

Soldiers, Scholars, Stone Bowls, and Old Bottles—Military Archaeological Collections, America’s Silent Cultural Treasures

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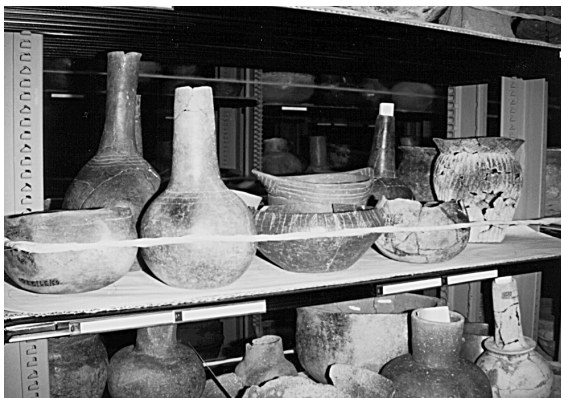
For years archaeologists have conducted excavations across the United States in search of evidence of prehistoric and historic life ways. Their expeditions have taken them to all parts of the nation and their shovels and trowels have turned earth in every kind of terrain. While most of these endeavors have been conducted under the auspices of large universities or museums, it is not generally known that much of what we know of the past has come from work conducted by, for, and on land owned and managed by the federal government.

Federal archaeological collections, specifically those recovered from military lands, are extensive and have done much to advance the science of North American archaeology. In fact, archaeological collections from military lands are, in sum, one of the largest collection in the federal system outside the Smithsonian. However, these collections are now in need of preservation and proper curation so they can continue to educate future generations of the public, as well as be studied by scholars. To this end, the Department of Defense (DoD), under the direction of the Deputy Under Secretary of Defense for Environmental Security, and the U.S. Army Corps of Engineers (ACOE) have joined forces in this mammoth endeavor.

Additionally, DoD is exploring public/private partnerships to ensure that the collections are properly maintained and made more accessible to the public, educational institutions, and scholars.

Background

For the past 50+ years all federally-sponsored archaeology has occupied itself with essentially one major function—excavation. Excavation has entailed everything from the use of hundreds of people to remove



Figures 1-3.
Examples of prehistoric and historical period artifacts documented during the national inventory of DoD collections.

large quantities of earth in a short amount of time, thus exposing the layers holding archaeological materials, to the meticulous removal of layer upon layer of earth in an effort to maintain site integrity and remove materials with as much control as possible.



These sites have yielded everything from prehistoric stone bowls, and ceramics, all the way to unique historic glass bottle collections (Figures 1-3). The end goal, however, has always been the same—the excavation and preservation of archaeological materials for scientific study, display and public education.

Although not widely known outside the field, many of the archaeological sites that have so greatly influenced the discipline of North American archaeology have come from federal lands. Information from these sites has helped define the prehistoric and historic records of almost every region of the United States. Additionally, these artifacts have

Table 1.
Areas of scientific inquiry that have focused on archaeological sites from federal lands

- Cultural Practices
- Trade Networks
- Burial Practices
- Climate and Vegetation Data
- Historic Settlement
- Geomorphological Studies

provided information on a range of cultural systems in North America, from burial practices to complex trade networks. They have assisted in the development of theories of the relations between past plant communities and climate and geomorphological changes, and have also greatly enhanced our understanding of prehistoric and historic settlement and expansion in the United States (Table 1).

Early in this century, Congress recognized the importance that these national treasures could afford the country and saw fit to pass legislation aimed at protecting sites and artifacts on federal land. The Antiquities Act of 1906 was the first major attempt at protecting these nonrenewable resources for future educational and research purposes. Through this and other laws (Table 2) Congress recognized the importance of identifying archaeological sites, excavating these sites when they were threatened with destruction, and curating the archaeological collections that were generated.

