prentice Thomas, New World Research, Fort Walton Beach, Florida
Ted Wise, Fort Gordon
Judy Wood, U.S. Army Corps of Engineers, Savannah District

FORT SILL, OKLAHOMA

Joseph Anderson, Museum of the Great Plains, Lawton
Julie Droke, Oklahoma Museum of Natural History, Norman
Joe Hayes, Museum of the Great Plains, Lawton
Towana Spivey, Fort Sill
Louis Vogele, Jr., Fort Sill

NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA

Clark Brott, Great Basin Foundation, Jamul
C. W. Clewlow, Ancient Enterprises, Santa Monica
Theresa Clewlow, Ancient Enterprises, Santa Monica
William Eckhardt, NAWS, China Lake
Ken Hedges, Museum of Man, San Diego
Dan McCarthy, University of California, Riverside
Meg McDonald, University of California, Riverside
Carol Panlaqui, Maturango Museum of Indian Wells Valley, Ridgecrest
Catherine Partouche, NAWS, China Lake
Carol Rector, San Bernardino County Museum, Redlands
Charles Rozaire, Natural History Museum, Los Angeles
Carolyn Shephard, NAWS, China Lake
Jan Timbrook, Santa Barbara Museum of Natural History
Sylvia Winslow, Ridgecrest
Elva Younkin, Maturango Museum of Indian Wells Valley, Ridgecrest

VANDENBERG AIR FORCE BASE, CALIFORNIA

Roger Colton, University of California, Los Angeles
Steve Dibble, U.S Army Corps of Engineers, Los Angeles District
Helle Girey, University of California, Los Angeles
Michael Glassow, University of California, Santa Barbara
Patty Johnson, U.S. Army Corps of Engineers, Sacramento
Alex Kirkish, Vandenberg Air Force Base
Karen Rasmussen, University of California, Santa Barbara
Larry Spanne, Vandenberg Air Force Base

TECHNICAL CENTER OF EXPERTISE FOR ARCHAEOLOGICAL CURATION (TCX), ST. LOUIS

Marc Kodack, Archaeologist, TCX, St. Louis
Nicola Longford, Archaeological Conservator, Missouri Historical Society, St. Louis
Chris Pulliam, Series Editor, TCX, St. Louis
Michael Trimble, Chief, TCX, St. Louis

1

INTRODUCTION

Personnel at DoD installations across the United States have been actively involved with the recovery and management of archaeological resources for over 30 years. A typical archaeological collection consists of a wide array of classes of material including artifacts; environmental evidence excavated from archaeological sites; associated records such as field notes, maps, drawings, site forms, photographs, records of laboratory analysis, computer tapes and disks, administrative records, historical documents, and oral history tapes; manuscripts and published reports; and papers of individual archaeologists.

However, these valuable, non-renewable collections, which were acquired at great expense to the American public, are being improperly stored and maintained at most military installations. Lack of attention to these valuable resources over the last 30 years is the result of a premium being placed upon fieldwork to identify archaeological materials eligible for nomination to the National Register of Historic Places and the neglect of the permanent curation of the collections. By viewing curation as peripheral to compliance activities instead of as an integral and legally required component, important research and educational information is being irretrievably lost to the American public.

LEGISLATIVE AUTHORITY

Legislative authority for the long-term preservation and safekeeping of Federally owned archaeological collections includes the Antiquities Act of 1906 (P.L. 59-209) the Historic Sites Act of 1935 (P.L. 74-292), the Archeological Recovery Act of 1960 (P.L. 86-523), the National Historic Preservation Act of 1966 (P.L. 89-665), as amended, and the Archaeological Resources Protection Act of 1979 (P.L. 96-95), as amended.

In addition to the cited public laws, Federal curation regulation, 36 CFR Part 79 (Curation of Federally-owned and Administered Archeological Collections), exists and establishes definitions, standards, procedures, and guidelines to be followed by Federal agencies in the management and preservation of archaeological and historical collections recovered from Federal properties under their immediate jurisdiction. The implementation of the guidelines and standards presented in 36 CFR Part 79 not only provides a mechanism for the preservation and conservation of a significant portion of the nation's cultural heritage but also provides an opportunity to gain intellectual control over these vast national collections.

Such control is essential to meeting the requirements of the Native American Graves Protection and Repatriation Act (P.L.101-601; 104 Stat. 3048; 25 USC 3001-13). Commonly referred to as NAGPRA, this law provides a mechanism for the repatriation of Native American and Native Hawaiian skeletal remains, funerary objects, sacred objects, and objects of cultural patrimony

recovered from Federal properties that are held currently by either Federal agencies or museums receiving Federal funds. If the cultural affiliation can be made between the recovered remains of an identifiable earlier group, either prehistoric or historic, and a present-day Indian tribe or Native Hawaiian organization, and if known lineal descendants of the earlier group request the return of the remains, then it is incumbent upon Federal agencies and museums receiving Federal funds to expeditiously return these materials. A determination of potential cultural affiliation will be virtually impossible, however, unless recovered artifact collections and their associated documentation can be located, identified, assessed, and evaluated. Only then can the reconstruction of the background and history of their deposition and recovery be achieved.

Following the establishment of standards and guidelines for the long-term preservation and safekeeping of Federally owned archaeological collections, Congress funded the LEGACY Resources Management Program in 1991 to improve the Department of Defense's management of significant biological, cultural, and geophysical resources. The administrators of this program, recognizing that the DoD had no comprehensive plan for the inventory and curation of historical properties, funded the Curation Needs Assessment Program. The charge to this program is to inventory and assess the archaeological collections, records, and curation facilities at representative DoD installations. The report presented here summarizes the results of curation-needs assessments for five military installations.

INSTALLATIONS

Four installations, representing the major branches of the armed services, were selected to participate in the curation needs-assessment study. The selected installations were Camp Pendleton Marine Corps Base, California; Fort Sill, Oklahoma (Army); Vandenberg Air Force Base, California; and the Naval Air Weapons Station, China Lake, California. Fort Gordon, Georgia, was selected initially as the representative Army installation, but it was soon recognized that the assessment for this facility could not be accomplished in a manner comparable to the assessments for other installations. Despite the problems with conducting the assessment at Fort Gordon, the results are included here. Assessment of each installation's compliance with major legislative initiatives included pre-fieldwork investigation, field inspection and assessment of repositories and collections, NAGPRA-compliance assessment, and report preparation.

Pre-Fieldwork Investigation

(1) Initial contacts were made with all personnel likely to be knowledgeable about past in-house or contract archaeology at the installation and the disposition of recovered collections and associated documentation.

(2) From these initial contacts, a list was developed of all contracting agencies and repositories associated with the recovery or curation of materials belonging to the installation.

(3) Personnel within these agencies and repositories were queried in regard to the disposition of recovered remains belonging to the installation.

(4) Field-inspection and curation-assessment visits to all installations, contracting agencies, and repositories were scheduled.

Field Inspection and Assessment of Repositories and Collections

(1) A survey questionnaire (see Appendix I) soliciting information on repositories, artifact collections, and associated documentation was completed for every facility involved with the curation of archaeological collections from a given installation.

(2) Information solicited from the questionnaires, along with reviews of administrative files, contract reports, and report bibliographies, allowed for the construction of a history of contract archaeology for each installation and provided a mechanism for identifying the location of recovered artifact collections and their associated documentation.

(3) Information solicited from the questionnaires, along with physical inspections of all facilities housing the installation's collections, allowed for a determination of whether or not the installation was in compliance with the physical plant requirements for repositories specified in 36 CFR Part 79.

(4) Information solicited from the questionnaires, and from a collection-evaluation form (see Appendix II) used in the physical inspection of artifact collections, allowed for a determination of whether or not the installation was in compliance with the artifact-management requirements specified in 36 CFR Part 79.

(5) Information solicited from the questionnaires and from a physical inspection of associated documentation and reports generated through archaeological investigations on an installation's property allowed for a determination of whether or not the installation was in compliance with the archives-management requirements specified in 36 CFR Part79.

(6) Information solicited from the questionnaires, especially information regarding financing, personnel, access to collections, collections management policies and procedures, and future plans, allowed for a determination of whether or not the installation was capable of compliance with the collections-management requirements specified in 36 CFR Part 79.

NAGPRA-Compliance Assessment

(1) Human skeletal remains in collections owned by the installation were identified.

(2) The presence of grave goods associated with these remains was documented, when such information could be determined within the scheduled inspection time.

(3) Unassociated grave goods were documented, when such information could be determined within the scheduled inspection time.

(4) Documentation associated with human skeletal remains and associated grave goods was noted, when such information could be determined within the scheduled inspection time.

Report Preparation

(1) A written report on the curation-assessment findings was produced.

(2) Recommendations for the implementation of a comprehensive archaeological-curation program that meets the requirements of 36 CFR Part 79 was included in this report.

CHAPTER SYNOPSIS

Chapters 2-6 outline a detailed examination of the state of DoD archaeological collections at Camp Pendleton; Fort Sill; Vandenberg Air Force Base; Naval Air Weapons Station, China Lake; and Fort Gordon. The report format is based on an executive summary of each installation and its entire collections, a detailed examination of the installation, and an analysis of all the universities, museums, historical societies, and contractors who also house collections for the installation. The overall picture is one of benign neglect. The result is that most DoD installations have no general inventory of their archaeological collections, nor much of an idea of where most collections are currently housed. The final result is that without an advocate or a national strategy a valuable part of our non-renewable heritage is being forever lost.

2

CAMP PENDLETON MARINE CORPS BASE, CALIFORNIA

INSTALLATION SUMMARY

(1) Volume of Artifact Collections: 34 ft^3

On Base: 24 ft^3
Off Base: 10 ft^3

Compliance Status: All artifact collections will require complete rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: Five (5) linear ft

On Base: Four (4) linear ft
Off Base: One (1) linear ft

Compliance Status: All collections of associated documentation and reports will require complete rehabilitation to comply with existing Federal guidelines and standards for archival preservation.

(3) Human Skeletal Remains: There are an indeterminate number of human skeletal remains in the Camp Pendleton collections. Significant resources are required to comply with NAGPRA.

(4) Status of Curation Funding: There is no funding mechanism for archaeological curation at Camp Pendleton.

(5) Status of Installation Repository: There is no dedicated archaeological repository at Camp Pendleton. Any available space in the Quonset-hut office of the environmental coordinator currently serves as the repository for archaeological collections.

INTRODUCTION

Camp Pendleton is a major command on the Pacific Coast for the U.S. Marine Corps. Situated 35 miles north of San Diego, the base occupies over 125,000 acres. Historical-properties responsibilities at Camp Pendleton are coordinated by a biologist in the Environmental Division, and it was the assessment team's observation that the archaeological program is not afforded the attention necessary for the adequate protection of these resources. The low priority given archaeology is reflected in the total loss of intellectual control over these materials and the poor conditions under which the artifact and associated documentation collections are maintained. Only 34 ft^3 of artifacts and five (5) linear feet of records could be located (see Appendix III).

Archaeological collections recovered from Camp Pendleton are stored in a closet and an office of the environmental coordinator at the Marine Corps base, in shipping containers at San Diego State University, and in the offices of several private companies located in southern California. A program for the permanent curation of archaeological collections under the jurisdiction of the Camp Pendleton Marine Corps Base is nonexistent.

COLLECTIONS AT CAMP PENDLETON

DATE OF VISIT: 24-25 February 1992

PERSONS CONTACTED: Dawn Lawson, Environmental Coordinator, and Kathie Graler, Museum Curator.

Approximately 24 ft^3 of artifacts and four (4) linear feet of documentation and reports are housed at Camp Pendleton. Thirteen boxes of artifacts and documentation were located in an office supply closet adjacent to the office of Dawn Lawson. These materials were identified as collections recovered by Paul Ezell. The materials had been in storage at WESTEC Services, but were returned to Camp Pendleton by Richard Carrico following the death of Paul Ezell. The collection includes material from:

(1) 1983-84 surveys;
(2) SDi-9561, -9562, -9563, -9565, -9567, -9568, -9569, -9570, -9572, -9574, -9575, -9576, -9577, and -9584;
(3) CP-19, -27, -28, and -81; and
(4) the Las Flores Cemetery Site.

Approximately 10 ft^3 of artifacts are stored on open shelves in the environmental coordinator's office. Few of these items have provenience information. An additional box of unprovenienced artifacts was located in the office of the base museum director.

Repository

No designated archaeological storage space exists at Camp Pendleton. The current working definition of an archaeological repository at Camp Pendleton consists of any available space in the building housing the environmental coordinator's office. Collections were located in an office

Figure 1. Camp Pendleton artifacts are currently housed in an office supply closet.

supply storage closet and on office shelving units.

Structural Adequacy

This facility, which appears to be a World War II era (Quonset hut) structure, is constructed of sheet metal. It is not designed for long-term storage of archaeological collections.

Figure 2. Camp Pendleton archaeological collections are also housed in non-secure, open-office book shelves.

Environment

The office area in which archaeological collections are stored is air conditioned, but the storage closet is a closed environment. No monitoring or control of humidity exists in either storage area, and no established program for insect control is present. Dust covers all the boxes.

Security
Security for these collections is non-existent. The storage areas are unlocked, and the collections are accessible to anyone in the building. In the absence of a collections catalog, no inventory-control procedure is available to assess whether formerly excavated materials are present or not. A fire-suppression system is absent.

Artifact Storage

Shelving
The artifact collections are stored on painted-wood shelving.

Primary Containers
The Ezell collections are stored in 13 corrugated cardboard boxes, each approximately one cubic foot in volume. The boxes are sealed with strapping tape and labeled with a white, adhesive,

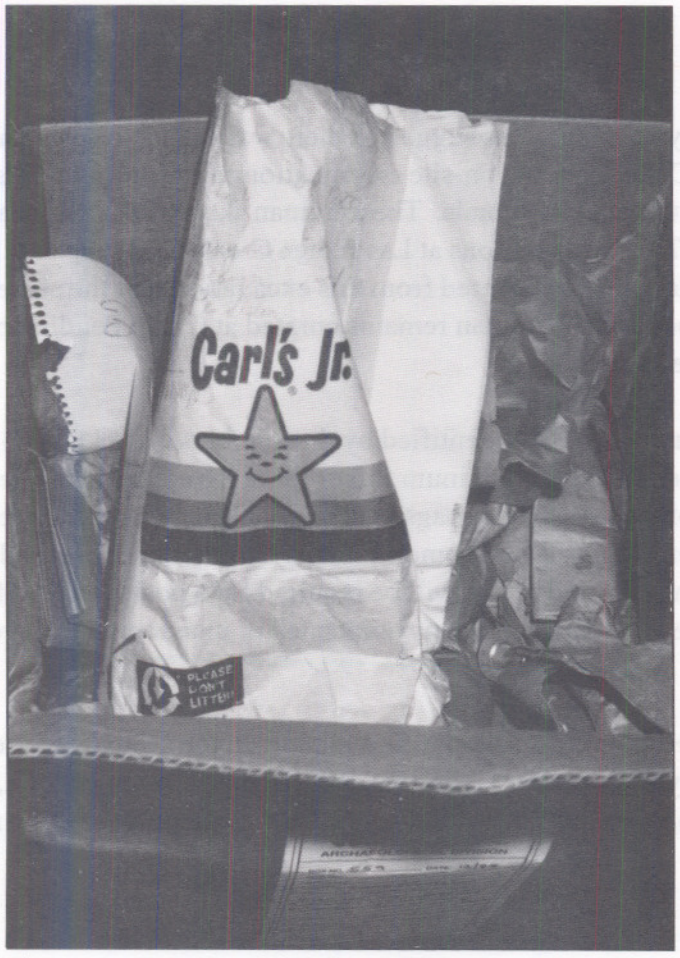


Figure 3. Interior of a collections box at Camp Pendleton illustrating the wide array of secondary containers used to house artifacts.

WESTEC Services label. Label information includes box number, site number, location, date, and contents. Several boxes were overpacked and bursting at the sides.

Secondary Containers

A variety of containers are used to store artifacts. Paper bags, plastic sandwich bags, "fast-food" containers, small boxes, film canisters, and coffee cans are present. Plastic containers are usually labeled with marking ink, while other containers are labeled in pencil or ink. Numerous containers are unlabeled. None of these containers conform to current standards.

Laboratory Processing

Most of the artifacts have been washed. Toilet tissue, aluminum foil, newspaper, and paper towels are all used to wrap individual artifacts. Artifacts are labeled with ink that is applied directly to the artifact, ink on a white correction-fluid background, or ink on a masking-tape label. A number of artifacts are unlabeled.

Human Skeletal Remains

Although preliminary investigations suggested there was only one burial in the Camp Pendleton Marine Corps Base Collection, the on-site examination revealed that the "single burial" contains the remains of at least seven individuals. These human skeletal remains were identified as coming from Paul Ezell's 1973-74 excavations at Las Flores Creek Cemetery. Dr. Ezell's report indicates that a total of 14 burials were recovered from this excavation, but the skeletons described in his report do not correspond to the human remains curated at Camp Pendleton. Further investigation may clarify this discrepancy.

Boxes containing human bone are identified by the numbers 561 (11 of 13) and 552 (2 of 13). The bones are wrapped in either aluminum foil or toilet tissue and packaged in paper bags, plastic sandwich bags, or coffee cans. Paper bags containing skeletal material are torn and deteriorated. No remains have been analyzed, and some elements have not been cleaned. A detailed study of the original documentation and report will be required for a positive identification of the collection and for the identification of any associated or unassociated grave goods, as required by NAGPRA.

A 1977 report by Ezell identifies a human skull found on the grounds of the commanding officer's quarters. Analysis by Dr. Spencer L. Rogers, San Diego Museum of Man, concluded that the remains were probably from a Caucasian female. The disposition of these remains is, however, unknown.

Records Storage

A small collection of documentation and reports is stored on painted-wood shelving in the

Figure 4. A portion of univentoried records stored in a closet at Camp Pendleton.

environmental coordinator's office. The materials are unorganized, and an inventory of what is contained in this records collection is nonexistent. Several boxes of records are included with the Ezell collection, and artifact boxes also contain loose documentation. Some artifact boxes also contain scraps of paper on which provenience information is recorded. A cursory examination of the collection revealed documentation from the following projects: Las Flores Cemetery, Pilgrim Creek, and San Mateo Creek. The full range of archaeological documentation is represented in this collection, including color photographs and slides. These color photographic materials will deteriorate rapidly in the current storage conditions.

Collections Management Standards

Camp Pendelton collections-management procedures and policies were reviewed, and the following observations were recorded.

Registration Procedures

Accession Files: None
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: The collections are not inventoried.

Curation Personnel
None

Curation Financing
None

Access to Collections
Without a collection inventory, scholars and the interested public cannot presently use the collections.

Future Plans
None

Comments

(1) The archaeological compliance program at Camp Pendleton requires immediate attention. In the absence of a base archaeologist, responsibility for compliance rests with the environmental coordinator. We suggest, however, that the program is not afforded the attention necessary for the adequate protection of archaeological resources.

(2) A program for the permanent curation of archaeological collections under the jurisdiction of the Camp Pendleton Marine Corps Base is nonexistent. Current work load and non-familiarity with archaeological curation have precluded the development of a collections-management program.

Recommendations

(1) An archaeologist should be hired immediately to assume responsibility for all archaeological activity on Camp Pendleton property, including the coordination of a curation program for archaeological collections.

(2) All archaeological material collections, associated documentation, and reports owned by Camp Pendleton should be identified.

(3) All archaeological materials are not properly housed and should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(4) The location of the human skull recovered by Dr. Paul Ezell in 1977 should be identified.

(5) The location of all human skeletal remains from Dr. Paul Ezell's 1973-74 excavations at Las Flores Creek Cemetery should be identified.

(6) The disposition of all human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(7) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act (P.L. 101-601), should be identified and their disposition determined.

(8) All associated documentation and reports, including those from projects where no archaeological materials were located, should be arranged, described, and preserved according to Federal guidelines and standards.

(9) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(10) To secure all archaeological collections, they should be transferred temporarily to the office of the base museum curator.

(11) Planning should be initiated immediately for the consolidation of all Camp Pendleton archaeological collections, including those stored currently at off-base locations, into a central curation facility that has the professional staff, institutional commitment, and financial support necessary for their long-term preservation.

SAN DIEGO STATE UNIVERSITY COLLECTIONS

DATE OF VISIT: 26-27 February 1992

PERSONS CONTACTED: Dan Whitney, Chair, Department of Anthropology, and Lynne Christenson, South Coastal Information Center.

The number and extent of Camp Pendleton archaeological collections stored in this facility are unknown. The University of San Diego, Department of Anthropology is no longer active in Southern California archaeology, thus, no one is directly responsible for the care of collections generated by previous work. The only guide to collection location is a box inventory produced when the collections were moved from the Department of Anthropology to their current location. Three boxes of materials, representing only three (3) ft^3 of material recovered from Camp

Pendleton, were identified from this list. The list is so inadequate in its description of boxes (e.g., "old stuff" and "skeletal remains"), however, that all boxes will have to be examined individually to determine the extent of the Camp Pendleton collection.

The Camp Pendleton boxes identified on the inventory are labeled "Dr. Ezell's collection," "Ysidora Site, Camp Pendleton," and "Camp Pendleton." The box labeled "Dr. Ezell's collection" contains record files, including Welche's documentation on the Santa Margarita project. Two boxes of artifacts are labeled "Ysidora." Since the inventory listed only one box for this site, the box labeled "Camp Pendleton" may not contain all the archaeological materials from this site.

Repositories

Four metal shipping containers house San Diego State University's archaeological collections. The containers are located at the Montezuma School, a leased, off-campus storage area approximately one mile from the Department of Anthropology building. The storage area is used by many university departments for excess storage, and over thirty (30) shipping containers house retired records, excess office equipment, and other miscellaneous materials. Each container is approximately twenty-five (25) feet long, six (6) feet wide, and eight (8) feet high. Container No. 18 was the only unit with archaeological collections that we inspected, since it was the only unit

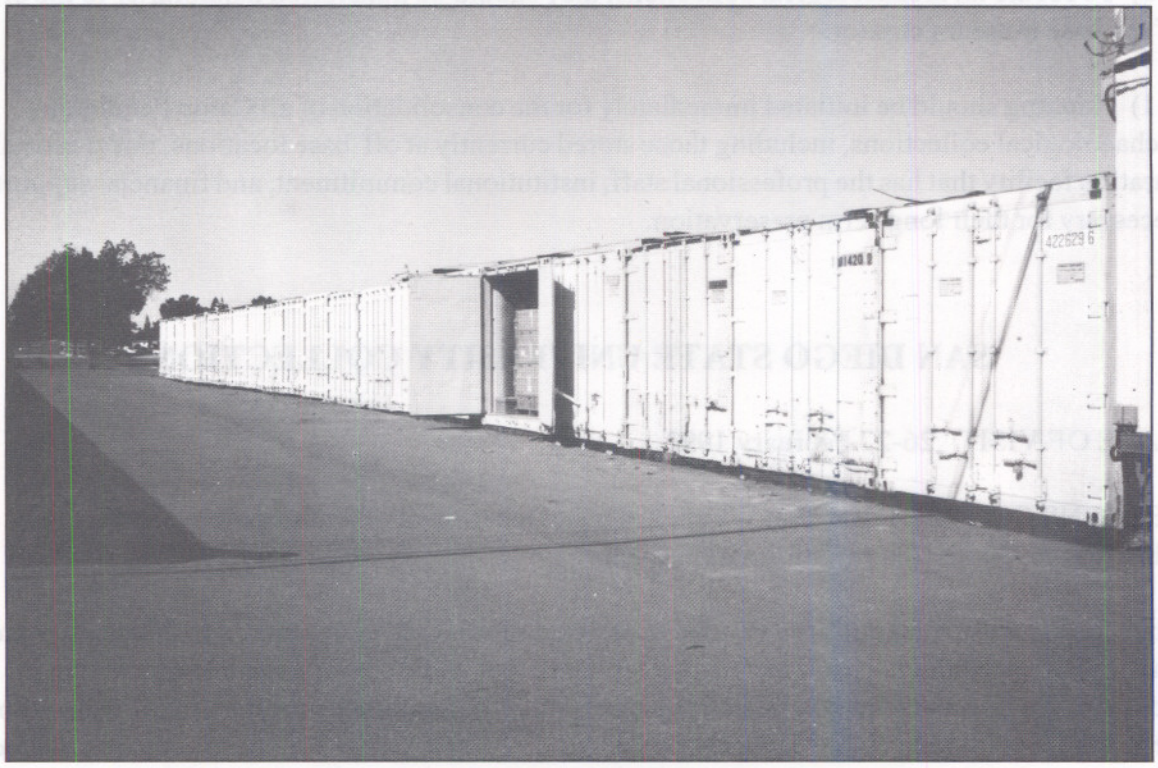


Figure 5. Rusting cargo shipping containers house Camp Pendleton archaeological collections at San Diego State University.

for which a key could be located. Fortunately, the container inventory indicated that this unit contained Camp Pendleton collections.

Structural Adequacy
The metal shipping containers are grossly unsatisfactory for the storage of archaeological collections. The welds of the containers are cracking and corroding, and the walls are rusting where the paint has spalled. The roof of Container No. 18 has been repaired and patched numerous times, but it is still leaking in one location at the rear of the container. The interior walls of the container are paneled with plywood, and the ceiling is lined with aluminum.

Environment
Temperature and humidity levels are neither controlled nor monitored in the shipping containers. The metal exterior of the container causes interior temperatures to reach extremely high levels. At the time of inspection, the humidity level inside the container was so high that most boxes and documents were moist to the touch and photographic slides had droplets of water on them. Mold and mildew were growing on water-damaged boxes stored in the rear of the container. Other collections were covered with rust that had fallen from the corroding roof.

Security
The shipping containers are padlocked, but their isolation compromises their security.

Artifact Storage

Shelving
Two metal shelving units, a metal drawer cabinet, and a wooden chest of drawers hold small boxes of artifacts and documentation; however the majority of this collection has been placed in boxes that are stacked from floor to ceiling along the walls of the storage container. The entrance to the container is blocked by a large collection of boxed artifacts stacked on wooden pallets. Boxes in the back of the container are extremely disorganized, and many of them are crushed.

Primary Containers
Collections are stored in a variety of cardboard containers, including "bankers" boxes and "grocery" boxes. A large number of loose artifacts are stored in "slide-tray" boxes. Many of the containers are distorted from improper packing and storage. Other boxes are open at the top with artifacts and documentation exposed directly to unregulated temperature and humidity levels. In some cases the artifacts are spilling out of the boxes, becoming disassociated from their original containers.

Secondary Containers
The Camp Pendleton collections examined are packaged in either small cardboard boxes or brown paper bags. Boxed artifacts are isolated in sandwich bags secured with "twist ties." Paper labels are attached to the bags with string. Label information is in either ball-point pen or marking ink.

Figure 6. Artifact storage containers at San Diego State University showing extensive water damage.

Laboratory Processing

Artifacts in the Camp Pendleton collections consist of lithics and shell. The lithics are washed and individually labeled, but the shell is not clean.

Human Skeletal Remains

We were unable to determine if any human skeletal remains recovered from Camp Pendleton are stored at San Diego State University. We do know that not all of the burials excavated by Dr. Paul Ezell have been located. Since Dr. Ezell was associated with the university, it is very possible that the missing remains are still housed at this facility. Inadequate inventory precluded any identification of human remains.

Records Storage

Archaeological documentation at San Diego State University is stored in the shipping containers with the artifacts. As with the artifact collections, intellectual control over these materials is currently non-existent. The records are not organized in any systematic fashion and are in such a state of disorder that they cannot be retrieved when needed. Records, including photographic materials, are stored loose in boxes with the artifacts, in boxes without lids, and scattered on top

of the boxes. Maps are rolled and stored upright in open-top boxes. Only one box of Camp Pendleton documentation was located. The unsatisfactory storage environment in which these materials are maintained is contributing to their rapid deterioration and ultimate loss. This is

Figure 7. Disorganized Camp Pendleton collections housed at San Diego State University.

particularity true for the photographic documentation and machine-readable records in the collections.

Figure 8. Deteriorating Camp Pendleton archaeological records.

Collections Management

The following procedures were reviewed at San Diego State University.

Registration Procedures

Accession Files: None
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: None

Curation Personnel
None

Curation Financing
None

Access to Collections
Access to the shipping containers is controlled by the University's Property Department. The collections are in such a state of disorder that retrieval of specific materials would take weeks and involve a box-by-box search of the containers.

Future Plans
The university plans to turn the collections over to a long-term repository as soon as a satisfactory facility becomes available. Start-up monies for a county repository were made available recently when punitive damages were assessed against a developer for destruction of archaeological resources. The collections at San Diego State University could go to this facility if it is constructed, but only if Camp Pendleton grants permission for their transfer.

Comments

(1) San Diego State University no longer has a contract archaeology program. Unfortunately, responsibility for the temporary protection of previously recovered collections is not assigned to any one university employee. Subsequently, the collections are essentially abandoned.

(2) The shipping containers used currently for collections storage are unsatisfactory for curation and do not in any way meet the current Federal requirements for archaeological curation. Isolation and neglect are causing the loss of collection provenience, and an extremely unfavorable storage environment is hastening the rapid destruction of perishable artifacts and associated documentation.

(3) Although the immediate concern for the preservation of archaeological collections recovered from Camp Pendleton can be met by removing these collections from the university's jurisdiction, we are also concerned about the remaining materials. A significant amount of the recovered prehistory and early history of San Diego County is housed at this facility. If these collections are

lost, as is likely given the existing storage conditions, an irreplaceable portion of the nation's cultural heritage will be lost.

Recommendations

(1) All archaeological materials, associated documentation, and reports, recovered or generated through contractual agreements with Camp Pendleton, and stored at San Diego State University, should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All human skeletal remains recovered from Camp Pendleton, and still in the possession of San Diego State University, should be identified.

(4) The disposition of all identified human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(5) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act, should be identified and their disposition determined.

(6) All associated documentation and reports should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(7) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(8) All archaeological materials, associated documentation, and reports should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary to meet Federal curation regulations.

GALLEGOS AND ASSOCIATES COLLECTION

DATE OF VISIT: 25 February 1992

PERSONS CONTACTED: Dennis Gallegos

The only collection stored at Gallegos and Associates recovered from Camp Pendleton is the Military Family Housing Project. The collection consists of approximately 5 ft^3 of artifacts and associated documentation. Artifacts from this collection include lithics, shell, charcoal, faunal remains, soil samples, and historical materials.

Figure 9. Gallegos and Associates laboratory.

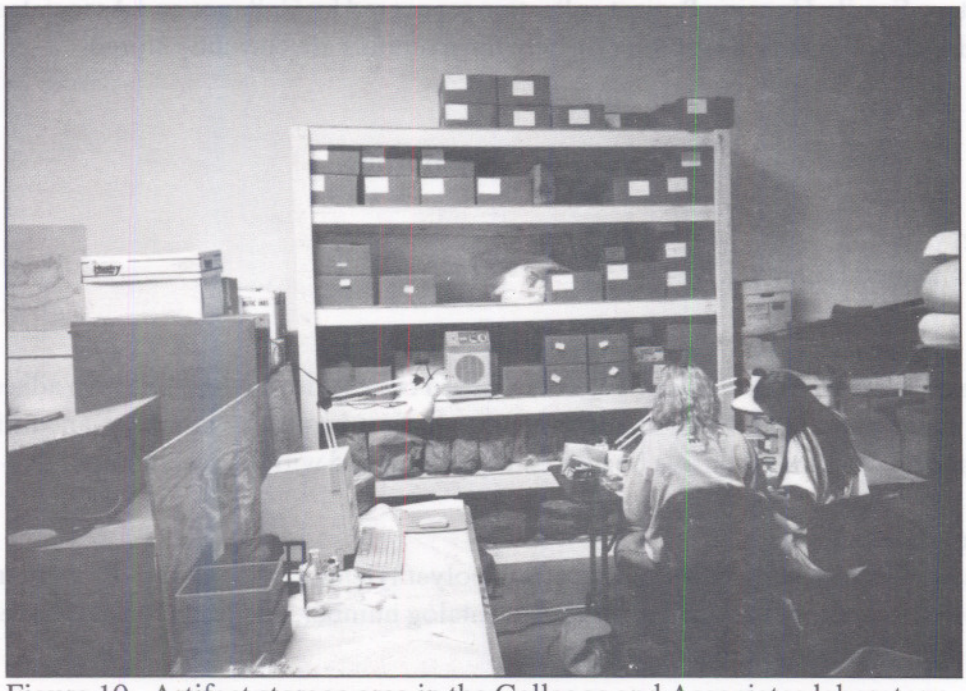


Figure 10. Artifact storage area in the Gallegos and Associates laboratory.

Figure 11. Photograph showing the contents of a primary container in Gallegos laboratory.

Repository

The Military Family Housing Project collection recovered by Gallegos and Associates was inspected in the company's laboratory where the materials are currently stored.

Artifact Storage

Shelving
Wooden and metal shelving.

Primary Containers
The collection is stored in ten corrugated cardboard boxes with folding lids. An adhesive label is attached to each box. Label information includes project name, site numbers, and artifact classifications. A comprehensive box inventory is included with each container.

Secondary Containers
Artifacts are professionally packaged in 4-mil, polyethylene, zip-lock bags. Provenience information, including site number and level, catalog number, and artifact class are recorded on each bag in indelible marking ink.

Figure 12. Gallegos and Associates records storage area.

Laboratory Processing and Labeling

All artifacts have been cleaned. Black ink on a background of white correction fluid is used to label artifacts.

Human Skeletal Remains

There are no human skeletal remains at Gallegos and Associates that are the property of Camp Pendleton.

Records Storage

Record files for the Military Family Housing Project collection include topographic maps (folded and loose), level and feature forms, plan maps, shovel test forms and maps, field notes, and photograph logs. The original photographic documentation was delivered to Camp Pendleton along with the final report. The paper documentation is stored in acidic manila folders.

Collections Management

Registration Procedures

Not Available

Written Policies and Procedures
Not Available

Curation Personnel
Not Available

Curation Financing
Not Available

Access to Collections
The collections are accessible currently to employees of Gallegos & Associates.

Future Plans
At the time of inspection, plans were being made to curate the Military Family Housing Project collection at the San Bernardino County Museum. Camp Pendelton must approve this decision.

Comments

(1) Gallegos and Associates does not meet the current Federal requirements for archaeological curation. Although this business should not be considered a collections management center for the permanent curation of archaeological collections, they have taken on, at no cost, the collections management responsibilities that belong to DoD. They cannot continue, however, to function as a repository, nor do they wish to.

(2) Although the level of curation provided by Gallegos & Associates does not meet current Federal requirements, the curation effort is far superior to that observed at most repositories. The firm should be commended for the attention that is given to the preparation of collections for long-term storage, especially the data-base-management system through which the company is able to organize collection information and produce box inventories and labels.

Recommendations

(1) All archaeological materials recovered or generated through contractual agreements with Camp Pendleton, and stored currently at Gallegos and Associates, should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(2) All associated documentation and reports, including those from with negative results, should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(3) Copies of the original photographic documentation should be made and curated with the associated documentation.

(4) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(5) All archaeological materials, associated documentation, and reports should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations. The original field maps and photographic documentation should be included in this transfer. Acid-free photocopies of other documents and reports should be made.

BRIAN F. MOONEY ASSOCIATES COLLECTION

DATE OF VISIT: 28 February 1992

PERSONS CONTACTED: Jerry Schaefer

The following Camp Pendleton archaeological projects have been undertaken by Brian F. Mooney Associates (BMA): Rancho Santa Margarita Chapel (Jerry Schaefer, Principal Investigator), Las Flores site (Jerry Schaefer, P. I.), and Jackson Research Project (John Cook, P. I.). The two collections recovered by Dr. Schaefer, which consist of 1.5 ft^3 of artifacts and associated documentation, were inspected in his office where the materials are undergoing examination. The collection recovered by John Cook was not available for inspection.

Repository

Artifact collections maintained by Brian F. Mooney Associates are housed in a commercial storage unit located several miles from the firm's office. This facility was not made available for inspection.

Artifact Storage

Shelving
Not Available

Primary Containers
Artifacts are stored in corrugated cardboard boxes labeled with the site or project names.

Secondary Containers
Artifacts are packaged in paper bags that are labeled with marking pen.

Laboratory Processing and Labeling
All artifacts are cleaned. Only diagnostic artifacts are labeled individually with ink.

Human Skeletal Remains

No human skeletal remains from Camp Pendleton are present at Brian F. Mooney Associates.

Records Storage

Documentation associated with the Camp Pendleton artifact collections was not accessible at the time of inspection. These records, which are DoD property, are stored in the archives of a professional records-management firm located in San Diego.

Collections Management

Registration Procedures
Not Available

Written Policies and Procedures
Not Available

Curation Personnel
Not Available

Curation Financing
Not Available

Access to Collections
At the present time the collections are accessible only to BMA personnel.

Future Plans
Brian F. Mooney Associates personnel indicate that the collections will be returned to Camp Pendleton once the analysis is complete.

Comments

Brian F. Mooney Associates does not meet the current Federal requirements for archaeological curation and is not a collections-management center. The permanent curation of archaeological collections and documentation is the responsibility of the U.S. Marine Corps, not BMA. At present BMA has physical control of the collections.

Recommendations

(1) All archaeological materials recovered or generated through contractual agreements with Camp Pendleton, and stored at BMA, should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(2) All associated documentation and reports, including those with negative results, should be arranged, described, and preserved according to Federal guidelines and standards using modern archival procedures.

(3) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(4) All archaeological materials, associated documentation, and reports should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations. The original field maps and photographic documentation should be included in this transfer. Acid-free photocopies of other documents and reports should be made.

RECON COLLECTION

DATE OF VISIT: 28 February 1992

PERSONS CONTACTED: Sue A. Wade

The Santa Margarita River project is the only archaeological fieldwork undertaken by RECON, a private contractor, on behalf of Camp Pendleton. This collection is restricted to documentation only, since no artifacts were recovered.

Repository

Artifact collections maintained by RECON are in rental "self-storage" units in the San Diego area. These units were not inspected.

Artifact Storage

There are no Camp Pendleton artifacts in the possession of RECON.

Human Skeletal Remains

No human skeletal remains from Camp Pendelton are stored at RECON.

Records Storage

Approximately one linear foot of the original archaeological documentation from the Santa Margarita River project is maintained at RECON. Records are stored on wooden shelves in a closed archives room in the suite of RECON offices. The documents are organized and retrievable, but have not been prepared for long-term archival storage.

Project records, which are the property and responsibility of Camp Pendleton, are kept in expandable paper file folders. Some documents are loose, whereas others are grouped in manila folders. Paper clips, rubber bands, and staples are prevalent. Photographs are stored in both glassine and polychlorinated plastic sleeves. Documentation for the Santa Margarita River project includes administrative records (including correspondence and contracts), background information (including site files and record searches), site survey forms, maps (plan, quadrangle, and county), analysis maps, reports (draft, camera-ready copy, and final), and photographic materials (black and white and color). A duplicate copy of these records does not exist.

Collections Management

Registration Procedures
Not Applicable

Written Policies and Procedures
Not Applicable

Curation Personnel
Not Applicable

Curation Financing
Not Applicable

Access to Collections
Not Applicable

Future Plans
Not Applicable

Comments

RECON does not meet the current Federal requirements for archaeological curation and is not a collections-management center. The permanent curation of archaeological collections from Camp Pendelton is not the responsibility of RECON.

Recommendations

(1) All associated documentation and reports generated by the Santa Margarita River project should be returned to Camp Pendleton and should be arranged, described, and preserved according to Federal guidelines and standards using modern archival procedures.

(2) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(3) All associated documentation and reports generated by the Santa Margarita River project should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations. The original field maps and photographic documentation should be included in this transfer. Acid-free photocopies of other documents and reports should be made.

3

FORT SILL, OKLAHOMA

INSTALLATION SUMMARY

(1) Volume of Artifact Collections: 442 ft^3

On Post: 417 ft^3
Off Post: 25 ft^3

Compliance Status: Most artifact collections will require complete rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: 105 linear ft

On Post: 81 linear ft
Off Post: 24 linear ft

Compliance Status: All documentation collections require complete rehabilitation to comply with existing Federal guidelines and standards for archival preservation.

(3) Human Skeletal Remains: Skeletal remains from at least two individuals are housed in the Fort Sill collections. Resources are required to comply with NAGPRA.

(4) Status of Curation Funding: No annual funding mechanism exists for archaeological curation at Fort Sill.

(5) Status of Installation Repository: The archaeological repository at Fort Sill meets none of the Federal requirements for such facilities and the collections are endangered in the present structure.

INTRODUCTION

Founded in January 1869, Fort Sill has been, since 1911, the home of the United States Army Field Artillery Center and School. Situated on 94,000 acres in southwestern Oklahoma, the post has a substantial historic and prehistoric legacy. The total number of archaeological projects conducted at Fort Sill could not be determined with any degree of certainty. However, in four days we identified 417 ft^3 of historical and prehistoric artifacts (see Appendix IV).

A records-management program for archaeological documentation and reports is nonexistent. No data management file, other than report bibliographies, is available. This lack of project information, and the severe disorganization of recovered collections, made it impossible to determine if all existing collections were identified.

Collections from Fort Sill property are housed at two major repositories in Oklahoma and at several locations in neighboring states. The largest collections are under the direct control of the Fort Sill museum and the Museum of the Great Plains in Lawton, Oklahoma. Smaller collections are still in the possession of an archaeological contractor in Plano, Texas. We did not examine this collection.

COLLECTIONS AT FORT SILL

DATE OF VISIT: 3-6 February 1992

PERSONS CONTACTED: Towana Spivey and Louis Vogele, Jr.

An estimated 417 ft^3 of archaeological artifacts, both historic and prehistoric, are housed in Building 326 at Fort Sill. Major artifact collections include materials from the 1977 Fort Sill Survey, the excavation at the Kiowa and Comanche Indian Agency Commissaries (34CM132 and 34CH114), and materials recovered when pipeline construction crossed the old Fort Sill Dump (34CM9). Building 326 also houses at least eighty-one (81) linear feet of associated documentation and reports, with additional documentation stored at several other post locations. The full range of Fort Sill collections, however, is sketchy at best. Collections and records are extremely disorganized, making it almost impossible for an accurate assessment of these unique collections.

Historic collections include large intact samples of nineteenth-century ceramics and glass bottles. However, the majority of the collections contain a unique array of metal items, including nails, military hardware, guns, lead balls, and remnants of equestrian equipment. The prehistoric materials consist of lithic and faunal remains, soil samples, and flotation samples. At least two human burials (one from what appears to be the nineteenth century) and associated grave goods are also housed in the Fort Sill repository. Primary records documenting these remains are not available.

Repository

All artifact collections housed at Fort Sill are in Building 326 located several blocks from the museum director's office. This building is a large wood-frame structure, approximately thirty (30) feet by eighty (80) feet, erected on a stone masonry foundation. The interior of the building is subdivided into three areas: an office and records area, an archaeological collections storage room, and a storage area for historical saddles and other equestrian furnishings. The office and records area at the front of the building occupies 507 ft^2 of space. The area contains several file cabinets of documentation, wooden card files, metal and wooden map cases, bookcases, and

Figure 13. Archaeological collections storage area at Fort Sill, Building 326.

several desks and work tables. The center of the building houses the archaeological collections. This area, encompassing 740 ft^2 of space, is filled with metal and wooden shelving units plus miscellaneous furnishings such as filing cabinets, supply cabinets, a work bench, a refrigerator, and several tables. The storage area for equestrian furnishings occupies the rear of the structure and takes up 1,000 ft^2 of the building. This area, though not devoted to archaeological collec tions, contains an impressive array of saddles, bridles, and other leather furnishings related to the early cavalry activities at Fort Sill. Although this room is not included in the present assessment of the building's adequacy for storing archaeological collections, the long-term preservation of the historical museum objects stored here is unlikely given the uncontrolled temperature and humidity conditions.

The basement of Building 326 has a dirt floor and is also used for archaeological and ethnographic storage. The area, which extends the entire length of the building, is entered from the outside through a sliding wooden door. A large collection of valuable and historically significant nineteenth and early twentieth-century glass bottles (estimated to be at least 130 ft^3) recovered from the old Fort Sill Dump site, is packed into the basement area, along with a large collection of wood-spoked wheels and miscellaneous furnishings. The long-term preservation of these unique and extremely valuable artifacts is unlikely given current storage conditions.

Structural Adequacy

Although the exact year of construction is unclear, Building 326 is at least ninety (90) years old. The facility is grossly inadequate for the curation of archaeological collections. Major deficiencies of this building include the following items.

(1) Numerous water stains on the ceiling of the collections room indicate that a new roof is needed on the repository. The roof leaked during a storm that occurred at the time of the curation assessment.

(2) The electrical wiring, conduit, and heating units in the facility are antiquated and present major fire hazards. The ceiling of the collections room is crisscrossed with wiring from electrical outlets to the light fixtures. Several electrical outlets are currently draining water from the leaking roof.

(3) The floor of the office and records room is tiled. The floor in the remainder of the building is bare particle board.

(4) Running water, centralized heating, and air conditioning are absent.

Environment

All rooms are equipped with gas heating units suspended from the ceiling. The heating system is substandard and is a major fire hazard. The records room also has a window air-conditioning unit. Heating and air-conditioning units are only operated when museum personnel are working in the building, a situation that rarely occurs. No systems for humidity control or dust control exist. No program for the management of insect or rodent infestations exists.

Security

The collections storage building is isolated from the other museum facilities and is rarely occupied. This isolation increases the risk of unauthorized entry. The doors are locked, but alarms are absent on the doors and windows. Motion detectors are also absent within the building. Smoke or heat detectors are absent in the repository, and no fire-suppression system exists. The only form of immediate fire protection is two small fire extinguishers, one located in the collections storage room and the other in the basement.

Figure 14. Collections storage at Fort Sill (note water stains on ceiling).

Figure 15. Primary containers housing valuable bottle collection in the basement of Building 326.

Artifact Storage

Shelving

Most artifact collections are stored on metal shelving units, although some are also housed on older wooden units and in other containers. A number of large metal artifacts are stored loose on the floor.

Primary Containers

Most Fort Sill artifact collections are stored in cardboard boxes of various quality and size. None of the collections are housed in museum-quality containers. A few small collections are contained in what appear to be acid-free boxes, but the majority of collections are stored in acidic containers. The 1977 Fort Sill Survey collection (16 boxes) and the 34CM232 Commissary collection (21 boxes) are stored in Federal Records Center boxes. These boxes, each approximately one cubic foot in size, are the older-style boxes manufactured from acidic paper products. They are sealed with duct tape and are inconsistently labeled in marking ink.

A variety of other containers—including standard cardboard boxes with folded flap tops, waxed (chicken) boxes, tray-like boxes with telescoping lids, and numerous types of grocery store boxes, most of which do not have lids—house the remainder of the collection,. The most unusual and unsatisfactory primary containers for artifact storage include a garbage can and a plastic laundry basket.

Box labeling for these collections is varied, inconsistent, and confusing. In most cases the label information is applied directly to the boxes with marking ink or crayon, but typed labels stapled to the boxes were also present. In some instances, boxes are unlabeled. In other cases, label information is extremely scanty, revealing no more than the artifact classification, with no reference to provenience.

A significant number of artifacts are stored loose on the shelf without the benefit of any protective container or labelling. Without the present collections manager's knowledge of past Fort Sill projects and the collections generated by those projects, the reconstruction of collection names or defining the associated records is unlikely.

Secondary Containers

A wide variety of containers are used to package the Fort Sill collections. Packaging also varies by collection. Paper bags and plastic bags predominate in the 1977 Fort Sill Survey and 34CM232 Commissary collections. Some bags in these collections are labeled with a property stamp from the Museum of the Great Plains. Paper bags, plastic bags, small boxes, and vials are used to package artifacts in other collections. Unusual and unsatisfactory secondary containers for artifact storage include cigar boxes, a paper cup, and a styrofoam fast-food container. Many containers are also damaged by tears, punctures, and compression. A large number of artifacts are simply stored loose in the primary containers.

No consistency in the labeling of secondary containers exist. Some collections are labeled with

paper tags inserted inside the secondary containers, whereas others are labeled directly on the containers with pencil, ink, or marking pen. Secondary containers in some collections are not labeled at all.

Laboratory Processing and Labeling

Standards for storage or consistency in the preparation of Fort Sill artifacts are absent. These archaeological materials apparently were placed on the shelves in the same condition that they were received by the repository. Many of the collections are not washed or labeled, and some of the collections are not sorted into basic material artifact classes. The large collection of unique metal artifacts in the historical collection is not stabilized and has never received the attention of a professional conservator. Many organic objects, including wood artifacts and textiles, are also in need of immediate conservation.

Human Skeletal Remains

The inspection of the Fort Sill repository identified the human skeletal remains and associated grave goods from several burials. These include the following.

(1) Three boxes of skeletal material and associated grave goods are labeled "34CM221, Fort Sill Burial, Skeletal Material." Two of these boxes contain unidentified human bone from one, and possibly two, individuals. Most of the skeletal material is washed, but few elements are labeled. The third box contains grave goods recovered along with the remains. Various containers, including paper bags, plastic bags, paper envelopes, open cardboard boxes, vials, and a cloth bag, are used to house the materials.

(2) The Sandman Burial, encompassing four boxes of skeletal material and associated grave goods, was recovered near Woodward, Oklahoma, in 1973. The reason for this collection's presence in the Fort Sill repository is not known.

(3) Project reports also indicate that human skeletal remains were recovered during excavations at the Watta Site, the Jared Site, and the Rabbit Hill Site, all of which are on Fort Sill property. Further investigations will be necessary to identify the exact location of these materials. Additionally, further investigations will be necessary to recover the associated primary records.

Records Storage

Associated documentation and reports for the Fort Sill archaeological collections are not organized in a systematic manner nor centralized in a single location. Approximately eighty-one (81) linear feet of material, including reports, site records, and photographs, are housed in the office and records room in Building 326. The material in this room, however, is completely disorganized, and it appears that it has been in this condition for many years. A 10-drawer map case is also located in this area, along with a collection of rolled maps. Six boxes of historical archives, including photographic materials, are stored on the floor of the collections

room. An additional 12 linear feet of paper documents, six (6) linear feet of 35-mm slides in trays, and numerous rolled maps, housed in two wooden map holders, are stored in the museum director's office. The museum director also has some photographic documentation, taken with his personal camera, at his home. An indeterminate number of records are in the museum registrar's office, the library archives, and in boxes with the associated artifacts.

Collections Management

Although registration procedures, written policies and procedures, and collection inventories exist and are applied to the museum's ethnographic and military collections, these policies and procedures are not extended to the archaeological collections.

Registration Procedures

Accession Files: None

Location Identification: None

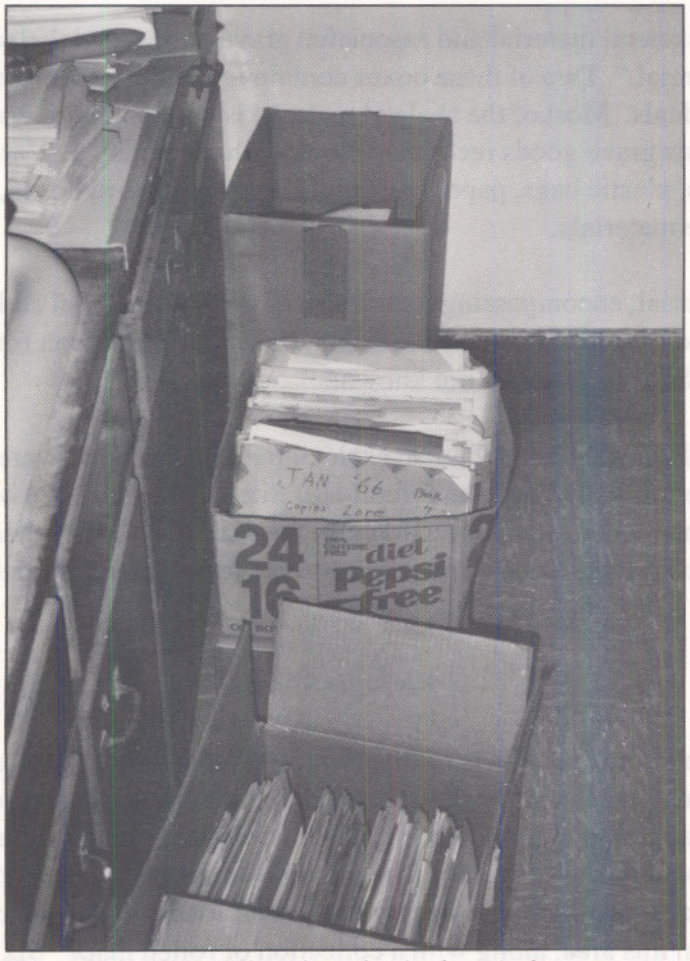


Figure 16. Fort Sill archaeological records storage.

Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: Yes
Computerized Data-Base Management: None

Written Policies and Procedure
Minimum Standards for Acceptance: Yes
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: Unknown

Curation Personnel
Although eight staff members are employed by the Fort Sill Museum to care for the ethnographic and military collections, almost no staff time is devoted to the care and curation of archaeological materials. This neglect is a function of the mission of the post museum, which is to illustrate the history of field artillery.

Curation Financing
The entire museum budget is directed toward the care of the museum's ethnographic and artillery collections. Very few, if any, funds are expended for archaeological curation.

Access to Collections
Access to the collections is possible only through written request to the museum curator. Use of the collections is supervised by the museum staff.

Future Plans
A request has been submitted for improvements to Building 326, including new electrical wiring, reconnecting the existing plumbing, and installing air conditioning and smoke detectors. It is also the museum director's plan to reorganize the collections and records, update the files, develop finding aids, and rebox the collections.

Comments

(1) The primary responsibility of the Fort Sill museum is the administration and maintenance of 23 historical buildings, some dating to the early 1870s, the conservation of a large collection of ethnographic objects and archives relating to the early history of Fort Sill, and the preservation of an internationally prominent field artillery collection.

(2) Archaeological collections are not considered a conservation and preservation priority by museum personnel. They are neglected to the point where the museum has essentially lost

intellectual control over these materials and the associated documentation.

Recommendations

(1) Compliance with Federal regulations protecting archaeological materials and the curation of archaeological collections are separate from the administration of the Fort Sill museum that currently has a massive responsibility managing its own mission-related collections. Therefore, all responsibility for archaeological activity on Fort Sill property, including the curation of archaeological collections, should be funded to meet current standards or transferred to another administrative unit on the post.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) The disposition of all human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(4) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act, should be identified and their disposition determined.

(5) A records management program should be implemented to preserve all archaeological documentation according to Federal guidelines and standards and modern archival procedures.

(6) The 1990-91 survey collection held by Mr. Duane Peter, Geo-Marine, Plano, Texas, should be returned to Fort Sill or an appropriate designated repository for permanent curation.

(7) James Schaeffer's 1959 survey collection held by the Oklahoma Museum of Natural History, Norman, Oklahoma, currently on loan to Mr. Duane Peter, should be returned to Fort Sill or a repository, which meets 36 CFR Part 79 and is designated by Fort Sill, for permanent curation .

(8) Planning should be initiated immediately for the consolidation of all Fort Sill archaeological collections, including those stored currently at off-base locations, into a central archaeological curation facility. This facility, preferably managed by DoD personnel, will provide the professional staff, institutional commitment, and financial support necessary for the long-term preservation of these important collections.

MUSEUM OF THE GREAT PLAINS COLLECTION

DATE OF VISIT: 5 February 1992

PERSONS CONTACTED: Joe Hayes, Curator of Anthropology; Joseph Anderson, Archaeologist.

The Museum of the Great Plains is a publicly owned institution that operates as a division of the Parks and Recreation Department of the City of Lawton, Oklahoma. The Museum is supported with an endowment from the privately operated Institute of the Great Plains. Founded in 1961, the primary purpose of the museum is to collect, preserve, interpret, and exhibit items relating to the cultural history of the Great Plains. The museum serves as a repository of historic and prehistoric archaeological collections, including collections from nearby Fort Sill. Approximately 25 ft^3 of artifacts and six (6) linear feet of documentation from Fort Sill are curated at the Museum of the Great Plains. Identified collections include the following.

(1) Waurika Pipeline—artifacts and documentation.
(2) Cache Creek—artifacts and documentation.
(3) Fort Sill Survey (Ferring)—documentation only.

Figure 17. The Museum of the Great Plains.

(4) Fort Sill Commissary (34CM232)—documentation only.
(5) Fort Sill Waterline Project—documentation only.

Repository

Structural Adequacy

The museum contains 18,000 ft^2 of space and was first accredited by the American Association of Museums in 1982. The museum was reaccredited in 1992. Although archaeological storage space is limited, the building meets all Federal structural requirements for long-term curation of archaeological materials. The room containing the artifacts in the Museum's collections contains

approximately 3,000 ft^2 of space, and is located on the first floor of the museum. Approximately one-fourth of the room is devoted to office space and photography.

Environment

Heating and air conditioning at the Museum of the Great Plains are area controlled. The optimal temperature is 68° F, but actual temperatures range from 65° F to 75° F. A normal winter temperature is 65-68° F, but it is difficult to obtain a temperature below 72° F in the summer. Humidity levels are controlled and monitored. The desired humidity level is 45%, but the actual humidity ranges from 30% to 50%. Dust control is a major problem, even though air is filtered through the heating and air-conditioning units. Biological infestation is controlled through a policy of isolation, close monitoring, and limited spraying (i.e., the building is sprayed, but no chemicals are used in collection storage areas). Lighting consists of four drop-cord bulbs.

Security

The Museum of the Great Plains meets all Federal requirements for safekeeping of archaeological collections. Protection from unauthorized entry is provided by a perimeter alarm system. Alarms on all windows and doors are wired into an alarm company that alerts the local police department.

Figure 18. Shelving and catalogued collections at the Museum of the Great Plains.

There are no motion detectors in the building, but all exhibit cases have alarms and valuable artifacts are wired. The front door is fitted with a separate key alarm, and a record is kept of all staff members holding keys. All staff members have access to the archaeological collections storage area. The fire alarm is hard-wired into the fire department, and the alarm is triggered by heat and smoke sensors. Water pipes are located in the lower walls rather than overhead to minimize water damage in the event of rupture.

Artifact Storage

Shelving

All artifact containers are stored on steel-frame, wooden-base shelving units mounted to the wall and extending from floor to ceiling (approximately thirteen feet). Each unit consists of nine shelves, and each shelf holds eight artifact boxes stacked two abreast and four high. Materials on the highest shelves are accessed with a metal stepladder, that can be rolled from unit to unit. The boxes are arranged by county name and site number.

Primary Containers

All artifacts from the Fort Sill collections are stored in cardboard boxes, each approximately twenty-by-twenty-by-three inches in size. Box bases and telescoping lids are stapled at the corners. Box labels, that consist of three-by-five-inch cards stapled to the lids, identify the enclosed materials by county, site number, and artifact class.

Secondary Containers

Artifacts are separated within the primary containers by lidless cardboard boxes. They are stored either loose within these inner boxes or in 2-mil plastic bags. Most plastic bags are secured with a twist tie, but some are open. A small paper tag or label, providing site number and artifact classification, accompanies each secondary container . Labels are written in ink, marker, or pencil.

Laboratory Processing and Labeling

Most artifacts are washed and assigned an artifact number. Labeling is done with black ink on a background of nail polish or with correction fluid. The latter labels are now flaking off the artifacts.

Human Skeletal Remains

No human skeletal remains from Fort Sill are stored in the Museum of the Great Plains.

Records Storage

The archives room is located on the second floor of the museum and is actually a mezzanine area over the collections storage room. The room occupies approximately 1,200 ft^2 of space and is at

Figure 19. Records storage space in the Museum of the Great Plains.

capacity. Standard archival procedures are followed for museum records relating to the ethnographic collections, but not for the archaeological documentation.

Many records for the Fort Sill collections are located in the office area of the museum archaeologist. The materials are housed in acid-free boxes, but they are not organized or archivally processed. Some documentation such as photographic slides is recorded in pencil and will rapidly fade.

Most paper records are filed in acidic manila folders or binders, but some are stored loose in boxes. Related documents are frequently kept together with metal paper clips, rubber bands, or staples, a practice that will accelerate the destruction of these records. Maps and oversize documents are either folded or rolled, even though the museum has facilities for flattening. Photographic records from the Fort Sill projects are in the most immediate danger. These items are frequently loose in file folders or are enclosed in harmful glassine or plastic sleeves. Duplicate records are absent.

Collections Management

Registration Procedures

Accession Files: Yes
Location Identification: Yes
Cross-Indexed Files: Partial
Published Guide to Collections: None

Site-Record Administration: Yes
Computerized Data-Base Management: Partial

Written Policies and Procedures

Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: Yes
Deaccessioning Policy: Yes
Inventory Policy: Yes
Latest Collection Inventory: 1988

Curation Personnel

Curation of the Fort Sill collections is the responsibility of the Curator of Anthropology. The curator is assisted by three part-time volunteers and a part-time intern graduate student. Three additional curators are on the museum staff.

Curation Financing

The museum's general operating budget funds the curation operations. Curation is given a high priority by the museum administration. Thus, most requests for curation funds are granted.

Access to Collections

On-site use of the collections is permitted, but approval must first be obtained from the Curator of Anthropology. Loans are possible to other qualified institutions, following completion of the proper loan-agreement form.

Future Plans

A museum master plan, which is an update of a 1963 plan, was completed in June 1991. The 1991 plan calls for an expansion of available building space to over 50,000 ft^2. Adequate space for curation of artifacts and archives would then exist.

Comments

(1) The Museum of the Great Plains is a professionally managed institution that meets most Federal requirements for long-term curation of archaeological collections. The Fort Sill collections stored in this facility should be considered secure.

(2) Several collections of archaeological documentation are housed at the Museum of the Great Plains; however, the artifact collections are apparently at Fort Sill. Arrangements should be made for the eventual unification of these collections.

Recommendations

(1) All archaeological materials, associated documentation, and reports recovered or generated through contractual agreements with Fort Sill and stored currently at the Museum of the Great Plains should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All associated documentation and reports should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(4) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(5) Eventually, the collections from Fort Sill should be consolidated into one collections center, preferably managed by DoD personnel. Until such time, however, the collections are safe and under good professional care at the Museum of the Great Plains.

4

NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA

INSTALLATION SUMMARY

(1) Volume of Artifact Collections: 337 ft^3

On Base: 250 ft^3
Off Base: 87 ft^3

Compliance Status: All collections will require complete rehabilitation to comply with existing Federal guidelines and standards for curation.

(2) Linear Feet of Records: 117 linear ft

On Base: 108 linear ft
Off Base: Nine (9) linear ft

Compliance Status: All collections of associated documentation and reports will require complete rehabilitation to comply with existing Federal guidelines and standards for modern archival preservation.

(3) Human Skeletal Remains: Human skeletal remains from at least five individuals are present in the Naval Air Weapons Station (NAWS), China Lake collections. Significant resources are required to comply with NAGPRA.

(4) Status of Curation Funding: Annual funding for curation at NAWS, China Lake is lacking. In FY93 NAWS funded a curation-needs assessments for 36 CFR Part 79 and NAGPRA compliance.

(5) Status of Installation Repository: The archaeological repository at NAWS meets none of the Federal requirements for such facilities, and the collections are uncataloged and inaccessible in the present structure.

INTRODUCTION

The Naval Air Weapons Station, China Lake is a major research, testing, and evaluation installation for the United States Navy. This installation, situated on 1.1 million acres in the Mojave Desert in south-central California, is the Navy's largest research and development facility. The Coso Range, which is located entirely within NAWS, contains numerous petroglyph panels known worldwide to archaeologists and rock-art scholars. The entire installation contains substantial prehistoric and historic components.

Archaeological collections known to be owned by NAWS are housed in a number of locations throughout California and Nevada. Two storage areas on the installation contain major collections. Significant collections are also located at the Maturango Museum of Indian Wells Valley in Ridgecrest, California. Smaller collections curated at the University of California, Riverside and at Ancient Enterprises in Santa Monica were also identified and inspected by the curation-assessment team.

Despite extensive pre-fieldwork interviews with numerous individuals involved with archaeological activity at NAWS, China Lake, it was not until the inspection team arrived at the installation that the true extent of archaeological activity, range of holdings, and collection storage conditions became known. After considerable searching, one collection (the Emma Lou Davis Collection) originally reported to be in San Diego was located only a mile away in Ridgecrest. Another reported collection, the Charles Rozaire Collection, could not be located. Intellectual control over NAWS archaeological collections is lacking, and while this is a concern of the base archaeologist, it is not a priority of management.

The total number of archaeological contracts executed over the years could not be identified by the curation-assessment team in the limited time available. Basic site records and reports exist, but because the installation terminated the existing curation- and collections-management programs, these records are not organized and could not be made readily available to the curation-needs assessment team. The same is true for the archaeological collections. The present location of these collections, and the conditions under which the materials are being maintained, cannot at present be determined with any degree of certainty.

Some artifact collections, perhaps a significant number, are located in various institutions and private contracting firms, but these were not inspected. There are collections at Ancient Enterprises (Santa Monica and Oakland) and at Intermountain Research (Silver City, Nevada). Associated documentation should also be in the files of several private contractors, including WESTEC, Ancient Enterprises, Intermountain Research, and Far Western Anthropological Research Group.

A 1982 report by Gary B. Combs and Roberta S. Greenwood (see Appendix V) cites the location of several other China Lake collections that are stored at various California repositories. The University of California at Berkeley reportedly has collections recovered in the late 1940s. The Eastern California Museum in Independence may be displaying artifacts recovered from the Coso Mountains. The T. Hillebrand collection is reported to be at Occidental College in Los Angeles,

but officials at this institution are unable to confirm this. Likewise, records and reports concerning archaeological activity on Coso Geothermal at NAWS, China Lake were not available for inspection.

Archaeological compliance responsibilities on the installation are divided between two individuals. Archaeologist William Eckhardt works for the Resources Management office that has responsibility for the archaeology on the entire installation. A second archaeologist, Carolyn Shepherd, conducts archaeological compliance activities for Coso Geothermal, a facility on China Lake Test Complex property. Although some collections generated on Coso Geothermal leased lands were identified in the NAWS base collection, we could not determine if all collections recovered from these lands are properly identified. The complete range of documentation for these collections, including Archaeological Resource Protection Act permits, administrative records, and reports, has yet to be identified.

No one individual is responsible for the current state of the NAWS material. The situation is the product of years of neglect, due primarily to a lack of funding for the long-term curation and preservation of archaeological collections. To the credit of William Eckhardt, this problem was addressed and a part-time employee was hired in July 1987 to organize the installation collections so they would be manageable. Significant progress in this direction was being made when the position was abruptly discontinued in April 1991. The aborted effort included an attempt to locate all NAWS collections and repack and rebox many of the collections. A sophisticated, though unfinished, computerized accession log of NAWS artifacts was also developed, but was discontinued when the project was terminated. The magnitude of the problem is such that even a full-time employee could not have achieved the desired goals of this effort in the limited time available. Since the release of this person, the archaeological collections management effort was discontinued. We suggest that any attempt to reinstate the curation-management program must recognize that identification, organization, and proper curation of archaeological material recovered from NAWS properties will take at least a decade or more to achieve.

COLLECTIONS AT NAWS, CHINA LAKE

DATE OF VISIT: 16-20 December 1991

PERSONS CONTACTED: William Eckhardt and Meg McDonald

An estimated 250 ft^3 of artifacts and 108 linear ft of documentation and reports are curated in two separate storage structures at the Naval Air Weapons Station, China Lake. The structures are located several blocks from the offices of the installation archaeologist. Neither structure was designed nor adapted to curate archaeological collections. Approximately 33% of the boxes in this collection were opened and examined by the assessment team. Many classes of artifacts such as ground stone, pottery, chipped stone, and faunal remains are included in these collections; however, the majority of all archaeological material are chipped stone. Identified collections include the following.

(1) Sugarloaf Study, Caldera Cut (Intermountain Research)
(2) Known Geothermal Research Area
(3) Cactus Flats Village
(4) Mojave B Withdrawal
(5) Tennessee Spring Box Installation
(6) Pothunter Spring Complex
(7) Phases One and Two of the 1989 NAWS, China Lake-Naval Training Center, Fort Irwin Joint Land Use Area Project
(8) Numerous Miscellaneous Collections

Repositories

Base Facility #1

The primary repository housing archaeological collections at NAWS is a wood-frame/stucco

Figure 20. Abandoned base housing is the primary collections repository at NAWS, China Lake .

duplex, constructed in the mid-1940s and used originally for housing. The archaeological storage area occupies one-half of this building.

Structural Adequacy

Facility #1 is still structurally sound, but the design and layout are that of a small home, not a museum repository. A leak in the roof has recently been repaired. Available space is grossly

inadequate for curation and collections use. Approximately 990 ft^2 of the building is used for office and laboratory space, whereas an additional 270 ft^2 of space is devoted to artifact storage. The facility is currently unable to house any more collections without modification.

Environment

The building is equipped with heating and air conditioning, but both systems currently are not working. No mechanism for humidity control exists, and environmental conditions are not monitored. Lighting is inadequate in the entire building, especially in the artifact storage area. The facility receives no regularly scheduled maintenance, and the floors and furnishings are dusty and dirty. In addition, there are no scheduled pest-control procedures, which has resulted in an infestation of roaches and spiders.

Security

The doors on the repository are locked, but the windows are not secured. A circular wooden pole is wedged between the lower window and the upper sash to prevent opening of the lower window. Since the building is isolated from the installation's archaeologist office, unauthorized access is very possible without an alarm system.

Base Facility #2

A large, metal shipping container is adjacent to the NAWS duplex and serves as a supplemental repository for NAWS collections. In addition to artifact collections and documentation, Facility #2 also serves as a storage area for archaeological equipment, surplus furniture, and miscellaneous items such as a chain-link fence.

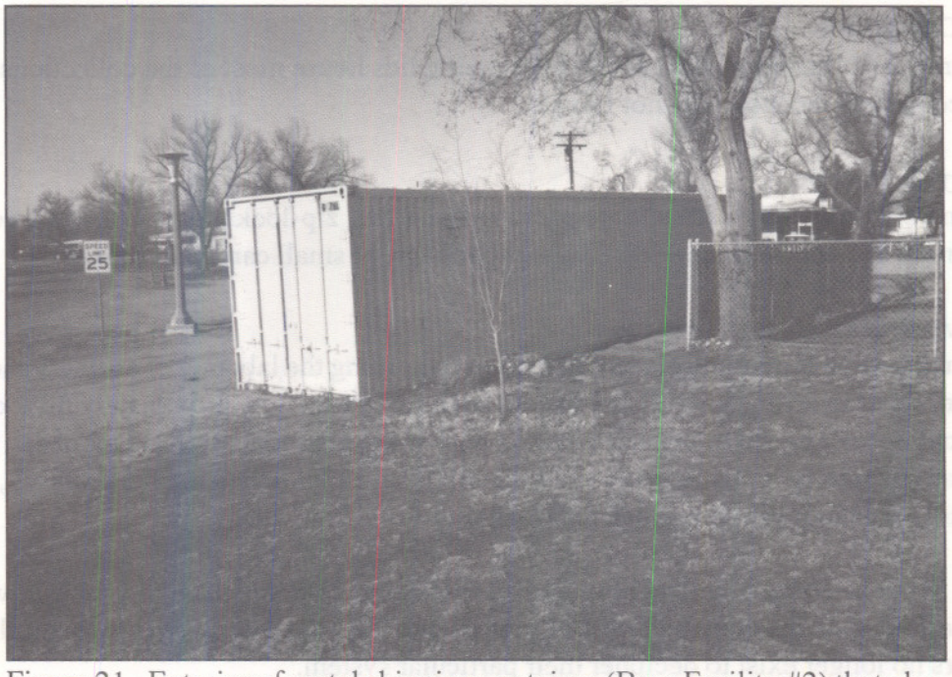


Figure 21. Exterior of metal shipping container (Base Facility #2) that also houses collections at China Lake.

Structural Adequacy
Holes in the roof of this unit subject the collections to environmental damage and insect infestations.

Environment
Heating, air conditioning, and humidity control units are nonexistent. Likewise, environmental conditions are not monitored. Lack of air conditioning and inadequate ventilation result in internal temperatures reaching over 140° F. Such environmental conditions contribute to the rapid deterioration of many artifacts (e.g., ceramics) and organic materials in the collections and the immediate loss of most photographic documentation.

Security
The storage container is padlocked.

Artifact Storage

Base Facility #1

Shelving
Shelving space for approximately two hundred (200) artifact boxes (each one cubic foot) is available in this storage facility. Most of this space is currently used, with 187 ft^3 of materials in storage or on loan. Shelving units are constructed of plywood and untreated, unfinished pine two-by-fours.

Primary Containers
Acidic cardboard "bankers" boxes with telescoping lids house most of the collections. Many large pieces of ground stone are not boxed.

Secondary Containers
Approximately 80% of the artifacts are packaged in 4-mil, zip-lock plastic bags; whereas, the remainder are in 2- or 6-mil, zip-lock bags, paper bags, or small cardboard boxes.

Laboratory Processing and Labeling
There is substantial variation between collections regarding the labeling of artifacts and artifact bags. Very few (an estimated 10%) of the artifacts are labeled. Approximately 50% of the bags contain acidic paper tags that provide a wide range of information (e.g., site numbers, artifact classes, catalog numbers, and accession numbers). There are no systematic inventory, cataloging, or artifact-processing procedures at China Lake.

What has happened here is typical of most DoD facilities. Without standards to follow, each contractor has used his/her own inventory procedure. The result is chaos—particularly where contractors no longer exist to decipher their particular system.

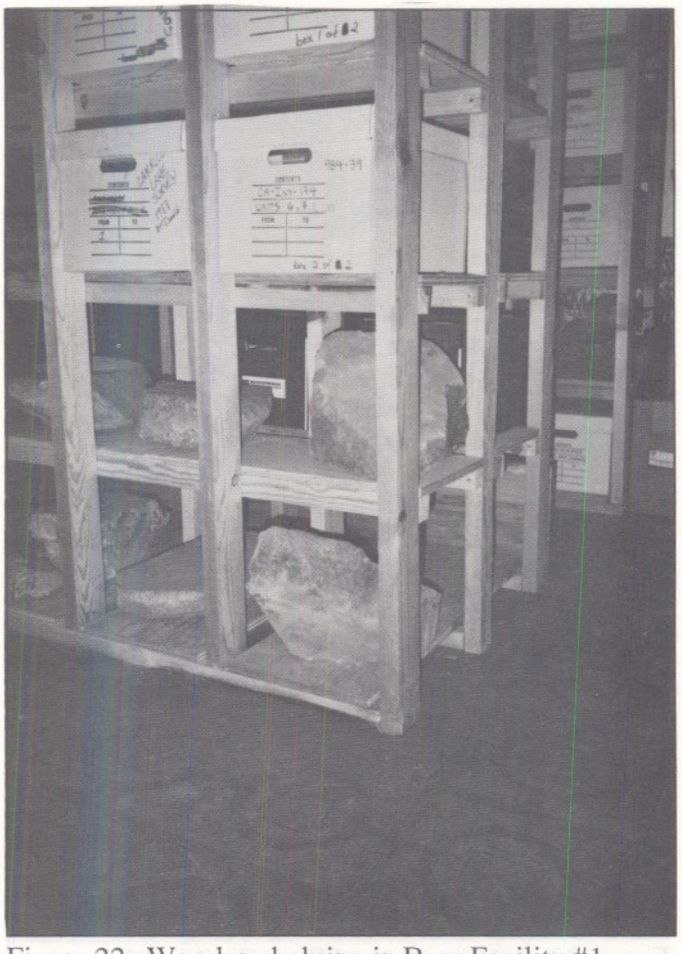


Figure 22. Wooden shelving in Base Facility #1.

Base Facility #2

Shelving

Sixty-two cubic feet of artifacts from Phases One and Two of the 1989 NAWS, China Lake-NTC, Fort Irwin Joint Land Use Area Project are stored in this facility. The boxes are stacked on the floor because of the lack of shelving.

Primary Containers

Collections are stored in acidic cardboard boxes. Box labels are adhesive stickers with the box and site numbers recorded in black marking ink.

Secondary Containers

Artifacts are bagged in 2-, 4-, or 6-mil, zip-lock bags and labeled with adhesive sticker tags containing the following information: catalog number, accession number, provenience, artifact classification and description, and number of artifacts per bag.

Figure 23. Interior view of Base Facility #2.

Laboratory Processing and Labeling

A few artifacts are labeled in black or white ink (which is covered with clear nail polish) with a catalog number, but most artifacts lack identification.

Human Skeletal Remains

Two small fragments of human bone are the only skeletal materials curated at the Naval Air Weapons Station storage facility. These remains are not stabilized or analyzed. The two pieces of bone are from the Darwin Wash Project.

Records Storage

Guidelines or standards do not exist for the archival care of associated documentation. The materials are not archivally processed for long-term storage, nor is a duplicate copy of the

documentation preserved in a separate location. In fact, the archaeological records at NAWS have not as yet been organized. As previously mentioned, this deficiency was acknowledged in 1987 when a part-time employee was hired to address the problem. As a result, intellectual control over many of these records is diminished.

Records documenting archaeological projects are located in two areas. Most record collections are stored in the duplex building with the artifact collections. Two rooms within this facility contain piles of documents, including many reports (e.g., six linear feet of documents from Coso

Figure 24. Records storage area in Base Facility #1.

Geothermal are piled on a desk in one of the rooms). Seven boxes of records are also located on the shelves with the artifact collections. These boxes contain primarily photographic documentation (slides, negatives, photographs), but they are neither arranged nor preserved in an archivally acceptable manner. A map collection consisting of 22 standard map drawers is also part of this collection. As with the rest of the collection, these materials are unorganized and not prepared for long-term storage.

Administrative records, especially for projects conducted over the past eight years, are stored in the installation's archaeologist's office. A number of reports summarizing faunal analyses are in this collection. These records are somewhat organized, but the documents are not being cared for in a manner that insures their long-term survival.

Collections Management

Registration Procedures

Accession Files: Partial—Complete for collections recovered after 1984.
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: Partial—accession record after 1984.

Written Policies and Procedures

Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: The collections are inventoried.

Curation Personnel

Full-time personnel support for curation was discontinued in April 1990.

Curation Financing

All financial support for curation was discontinued in April 1990. In FY93 a memorandum of agreement between NAWS, China Lake and the St. Louis District was signed implementing a two-year curation-needs assessments and NAGPRA-compliance program.

Access to Collections

The collections and documentation are currently disorganized making access virtually impossible. Requests to examine the collections must be made in writing to the installation archaeologist.

Future Plans

Without financial support, collection organization and curation are not possible. The installation archaeologist intends to expand the collections area into the other half of the duplex, but funding to accomplish this is not available at this time. Attempts will continue to be made to obtain support, and if successful, the curation program that was eliminated in 1990 will be reinstated.

Comments

(1) The Naval Air Weapons Station collections contain significant archaeological materials from the western Great Basin. Rehabilitation of the collections will take years to complete. The only alternative—neglect—will result in the loss of extremely valuable and irreplaceable information.

(2) Conflicting information exists on the locations of a number of the missing NAWS collections. For example, reports indicate that Hillebrand's Baird Site Collection is located at Occidental College, but recent attempts to access this collection were not successful. Tracing collections where records are incomplete will remain the single biggest challenge in the NAWS curation program.

Recommendations

(1) All NAWS-owned archaeological materials, associated documentation, and reports should be identified immediately, and curation standards should be issued by NAWS that will identify how future archaeological work will be inventoried and curated.

(2) All archaeological materials stored at NAWS should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) The disposition of all human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(4) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act, should be identified.

(5) All associated documentation and reports, including reports with negative results should be arranged, described, and preserved according to Federal guidelines and standards.

(6) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(7) Planning should be initiated immediately for the consolidation of all NAWS archaeological collections, including those stored off base, into a central curation facility that can provide the professional staff, institutional commitment, and financial support necessary for their long-term preservation.

MATURANGO MUSEUM OF INDIAN WELLS VALLEY COLLECTION

DATE OF VISIT: 17-20 December 1991

PERSONS CONTACTED: Elva Younkin and Carol Panlaqui

An estimated 77 ft^3 of artifacts and nine (9) linear ft of documentation are curated at the Maturango Museum of Indian Wells Valley. Major collections from NAWS held by the museum include the following.

(1) Chapman 1 and 2 Collections (Timothy Hillebrand, Pricipal Investigator)—human skeletal remains, burial soil samples, bone tools, basketry, lithics, botanical remains, faunal remains, and charcoal.

(2) Ray Cave Collection (Timothy Hillebrand, P. I.)—human skeletal remains, burial soil samples, basketry, lithics, faunal remains, and wood.

(3) Junction Ranch Collection (Timothy Hillebrand, P. I.)—lithics, ceramics, wood, botanical remains, faunal remains, coprolites, charcoal, soil samples, and historical artifacts.

(4) China Lake Surface Collection and Henry Site Collection (E. L. Davis, P. I.)—primarily lithic artifacts and fossilized bone.

(5) Sylvia Winslow Collection—lithic artifacts from Iny 506, 507, and 510.

(6) Tommy Chapman Collection—lithic artifacts from Iny 501 and 504.

(7) R. Fagnant Collection—over 525 artifacts collected from Charlie Range basalt area and vicinity.

(8) Miscellaneous Collections—numerous other artifacts from NAWS are also in the collection, including items donated by Jim Baird, Ron Henry, Ken Taylor, and Billy Martin.

Repository

Structural Adequacy

The museum building meets the requirements for an acceptable curation facility for Federally owned archaeological collections. The present facility was occupied in 1986, when the museum was moved from the Naval Air Weapons Station.

Environment

The museum is both heated and air conditioned. Humidity levels are monitored, but they cannot be controlled. This, however, is not a problem in a desert environment, where the humidity levels are generally low. Attempts are made to keep temperatures near 70° F and the relative humidity at 50%. In actuality, temperatures may reach 75-78° F in the summer. Relative humidity can go as low as 30%, but it rarely gets higher than 45%. The florescent lighting is filtered, and lights are kept off when at all possible. Collections are afforded additional protection from light by the use of space-saver shelving, which is also effective in protecting the collections from dust. Biological infestation is monitored with traps. All perishables are monitored, and materials are frozen when necessary.

Security

All doors and windows in the museum have security alarms, and the facility is also equipped with a motion-detector system. Fire protection is provided by smoke alarms that automatically alert

the fire department, but there is no fire-suppression system. The collections storage room is always locked and access is strictly controlled. In addition to the curator, the director, several board members, and some of the staff have access.

Artifact Storage

Shelving

Space-saver track-storage units are used to house the museum collections. The compact shelving units, which are made of steel and coated with baked enamel, preclude the possibility of overstacking the boxed artifacts. The shelves are lined with foam to protect fragile items. The shelving units encompass a 15-by-19-ft area and are contain six levels. A small cabinet storage area is also present. The collections storage room is presently filled to capacity.

Primary Containers

Acidic cardboard boxes of various sizes and shapes are used to house all NAWS collections. Many are packed with newspaper. Several large items such as baskets and ceramic vessels are stored loose on the shelves.

Secondary Containers

Chapman 1 and 2 Collections

Artifacts are stored in a variety of containers including small boxes, paper bags, baby-food jars, "marshmallow-cream" jars, plastic boxes, plastic zip-lock bags, small tins, and vials. Some items are loose in the boxes. A human burial is stored in a non-standard cardboard box and packed with newspaper. Three human skulls are boxed together. Two of the skulls are loose but packed with newspaper; however, the third skull is wrapped in tissue and stored in a plastic bag. A basket and a bone awl recovered from a burial are housed in a small box and packed with paper towels and newspaper.

Ray Cave Collection

The skeletal elements from the Ray Cave burial are stored in 4-mil zip-lock bags. Other artifacts from the collection are curated in small boxes, glass jars, vials, and plastic trays with plastic lids. One large basket is loose on the shelves.

Junction Ranch Collection

Containers used for storage are similar to those from the Chapman collections. They include metal film canisters, baby-food jars, peanut-butter jars, jelly jars, paper bags, plus loose ground-stone items. A curation-assessment description for the contents of a typical box reads "29 glass baby food jars, one peanut butter jar (containing charcoal), and two paper bags of soil samples." Paper bags are folded and sealed with masking tape.

China Lake Surface Collection and Henry Site Collection

These collections are curated almost exclusively in the original paper bags used when the artifacts were collected in the field. Some items are stored in plastic freezer bags that are knotted shut or in

"bank-check" boxes.

Laboratory Processing and Labeling

Chapman 1 and 2 Collections

Most materials in these collections are prepared for storage, but one box contains a basket and a bone awl that is not cleaned or conserved. Another box contained a mouse nest. Boxes are labeled with adhesive stickers. Label data include site name, field accession number, and contents. Secondary containers are labeled in a variety of ways, including pencil on paper bags, adhesive labels for glass containers, and paper tags for zip-lock bags. Some skeletal elements are labeled (e.g., ink on red paint background), and some have been placed in boxes.

Ray Cave Collection

Except for the human skeletal remains, the artifacts in the Ray Cave collection still require curation and conservation. All basketry is cleaned, but several items are still packed in newspaper and tissue. Some boxes are only labeled with the site name, whereas others also indicate the artifacts enclosed. Secondary containers are labeled with adhesive tags that provide the site name, site number, and contents. Some labels include site number, provenience information, and artifact number. A large water jug made of cordage is labeled with ink on a white paint background.

Junction Ranch Collection

Box labels for this collection consist of adhesive stickers, which are coming loose. Box labeling information includes site name, field accession number, and contents. Bags are labeled with marking ink, and jars are labeled with ink on masking tape. Label information includes site number, provenience, contents, weight, date excavated, and field accession number. Large lithic artifacts are labeled with either ink on white background or ink on masking tape.

China Lake Surface Collection and Henry Site Collection

Labeling of these collections has been inconsistent, from the variety of labels and inks used to the artifact identification numbers. Box labels for the collection consist of three-by-five-inch cards taped to the box with masking tape. Box label information consists of box number, provenience, and museum catalog number. Secondary containers are only labeled with the artifact class, either directly on the container or on a paper tag. Some of the bags labeled in red and green inks have become difficult to read. A wide variety of artifact labeling was employed, including black ink applied directly to the artifact, black ink on a white paint background, and ink on masking tape.

Human Skeletal Remains

Human skeletal remains from four individuals were identified in the Naval Air Weapons Station collections held by the Maturango Museum. The remains of at least three individuals are in the Chapman 1 and 2 collections and consist of three skulls (in one box) and post-cranial material from at least two individuals, one of which is mummified (e.g., skeletal elements of the left leg, from the ilium to the metatarsals, are still articulated). Two of the skulls are loose in the box but

packed with newspaper, and the third skull, still with a full head of hair attached, is wrapped in tissue and stored in a plastic bag. All burials are packaged with newspaper and stored in non-standard cardboard boxes. Skeletal elements are either loose in the boxes or in a variety of containers such as smaller boxes, paper bags, film canisters, and baby-food jars. The elements have been cleaned and labeled, but they are not stabilized nor analyzed. A basket and a bone awl recovered from one of the burials are housed in a small box and packed with paper towels and newspaper. The Ray Cave Site Collection contains one burial that was analyzed and re-curated recently. All elements are sorted, identified, and bagged separately in 4-mil, zip-lock plastic bags. The skull has been reconstructed and "treated" with an unknown substance. Many other skeletal elements are treated with the same unknown substance. Associated grave goods are included with both collections, but their identification will require a detailed analysis of the original documentation and reports. No human skeletal remains are on public exhibit.

Records Storage

Guidelines or standards for the archival care of associated documentation are nonexistent. Although the documentation is housed in a somewhat stable environment (i.e., the collections storage room), the materials are not prepared archivally for long-term storage. A duplicate copy of the documentation is not stored in a separate location.

Chapman 1 and 2 Collections

Documentation for these sites include three three-ring binders with field catalog, transit data, plan and profile maps, feature lists, obsidian-hydration analyses, artifact tabulations, and faunal analyses. A separate file folder contains a report of the botanical analysis. No photographic documentation was located.

Ray Cave Collection

Documentation for this collection consists of a file folder containing correspondence, site descriptions, background information, and photographic materials (slides, negatives, and black-and-white photographs) and a three-ring binder containing the artifact catalog, plan and profile maps, excavation records, background and analysis records, correspondence, and photographic materials (negatives and photographs).

Junction Ranch Collection

Available documentation includes the field catalog, level and laboratory catalogs, site survey records, plan maps, and field notes. No photographic materials were located.

China Lake Surface Collection and Henry Site Collection

A detailed inventory of the China Lake Project documentation was produced by Carol Panlaqui. The collection consists of nine binders, five map file drawers, two large portfolios, four large map tubes, and nine boxes. The full range of documentation, including photographic materials, are preserved.

Collections Management

Registration Procedures

Accession Files: Yes
Location Identification: Yes
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures

Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: Yes
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: Most collections were inventoried in 1986 when the new museum was occupied. The inventory only surveyed box labels, not their contents, in the archaeological collections. The E. L. Davis collections were last inventoried in 1982.

Curation Personnel

The museum employs a full-time curator to manage the collections.

Curation Financing

The curation budget consists of the salary for a curator and approximately $1,000 for curation supplies.

Access to Collections

No written procedures for accessing the archaeological collections exist. The permission of the curator would be necessary.

Future Plans

A master plan for the management of all collections is in the process of being developed.

Comments

(1) Although the Maturango Museum provides adequate conservation and preservation of the natural history and ethnographic collections, the archaeological collections do not receive the attention necessary for their long-term preservation. The curation of these collections does not meet the level of care mandated by Federal guidelines and standards.

(2) The Baird Site Collection of T. Hillebrand is missing, although there is an inventory of what was collected originally. Hillebrand may have deposited these materials at Occidental College, but the collection's location there is not verified. Responsibility for recovering this collection, however, lies with NAWS, not the Maturango Museum.

Recommendations

(1) All NAWS-owned archaeological materials associated documentation, and reports should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) The disposition of all human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(4) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act should be identified and their disposition determined.

(5) All associated documentation and reports should be arranged, described, and preserved according to Federal guidelines and standards.

(6) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(7) The disposition of the Baird Site Collection should be resolved.

(8) Although the repository at the Maturango Museum meets most Federal requirements for archaeological curation, space is a limiting factor for the required rehabilitation effort. The collections should be removed to the NAWS curation facility for inventorying and curating.

UNIVERSITY OF CALIFORNIA, RIVERSIDE COLLECTION

DATE OF VISIT: 20 December 1991

PERSONS CONTACTED: Meg McDonald

The repository at the University of California, Riverside (UCR) has one collection recovered in the early 1980s from Renegade Canyon (Iny-8f). This collection contains approximately seven (7) cubic feet of artifacts and was generated by Dr. Phillip J. Wilke with National Science Foundation funding. Lithic materials (groundstone and chipped stone), including metates, metate and mano fragments, projectile points, scrapers, knives, and modified flakes, are the predominant artifact class in the collection, but organic materials such as seeds and wood, are also present. The linear feet of associated documentation is unknown.

Repository

The UCR collections are stored in the basement of an academic building that also houses the Department of Anthropology. The room contains approximately 325 ft^3 of archaeological collections.

Structural Adequacy
The building is structurally sound, but it is not designed to provide the unique requirements necessary for housing museum collections.

Environment
The collections room is heated and air conditioned, but humidity levels cannot be controlled. Systems for pest or dust control are absent.

Security
The collections room is locked and access is controlled by either the collections manager or the Archaeological Research Unit director. Unauthorized entry, however, is possible through a large ground-level window at the back of the room. No fire-suppression system exists.

Artifact Storage

Shelving
Collections are stored on steel shelves, that are designed to withstand earthquakes. A few collections are stored in drawers in locked cabinets.

Primary Containers
The NAWS collections are stored in four cardboard "bankers" boxes and three wooden cabinet drawers. Box labels are written with black marker on paper tags. Label information includes box number, accession number, site name, and ownership name. Two boxes are unlabeled.

Secondary Containers
Boxed artifacts consist of large metates and mano fragments that are protected by plastic "bubblepack" and styrofoam packing ("peanuts"). The weight of the artifacts significantly exceeds the capacity of the boxes. Smaller artifacts are stored in drawers. Lithic materials are curated loose in drawers and in a variety of containers, including 2-mil plastic bags and cardboard trays. The plastic bags are labeled in black marking ink with accession and catalog numbers. Some bags have an additional paper tag inside the container, These tags duplicate the label information. Information on these labels is recorded either in pencil or ink. Plastic and glass vials containing organic materials are labeled with the catalog numbers. Documentation was present in one of the drawers.

Laboratory Processing and Labeling
All artifacts are cleaned and labeled. Labeling consists of either white ink applied directly to the artifact or black ink on a white correction-fluid background. Label information includes the catalog and accession numbers.

Human Skeletal Remains

No human skeletal remains from NAWS are stored at UCR.

Records Storage

Collection documentation at the UCR is housed in two locations. Field documentation is usually housed with the artifacts in the collections storage room; whereas, the Archaeological Research Unit retains all administrative records and final reports. In many instances, however, project maps and photographic documentation are also kept in the latter facility. Documentation in the collections storage room is stored in metal cabinets. These records are still in their original binders, and standard archival preservation procedures are lacking. No duplicate records exist.

Associated documentation for the NAWS artifact collection is stored in the office of Phil Wilke. This room was inaccessible at the time of inspection; therefore, the extent and condition of documentation for this collection is unknown. Once a final report is written, the records will be stored in the artifact collections room.

Curation Personnel
Available financial resources limit a part-time curator to working no more than 20 hours per week.

Curation Financing
Funding for archaeology is generated by contracts performed by the Archaeological Research Unit. The university provides indirect support in the way of storage space and utilities.

Collections Management

Registration Procedures
Accession Files: Yes
Location Identification: Yes
Cross-Indexed Files: Partial
Published Guide to Collections: None
Site-Record Administration: Yes
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: The collections are inventoried.

Access to Collections
University faculty and students have access to the collections for research purposes. Outside researchers must submit a written request to use or borrow collections.

Future Plans
It is the desire of the current curator to enter the accession catalog into a computer data base. The repository would also like to return all Federally owned collections to their respective agencies.

Comments

The repository at UCR does not meet current Federal requirements for archaeological curation. Since there is only one NAWS collection stored at this institution, the most cost-effective solution for long-term curation is to move the collections to a facility with more extensive NAWS holdings that also meets Federal curation regulations.

Recommendations

(1) All archaeological materials, associated documentation, and reports recovered or generated through contractual agreements with NAWS should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All collections should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

(4) All associated documentation and reports, including those with negative results, should be arranged, described, and preserved according to Federal guidelines and standards.

(5) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

ANCIENT ENTERPRISES COLLECTION

DATE OF VISIT: 30 December 1991

PERSONS CONTACTED: Dr. C. W. Clewlow, Jr. and Theresa Clewlow

The only materials available for examination were several boxes of soil samples from the Darwin Wash project (Iny 2844, 2845, and 2847). However, other artifacts were recovered from this project, including basketry. These items are now in the home of Dr. Clewlow in Oakland, where they are being examined and conserved. Ancient Enterprises has performed numerous work on NAWS, but the extent of its involvement and the location of any additional collections are not known. Investigations with negative results may exist, but the original documentation and reports from these projects should be at NAWS.

Repository

Most of the non-organic artifacts from NAWS are stored in a rented shipping container located several miles from the company's Santa Monica office. The unit was so packed with artifacts and surplus equipment, however, that access was impossible.

Structural Adequacy

The container is perched on concrete pedestals to protect it from surface flooding. This protection is apparently effective, since the collections were dry despite recent heavy rains that produced standing water around the unit. The facility container, however, is inadequate for the protection of archaeological materials, much less their accessibility.

Environment

The unit is not heated or air conditioned, and the humidity is not controlled. Pest and dust controls are also nonexistent. High interior temperature and humidity levels cause rapid deterioration of collections, especially any organic material or photographic and machine-readable documentation.

Figure 25. Ancient Enterprises houses some NAWS, China Lake collections in this rented shipping container.

Security

The storage container is secured with a padlock. Unauthorized entry is unlikely since everyone entering the area must first must first receive permission from a security officer.

Artifact Storage

Shelving

At least one shelving unit could be seen in the container, but materials on the top of this unit were overstacked. Most boxes are simply stacked on the floor.

Primary Containers

The boxes that could be reached are cardboard U-Haul boxes, which are deformed from the weight of overstacked boxes.

Figure 26. Close-up view of the entrance to the Ancient Enterprises repository.

Secondary Containers

Soil samples are stored in zip-lock plastic bags and labeled with the site number, provenience information, and material class. The zip-lock bags have been placed within large paper bags, which are sealed with duct tape. The same label information is reproduced on the paper bags in marking pen.

Laboratory Processing

Since soil samples were the only materials examined, the procedures for processing artifacts are unknown.

Human Skeletal Remains

No human skeletal remains from NAWS are stored at Ancient Enterprises. However, a complete examination of the excavation records from at least one site where human remains were encountered will be necessary for the identification of any recovered funerary objects, sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act.

Records Storage

The documentation for this collection may be located in the Santa Monica office of Ancient Enterprises. Dr. Clewlow reported that he usually keeps his own field documentation and at least

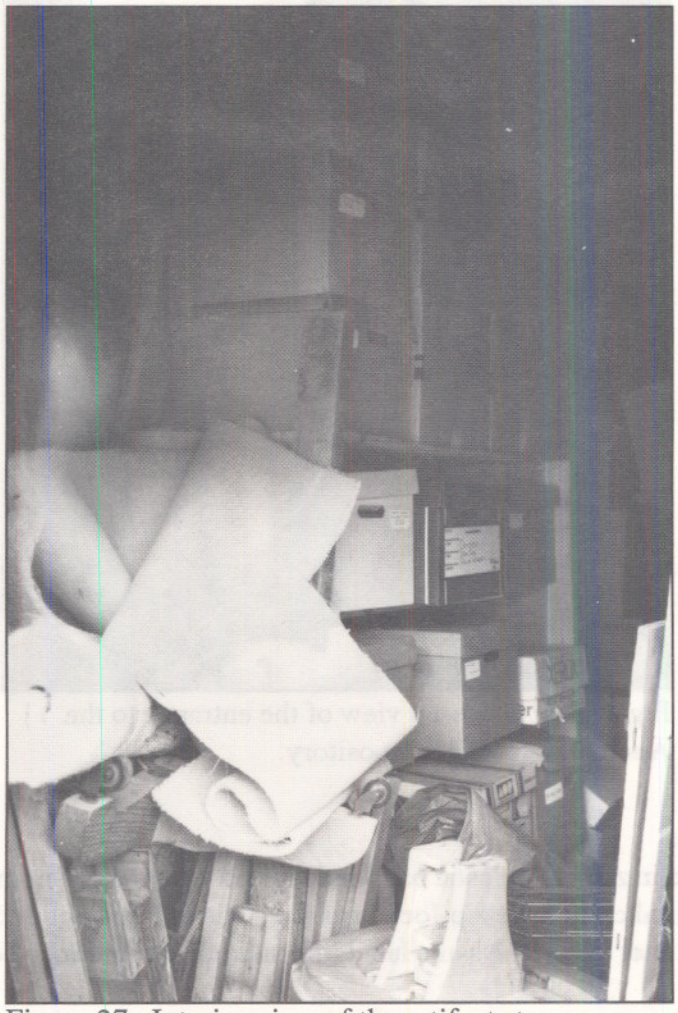


Figure 27. Interior view of the artifact storage repository for China Lake collections at Ancient Enterprises.

one copy of the final report; however, no direct examination of this documentation was possible.

Collections Management

Curation Personnel
None

Curation Financing
None

Collection Management
None

Access to Collections
Until the final report is completed, the collections will remain accessible to only Ancient Enterprise and NAWS personnel.

Future Plans
All collections will be submitted to the NAWS archaeologist for permanent curation.

Comments

(1) Both William Eckhardt and Dr. Clewlow suggest that Ancient Enterprises has conducted numerous archaeological contracts for NAWS. The extent of the company's involvement in the archaeology of NAWS, however, could not be determined.

(2) It is the policy of this company, as with many other private archaeological contractors, to keep original documentation in the company files. Separating the documentation from the artifacts, however, destroys the research value of both collections. At a minimum, an accounting of the collections is needed and these collections should be at NAWS and available to the installation archaeologist.

(3) Ancient Enterprises does not meet the current Federal requirements for archaeological curation. This firm, however, should not be considered an archaeological repository, since the permanent curation of archaeological collections and documentation is not its responsibility, but the responsibility of the NAWS.

Recommendations

(1) All archaeological materials, associated documentation, and reports, recovered or generated through contractual agreements with NAWS, should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act (P.L. 101-601), should be identified.

(4) All archaeological materials should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

(5) All associated documentation and reports, including those with negative results, should be arranged, described, and preserved according to Federal guidelines and standards.

(6) All associated documentation and reports, including those with negative results should be transferred to a curation facility that can provide the professional staff, institutional commitment, and financial support necessary for their long-term preservation. Photocopies of these records, on acid-free paper, should be made.

(7) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

5

VANDENBERG AIR FORCE BASE, CALIFORNIA

INSTALLATION SUMMARY

(1) Volume of Artifact Collections: 233 ft^3

On Base: 93 ft^3
Off Base: 140 ft^3

Compliance Status: Several artifact collections require partial rehabilitation to comply with existing Federal guidelines and standards.

(2) Linear Feet of Records: 180 linear ft

On Base: 180 linear ft
Off Base: Unknown

Compliance Status: A number of collections of associated documentation and reports require standard archival preparation to comply with Federal guidelines, standards, and modern archival procedures.

(3) Human Skeletal Remains: Human skeletal remains from at least one individual are present in the Vandenberg Air Force Base collections.

(3) Status of Curation Funding: No long-term funding mechanism exists for curation at Vandenberg Air Force Base. All collections stored at the installation were curated initially through agreement with the recovering archaeologist. An agreement with the University of California, Santa Barbara (UCSB) for the long-term curation of the materials was signed in June 1992.

(4) Status of Installation Repository: No dedicated archaeological repository exists at Vandenberg Air Force Base. The repository consists of any available space in the offices of the Environmental Management Division and in the on-base offices of the Martin Marietta company.

INTRODUCTION

Vandenberg Air Force Base (VAFB) is a major wing command and missile testing installation for the United States Air Force. The installation covers 98,320 acres and is 55 miles north of Santa Barbara on the Pacific coast of California. Vandenberg has a high concentration of largely prehistoric archaeological sites. A well-developed archaeological program is administered through the installation's environmental office.

Archaeological collections administered by Vandenberg Air Force Base include an estimated 233 ft^3 of artifacts and at least 180 linear feet of documentation. These collections are housed in several separate locations, including two storage centers on the installation. A significant number of collections are curated at the University of California, Santa Barbara. The Brian Dillon Collection, which was generated through a contract with the Los Angeles District of the U.S. Army Corps of Engineers and for which a final report was never submitted, was located eventually in the archaeological repository at the University of California, Los Angeles. An undertermined number of collections of associated documentation are apparently still in the possession of the original contractors, many of whom may no longer be in business.

Despite these shortcomings, personnel at VAFB have maintained a large degree of intellectual control over most of the collections recovered from the installation. The extensive library of publications and reports provides a well-documented history of the archaeology of this important geographical area of the Pacific coast. The early collections recovered from VAFB, along with more recent collections recovered by UCSB, are housed in the UCSB Department of Anthropology's repository. Until June 1992 a significant volume of artifacts and documentation accumulated in the VAFB archaeological office and in the Martin Marietta storage facility on the installation. These collections were in good order at the time of our inspection, and the base archaeologist is to be commended for negotiating a long-term curation agreement with UCSB that has now transferred these collections to a more-secure storage facility.

COLLECTIONS AT VAFB ENVIRONMENTAL MANAGEMENT

DATE OF VISIT: 11-12 December 1991, and 22 February 1992

PERSONS CONTACTED: Larry Spanne and Alex Kirkish

A total 13 ft^3 of artifacts and 164 linear ft of archives are stored in the Environmental Management office area at Vandenberg Air Force Base. The archaeological materials include chipped stone, chipped-stone tools, ground stone, hammerstones, fire-altered rock, asphaltum, ocher, beads, bone, shell, carbon, and carbonized seeds and grass. The artifacts and two linear feet of associated documentation are from Phases II and III of the Backbone Fiber Optic Transmission System Project. The collections generated by this project were recovered by Environmental Solutions and transferred to the Battelle Environmental Management Operations office in July 1990. Subsequently, these materials were transferred to the Environmental

Management Division at VAFB. A single box of documentation from the Titan IV/Centaur Project is also identified as part of the transferred materials, but a letter of transmittal dated 7 August 1990, acknowledges that these materials were not included in the original transfer from Environmental Solutions. We could not locate these records.

Repository

The archaeological repository housing the Environmental Management Collection is a cubicle set aside for administrative records in the Environmental Management office building.

Structural Adequacy

This pre-engineered office building, while structurally sound, is not designed to provide the unique requirements of museum collections.

Environment

The building is heated and air conditioned for the comfort of the staff, but there is no control or monitoring of temperature fluctuations. Likewise, humidity levels are neither controlled nor monitored.

Security

The door to the administrative-records cubicle is not locked. Anyone in the Environmental Management building has access to the collections.

Artifact Storage

Shelving

No shelving units for artifact storage exist in this facility. The artifacts from Phases II and III of the Backbone Fiber Optic Transmission System Project are stored on the floor beneath two work tables.

Primary Containers

A variety of corrugated cardboard boxes are used to store artifacts. Phase II materials are stored in seven large (i.e., 1.5 ft^3) boxes with folded-lid tops. The boxes have labels made from white typing paper, that are taped to the box fronts. Label information, recorded with black marking ink, includes box and accession numbers, site numbers, and box contents. An inventory is also enclosed in each Phase II collection box. Phase III collections are stored in three "office-paper" boxes with telescoping lids. The boxes are labeled with black marking ink applied directly to the containers. Label information includes accession and site numbers, provenience information, and box contents.

Secondary Containers

Phase II and III collections are subdivided by material class into smaller, lidless cardboard boxes packed with newspaper. Artifacts have spilled from these boxes and are now mixed within the

primary container. Small lithic artifacts are packaged in 4-mil plastic bags, but 2-mil bags are used for the majority of artifacts. All plastic bags are stapled shut at the top. Some bags are labeled with black marking ink, with the site number, provenience, and material class. A paper label containing the same information is enclosed in the bag. Other plastic bags are labeled with stick-on labels, which in many instances have come loose from the bags. ^{14}C samples, carbonized seeds, and beads are stored in plastic vials with screw-top lids. The vials and their contents are identified by a paper tag placed inside. Large artifacts have been placed in paper bags, and paper labels are attached with staples. Information on many paper labels is recorded in pencil and is fading.

Figure 28. Interior view of a primary container. Interior boxes have no lids and artifacts spill out easily.

Laboratory Processing and Labeling

All artifacts in both collections have been cleaned. Lithic artifacts are labeled individually, either in black ink or in black ink on a white correction-fluid background. Container-tag labels are used to identify smaller artifacts.

Human Skeletal Remains

No human skeletal remains are present in the Environmental Management Collection.

Records Storage

Documentation associated with Phases II and III of the Backbone Fiber Optic Transmission System Project is stored in cardboard boxes on the floor of the room set aside for administrative records. Two bankers boxes contain the records for Phase II, and the records for Phase III are stored in a single box, which also contains artifacts. Phase II documentation is extremely well organized and archivally prepared for storage. Photocopies of the site records are filed in acid-free hanging folders and photographs are housed in archival polyethylene sleeves. Phase III documentation includes copies of the final report, which is on acid-free paper, and photocopies of the original field notes. Of particular interest is a computer floppy disk containing information of an unknown nature. There is no guide to how this electronic record was recorded or how the information can be retrieved. In addition, the archival life of these types of computer disks may be very limited, especially under adverse storage conditions.

Figure 29. Records and artifacts storage area at Vandenberg Air Force Base. Collections are in the process of being transferred to UCSB.

The bulk of the archival collection consists of 90 linear ft of miscellaneous archaeological documentation and 72 linear ft of draft reports, final reports, and photographic record sheets. The miscellaneous documentation is stored in metal file cabinets, and the collection of reports and

photographic records is kept in glass-front wall shelving units. The report collection, arranged chronologically, is quite extensive and includes many "memos for the record," monitoring reports, and negative-results reports.

Collections Management

The archaeological staff at VAFB view the collections storage unit as a temporary holding facility for installation collections. The University of California, Santa Barbara has recently (June 1992) signed a long-term curation agreement with VAFB and will now function as the primary repository for VAFB collections.

Registration Procedures
Accession Files: None
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: October 1991

Curation Personnel
None

Curation Financing
The Environmental Management Division does not have a budget for long-term archaeological curation. Any initial curation expenses are the responsibility of the contracting firm, and any provisions for curation are included in every archaeological contract. A long-term curation agreement was under negotiation for several years with UCSB and was signed in 1992.

Access to Collections
No written procedures for accessing the archaeological collections exists. Access is possible through a written request to the installation archaeologist. Although well organized, for all intents and purposes the collections housed on base are not accessible to anyone except staff.

Future Plans

The VAFB archaeologist will be transferring the Backbone Fiber Optics collections to the repository at UCSB.

Comments

(1) Installation archaeologists are to be highly commended for their efforts in organizing and preserving records and reports documenting the long history of archaeological activity on the installation. The collection represents one of the most comprehensive and effective records-management programs observed by the St. Louis Technical Center. This organizational effort facilitated the task of identifying those artifacts and associated documentation that are missing from the Vandenberg collection.

(2) Negotiations for the transfer of the Environmental Management collections to UCSB were ongoing at the time of our review agreement, and a long-term agreement for curation was signed in June 1992.

Recommendations

(1) All VAFB archaeological materials, associated documentation, and reports should be identified.

(2) Every effort should be made to recover all archaeological materials and primary documentation still in the possession of the following private and public facilities.

(a) VTN Consolidated
(b) Greenwood and Associates
(c) WESTEC Services
(d) Ralph M. Parsons Company
(e) Dames and Moore
(f) Chambers Consultants and Planners
(g) Earth Technology Corporation
(h) Harmsworth Associates
(i) URS Corporation (now a part of Scientific Applications International Corporation)
(j) Tetra Tech
(k) Environmental Solutions
(l) Santa Barbara County
(m) U.S. Army Corps of Engineers, Sacramento District
(n) U.S. Forest Service

(3) All archaeological materials stored in the Environmental Management Division should be removed and inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(4) All associated documentation and reports, including reports with negative results, should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(5) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(6) Planning should be initiated immediately for consolidating all VAFB archaeological collections into a central curation facility, preferably managed by DoD personnel, that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

MARTIN MARIETTA COLLECTION, VAFB

DATE OF VISIT: 11-12 December 1991

PERSONS CONTACTED: Larry Spanne and Alex Kirkish

On 7 August 1990, Martin Marietta assumed responsibility for VAFB collections recovered by Environmental Solutions (ESI) and Harmsworth Associates under Martin Marietta sponsored contracts. These collections at the time of our inspection were housed in the Martin Marietta facility at VAFB, and contained approximately 80 ft^3 of artifacts and 16 linear ft of documentation. The collections consist of materials recovered from the following projects.

(1) Harmsworth Associates Projects—Gaseous Nitrogen Pipeline, Space Transportation System Natural Gas Pipeline, and Space Launch Complex-4: UCSB Accession Nos. 368-376, 380, 382-383,391-397, 402-405, and 409-410.

(2) Environmental Solutions Projects—Space Transportation System: UCSB Accession Nos. 414-416; Space Launch Complex-4: UCSB Accession Nos. 423-424 and 476; Power System Upgrade: UCSB Accession Nos. 463-467; and Fallback Area 17: UCSB Accession No. 487B.

Repository

The repository in the Martin Marietta complex at VAFB is in a large prefabricated office building located a short distance from the Environmental Management Division. The area devoted to archaeological storage, however, consists simply of a corner in Martin Marietta's library facility.

Figure 30. The Martin Marietta facility at Vandenberg Air Force Base is a prefabricated office building.

This was evidently the only available space for storing the collections when they were transferred from Environmental Solutions.

Structural Adequacy

The building was not designed to serve as an archaeological repository, nor does it function adequately in this capacity. It should not be viewed as a suitable structure for the long-term curation of collections.

Environment

Heating and air conditioning are provided for the comfort of the Martin Marietta staff. They are not designed nor regulated for the preservation and management of archaeological collections. Humidity levels are neither controlled nor monitored.

Security

We do not know if anyone has responsibility for the safekeeping of these materials. The collections, however, should not be considered secure, since anyone in the building has unsupervised access to them.

Artifact Storage

Shelving

No shelving units for archaeological collections in the Martin Marietta facility exist. Artifact

boxes are stacked, up to seven high, from floor to ceiling.

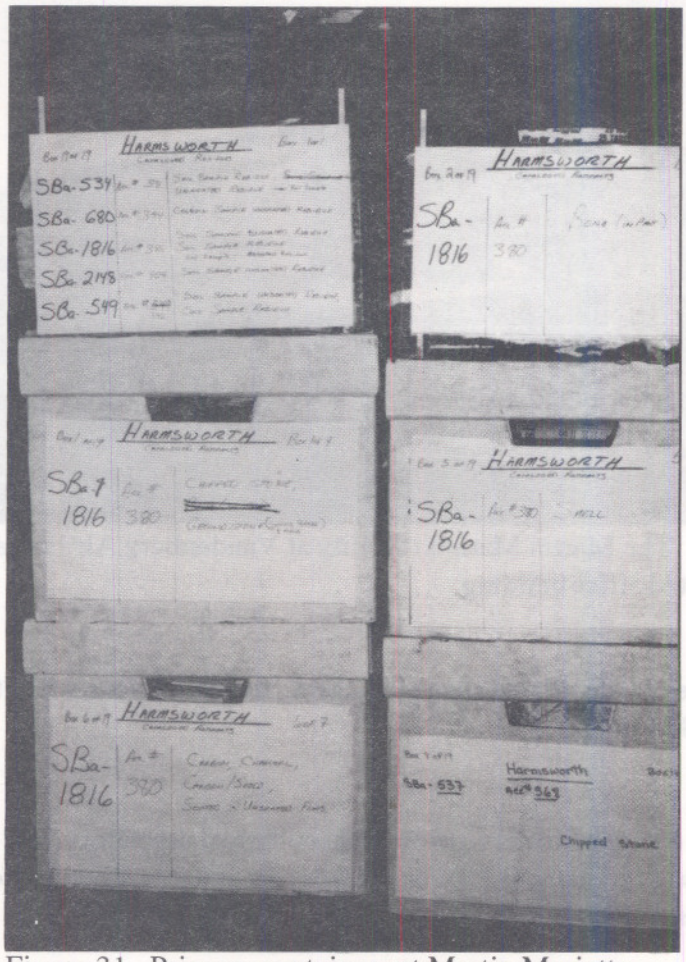


Figure 31. Primary containers at Martin Marietta.

Primary Containers

Artifacts are stored in either 1.5 ft^3 corrugated cardboard boxes or in one-cubic-foot bankers boxes. Labels made from typing paper are attached to each box with scotch tape. Label information is written in black and red marking ink, and identifies accurately the site number, contractor, accession number, and artifact classes in the box.

Secondary Containers

Most artifacts are enclosed in 4-mil plastic bags that are stapled shut and filed in lidless shirt boxes and, in at least one instance, an aluminum broiling pan. Newspaper is used as packing material to keep the artifact packets in order. Some of the plastic bags are torn and many are punctured. Several large artifacts are stored in paper bags with an accompanying paper label.

Figure 32. Interior view of a primary container. Lidless interior boxes ensure that artifacts become mixed throughout the box.

Laboratory Processing and Labeling

All artifacts are clean and all lithic, bone, shell, and historic artifacts have been labeled individually with ink. A paper-tag label, which records site and provenience information, artifact class, and catalog number of the enclosed artifact, is included in each bag. Label information is recorded in pencil and is now fading.

Human Skeletal Remains

No human skeletal remains are present in the Martin Marietta Collection.

Records Storage

Documentation associated with the Martin Marietta artifact collections is also stored in bankers boxes that are stacked on the floor of the library. Box contents are listed on yellow notebook paper that is taped to the outside of the boxes. All paper records appear to be photocopies, but the copies are not on acid-free paper. All records are well organized and arranged in hanging file folders that are labeled in pencil. All metal fasteners such as paper clips and staples have been removed or replaced with plastic fasteners. All photographic documentation is enclosed in archival-quality sleeves. Computer floppy disks, which are subject to rapid deterioration under adverse storage conditions, are stored in plastic sleeves and sealed with plastic clips. The original field maps and administrative records appear to be missing from the collection.

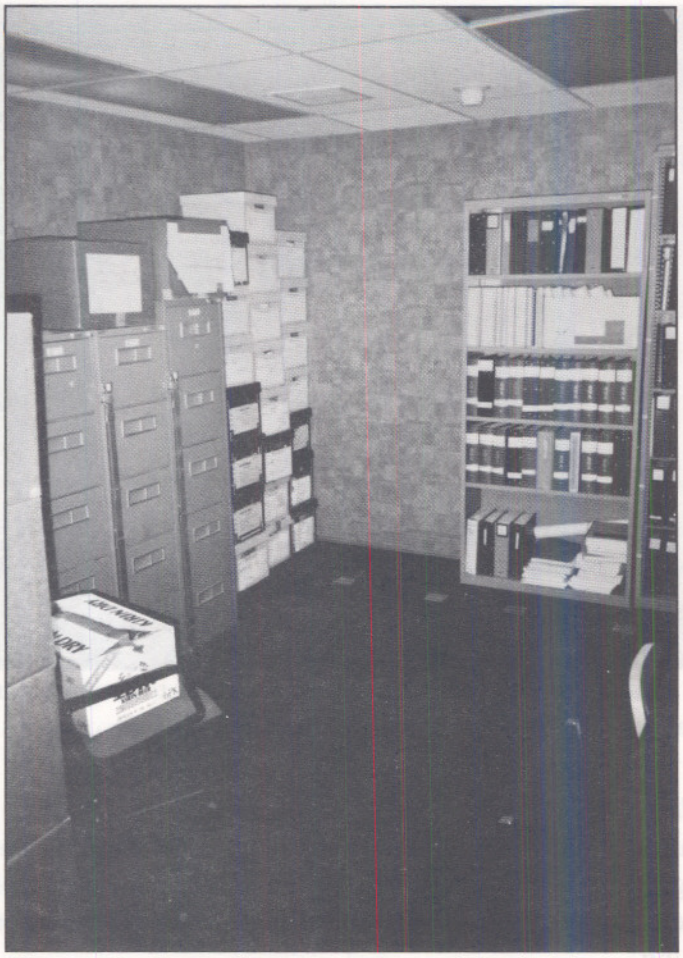


Figure 33. Records storage area at Martin Marietta.

Collections Management

Registration Procedures
Accession Files: None
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None

Inventory Policy: None
Latest Collection Inventory: 1990

Access to Collections
At the present time, only VAFB personnel can readily access the collections. Once the entire collections are transferred to the UCSB, access will then be based on UCSB's access policy.

Curation Personnel
None

Curation Financing
Completed

Future Plans
A long-term curation agreement was finalized with UCSB in June 1992. All collections will be transferred to this curation facility in the future.

Recommendations

(1) All archaeological materials stored in the Martin Marietta building should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(2) All associated documentation and reports, including reports of negative findings, should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(3) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(4) All Martin Marietta collections should be transferred to the Environmental Management Division for their immediate security.

(5) Planning should be initiated for the consolidation of all Martin Marietta archaeological collections into a central curation facility, preferably managed by DoD personnel, that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

UNIVERSITY OF CALIFORNIA, SANTA BARBARA COLLECTION

DATE OF VISIT: 13 December 1991

PERSONS CONTACTED: Karen Rasmussen and Michael Glassow

An estimated 123 ft^3 of artifacts recovered from Vandenberg Air Force Base, plus a collection of associated documentation of indeterminate size, are housed in the Repository for Archaeological and Ethnographic Collections at the University of California, Santa Barbara. At the time of inspection, these artifacts were being stored in two separate buildings. The primary repository (Repository #1) contains 16 ft^3 of artifacts and associated documentation, but an additional 85 ft^3 of materials from this repository are being analyzed by Dr. Michael Glassow. We determined that another 22 ft^3 of artifacts from VAFB are in "dead storage" (Repository #2) at an isolated location on campus.

Repositories

Repository #1

Structural Adequacy
The primary repository is located in North Hall at UCSB and was originally designed as a classroom. The room does not meet current Federal requirements for a facility housing archaeological collections, but a reasonable degree of protection for these materials is being provided, primarily due to attention paid by the staff to security considerations. At the present time this facility is filled to capacity.

Environment
The primary repository is heated and air conditioned, but it is not possible to maintain a constant temperature level. The humidity level in the repository is neither controlled nor monitored. Although the repository was clean, there is no system of dust filtration. Likewise, there is no program for the control of biological infestation.

Security
Repository #1 is double locked, providing a high degree of security for the artifacts and their associated documentation, but there is no alarm system. The outer door to the repository provides direct access to the office and work areas, but a floor-to-ceiling fence prevents unauthorized access to the collections storage area. The door to this enclosed area is always locked.

Repository #2

Structural Adequacy
Repository #2 is situated some distance from the primary repository, but is still on the UCSB campus. This "dead-storage" repository is located in a wood-frame structure and provides 400 ft^2

of supplemental storage space for the primary repository. The building meets none of the requirements for a modern repository facility. Unless the term dead storage is a misnomer, the rationale for housing two of the VAFB collections in this facility is not known. The collections are from projects completed in the 1980s and contain a wide variety of artifacts, including lithics, shell, bone, and historic materials.

Figure 34. Exterior view of Repository #2.

Environment

The dead-storage repository is not heated or air conditioned, nor does it have humidity controls. No system exists for the control of dust or biological infestation.

Security

The age and structural inadequacies of Repository #2, and its isolation from Repository #1, create a high degree of risk for collection loss through theft, vandalism, or fire. The door to the dead-storage repository can be locked, but it was unlocked at the time of our inspection, with no explanation being offered by the staff.

Artifact Storage

Repository #1

Shelving

Wooden cabinets with metal-rod tray holders function as shelving units for the primary repository collections. A metal protective rod on the front of the units serves as added protection in the event of a major earthquake.

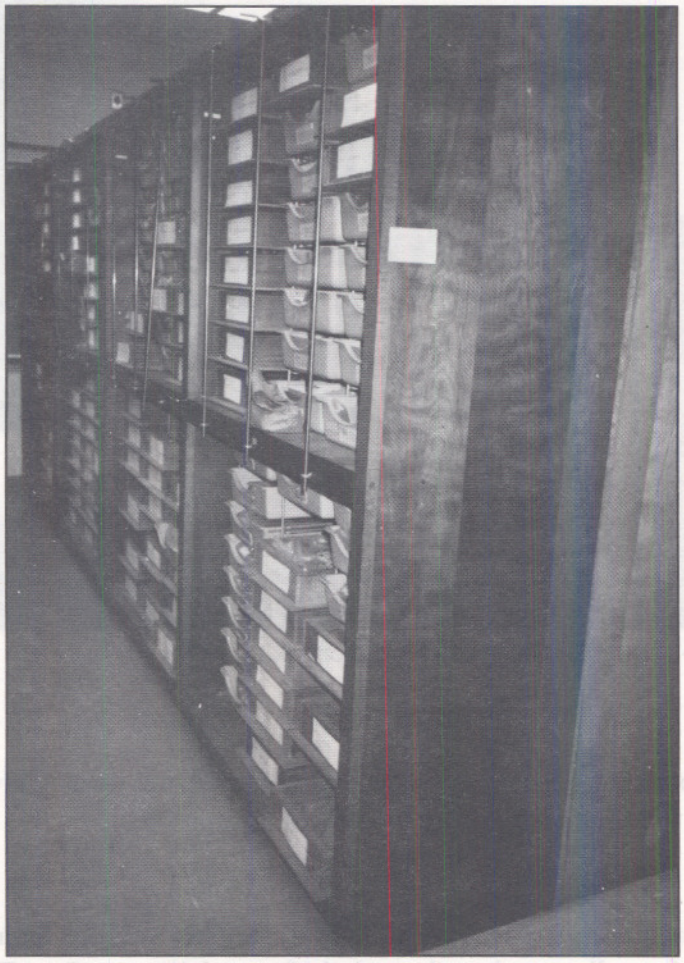


Figure 35. Shelving in Repository #1.

Primary Containers

The VAFB collections in Repository #1 are housed in both wooden and plastic trays that slide into the metal tray frame. Each tray holds approximately one cubic foot of artifacts. The wooden trays are constructed of untreated plywood and pine, and their contents are identified with computer-generated labels, which are stapled to the front of the trays and covered with cellophane tape. Labels for collections housed in plastic trays are inserted in adhesive label holders. Accession and tray numbers are identified on each label. Trays containing heavy artifacts are

overpacked and could be removed from the cabinets only with great difficulty.

Secondary Containers

The collections are packaged in a variety of containers, including paper bags, plastic bags, small boxes, and metal film canisters. Many items, especially lithic materials, are stored loose. Paper bags are folded shut, whereas plastic bags are stapled. Some paper bags from early collections are water damaged. There is no consistency in the manner in which containers are labeled. In their present condition the collections do not meet Federal curation requirements.

Laboratory Processing and Labeling

The artifacts are clean and labeled in ink.

Repository #2

Shelving

Collections in Repository #2 are housed on metal-framed, wooden-shelved units. These units are also braced for earthquake protection.

Primary Containers

Collections in Repository #2 are stored in acidic cardboard boxes. Locational and provenience

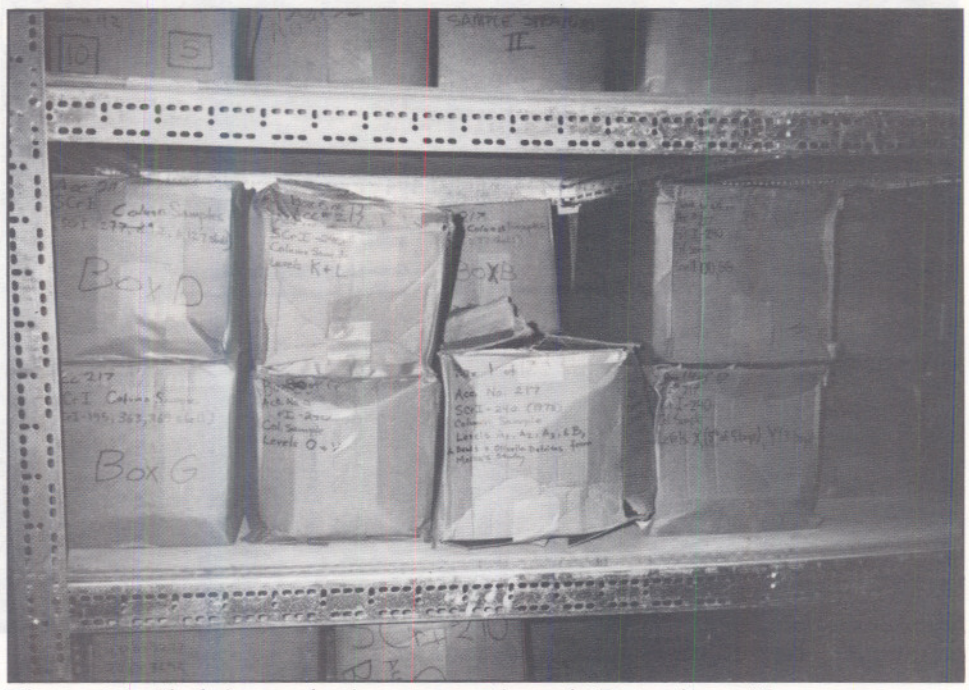


Figure 36. Shelving and primary containers in Repository #2.

information is recorded directly on the box with marking pen.

Secondary Containers
Artifact packaging in the two VAFB collections stored in this facility are similar to those stored in the primary repository.

Laboratory Processing and Labeling
The artifacts are clean and labeled in ink.

Human Skeletal Remains

Although responses during the assessment interview indicated that no human skeletal remains belonging to VAFB are housed at UCSB repository, an inspection of the materials revealed that there may be some human remains and associated grave goods in the Hantman Site (SBa734) Collection.

Records Storage

Documentation for all repository collections is stored in five five-drawer, metal filing cabinets and

Figure 37. Records at UCSB Repository #1.

filed by accession number. The paper records have been sorted by record type into acidic manila folders. Large maps are stored flat and organized by accession number. A duplicate copy of the documentation does not exist.

Collections Management

Registration Procedures
Accession Files: Yes
Location Identification: Yes
Cross-Indexed Files: Yes
Published Guide to Collections: Partial (internal use only)
Site-Record Administration: Yes
Computerized Data-Base Management: Yes

Written Policies and Procedures
Minimum Standards for Acceptance: Yes
Curation Policy: Yes
Records-Management Policy: Yes
Field-Curation Guidelines: Yes
Loan Procedures: Yes
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: January 1990

Access to Collections
The archaeological collections are open to the research staff and graduate students of the university. Outside researchers must request access to the collections and, if access is granted, must pay an hourly or daily fee for using the materials. Collections rarely leave the repository on loan.

Curation Personnel
The repository employs one half-time assistant curator to manage the collections. This employee is assisted by three student interns who are each employed for approximately ten hours per week.

Curation Financing
Most overhead curation costs (e.g., personnel and building maintenance) are absorbed by the university. Organizations depositing collections in the repository are, however, assessed nominal storage fees. The fee structure is based on separate charges for perpetual storage, space rental, storage containers, and personnel time.

Future Plans
Immediate plans of the Repository for Archaeological and Ethnographic Collections include the transfer of all VAFB collections to UCSB. Long-range plans include finding more space for the artifact collections and photocopying all associated documentation onto acid-free paper.

Comments

(1) Repository personnel have developed an excellent computerized data-base management

program for the artifacts and associated documentation. Immediate access to information on VAFB collections greatly facilitated the data-gathering efforts of the assessment team.

(2) UCSB makes a substantial commitment of space, staff, and financial resources to the long-term preservation of archaeological collections. In spite of this effort, collection curation does not meet the requirements for the curation of Federally owned collections. Unless regional curation centers for Federal collections are developed, UCSB should receive the Federal assistance necessary for compliance with new Federal curation regulations.

Recommendations

(1) All archaeological materials, associated documentation, and reports, recovered or generated through contractual agreements with Vandenberg Air Force Base and stored at UCSB should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All VAFB collections stored currently in Repository #2 should, for security reasons, be transferred to UCSB.

(4) All human skeletal remains recovered from VAFB properties, and still in the possession of UCSB, should be identified.

(5) The disposition of all identified human skeletal remains should be determined in accordance with the requirements of the Native American Graves Protection and Repatriation Act (P.L. 101-601).

(6) All recovered funerary objects (associated and unassociated), sacred objects, and objects of cultural patrimony, as defined by the Native American Graves Protection and Repatriation Act should be identified and their disposition determined.

(7) All associated documentation and reports should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(8) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

UNIVERSITY OF CALIFORNIA, LOS ANGELES COLLECTION

DATE OF VISIT: 12-13 February 1992

PERSONS CONTACTED: Roger Colton and Helle Girey

A collection recovered by Brian Dillon in the early 1980s is the only Vandenberg Air Force Base collection known to be curated at the University of California, Los Angeles (UCLA). The exact location of the collection was not known to VAFB personnel, but after conversations with U.S. Army Corps of Engineers personnel in Los Angeles and Sacramento, the artifacts were finally located at UCLA. Although the materials are accessioned, the accession information has not been entered into the computer data base. The collection consists of approximately seventeen (17) cubic feet of artifacts. The location of the primary collection documentation still is not known, nor has a final report been submitted by the contractor.

Repository

Structural Adequacy

The UCLA repository is located in a sub-basement in Haines Hall on the main campus of the university. The repository does not meet the Federal requirements for a facility dedicated to archaeological curation, and all collections stored in this facility are endangered. At the time of inspection, water was seeping into the facility from overhead, and collections were draped with sheets of plastic in an attempt to protect them from damage. Although water pipes are located overhead, the flooding was the result of recent heavy rainfall, and the excess water was entering the repository from every available opening. Some artifact boxes show signs of previous water damage. There is no extra protection for the collections in the event of a major earthquake.

Environment

The repository is heated and air conditioned through overhead duct work. There is, however, no system for avoiding rapid temperature fluctuations, nor is there any system of humidity control. All lighting is florescent.

Security

The repository door is locked, and collections are protected by a security alarm. The age and structural inadequacies of the facility, however, present just as great a danger to the collections as unauthorized entry.

Artifact Storage

Shelving

A wide variety of shelving units, including wood and metal tray cabinets, metal shelves, wooden drawer cabinets, and wooden crates, are used in the UCLA repository. The repository is filled beyond capacity with overstacked boxes of artifacts resting on the floor and stacked from the top of shelving units to the ceiling. In some cases, the containers are stacked over seven high,

effectively crushing the bottom boxes. Wooden crates are being used to hold artifacts in areas where shelving cannot be erected.

Figure 38. Interior of the repository at UCLA showing the steps that have been taken to combat the water problems.

Primary Containers

The Brian Dillon Collection, Accession #666, is stored in 17 wooden trays resting on metal-framed cabinets. Typed identification tags are attached to the trays in a number of ways, including staples, tape, tag holders, and self-adhesive stickers.

Secondary Containers

Artifacts are sorted by class and provenience, and are stored accordingly. Many large lithic items are loose in the trays, but smaller artifacts are contained in 2-mil zip-lock bags. The bags are labeled with the artifact and accession numbers, and some bags have a paper tag enclosed with the same information.

Laboratory Processing and Labeling

All materials are clean. Many items, primarily lithic artifacts, are labeled individually in ink with the accession and artifact numbers. Bagged items are not labeled.

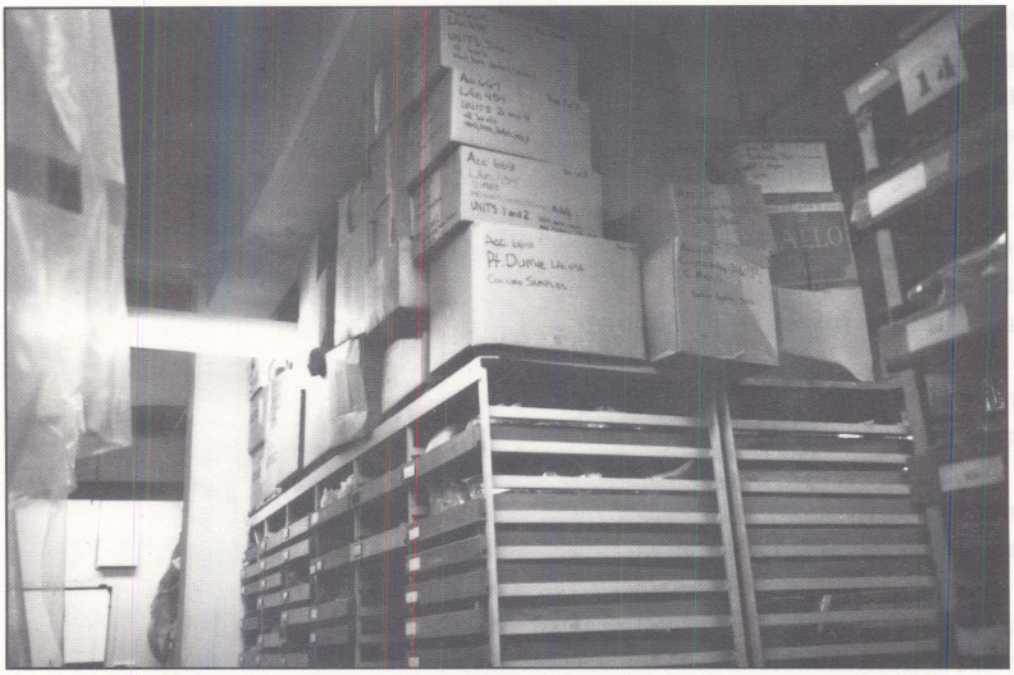


Figure 39. Shelving and primary containers at UCLA. Note crushing and excessive stacking of artifact boxes.

Human Skeletal Remains

No human skeletal remains from VAFB are stored in the UCLA collections.

Records Storage

A copy of the field catalog for Sba-1823 and a draft copy of the report are the only records associated with the Dillon collection stored at UCLA. We were told, however, that the data were collected and stored on computer disks, and that illustrations from Sba-246 are published. It is possible that Brian Dillon still has the missing documentation in his possession.

Collections Management

Registration Procedures

Accession Files: Yes
Location Identification: Yes
Cross-Indexed Files: Partial
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: Partial

Written Policies and Procedures
Minimum Standards for Acceptance: Yes
Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: Yes
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: Unknown

Curation Personnel
Information not available.

Curation Financing
Information not available.

Access to Collections
Information not available.

Future Plans
Information not available.

Comments

(1) The repository at UCLA does not meet current Federal requirements for archaeological curation. Since there is only one VAFB collection stored at this institution, the most cost-effective solution for long-term curation is to transfer, with the consent of VAFB, the collections to a facility with more-extensive holdings.

(2) The UCLA repository was flooded several days after the curation inspection. Since the repository is located in a sub-basement, water enters the area from the basement located above the collections. Although only several inches of water accumulated on the floor, many shelved collections sustained water damage when water poured down on them from above. This repository is in a deplorable state, and all Federal collections should be removed for their long-term safety.

Recommendations

(1) All archaeological materials, associated documentation, and reports, recovered or generated through contractual agreements with Vandenberg Air Force Base, and stored currently at UCLA should be identified.

(2) All archaeological materials should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(3) All associated documentation and reports from the Brian Dillon collection should be recovered, arranged, described, and preserved according to Federal guidelines, standards, and modern archival procedures.

(4) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(5) The final report for the Brian Dillon project should be prepared and submitted.

(6) All collections should be transferred to a curation facility, preferably controlled by DoD personnel that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal

6

FORT GORDON, GEORGIA

INSTALLATION SUMMARY

(1) Volume of Artifact collections: 55 ft^3

On Base: 20 ft^3
Off Base: 35 ft^3

Compliance Status: Most collections require major rehabilitation to comply with existing Federal guidelines and standards.

(2) Linear Feet of Records Unknown linear ft

On Base: Unknown linear ft
Off Base: Unknown linear ft

Compliance Status: A number of collections require standard archival preparation to comply with Federal guidelines, standards, and modern archival procedures.

(3) Human Skeletal Remains: No human skeletal remains are present in any of the Fort Gordon collections examined.

(4) Status of Curation Funding: No long-term funding mechanism exists for curation at Fort Gordon.

(5) Status of Installation Repository: No archaeological repository exists at Fort Gordon. The Fort Gordon Signal Museum was the original repository for early archaeological collections recovered from Fort Gordon, and it is the only facility on the base where they could remain. The mission of the museum, however, is to assemble and exhibit a comprehensive collection of communications equipment, and to make these items available to researchers and students of communications. Archaeological collections, both prehistoric and protohistoric, do not fall within its mission statement; therefore, they do not receive the care essential for their long-term survival or the attention necessary to achieve their maximum use. Likewise, the museum does not presently meet mandated Federal requirements for archaeological curation.

INTRODUCTION

Fort Gordon is the home of the Army Signal School and is situated near Augusta on approximately 55,000 acres in the sandhills of Georgia. The history of archaeological activity at Fort Gordon dates to the 1940s and can be divided into three collections phases.

Howard MacCord Collection

Sometime in the 1940s Howard MacCord excavated what has become known as the Wilkerson Lake Site. The collection resulting from this excavation, including the associated documentation, was deposited initially with the Augusta Museum but has since been reported as lost. A letter report written by MacCord in 1985 is the only surviving information on this collection.

George Lewis Collection

George Lewis, a long-time employee at Fort Gordon and an avocational archaeologist, conducted surveys and collected artifacts on the installation for many years. One of his collections, which is described in the *Archaeology of the Fort Gordon Golf Course,* reportedly was deposited with the Fort Gordon Museum but could not be located by museum personnel. The majority of the Lewis Collection, however, was consolidated with materials collected during a later (1980) survey. Mr. Lewis still maintains a collection of archaeological materials from the installation, which he is anxious to deposit with an institution with suitable curatorial facilities.

Cultural-Resource-Management Collections

The first compliance-related archaeological investigation at Fort Gordon was a survey conducted in 1980 by New World Research. The collection was stored in six large boxes and is estimated to contain at least ten (10) cubic feet of materials. Each box contained an inventory sheet, but the listings were inaccurate and were obviously from the original containers, which are now destroyed. Some of the artifact bags (all paper) appear to be originals, but others are replacements. Collection damage has resulted most probably from exposure during years of storage in an open, three-sided shed. The Lewis Collection is intermingled with the New World Collection but can be distinguished by the catalog code. It is possible that the collections could be sorted at a future date. Mr. Lewis and other Fort Gordon personnel expressed concern that a portion of this collection had been removed at an earlier date for museum exhibit and has since disappeared. This may not be the case, however, since a museum-type collection (25-30 exhibitable chipped-stone artifacts) was discovered in the bottom of one of the boxes. Only George Lewis can verify if these are the missing items. Since the original documentation is still missing and the existing box inventories are inaccurate, there was insufficient time to inventory the collection adequately, .

Eighteen archaeological surveys were conducted on Fort Gordon property from 1989 to 1991.

The total collection resulting from these surveys comprises approximately twenty-to-thirty-cubic feet of materials. Some of the Southeastern Archeological Services collections were transferred from the installation's environmental office by the Savannah District. We do not know the extent of the transferred collections. Other collections, or the documentation for reports with negative results, are still with the agencies or companies that performed the fieldwork—U.S. Army Corps of Engineers, Savannah District; Georgia Department of Transportation; and Brockington and Associates, Mount Pleasant, South Carolina. When transferred to an acceptable repository, all collections, including associated documentation, should total more than fifty-feet (55) cubic feet.

SOUTHEASTERN ARCHEOLOGICAL SERVICES COLLECTION

DATE OF VISIT: 16-18 October 1991

PERSONS CONTACTED: Tom Gresham and Chad Braley

Repository

The repository at Southeastern Archeological Services is located in a three-story house that once was a private residence. The area devoted to archaeological storage consists of available space within the building. Fort Gordon collections were stacked on the floor and stored on shelves on the third floor.

Structural Adequacy
The building was not designed to serve as an archaeological repository, nor does it function adequately in this capacity. It is not a suitable structure for the long-term curation of collections.

Environment
Heating and air conditioning are provided for the comfort of the staff. The HVAC system is not designed for the preservation of archaeological collections. Humidity levels are not controlled or monitored.

Security
Access to the collections is available to any of the staff members although both the front and rear doors of the building are locked.

Artifact Storage

Shelving
None

Primary Containers
Artifacts are stored in acidic cardboard boxes with telescoping lids. For the 1980 New World

Research Collection, all artifacts were transferred to 4-mil, polyethylene, zip-lock bags, and provenience information was recorded on the bags with indelible ink. Each bag also contains a polyethylene-coated paper tag that duplicates the information on the bag. Complete documentation for this collection is absent, greatly reducing the value of these materials. Both New World Research and the Interagency Archeological Services in Atlanta searched their files for the original field notes, maps, photographs, and other associated documentation but were unable to locate these records. New World Research did locate 27 unidentified black-and-white photographs and copies of the accession record and ceramic analysis. All evidence indicates that the original documentation was turned over to Fort Gordon personnel along with the artifacts. A more thorough search of museum storage areas at Fort Gordon and discussions with previous museum curators may eventually yield these materials.

Secondary Containers
Artifacts are stored in brown paper bags with a list of the artifacts inside.

Laboratory Processing and Labeling
None

Human Skeletal Remains

No human skeletal remains are present in any of the examined collections.

Records Storage

There is no records storage for the Fort Gordon collections.

Collections Management

There is no collections management, nor collections-management policy, for the Fort Gordon collections. Most of the collections are scattered throughout the southeast region of the United States.

Registration Procedures
Accession Files: None
Location Identification: None
Cross-Indexed Files: None
Published Guide to Collections: None
Site-Record Administration: None
Computerized Data-Base Management: None

Written Policies and Procedures
Minimum Standards for Acceptance: None

Curation Policy: None
Records-Management Policy: None
Field-Curation Guidelines: None
Loan Procedures: None
Deaccessioning Policy: None
Inventory Policy: None
Latest Collection Inventory: None

Curation Personnel
None

Curation Financing
None

Access to Collections
No written procedures exist for accessing the archaeological collections.

Future Plans
Unknown

COMMENTS

(1) A lack of knowledge of the extensive archaeology and history of Fort Gordon and limited funding prevented us from performing an in-depth evaluation of the installation's collection.

(2) One small collection was removed from the U.S. Army Corps of Engineers, Savannah District and transferred to Southeastern Archeological Services (SAS). We processed the collection for curation at SAS as requested by Dr. Briuer of the Waterways Experiment Station. Dr. Briuer was the project manager for the Fort Gordon curation-needs assessment study.

(3) Three potential repositories for the Fort Gordon collections were inspected: Georgia Southern University, Statesboro; the University of Georgia, Athens; and West Georgia College, Carrollton. In addition to an on-site inspection of each of these curation facilities, an extensive on-site interview was conducted with curatorial personnel in an effort to determine the capability of the facilities to provide long-term care for collections under the standards and guidelines set forth in 36 CFR Part 79. The following summaries provide sufficient information on which to select a temporary repository for the Fort Gordon collections.

Georgia Southern University

Rooms for archaeological curation are located next to the laboratory and classroom facilities of Dr. Sue Moore in the Department of Anthropology and Sociology building. The building is a masonry structure and is heated and air conditioned. The environment, including humidity, is monitored; however, there is no effective means of controlling humidity fluctuations. The storage rooms are essentially six large closets, each approximately 150 ft^2 in size. The rooms are not equipped with proper shelving, and artifact boxes in several rooms are stacked on the floor. Archaeological documentation is currently stored in a series of file drawers in an open, student laboratory.

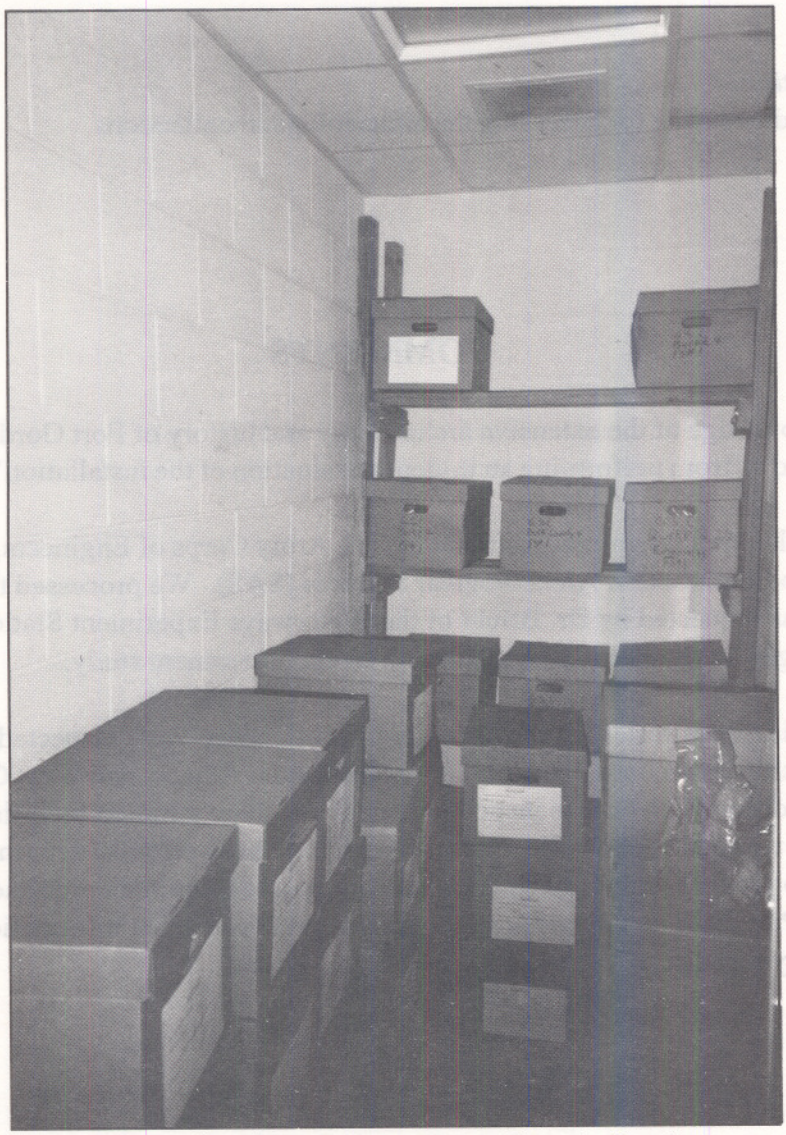


Figure 40. Collections storage area at Georgia Southern University. This room is a former interview cubicle for the Psychology Department.

Figure 41. The records storage area at Georgia Southern University.

University of Georgia

Archaeological collections at the University of Georgia are in the process of being moved to a permanent storage facility on the university campus. This masonry building is somewhat removed from the Department of Anthropology. Space within the facility is shared with other university operations, but the collection rooms are secured from unauthorized access. Temperature and humidity levels are controlled and monitored. There are also rooms designated specifically for the care of archival materials and for artifacts requiring sensitive environmental monitoring. Except for the possibility of collection damage from overhead pipes, the facility meets most of the requirements of 36 CFR Part 79. Although the primary collections room may reach capacity in the near future (three-to-five years), there currently is ample storage space for the Fort Gordon Collections. The collections are under the direct control of Dr. David Hally.

West Georgia College

Existing facilities for archaeological storage at the West Georgia College Archaeological Laboratory are not adequate for the care of the Fort Gordon collections. A new storage center for artifacts and records is under construction but will not be completed in time to accept existing collections. There are also questions as to whether the new facility will satisfy Federal repository requirements for secure and environmentally controlled artifact curation. If this building is to be

considered for permanent curation of the Fort Gordon collections, it should be re-evaluated upon completion of construction.

RECOMMENDATIONS

(1) All archaeological materials stored on base and off base should be inventoried, rehabilitated, and curated according to Federal guidelines and standards.

(2) All associated documentation and reports, including reports with negative results, should be arranged, described, and preserved according to Federal guidelines and standards and modern archival procedures.

(3) A duplicate copy of all associated documentation and reports should be stored in a separate and secure location.

(4) Planning should be initiated for consolidating all Fort Gordon archaeological collections into a central curation facility that can provide the professional staff, institutional commitment, and financial support necessary for the level of professional archaeological curation mandated by current Federal regulations.

(5) Every effort should be made to locate and recover all missing artifact collections, associated documentation, and reports relating to the archaeology of Fort Gordon.

(6) Copies of all contract reports should accompany the collections.

(7) An agreement should be signed with the University of Georgia, Athens for the temporary storage (one year) of the Fort Gordon artifact collections, associated documentation, and reports. This recommendation should be expedited immediately, since the collections are now at Southeastern Archeological Services, which does not have adequate storage space nor the responsibility for their curation.

(8) Unless a more satisfactory repository is identified or provided within the state of Georgia, a contract should be negotiated with the University of Georgia, Athens for the long-term curation of the Fort Gordon collections.

7

FINDINGS SUMMARY FOR DEPARTMENT OF DEFENSE INSTALLATIONS

The nature of the inspection of the Fort Gordon collections did not result in the level of detail similar to that obtained from the Fort Sill; the Vandenberg Air Force Base; the Naval Air Weapons Station, China Lake; and the Camp Pendelton Marine Corps Base collections. Thus, the following summary and information does not include any Fort Gordon collections.

Twenty (20) individual storage areas that house artifact collections from four Department of Defense (DoD) installations were inspected. Six (30%) of these facilities are located on installation properties; the remaining 14 (70%) are located off base in museums and university repositories or with private contractors (Table 1). The percentages are reversed, however, when volume is considered, with 75% of the collections housed in installation facilities and only 25% of the materials located off base (see Table 2).

Table 1.
Number and Types of Archaeological Repositories by Installation

Military[a] Installation	Installation Repository	University Repository	Museum Repository	Private Contractor	Total No. of Locations
Camp Pendleton	1	2	0	3	6
Fort Sill	1	0	1	2	4
NAWS, China Lake	2	1	1	1	5
Vandenberg AFB	2	3	0	0	5
TOTAL	6	6	2	6	20

[a]On-base locations = 6 (30%); off-base locations = 14 (70%).

All storage facilities at DoD locations are uniformly substandard in meeting the mandated requirements for curating Federally owned archaeological collections. Some installations do a better job of curating collections than others, but without funding for adequate storage facilities, management programs, and personnel collections at these installations will continue to deteriorate. Collections housed in off-base repositories fare better than those kept on base, but even these collections are not curated and housed in a manner that satisfies the requirements of current Federal regulations. Only three of the 20 inspected facilities meet the minimum Federal standards for storage facilities outlined in 36 CFR Part 79.

Table. 2.
Location of Identified Artifact Collections by Volume in Cubic Feet

Military Installation	On-Base Repositories	Off-Base Repositories	Total Ft^3
Camp Pendleton	24 (71%)	10 (29%)	34
Fort Sill	417 (94%)	25 (6%)	442
NAWS, China Lake	250 (74%)	87 (26%)	337
Vandenberg AFB	93 (40%)	140 (60%)	233
TOTAL	784 (75%)	262 (25%)	1046

REPOSITORIES

Dedicated archaeological repositories exist at two surveyed installations, but these structures are essentially buildings that are undesirable for other installation functions. However, they are also totally inadequate for archaeological curation. Both structures have leaking roofs, poor security, insufficient and inadequate environmental controls, and no regularly scheduled programs of building maintenance. Repository adequacy of off-base facilities range from excellent at the two museum locations to extremely poor at two other sites.

ARTIFACT CURATION

No artifact collections are properly prepared for long-term curation. Major deficiencies were observed regarding the cleaning, labeling, packaging, and storing of these materials. These collections will have to be reprocessed in order to conform to the minimum requirements of 36 CFR Part 79. An unknown number of artifacts require the immediate attention of an archaeological conservator.

HUMAN SKELETAL REMAINS

Collections belonging to Camp Pendleton, Fort Sill, Vandenberg Air Force Base, and the Naval Air Weapons Station, China Lake contain human skeletal remains and associated grave goods (Table 3) that, for the most part, are curated no better than other artifact collections. The installations on whose property these remains were removed must complete the required inventory and summary of these materials, as specified in the Native American Graves Protection and Repatriation Act, within the next two years. Only the Naval Air Weapons Station, China Lake has initiated the NAGPRA process, which is a credit to the installation archaeologist.

Table 3.
Human Burial Collections from Inspected Military Installations

Military Installation	Human Remains Present	Associated Funerary Objects	Unassociated Funerary Objects	Documentation
Camp Pendleton				
Base Repository	yes	yes	unknown	yes
University Repository	unknown	unknown	unknown	unknown
Museum Repository	not available	not available	not available	not available
Private Contractor	no	no	no	not available
Government Contractor	not available	not available	not available	not available
Fort Sill				
Base Repository	yes	yes	unknown	unknown
University Repository	no	no	not available	not available
Museum Repository	no	unknown	unknown	unknown
Private Contractor	no	no	no	not available
Government Contractor	not available	not available	not available	not available
NAWS, China Lake				
Base Repository	yes	unknown	unknown	unknown
University Repository	no	no	no	not available
Museum Repository	yes	yes	unknown	partial
Private Contractor	no	no	no	not available
Government Contractor	no	no	no	not available
Vandenberg AFB				
Base Repository	no	no	no	not available
University Repository	yes	unknown	unknown	unknown
Museum Repository	not available	not available	not available	not available
Private Contractor	no	no	no	not available
Government Contractor	no	no	no	not available

RECORDS MANAGEMENT

Most collections of associated documentation are separated from the artifact collections and could not be located by repository personnel. Other documents are missing because of inadequate or nonexistent records-management programs. Most records that could be identified and located are not being cared for in a manner that will ensure their long-term survival. Archival-quality preservation techniques were rarely observed. Paper documents are not contained within acid-free folders, maps are not stored flat in metal cases, and photographic materials are not individually isolated and stored in chemically inert sleeves. All records are being subjected to

unfavorable environmental conditions. This situation is especially harmful to photographic and machine-readable records, which will be lost in the very near future. No records are housed in fire-proof cabinets, and none are duplicated and the copy stored in a separate location.

MANAGEMENT CONTROLS

Basic collections-management tools, such as accession records, inventories, and written policies and procedures for curation, records management, and loans do not exist at three of the four military installations examined. These tools are also noticeably absent at three of the four university repositories visited. The collections have effectively been abandoned by the agencies within DoD. Abrogation of this responsibility had led to substandard care for the collections at universities, museums, and other repositories.

8

RECOMMENDATIONS

The following recommendations are submitted for bringing all Department of Defense installations into timely and cost-effective compliance with the mandates of the Native American Graves Protection and Repatriation Act (P. L. 101-601) and 36 CFR Part 79, Curation of Federally-owned and Administered Archeological Collections.

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (P.L. 101-601)

Recommend that a funding mechanism be established immediately that, over the next three years, would bring all DoD installations into compliance with the requirements of sections 5 through 7 of the Act. Requirements for compliance include the following three items.

(1) Installations possessing or controlling collections of Native American human remains and associated funerary objects must compile an inventory of such items and identify the geographical and cultural affiliation of such items (see Sec. 5).

(2) Installations possessing or controlling collections of Native American unassociated funerary objects, sacred objects, and objects of cultural patrimony shall provide a written summary of such objects based upon available information (see Sec. 6).

(3) Installations shall expeditiously return any objects in which cultural affiliation can be made based on the findings of the inventory and summary and upon the request of a known lineal descendant (see Sec. 7).

INVENTORY AND REHABILATION OF COLLECTIONS

Recommend that a permanent funding mechanism (for all services) be established in order to implement a program for the inventory, rehabilitation, and storage of artifact and archive collections under the control of DoD. This will result in the stabilization, preservation, and management of existing archaeological collections.

REGIONAL CURATION CENTERS

Recommend that all DoD archaeological resources be consolidated into regional curation centers for their long-term preservation. If current institutions exist within recognized

cultural/anthropologial regions and meet Federal standards, these centers should be used by DoD. However, if collections centers do not exist and rehabilitation of current centers is cost prohibitive, then DoD should design, construct, operate, and maintain their own centers in consultation with DoD cultural-resources personnel. A prototype center should be developed immediately for the consolidation and curation of all collections held by military installations scheduled to be closed under BRAC in the next five years.

DOD CURATION ADVISEMENT AGENCY

Recommend that an agency within the DoD be appointed to advise and assist:

(1) all installations with compliance with NAGPRA, P.L. 101-601;

(2) the DoD with the development of archaeological curation standards incorporating the guidelines outlined in 36 CFR Part 79;

(3) all installations with compliance with the regulatory requirements of 36 CFR Part 79 (Such advice and assistance will include, but not be limited to, curation-needs assessments, collections management, and development of repository standards.);

(4) all installations with the physical inventory, rehabilitation, and storage of artifact and archive collections;

(5) all branches of the DoD with the development of exhibits, lectures, and publications, which will promote and disseminate information relavent to the collections under their control; and

(6) all branches of the DoD with the development of regional curation facilities, which could represent an interservice effort in providing long-term curatorial and management services for archaeological resources under DoD control.

APPENDIX I

SURVEY QUESTIONNAIRE

GENERAL REPOSITORY INFORMATION

1. Does the repository have written minimum standards for the acceptance of archaeological collections? If yes, describe or attach copy.

2. Does the repository have a comprehensive plan for curation? If yes, describe or attach copy.

3. Does this plan address:
   a. Receipt of materials?
   b. Processing of materials?
   c. Use of materials?
   d. Future preservation?

4. Is there a master catalog for collections?

5. Are the files cross indexed?

6. Are all materials (artifacts and documentation) accessioned upon receipt?

7. Is the location of the collections within the repository identified in the accession file?

8. Has this information been kept up-to-date?

9. Does the repository maintain a file of documented property receipts?

10. Is there a registration record and/or a copy of the initial inventory?

11. Are there established procedures for periodic inventory?

12. When were the collections last inventoried?

13. Are collections from individual sites stored as a unit? If no, describe procedure.

14. Are collections for the same region stored together? If no, describe procedure.

15. Are collections and documentation readily accessible?

16. Is storage space adequate for housing the collections? If no, describe storage conditions.

17. How much space is devoted to storage?

18. What are the anticipated storage and handling requirements to adequately maintain collections for the next twenty years?

19. Is access to collections controlled by curation personnel?

20. Do others have access to the collections? If yes, describe.

21. Describe the repository's policy regarding access to collections by researchers.

22. Has the repository ever been the victim of a security failure? If yes, describe.

23. What are the loan procedures for collections?

24. Does the repository use automated data processing techniques to manage its collections? If yes, describe.

25. Does the repository publish a list of the collections it retains?

26. Does the repository publish field-curation guidelines for researchers depositing collections? If yes, describe or attach copy.

27. Is there a deaccessioning policy? If yes, describe or attach copy.

28. Does the catalog identify those artifacts or parts of artifacts that have been destroyed through analysis (e.g., ^{14}C or neutron activation)?

29. Is there a system of site-record administration in place? If yes, how is it organized?

30. Are there cooperative agreements with other institutions to standardize registration and cataloging procedures? If yes, describe.

31. Is the repository privately owned or associated with another agency?

32. How is curation financed?

33. Is there a full-time curatorial staff?

34. How large is the staff?

35. Describe their formal curatorial training?

36. What are their primary responsibilities?

37. Describe any definite plans for the upgrading of the curation program?

38. What do you see as the primary responsibility associated with each collection?

39. How well do you feel you meet your curation responsibilities?

40. What size budget do you feel would be adequate to meet your curation responsibilities?

41. Does recovery of archaeological material have a higher priority than adequate curation of existing collections?

ARTIFACT COLLECTIONS: GENERAL INFORMATION

1. Are there written guidelines and standards for the curation of artifacts? If yes, describe or attach copy.

2. Are any artifacts systematically excluded from curation?

3. Environmental Conditions:

Light:	Dust:
Temperature:	Biological Infestation:
Humidity:	Infestation Control:

4. Are environmental conditions monitored?

5 Primary means of storage:

Boxes? Drawers? Other?

6. If drawer storage, are measures taken to prevent artifact contact?

7. Is storage space maximized by excessive stacking of objects and boxes?

ARTIFACT COLLECTIONS: CERAMICS/LITHICS/ FAUNAL/OTHER
(Complete for Each Type)

1. Are _____ artifacts included in this collection?

2. Have they been:
   Cleaned? Permanently labeled? Analyzed?

3. Has an unwashed sample been preserved for possible future analysis of residues?

4. In what type of containers are they stored?

5. Are containers labeled and readily identifiable?

6. Are all _____ accounted for?

7. Are any materials in museum displays?

8. Has all documentary material been preserved?

9. Is the documentary material readily available?

ARTIFACT COLLECTIONS: HUMAN SKELETAL REMAINS

1. Are human skeletal remains included in this collection?

2. Have they been:
   Cleaned? Stabilized? Permanently labeled? Analyzed?

3. In what type of containers are remains stored?

4. Are containers labeled and readily available?

5. Is there an accounting for all remains?

6. Are any materials in museum displays?

7. Are remains stored under stable temperature and humidity conditions?

8. Have all burial forms, photographs, and other documentary materials been preserved?

9. Is the documentary material readily available?

DOCUMENTATION: GENERAL INFORMATION

1. Are there written guidelines and standards for the curation of:
   Paper Records? Photographs and Slides? Maps?
   If yes, describe or attach copy.

2. Is there adequate space for document storage?

3. Are any documents systematically excluded from curation?

4. Are duplicates of the original documentation maintained separately?
   Where? Photocopy or Microfilm?

5. Are documents secure from loss due to:
   Fire? Water Damage? Theft?

6. Are documents legible and reproducible?

7. Describe all security deficiencies.

8. Who is responsible for record maintenance and security?

9. Who has access to the records?

10. Is there a check-out system for records?

11. Have any records been lost?

12. What are the plans for retention in perpetuity?

13. Are there locally available alternatives for retention?

DOCUMENTATION: PAPER RECORDS

1. Type:

Contracts?	News Clippings?
Proposals?	Site Forms?
Field Notebooks?	Feature Forms?
Laboratory Records?	Artifact Forms?
Fiscal Data?	Photo Forms?
Official Correspondence?	Photo Log?
Reports?	Burial Forms?
Expert Analysis?	Other?

2. How are these records curated?

3. Environmental Conditions:

Light:	Dust:
Temperature:	Biological Infestation:
Humidity:	Infestation Control:

4. Are environmental conditions monitored?

5. What is the present condition of this material?

DOCUMENTATION: PHOTOGRAPHS AND SLIDES

1. Type:

Black and White?	Slides?	Aerial?
Color?	Negatives?	Log?

2. Environmental Conditions:

Light:	Dust:
Temperature:	Humidity:
Biological Infestation:	Infestation Control:

3. How are photographs curated?

4. How are slides curated?

5. How are negatives curated?

6. Are environmental conditions monitored?

7. What is the present condition of this material?
   Faded? Damaged? Lost?

8. Are they stored with other documentation?

DOCUMENTATION: MAPS AND DRAWINGS

1. Type:
   USGS? Features? Computer Symap?
   Field? Floor Plans? Sketches?
   Contour? Site Plot? Drawings?

2. Storage:
   Rolled? In tubes? Folded? Flat?

3. Environmental Conditions:
   Light: Dust:
   Temperature: Biological Infestation:
   Humidity: Infestation Control:

4. Are environmental conditions monitored?

APPENDIX II

COLLECTION-EVALUATION FORM

PROJECT:
SITE #: CONTAINER #: ACCESSION #:

PRIMARY CONTAINERS

1. CONTAINER TYPE:
   Boxes (acid-free)_____ Drawers (wood)_____ Cabinets (wood)_____
   Boxes (acidic)_____ Drawers (metal)_____ Cabinets (metal)_____

   Comments:

2. CONTAINER SECURITY:
   Telescoping Lid_____ Tape_____ Other_____
   Folded Flaps_____ Staples_____

   Comments:

3. CONTAINER LABELS:
   Type: Adhesive _____ Medium: Marker_____
   Paper/staple_____ Pencil_____
   Paper/tape_____ Pen/Ink_____
   Unlabeled_____ Typed_____
   Direct _____ Stamped_____
   Other_____

   Legibility: Clear_____ Faded_____ Illegible_____

   Information: Accession #_____ Provenience_____
   Site #_____ Contents List_____
   Container #_____ Other_____

   Comments:

4. CONTAINER DAMAGE:
   None_____ Puncture_____ Water_____
   Rupture_____ Compression_____ Insect/Rodent_____
   Tear_____ Overpacking_____ Other_____

Comments:

SECONDARY CONTAINERS

1. CONTAINER TYPES:

Paper Bags _____
Plastic Bags (Open):
2-mil_____
4-mil_____
Other_____
Plastic Bags (Zip lock):
2-mil_____
4-mil_____
Other_____

Cloth Bags _____
Small Boxes:
Acid free_____
Acidic_____
Vials:
Plastic_____
Glass_____
Metal_____
Other Containers_____

Comments:

2. CONTAINER SECURITY:

Open_____
Twist ties_____
Knotted_____
Folded_____
Zip lock_____

Rubber Bands_____
String_____
Staples_____
Lids_____
Other_____

Comments:

3. CONTAINER LABELS:

Type:
Adhesive _____
Paper/staple_____
Paper/tape_____
Unlabeled_____
Direct _____

Medium:
Marker_____
Pencil_____
Pen/Ink_____
Typed_____
Stamped_____
Other_____

Legibility: Clear_____ Faded_____ Illegible_____

Information:
Accession #_____
Site #_____
Container #_____

Provenience_____
Contents List_____
Other_____

Comments:

4. CONTAINER DAMAGE:

None _____ Puncture _____ Water _____
Rupture _____ Compression _____ Insect/Rodent _____
Tear _____ Overpacking _____ Other _____

Comments:

ARTIFACT COLLECTIONS

1. COLLECTION TYPE:

Prehistoric Artifacts _____ Mixed _____
Historic Artifacts _____ Documentation _____

2. ARTIFACT CLASSIFICATION—PREHISTORIC:

Botanical _____
Burned Earth _____
Soil Samples _____
Charcoal _____
Faunal _____
Flotation Samples _____
Human Skeletal (complete Pt. 4) _____
Shell _____
Other _____

Lithics:
Chipped-stone Artifacts _____
Debitage _____
Ground-stone Artifacts _____
Hammer Stones _____
Fire-cracked Rock _____
Other Lithics _____
Non-cultural Stone_____

Comments:

3. ARTIFACT CLASSIFICATION—HISTORIC:

Ceramics_____ Brick/Masonry_____ Faunal_____
Glass_____ Leather_____ Botanical_____
Metal_____ Jewelry_____ Charcoal_____
Bone/Ivory/Shell Objects_____ Coins_____
Other_____ Wood_____ Toy Objects____

Comments:

4. LABORATORY PROCESSING:

Cleaned: Sorted: Labeled:

Yes_____ Yes_____ Yes_____
No_____ No _____ No_____
Partial_____ Partial_____ Partial_____

Comments:

5. ARTIFACT LABELS:

Type:	Adhesive ____	Medium:	Marker____
	Paper/staple____		Pencil____
	Paper/tape____		Pen/Ink____
	Unlabeled____		Typed____
	Direct ____		Stamped____
			Other____

Legibility: Clear____ Faded____ Illegible____

Comments:

6. BACKGROUND PREPARATION (Describe):

Comments:

HUMAN SKELETAL REMAINS

1. INDIVIDUALS:

Number____	CONDITION: Good____	CLEANED: Yes____
Indeterminate____	Fragile____	No____
Cremation____	Partial____	

2. ELEMENTS:

Skull ____	Ribs____	Long Bones____	Complete ____
Vertebra ____	Hand/Foot ____	Partial ____	Pelvis ____
Other____	Dentition____		

3. LABELS:

Type:	Adhesive ____	Medium:	Marker____
	Paper/staple____		Pencil____
	Paper/tape____		Pen/Ink____
	Unlabeled____		Typed____
	Direct ____		Stamped____
			Other____

Legibility: Clear____ Faded____ Illegible____

Comments:

4. BACKGROUND PREPARATION (Describe):

Comments:

APPENDIX III

PROJECT REPORTS AND COLLECTIONS LOCATIONS: CAMP PENDLETON, CALIFORNIA

Project Year: 1968
Report Date: 1968
Author: Ezell, Paul H.
Title: *The Archaeological Survey of the Fallbrook and De Luz Reservoir Sites*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1973-74
Report Date: 1975
Author: Ezell, Paul H.
Title: *The Aboriginal Cemetery at Las Flores Creek, Camp Pendleton*
Collection Location: Camp Pendleton (Partial)
Documentation Location: Camp Pendleton (Partial)

Project Year: 1974
Report Date: 1975
Author: Bull, Charles S.
Title: *Archaeological Reconnaissance of a Portion of the Coast of Camp Pendleton, San Diego County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1975
Report Date: 1975
Author: Welch, Patrick H. A.
Title: *An Archaeological Survey of the State Park Acquisition Located in Northern Camp Pendleton, San Diego County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1975
Report Date: 1975
Author: Welch, Patrick H. A.
Title: *An Archaeological Survey of the Santa Margarita River Valley and Adjacent Areas, Camp Pendleton, San Diego County, California*
Collection Location: Unknown
Documentation Location: San Diego State University

Project Year: 1976
Report Date: 1976
Author: Ezell, Paul H. (Engineering-Science)
Title: *An Archaeological Survey of Alternative No. 2b, Pilgrim Creek Effluent, Fallbrook Sanitary District*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1976
Report Date: 1978
Author: Waldron, Wendy
Title: *Survey of the Case Spring and De Luz Wilderness Areas, Camp Pendleton Marine Corps Base, San Diego, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1977
Report Date: 1977
Author: Ezell, Paul H.
Title: *Report on the Calvarium Found on the Grounds of the Commanding Officer's Quarters, Camp Joseph H. Pendleton, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1977-78
Report Date: 1979
Author: Hunter, Brian, and Richard L. Carrico
Title: *An Archaeological Survey of the Pilgrim Creek Area, Camp Pendleton, San Diego County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1978
Report Date: 1978
Author: Walker, Carol J., and Charles S. Bull (RECON)
Title: *Cultural Resource Reconnaissance of the Talega Substation to San Onofre Switchyard 230 KV Transmission Line Corridor*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1978
Report Date: 1979
Author: Walker, Carol J., and Charles S. Bull (RECON)
Title: *Cultural Resource Reconnaissance of Talega Substation to Rainbow Substation 230 KV Transmission Line Corridor*

Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1978
Report Date: 1980
Author: Ezell, Paul H., Joseph Gerard Theskin, Cynthia Draper, and Stephen R. Van Wormer
Title: *The 1978 Archaeological Survey, Camp Joseph H. Pendleton*
Collection Location: Unknown
Documentation Location: Unknown

Project Years: 1978-79
Report Date: 1979
Author: Cultural Systems Research
Title: *Cultural Resources and the High Voltage Transmission Line from San Onofre to Santiago Substation and Black Star Canyon: A Study of the Ethnography, Archaeology, and History of the Vicinity of the Line*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1981
Author: Murray, John
Title: *An Archaeological Survey of an Inland Portion of Joseph H. Pendleton Marine Corps Base, San Diego County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1981
Author: Murray, John
Title: *Archaeological Survey of 6,400 acres on Camp Pendleton, San Diego, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1987
Author: Ezell, Paul H.
Title: *The 1981 Archaeological Survey, Camp Joseph H. Pendleton*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Ezell, Paul H.
Title: *Site SDI-811, Recorded as on Red Beach, Camp Pendleton*

Collection Location: Camp Pendleton (?)
Documentation Location: Camp Pendleton (?)

Project Year: Unknown
Report Date: 1984
Author: Tartaglia, Louis James (University of California, Los Angeles)
Title: *Cultural Resource Survey: Marine Corps Air Facility, Camp Pendleton*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1984
Author: Polan, Keith
Title: *A Cultural Resource Inventory of the Pilgrim Creek Family House Site, MCG Camp Pendleton*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1987
Report Date: 1987
Author: Clevenger, Joyce M., and Allan J. Schilz (ERCE)
Title: *Cultural Resource Survey of the Stuart Mesa Family Housing Project Alternatives Marine Corps Base, Camp Pendleton, San Diego County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Wade, Sue A. (RECON)
Title: *A Cultural Resource Survey of the Santa Margarita River from Temecula to the Pacific Ocean*
Collection Location: No artifacts recovered
Documentation Location: RECON

Project Year: 1989-90
Report Date: 1990
Author: Hines, Philip
Title: *A Re-evaluation of the Prehistoric Archeological Sites within the Pendleton Coast District*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1991
Report Date: 1991
Author: Gallegos, Dennis (Gallegos & Associates)

Title: *Historical/Archaeological Survey and National Register Evaluation Report for Camp Pendleton Military Family Housing Environmental Assessment, San Diego, California*
Collection Location: Gallegos and Associates
Documentation Location: Gallegos and Associates

Project Year: 1991
Report Date: 1991
Author: Schaefer, Jerry (Brian F. Mooney Associates)
Title: *Archaeological Testing and Evaluation of Subsurface Deposits at the Rancho Santa Margarita Chapel, Camp Pendleton, California*
Collection Location: Brian F. Mooney Associates
Documentation Location: Brian F. Mooney Associates

APPENDIX IV

PROJECT REPORTS AND COLLECTIONS LOCATIONS: FORT SILL, OKLAHOMA

Project Year: 1959
Report Date: 1959
Author: Shaeffer, James B.
Title: *Archaeological Survey of the Fort Sill Military Reservation, Oklahoma*
Collection Location: Museum of Natural History, Norman (on loan to Geo-Marine)
Documentation Location: Museum of Natural History, Norman (on loan to Geo-Marine) and Fort Sill Museum director's office.

Project Year: 1960
Report Date: 1961
Author: Shaeffer, James B.
Title: *Six Sites on the Fort Sill Military Reservation*
Collection Location: Museum of Natural History, Norman (on loan to Geo-Marine)
Documentation Location: Museum of Natural History, Norman (on loan to Geo-Marine) and Fort Sill Museum director's office.

Project Year: 1963-64
Report Date: 1965
Author: Bastian, Tyler
Title: *An Archaeological Survey of the East Cache Creek Local Flood Protection Project, Comanche County, Oklahoma*
Collection Location: Museum of the Great Plains
Documentation Location: Museum of the Great Plains

Project Year: 1964-65
Report Date: 1966
Author: Bastian, Tyler
Title: *Archaeological Investigations in the Wichita Mountains Wildlife Refuge, Oklahoma*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1966
Author: Jones, Walter H.
Title: *Cartridge Cases and Projectiles from the Tyree Site, 34CM132*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1969
Author: Jackson, J. Brantley
Title: *Watta Site: A Comanche Burial at Fort Sill, Oklahoma*
Collection Location: Fort Sill
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1971
Author: Pearson, Charles.
Title: *Glass Trade Beads from Fort Sill, Oklahoma*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1969
Report Date: 1972
Author: Jackson, J. Brantley
Title: *The Jared Site: A Comanche Burial at Fort Sill, Oklahoma*
Collection Location: Fort Sill
Documentation Location: Unknown

Project Year: Unknown
Report Date: Unknown
Author: Durham, Dale
Title: *Archaeological Survey of Potato Hill*
Collection Location: Fort Sill
Documentation Location: Unknown

Project Year: 1971
Report Date: 1978
Author: Pearson, Charles E.
Title: *The Rabbit Hill Site: A Late Nineteenth Century Southern Plains Indian Burial at Fort Sill, Oklahoma*
Collection Location: Fort Sill
Documentation Location: Fort Sill

Project Year: 1973
Report Date: 1974
Author: Durham, Dale
Title: *The Oklahoma Anthropological Society Fall Dig at Fort Sill, Oklahoma*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1975-76
Report Date: 1977
Author: Spivey, Towana, C. Reid Ferring, David J. Crouch, and Kathy Franklin
Title: *Archaeological Investigations Along the Waurika Pipeline*
Collection Location: Museum of the Great Plains
Documentation Location: Museum of the Great Plains

Project Year: 1976
Report Date: 1978
Author: Ferring, C. Reid
Title: *An Archaeological Reconnaissance of Fort Sill, Oklahoma*
Collection Location: Fort Sill
Documentation Location: Fort Sill and the Museum of the Great Plains

Project Year: 1977
Report Date: 1977
Author: Crouch, Daniel J.
Title: *Archaeological Investigations of the Kiowa and Comanche Indian Agency Commissaries, 34CM-232*
Collection Location: Fort Sill
Documentation Location: Museum of the Great Plains

Project Year: 1978
Report Date: 1978
Author: Shott, G. C., Jr., D. L. Dewey-Shott, and David Conner (Archaeological Resources, Tucson, Arizona)
Title: *Archaeological Reconnaissance of Proposed Sanitary Sewer Route*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Spivey, Towana
Title: *An Archaeological Survey of the Fort Sill Barracks-Trainee Complex Water Pipeline*
Collection Location: Unknown
Documentation Location: Museum of the Great Plains

Project Year: 1980
Report Date: 1980
Author: Northcutt, John D.
Title: *An Archaeological Monitor Report for Underground Telephone Cable Installation on the Fort Sill Old Post Historic Landmark*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Title: *Artifacts From the 500 Area*
Author: Jones, Walter
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Spivey, Towana
Title: *Archaeological Survey of Barracks Complex-Trainee No. 309, 326, and T544*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Spivey, Towana
Title: *Reconstruction of Moway Road and McKenzie Hill Road*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1990-91
Report Date: 1992
Author: Peter, Duane E. and Gathel M. Weston (Geo-Marine)
Title: *1990-1991 Archaeological Survey of Selected Parcels of Fort Sill, Oklahoma*
Collection Location: Geo-Marine, Plano, Texas
Documentation Location: Geo-Marine, Plano, Texas

Project Year: 1991
Report Date: 1991
Author: Anderson, Joseph K., and Susan E. Bearden
Title: *Documentation and Analysis of Materials Recovered from Site 34-Cm-274, Lawton Sewer Line Project, Comanche County, Oklahoma*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1991
Report Date: 1991
Author: Anderson, Joseph K., and Susan E. Bearden (GEI Consultants)
Title: *An Archaeological Survey of Approximately 960 Acres on the Wichita Mountains Wildlife Refuge and Adjacent Fort Sill Military Reservation, Comanche County, Oklahoma*
Collection Location: GEI Consultants, Englewood, Colorado
Documentation Location: GEI Consultants, Englewood, Colorado

APPENDIX V

PROJECT REPORTS AND COLLECTIONS LOCATIONS: NAVAL AIR WEAPONS STATION, CHINA LAKE, CALIFORNIA

Project Year: 1967
Report Date: 1974
Author: Hillebrand, Timothy S.
Title: The Baird Site. In Excavation of Two Sites in the Coso Mountains of Inyo County, California. *Maturango Museum, Monograph* 1:63-86
Collection Location: Maturango Museum
Documentation Location: Unknown

Project Years: 1967-69
Report Date: 1972
Author: Hillebrand, Timothy S.
Title: *The Archaeology of the Coso Locality of the Northern Mojave Region of California*
Collection Location: Maturango Museum
Documentation Location: Unknown

Project Year: 1975
Report Date: 1975
Author: Barling, Robert F.
Title: *Environmental Impact Assessment: Bold Eagle*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: 1978
Report Date: 1978
Author: Simpson, Ruth D., and Robert E. Reynolds
Title: *Archaeological Survey Coso Geothermal Exploratory Hole No. 1 (CEGH -1)*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1978
Report Date: 1978
Author: von Werlhof, J., and S. von Werlhof
Title: *Archaeological Examinations of the Proposed NPTR Center at China Lake*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1979
Report Date: 1979
Author: WESTEC Services
Title: *Technical Appendix for the Environmental Assessment for Naval Weapons Center Withdrawal of Mojave B Ranges*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Whitley, David S. (Ancient Enterprises)
Title: *Final Technical Report on the Impacts of Feral Burros on the Cultural Resources of the Naval Weapons Center, China Lake, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Ancient Enterprises, Inc.
Title: *An Archaeological and Cultural Resources Assessment of Six Square Miles Within the Randsburg Wash Test Facility, for a Proposed Project Site*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Archaeological Research Unit, University of California, Riverside (C. A. Robarcheck)
Title: *Archaeological Monitoring of Geothermal Digging on the Naval Weapons Center at Coso Hot Springs*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: University of California, Riverside, Archaeological Research Unit
Title: *Environmental Impact Evaluation: An Archaeological Assessment of Three Proposed Drill Pad Sites Near Coso Hot Springs, China Lake Naval Weapons Center, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Clewlow, C. W., Jr., Helen Wells, and David S. Whitley (Rockwell International)
Title: *Cultural Resources Technical Report on the Coso Geothermal Study Area*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Elston, Robert G., Susan M. Seck, and Steven James (Intermountain Research)
Title: *An Intensive Archaeological Investigation of Two Proposed Drilling Locations in the Coso Known Geothermal Resource Area*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Intermountain Research
Title: *The Archaeological Reconnaissance of Seven Proposed Shallow Temperature Gradient Hole Locations in the Coso KGRA*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1981
Author: Elston, R. G., S. Seck, and S. R. James.
Title: *An Intensive Archaeological Investigation of Two Proposed Drilling Locations in the Coso Known Geothermal Area, China Lake Naval Weapons Center*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1982
Report Date: 1982
Author: Coombs, Gary B., and Roberta S. Greenwood
Title: *A Cultural Resources Overview and Inventory Plan for the Naval Weapons Center, China Lake*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1982
Author: Whitley, D. S., and J. M. Simon
Title: *Archaeological Investigations of Four Proposed Drill Pad Sites, Coso KGRA, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1983
Author: Drews, M. D., and R. G. Elston
Title: *An Archaeological Investigation of Drilling Locations and Power Plant Site in the Coso Geothermal Resource Area, China Lake Naval Weapons Center*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1983
Author: Elston, R. G.
Title: *The Archaeological Reconnaissance of Four Proposed Geothermal Development Activity Areas in the Coso KGRA, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1983
Author: Elston, R. G.
Title: *Continued Archaeological Research Activities in the Area of the Devil's Kitchen and the Coso Known Geothermal Resources Area: A Proposed Technical Work Plan*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1983
Author: Whitley, David S.
Title: *Archaeological Survey of a Three Mile Section of a 115 KV Electrical Transmission Corridor Within the Coso KGRA, Rose Valley, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1984
Author: Elston, Robert G., David S. Whitley, Michael S. Lichty, Michael P. Drews, and Charles D. Zeier
Title: *Class II Archaeological Survey of Selected Portions of the Naval Weapons Center, China Lake, California*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1984
Author: W and S, Consultants
Title: *Archaeological Survey of Nine Temperature Gradient Drilling Locations and Proposed Access Roads, Coso KGRA, NWC, China Lake, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1984
Author: Elston, Robert G., and Charles D. Zeier
Title: *The Sugarloaf Obsidian Quarry*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1985
Author: Clewlow, C. W., Jr.
Title: *NRHP Evaluation of Two Select Cultural Resources*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: Cleland, James H. (Dames and Moore)
Title: *Preliminary Report on Non-Collective Archaeological Inspection of Twelve Proposed Well Pads and Three Proposed Access Roads in the Coso KGRA*
Collection Location: N/A
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: W and S Consultants
Title: *Archaeological Survey of the Proposed CLJV 28.5 Mile Transmission Line Corridor in the Coso KGRA, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: Clewlow, C. W., Jr.
Title: *Draft Technical Report on Non-Collection Archaeological Surface Survey at Seventeen Proposed LADWP Drill Pads and Five Proposed LADWP Access Roads in the Coso KGRA, Naval Weapons Center, China Lake, California*
Collection Location: N/A
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: Clewlow, C. W., Jr.
Title: *Archaeological Test Evaluations in the KGRA and Adjacent Southern Lava Beds, China Lake Naval Weapons Center, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: Clewlow, C. W., Jr.
Title: *Draft Evaluation Plan and Recommendations for Cultural Resources Along the Proposed CLJV 28.5 Mile Transmission Corridor in the Coso KGRA, Inyo County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1986
Author: Clewlow, C. W., Jr.
Title: *Preliminary Report on Non-Collection Archaeological Surface Survey at the Grace Geothermal Corporation's Coso A-1 Drill Pad*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1987
Author: Cleland, James H. (Dames and Moore)
Title: *Archaeological Evaluation Program for Twelve Well Pads and Four Access Roads in the Coso Known Geothermal Resource Area*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1987
Author: Cleland, James H. (Dames and Moore)
Title: *Archaeological Evaluation Program for Twelve Well Pads and Five Access Roads in Known Coso Geothermal Resource Area*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1987
Author: Botkin, Steven G., Theresa A. Clewlow, Margaret C. Brown, and C. W. Clewlow, Jr.
Title: *Draft Final Report on Archaeological Investigations Along the CLJV 28.5 mile Transmission Corridor, China Lake Naval Weapons Center, Inyo and Kern Counties, California*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1987
Author: Gilreath, A. J. (Far Western Archaeological Research Group)
Title: *Survey and Evaluation of Cultural Resources on a Portion of Federal Lease CA-11402 Lands (Parcel 2) Within the Coso KGRA, Inyo County, CA*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1987
Author: Naval Weapons Center, China Lake
Title: *Preliminary EIR for the Darwin Wash Test Facility at the Naval Weapons Center, China Lake*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1988
Author: Gilreath, A. J., and W. R. Hildebrandt (Far Western Archaeological Research Group)
Title: *Survey and Evaluation of Cultural Resources on a Portion of the Navy/CLJV Contract (Navy 1) Lands Within the Coso KGRAS, Inyo County, CA*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1988
Author: Gilreath, A. J.
Title: *Survey and Evaluation of Cultural Resources on a Portion of the Navy Contract Lands (Navy 2) Within the Coso KGRAS, Inyo County, CA*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

Project Year: Unknown
Report Date: 1988
Author: Hildebrandt, W. R., and A. J. Gilreath (Far Western Archaeological Research Group)
Title: *Survey and Evaluation of Cultural Resources on a Portion of the Navy/CLJV Contract (Residual Navy) Lands Within the Coso KGRAS, Inyo, CA*
Collection Location: Naval Air Weapons Station, China Lake
Documentation Location: Unknown

APPENDIX VI

PROJECT REPORTS AND COLLECTIONS LOCATIONS: VANDENBERG AIR FORCE BASE, CALIFORNIA

Project Year: 1969
Report Date: 1969
Author: Benson, Foley C.
Title: *Archaeological Survey of Sudden Flats and Associated Canyons, Vandenberg A.F.B.*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1969
Report Date: 1970
Author: Spanne, Laurence W.
Title: *Archaeological Investigations on Vandenberg Air Force Base, California*
Collection Location: University of California, Santa Barbara
Documentation Location: Unknown

Project Years: 1971-73
Report Date: 1974
Author: Spanne, Laurence W.
Title: *Archaeological Survey of Vandenberg Air Force Base, Santa Barbara County, California, 1971 to 1973*
Collection Location: University of California, Santa Barbara
Documentation Location: Unknown

Project Year: 1972
Report Date: 1973
Author: Spanne, Laurence W.
Title: *Excavations of the Barka Slough Site, SBa 1010, Vandenberg Air Force Base, California*
Collection Location: University of California, Santa Barbara
Documentation Location: Unknown

Project Year: 1974
Report Date: 1982
Author: Spanne, Laurence W.
Title: *Notes on a Surface Collection at Archaeological Site Sba-209: Vandenberg AFB, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1974
Report Date: 1976
Author: Glassow, Michael A., and Laurence W. Spanne
Title: *Evaluation of Archaeological Sites on Vandenberg Air Force Base, Santa Barbara County,California: Final Report*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1975
Report Date: 1975
Author: Spanne, Laurence W.
Title: *Antenna Base Adjacent to Building 23251*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1975
Report Date: 1975
Author: Spanne, Laurence W.
Title: *Purchase Order No. F04684 76 31076, dated 9 Dec. 1975, for Archaeological Survey and Report*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1976
Report Date: 1976
Author: Spanne, Laurence W.
Title: *Archaeological Impact Statement in Fulfillment of P.O. No. F 04648 76 31539*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1977
Report Date: 1977
Author: Glassow, Michael A.
Title: *An Intensive Archaeological Survey of Five Areas on Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1978-79
Report Date: 1981
Author: Glassow, Michael A.
Title: *Preliminary Report; Archaeological Data Recovery Program in Relation to Space Shuttle Development, Vandenberg Air Force Base, California, Volume 1*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1979
Report Date: 1979
Author: Spanne, Laurence W. (VTN Consolidated)
Title: *Archaeological Survey of the Titan 34-D Site, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1979
Report Date: 1979
Author: Craig, Steven, William Doelle, and Linda Mayro
Title: *Cultural Resource Impact Evaluation and Mitigation Planning for the MX Missile System, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Spanne, Laurence W. (VTN Consolidated)
Title: *An Archaeological Evaluation of a Cable Trench at CA Sba-670 and CA Sba-1144, Honda Canyon, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1981
Author: Spanne, Laurence W.
Title: *Report on Field Inspection of Archaeological Site Sba 927 and Foot Survey of Area of Proposed NASA Cable Tray Reconstruction Project Purchase Order No. MR 02,350*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1980
Report Date: 1981
Author: Stone, David, and Lynn Gamble (UCSB)
Title: *Cultural Resources Evaluation, U. S. Coast Guard Station, Point Arguello, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1980
Report Date: 1980
Author: Spanne, Laurence W. (VTN Consolidated*portation System 69 KV Transmission Line (V-86), Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Serena, Jeffery B.
Title: *Archaeological Salvage Excavations for V-33 (External Tank Processing and Storage Facility), Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Glassow, Michael A., and Marcel Kornfeld
Title: *Appendix I: Archaeological Test Excavations at Sites in the Vicinity of Oil Well Canyon, Vandenberg Air Force Base, California*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1981
Report Date: 1981
Author: Spanne, Laurence W.
Title: *Archaeological Survey of Sites Sba 993 and 994, Vandenberg Air Force Base Purchase Request No. F0468480M1195*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Stone, David F., and Brian D. Haley (UCSB)
Title: *Cultural Resources Evaluation of the Vandenberg Air Force Base Security Clear Zones, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Haley, Brian D.
Title: *Archaeological Salvage Excavations at Sba-534 and Sba-680 for STS 69 KV Transmission Line, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981
Report Date: 1981
Author: Greenwood, Roberta, and John M. Foster (Greenwood and Associates)
Title: *Range Improvement Project, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1981-82
Report Date: 1984
Author: Chambers Consultants and Planners
Title: *Archaeological Investigations on the San Antonio Terrace, Vandenberg Air Force Base, California, in Connection with MX Facilities Construction*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1982
Report Date: 1982
Author: Neff, Hector (UCSB)
Title: *Vandenberg Air Force Base, California 1982 Fuels Management Program Cultural Resources Survey/Evaluation*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1982
Report Date: 1983
Author: Spanne, Laurence W.
Title: *Archaeological Survey of a Portion of the Proposed Route of a Water Line to Serve Jalama Beach Park*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1982
Report Date: 1983
Author: Spanne, Laurence W.
Title: *Description of Winn Site Discovered During VTN Construction Monitoring for V-17/ GSSI (Airstrip)*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1982
Report Date: 1984
Author: Rudolph, Teresa P.
Title: *Lithic Procurement and Manufacturing Sequences at Sba-1542, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Spanne, Laurence W.
Title: *Report on Archaeological Survey of Slip Out Repair Area on Lompoc-Casmalia Road Approximately 0.3 Miles North of the Bishop Road Intersection*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Spanne, Laurence W.
Title: *Results of Archaeological Survey of NOMECO Test Well No. 2 Site and Associated Access Road on Vandenberg Air Force Base/Graciosa Lease*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Edwards Air Force Base, Air Force Flight Test Center
Title: *An Archeological Survey of Proposed Road and Minuteman Launch Facility Modifications for the Peacekeeper in Minuteman Silos Testing Program, Vandenberg AFB, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Gibson, R. O., and B. J. Schuyler
Title: *Results of Archaeological Monitoring at Sba-1149-P in Connection with the GSSI Project at Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1983
Author: Gibson, Robert O.
Title: *Results of Archaeological Monitoring of Utility Trenches Associated With the N2 Plant, South Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1984
Author: Spanne, Larry
Title: *Subsurface Testing at Archaeological Site CA-Sba-1686; GSSI Station Set Location V-33; Vandenberg AFB, Santa Barbara County, California*
Collection Location: University of California, Santa Barbara
Documentation Location: Unknown

Project Year: 1983
Report Date: 1984
Author: WESTEC Services
Title: *Vandenberg Air Force Base, California 1983 Fuels Management Project, Phase II Cultural Resource Survey—Evaluation*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1983
Report Date: 1984
Author: Spanne, Larry
Title: *Final Report on Archaeological Survey of the Proposed V23 Patrol Road Space Shuttle Launch Site for GSSI at Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Osland, Karen
Title: *A Records Search and Field Check of Archaeological Sites on Conoco Oil Lease*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Brown, Roderick S.
Title: *Letter Report to Stan Johnson, U.S. Prison Farm, Lompoc: Archaeological Survey for Fence Line Project on Vandenberg Air Force Base*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1984
Report Date: 1984
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey on Three Parcels of Land Totaling 234 Acres on Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Gibson, R. O.
Title: *Results of Archaeological Surface Survey of 900 Acres and Archaeological Evaluation of Six Proposed Test Oil Well Sites and Surrounding Area Located South of Highway S20, Northeastern Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Greenwood, Roberta S., and John M. Foster (Greenwood and Associates)
Title: *Archeological Survey: Vandenberg Air Force Base Space Shuttle Range Support Project, Santa Barbara County*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Gibson, R. O.
Title: *Results of Archaeological Surface Survey for the PAPI Runway Landing Lights, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Gibson, Robert O.
Title: *Preliminary Results of Archaeological Surface and Subsurface Examination and Monitoring at Sba-610, the Sudden Ranch Headquarters, Southern Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Erlandson, Jon
Title: *A Summary of Phase I Cultural Resource Investigations Conducted in Support of the Proposed Union Oil Santa Maria Basin Pipeline, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Gibson, Robert O. (Ralph M. Parsons Company)
Title: *Results of Archaeological Subsurface Testing at Sba-775 for the V-17 Visual Landing Aids North 6500 Foot Papi Lights, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Greenwood, Roberta S., and John M. Foster (Greenwood and Associates)
Title: *Replacement Cable Project and Fibre Optic Cable Project, Vandenberg Air Force Base, Santa Barbara County*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Wilcoxon, Larry R. (Dames and Moore)
Title: *A Cultural Resource Evaluation for Four Proposed Well Pad Sites Within the Hrubetz Mineral Lease, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Lauter, Gloria
Title: *Proposed San Antonio Creek Flood Control Project, VAFB. Initial Notes on a Preliminary Archaeological Assessment*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1984
Report Date: 1984
Author: Chambers Consultants and Planners
Title: *Report of an Emergency Archaeological Data Recovery Program at CA-Sba-1174, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1984
Author: Greenwood, Roberta
Title: *Letter Report on an Archaeological Survey of a Union Oil Pipeline Corridor*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1984
Report Date: 1985
Author: Schilz, Allan J.
Title: *Archaeological Survey, Testing, and Evaluation: STS Power Plant No. 6 Natural Gas Pipeline, Vandenberg Air Force, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1985
Author: Earth Technology Corporation
Title: *Archeological Test Excavation and Monitoring at Sba-939, Sba-512, and Sba-1853, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1984
Report Date: 1985
Author: Foster, John M., and Roberta S. Greenwood (Greenwood and Associates)
Title: *Archaeological Investigation: Northwest Lompoc/Jesus Maria Project, Union Oil Company of California, Vandenberg Air Force Base*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Foster, John M. (Greenwood and Associates)
Title: *Cultural Resources Investigation: 1700 Acres on Vandenberg Air Force Base, Santa Barbara County, for Proposed Conoco Development*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1985
Report Date: 1985
Author: Gibson, R. O. (Harmsworth Associates)
Title: *Results of Archaeological Surface Survey for the V-33 Security Fence and Parking Lot Extension, Southern Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, R. O., and Karen Osland (Harmsworth Associates)
Title: *Results of Archaeological Surface Survey for a Proposed Communication Line Near Point Pedernales, Southern Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, R. O. (Harmsworth Associates)
Title: *Results of Archaeological Surface Survey for the Communications Line Between Buildings 1610 and 1862 and 1605, Northern Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, R. O. (Harmsworth Associates)
Title: *Installation of the Communication Cable Between Building 865 and Building 660 and Extension of the Fence at Building 660 Facility Area, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Stone, David (Santa Barbara County)
Title: *Archaeological Survey Report for a Proposed Creek bank and Bridge Stabilization Project on San Antonio Creek and Santa Barbara County S-20 Road Bridge Crossing Stabilization (P.M. 2.25)*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Unknown
Title: *Summary of Archaeological Monitoring for the Northern and Southern Mitigating Routes for the Union Oil Pipeline, Vandenberg Air Force Base*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, Robert O.
Title: *Results of Archaeological Testing at SBa-212 and Sba-1145, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Glassow, M., S. Hollimon, and S. Berry
Title: *Fieldnotes, Anthropology 181/213 Site Survey, Vandenberg Air Force Base, May 25 and June 1, 1985*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1985
Report Date: 1985
Author: Greenwood, Roberta S., and John M. Foster (Greenwood and Associates)
Title: *Archeological Monitoring During Installation of Communications Cable, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Jackson, E. A., Jr. (Harmsworth Associates)
Title: *Letter Report on Archaeological Investigations at the Temporary Storage Facilities*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Woodman, Craig F., Tony Morgan, and Wendylyn Ellersieck (URS)
Title: *Archaeological and Geomorphological Investigations of SBA-1010 and Nearby Areas, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, R. O., and E. A. Jackson, Jr. (Harmsworth Associates)
Title: *Results and Recommendations of an Archaeological Survey of a Proposed Parking Lot Along the North Access Road*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Gibson, Robert O. (Harmsworth Associates)
Title: *Results of Archaeological Monitoring and Limited Subsurface Testing for the V-23 Space Shuttle Launch Site Patrol Roads C and D, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Foster, John M. (Greenwood and Associates)
Title: *Archeological Investigation: Vandenberg AFB Communication Line #1976, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: Bamforth, Douglas B.
Title: *Cultural Resources Along the Point Sal Grazing Area Fence Line, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1985
Author: URS-Berger
Title: *Peacekeeper Program: Cultural Resources Testing and Monitoring, Roads and Utilities - Phase 1, Vandenberg AFB, California*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1985-1986
Report Date: 1988
Author: URS
Title: *Prehistoric Resource Use and Settlement in the Santa Ynez River Basin*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1986
Author: URS
Title: *Archaeological Monitoring Near the Project Irene Pipeline Landfall, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1985
Report Date: 1986
Author: Stone, David
Title: *Addendum Archaeological Survey Report for a Proposed Road and Bridge Stabilization Project on San Antonio Creek and Santa Barbara County S-20 Road Bridge Crossing (P.M. 2.25)*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1985
Report Date: 1986
Author: Bowser, Brenda, and Tony Morgan (URS)
Title: *Archaeological and Geomorphological Investigations, Sba-1010, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Bowser, Brenda, et al. (URS)
Title: *Phase II Archaeological Investigations and Mitigation Planning, Union Oil Company of California Santa Maria Basin Pipeline (Platform Irene Project), Northern Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Foster, John M.
Title: *Test Excavations and Evaluation of CA-Sba-793 and CA-Sba-794, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O. (Harmsworth Associates)
Title: *Results of Archaeological Monitoring and Limited Subsurface Testing for the V-23 Space Shuttle Launch Site North Access Road and N Road Projects, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O. (Harmsworth Associates)
Title: *Archaeological Surface Survey for the Air Quality Monitoring Station, Southern Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O. (Harmsworth Associates)
Title: *Archaeological Surface Survey for a Portion of the MPS36 Electrical Power Line Project, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O. (Harmsworth Associates)
Title: *Results of Archaeological Surface Survey in the Vicinity of Building 980, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey for a Fence Improvement Project Near Highway 246, Vandenberg Air Force Base, California*
Collection Location: Artifacts left in situ
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey for Proposed Replacement Fence Project on the Sudden Ranch Lease, Southern Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1986
Report Date: 1986
Author: Weaver, Richard (U.S. Army Corps of Engineers, Sacramento District)
Title: *Cultural Resources Survey; Proposed Airport Control Tower (P.N. 84014), Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1987
Report Date: 1987
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey and Limited Subsurface Testing for the Launch Support System Cable, Northern Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1987
Report Date: 1987
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey for a Fence Improvement Project and Two Pasture Management Projects, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1987
Report Date: 1987
Author: Gibson, Robert O.
Title: *Results of Archaeological Surface Survey for Two Fence Improvement Projects on Vandenberg Air Force Base, California*
Collection Location: Artifacts left in situ
Documentation Location: Unknown

Project Year: 1987
Report Date: 1988
Author: Berry, Sarah H.
Title: *Santa Ynez Raw Waterline Surface Survey*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1987
Report Date: 1987
Author: Weaver, Richard A. (U.S. Army Corps of Engineers, Sacramento District)
Title: *An Intensive Cultural Resources Survey in Advance of Scheduled Geotechnical Explorations for the Proposed Space Launch Complex 7 (SLc 7) Project (P.N. 80057), Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1987
Report Date: 1987
Author: Tetra Tech
Title: *Cultural Resources Survey of Proposed Small Intercontinental Ballistic Missile and Peacekeeper Rail Garrison Test Areas, San Antonio Terrace, Vandenberg Air Force Base, California*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1987
Report Date: 1987
Author: Greenwood and Associates
Title: *Archaeological Survey Report for Construction of Titan IV Space Launch Vehicle Program Facilities at Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1987
Report Date: 1988
Author: Gibson, R. O. and B. J. Schuyler (Harmsworth Associates)
Title: *Interim Report: Results of Archaeological Subsurface Testing for X-ray Facility Improvements SLC-4 Repair and Restoration Project, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Years: 1987-89
Report Date: 1990
Author: Tetra Tech
Title: *Cultural Resources Investigations in the San Antonio Terrace Archaeological District, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1988
Report Date: 1988
Author: Marmor, Jason (U.S. Forest Service)
Title: *Results of Archaeological Monitoring of Geotechnical Exploration at the Proposed Space Launch Complex 7 (SLC7) Project Area, VAFB*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1988
Report Date: 1988
Author: Bergin, Kathleen Ann (Harmsworth Associates)
Title: *Documentation in Support of U.S. Air Force No Adverse Effect Determination Space Launch Complex 4 Repair and Restoration Project, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1988
Report Date: 1988
Author: Environmental Solutions, Inc.
Title: *Archaeological Resources Inventory and No Effects Determination for Proposed Geotechnical Testing, Proposed Space Launch Complex 7, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1988
Report Date: 1988
Author: Berry, Sarah H.
Title: *Sudden Ranch Boundary Fence Survey*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1988
Report Date: 1988
Author: Moore, Jerry D., et al. (Harmsworth Associates)
Title: *The Testing and Evaluation of Fourteen Archaeological Sites on South Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1988
Report Date: 1988
Author: Rudolph, James L. (URS)
Title: *Phase 1 Archaeological Survey for a Proposed Fence Line in Honda Canyon, Vandenberg Air Force Base (VAFB)*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1988
Report Date: 1988
Author: Rudolph, James L. (URS)
Title: *Phase 1 Archaeological Survey for Proposed Fence Lines in Santa Lucia Canyon and San Antonio Valley, Vandenberg Air Force Base*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1988
Report Date: 1988
Author: Ferraro, David D., Kathleen Ann Bergin, Jerry D. Moore, Sandra Day-Moriarty, and Jeffrey Parsons (Harmsworth Associates)
Title: *Survey, Testing, and Evaluation of Fourteen Sites for the STS Power Plant Natural Gas Pipeline Project, Santa Barbara County, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1988
Report Date: 1988
Author: Dames & Moore
Title: *Archaeological Testing Program, Sba-793 and Sba-917, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1988
Report Date: 1988
Author: Berry, Sarah Hebbard
Title: *Archaeological Monitoring of Fence Installment at Nocto*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1988
Report Date: 1988
Author: Carbone, Larry
Title: *Archaeological Investigations at Sba-594: Survey, Testing and Mitigation*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1988
Report Date: 1989
Author: Lassen, Tim C (Environmental Solutions)
Title: *Archaeological Monitoring, Fallback 17 Project, Vandenberg Air Force Base, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1988
Report Date: 1989
Author: Lassen, Tim C. (Environmental Solutions)
Title: *Archaeological Monitoring MOC, RIS, and X-ray Facilities, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1988
Report Date: 1990
Author: Environmental Solutions
Title: *Space Transportation System Natural Gas Pipeline and SLC-4 Security Fence Treatment Programs, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1988-89
Report Date: 1991
Author: Tetra Tech
Title: *Cultural Resources Investigations for the Peacekeeper Program, San Antonio Terrace, Vandenberg Air Force Base, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1989
Report Date: 1990
Author: Bergin, Kathleen (Environmental Solutions)
Title: *Archaeological and Native American Monitoring, Space Launch Complex 4 Fiber-optic Cable Project, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Archaeological Monitoring Near Building 398*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Peter, Kevin J. (URS)
Title: *Archaeological Monitoring WC002, Launch Complex Shop Facility*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Surface Survey for Security Upgrades at Purisima Point and Tranquillion Peak*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Honda Canyon Fence Replacement Surface Survey*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Digging Without AF Form 103*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Soil Borings at the Vandenberg Tracking Station (VTS)*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Bergin, Kathleen (Environmental Solutions)
Title: *Archaeological Monitoring, Natural Gas Pipeline Spur, Space Launch Complex 4, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Environmental Solutions
Title: *Phase One Archaeological Surface Inventory Report: Space Launch Complex 4 Fiber-Optic Cable Project, South Vandenberg Air Force Base, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Woodman, Craig F., and David McDowell
Title: *The Archaeological Survey of Three Federal Prison Camp Projects on Vandenberg AFB, Lompoc, California*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Pipe Gate Installation Surface Survey*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Berry, Sarah H.
Title: *Power Control Line Surface Survey; Resynchronization of Substation "K"*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Osland, Karen
Title: *Archaeological Testing of the San Antonio Pasture 2 (Gate Location)*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1989
Author: Osland, Karen
Title: *Archaeological Test at Titan Pasture A (Gate Location)*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1989
Report Date: 1990
Author: Schmidt, James A. (Environmental Solutions)
Title: *Results of Incidental Site Testing, Fallback 17 Area, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1989
Report Date: 1990
Author: Jaffke, Todd D.
Title: *Archaeological Survey Report for a Proposed Landfill Expansion on Vandenberg Air Force Base*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 198?-198?
Report Date: 1990
Author: Glassow, Michael A.
Title: *Investigations on Vandenberg Air Force Base in Connection with the Development of Space Transportation System Facilities: Draft Report*
Collection Location: University of California, Santa Barbara
Documentation Location: University of California, Santa Barbara

Project Year: 1989
Report Date: 1990
Author: Bergin, Kathleen A. (Environmental Solutions)
Title: *Archaeological Monitoring, Honda Canyon Crossing, Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Unknown

Project Year: 1990
Report Date: 1990
Author: Environmental Solutions
Title: *Technical Report, Volume I: Test Excavations at Nine Prehistoric Archaeological Sites, Vandenberg Air Force Base, Santa Barbara County, California, For the Backbone Fiber-Optic Transmission System Project, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: Martin Marietta, Vandenberg Air Force Base
Documentation Location: Martin Marietta, Vandenberg Air Force Base

Project Year: 1990
Report Date: 1990
Author: Berry, Sarah H.
Title: *Monitoring Exterior Electric Drilling at Marshallia Ranch*
Collection Location: Unknown
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1990
Author: Environmental Solutions
Title: *The Survey and Inventory of Historic Properties Within the Titan IV/Centaur Launch Complex Study Area, Vandenberg Air Force Base, Santa Barbara County, California, Volume 1*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1990
Author: Jaffke, Todd D.
Title: *Archaeological Survey Report: Waterline Replacement on South Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1990
Author: Osland, Karen
Title: *Inventory Report for the Weather Information Networks System (WINDS), Vandenberg Air Force Base, California*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1990
Author: Gard, H. A., N. A. Cadoret, and J. C. Chatters (Battelle-Environmental Management Operations)
Title: *Cultural Resources Monitoring Report: Phase I & II, Backbone Fiber Optics Transmission System Construction, Vandenberg Air Force Base, California*
Collection Location: Vandenberg Air Force Base
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1991
Author: Berry, Sarah H.
Title: *Supplementary Report to Waste Water Treatment Plant Archaeological Testing for Effects at SBA-793, Vandenberg Air Force Base, Santa Barbara County, California*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1990
Report Date: 1991
Author: Science Applications International Corporation (Battelle-Environmental Management Operations)
Title: *Archaeological Data Recovery Investigations at CA-Sba-993, Vandenberg Air Force Base, California*
Collection Location: Vandenberg Air Force Base
Documentation Location: Vandenberg Air Force Base

Project Year: 1991
Report Date: 1991
Author: Kirkish, Alex
Title: *Golf Course Irrigation Plan*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1991
Report Date: 1991
Author: Osland, Karen
Title: *San Antonio Terrace Area Brush Fire*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1991
Report Date: 1991
Author: Osland, Karen
Title: *Archaeological Survey of a Proposed Water Line Route, State Water Project to VAFB*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

Project Year: 1991
Report Date: 1991
Author: Heaton, Kimberley
Title: *Archaeological Survey for Range Fence Replacement on Dettamanti Outlease, South Vandenberg Air Force Base*
Collection Location: No artifacts recovered
Documentation Location: Vandenberg Air Force Base

APPENDIX VII

PROJECT REPORTS AND COLLECTIONS LOCATIONS: FORT GORDON, GEORGIA

Project Year: 1942
Report Date: 1985
Author: MacCord, Howard A., Sr.
Title: *The Wilkerson Lake Site, Richmond County, Georgia. Letter report submitted to David Hally, Department of Anthropology, University of Georgia, Athens, Georgia*
Collection Location: Unknown (Deposited originally with the Augusta Museum)
Documentation Location: Unknown (Deposited originally with the Augusta Museum)

Project Year: 1971
Report Date: 1976
Author: Lewis, George
Title: *South Prong Creek Borrow Pit, Fort Gordon, Richmond County, Georgia, Memorandum for the Record Dated October 31, 1976*
Collection Location: Unknown
Documentation Location: Unknown

Project Year: 1973
Report Date: 1973
Author: Lewis, George S. (Augusta Archaeology Society)
Title: *Archaeology of the Fort Gordon Golf Course*
Collection Location: Unknown (Deposited originally with the Fort Gordon Museum)
Documentation Location: Unknown (Deposited originally with the Fort Gordon Museum)

Project Year: 1980
Report Date: 1981
Author: Campbell, Janice, Carol S. Weed, and Prentice M. Thomas, Jr
Title: *Archaeological Investigations at the Fort Gordon Military Reservation, Georgia*
Collection Location: Fort Gordon Museum
Documentation Location: Unknown

Project Year: 1989
Report Date: 1991
Author: Braley, Chad O., and T. Jeffrey Price
Title: *Cultural Resources Survey of Selected (FY-90) Timber Harvesting Areas, Fort Gordon, Richmond and Columbia Counties, Georgia. Volume I: Report; Vol. II: Site Forms*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1989-90
Report Date: 1990
Author: Braley, Chad O.
Title: *Cultural Resources Survey of Selected (FY-90) Timber Harvesting Areas, Fort Gordon, Richmond and Columbia Counties, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1990
Report Date: 1990
Author: Fuerst, David N.
Title: *Fort Gordon National Science Center Road Easement Survey, Richmond, County, Georgia: Addendum to Cultural Resources Survey of Selected (FY-90) Timber Harvesting Areas, Fort Gordon,Richmond and Columbia Counties, Georgia*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1990
Report Date: 1990
Author: Braley, Chad O.
Title: *Cultural Resources Survey of Selected (FY-91) Timber Harvesting Areas, Fort Gordon, Richmond and McDuffie Counties, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1990
Report Date: 1990
Author: Paglione, Theresa
Title: *Archaeological Assessment of Project FR-004-3(35), Richmond County*
Collection Location: No artifacts recovered
Documentation Location: Original documentation is located at the Georgia Department of Transportation, Office of Environment, Atlanta

Project Year: 1991
Report Date: 1991
Author: Braley, Chad
Title: *Archeological Survey and Testing, Wilkerson Dam and Lake, Fort Gordon, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1991
Report Date: 1991
Author: Braley, Chad
Title: *Cultural Resources Survey of Selected FY-91 Agricultural Lease Areas, Fort Gordon, Richmond County, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1991
Report Date: 1991
Author: Froeschauer, Peggy S., and Chad O. Braley
Title: *Archeological Data Recovery at the Boardman Dam and Pond Site, Fort Gordon, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1991
Report Date: 1991
Author: Crampton, David B., and Judy L. Wood
Title: *Cultural Resources Survey, Soil Erosion, Butler Lake and Boardman Dams Improvement Project (Including Haul Roads), Fort Gordon, Richmond County, Georgia* (Draft Report)
Collection Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch
Documentation Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch

Project Year: 1991
Report Date: 1991
Author: Wood, Judy L.
Title: *Cultural Resources Survey, Proposed SATCOM2 Project, Fort Gordon, Richmond County, Georgia*
Collection Location: No artifacts recovered
Documentation Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch

Project Year: 1991
Report Date: 1991
Author: Crampton, David B.
Title: *Cultural Resources Survey, Leach Field area near Golf Course: Negative Results*
Collection Location: No artifacts recovered
Documentation Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch

Project Year: 1991
Report Date: 1991
Author: Braley, Chad
Title: *Archeological Survey and Testing, Wilkerson Dam and Lake, Fort Gordon, Georgia* (Draft Report)
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1991
Report Date: 1991
Author: Crampton, David B.
Title: *Survey of Two Small Outdoor Training Sites, Fort Gordon, Georgia*
Collection Location: No artifacts recovered
Documentation Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch

Project Year: 1991
Report Date: 1991
Author: King, Adam, and Chad O. Braley
Title: *Cultural Resources Survey of Selected (FY-92) Timber Harvesting Areas, Fort Gordon, Richmond and McDuffie Counties, Georgia: Management Summary*
Collection Location: Southeastern Archeological Services, Athens
Documentation Location: Southeastern Archeological Services, Athens

Project Year: 1991
Report Date: 1992
Author: Kodack, Marc
Title: *Cultural Resource Surveys of a Proposed Sewer Extension, Silt Impoundment Dam, and Surplus Property Projects, Fort Gordon, Richmond County, Georgia*
Collection Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch
Documentation Location: U.S. Army Corps of Engineers, Savannah District, Planning Division, Environmental Resources Branch

Project Year: 1991
Report Date: 1991
Author: Poplin, Eric C.
Title: *Archeological Survey and Testing, Boardman Dam Haul Road and Batch Plant Area, Fort Gordon, Richmond County, Georgia* (Draft Report)
Collection Location: Brockington and Associates, Mount Pleasant, South Carolina
Documentation Location: Brockington and Associates, Mount Pleasant, South Carolina

Project Year: 1991
Report Date: 1991
Author: Paglione, Theresa
Title: *An Archaeological Survey of Portions of Fort Gordon Military Reservation, Tract 1, Traversed by Georgia Department of Transportation Project Fr-207-1(2), Columbia and Richmond Counties, Georgia*
Collection Location: No artifacts recovered
Documentation Location: Original documentation is located at the Georgia Department of Transportation, Office of Environment, Atlanta

☆ U.S. GOVERNMENT PRINTING OFFICE: 1993—758-647