One of the most commonly asked questions regarding federal archaeological collections is how did they come into being in the first place? Collections from public lands have been around since before the turn of the century. However, they did not occur in any appreciable size until the 1920s and 30s. During the Great Depression there was a veritable explosion of archaeological projects as thousands of displaced Americans were put to work collecting archaeological information. These projects served the dual purpose of allowing displaced Americans to work and earn a wage, while allowing professionals the opportunity to excavate a large number of sites in a relatively short amount of time. This work allowed for the creation of a substantial

Table 2.
Major federal legislation and regulations protecting archaeological sites and resources

- Antiquities Act of 1906 (16 U.S.C. 431, 432, 433)
- Historic Sites Act of 1935 (49 U.S.C. 303)
- National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.)
- Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469-469c)
- Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-470mm)
- 36 CFR Part 79 Curation of Federally-Owned and Administered Archeological Collections 1990
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001)

data base that would otherwise have taken many decades to generate. Though important to the development of the field, these immense excavations and the collections generated from them did have a major detriment that continues to plague the archaeological field today—most of the collections were not properly housed and rarely was a long-term management plan developed to care for these valuable resources. In fact as time passed, the amount of professionally appropriate museum space available for collections storage (curation) could not keep pace with the level of excavation that was being maintained throughout the country. The result has been a steadily increasing number of collections and a decreasing amount of space to store them (Figure 4).

As stated above, legislation has been passed throughout this century (Table 2) that is aimed at protecting archaeological sites and the collections derived from these sites. The aim of this legislation is threefold. First, the laws establish authorities for the excavation of archaeological resources on federal land that are threatened by some federal action (e.g., usually construction projects).

Second, the laws serve to protect the sites from “looters” or “pothunters”—those individuals who engage in illegal excavation of archaeological sites located on federal property and the trafficking of illegally obtained artifacts from federal lands. Over the years the laws have succeeded in halting certain instances of the theft of these national treasures, however, “pothunting” remains a massive industry throughout most of the United States.

The final aim of the legislation, and the one emphasized in this article, is to encourage long-term curation and management of the collections that are generated from legitimate archaeological investigations. In this endeavor we have not been as successful as we have been in our excavation activities.

Excavation is, put simply, the systematic, scientific destruction of an archaeological site. If excavated properly, the documentation (written or photographic), coupled with



Figure 4.
Example of crowded curation facilities encountered during the DoD research project.

properly curated collections, should allow for the recreation of the site for analytical purposes. If the notes and the collections are not stored in a manner that is conducive to long-term preservation, then the site and all its potential educational merit is lost. However, if proper curation occurs, the information from the site will be available for succeeding generations of Americans.

Problem

In the early 1970s, the archaeological community recognized that storage practices and the overcrowded storage facilities at their disposal were no longer adequate. Additionally, it was clear that archaeological collections were in danger of being seriously damaged as a result of insufficient management and limited space. Many museums and curation facilities (and some federal agencies) began to organize their own curation policies to redress the inadequacies of the past 50+ years. However, most of the federal funding continued to go towards excavation and not long-term management (curation) of the collections—even though federal laws called for such management. Between 1970 and 1990, many collections became seriously compromised

because of a lack of funds and a national curation policy.

In September of 1990, a watershed event took place regarding the curation of federal archaeological resources. The National Park Service completed 36 CFR Part 79. This regulation established definitions, standards,

Table 3. Major Points Addressed by 36 CFR Part 79 Curation of Federally-Owned and Administered Archeological Collections
<ul style="list-style-type: none">• Management and preservation of collections• Methods to secure long-term curatorial services• Methods to fund curatorial services• Terms and conditions to include in contracts• Standards to determine repository capability• Use of collections• Collection inspections and inventories

procedures, and guidelines that are to be followed by federal agencies in order to preserve prehistoric and historic cultural materials and their associated documents (Table 3). In 1992, the United States Army Corps of Engineers took the lead in curation in the Department of Defense by designating a Mandatory Center of Expertise for the Curation and Management of Archaeological Collections at the St. Louis District (SLD). Shortly after the publication of 36 CFR Part 79, the Department of Defense (DoD) entered into an agreement with the SLD to locate all DoD collections, assess their condition, and estimate the funds needed for long-term management of all archaeological material and associated records from investigations conducted on military installations across the country.

Though little noted in the archaeological community, this mission was a seminal event. To date, no federal agency, except the Park Service, has initiated and completed such a complex and comprehensive national inventory of archaeological collections. By undertaking this endeavor DoD will for the first time

identify all the archaeological collections and associated records under its purview. More importantly, the DoD inventory will make recommendations to ensure the long-term care of these collections for a full range of Americans. This kind of comprehensive management plan for archaeological materials is a first for DoD collections.

In order to accomplish this task, SLD personnel developed a three stage process that includes (1) identification of collections and their locations, (2) assessment of the curatorial conditions of the located collections, and (3) recommendations made to the funding agency, in this case DoD, for the best course of action to be taken to rehabilitate and

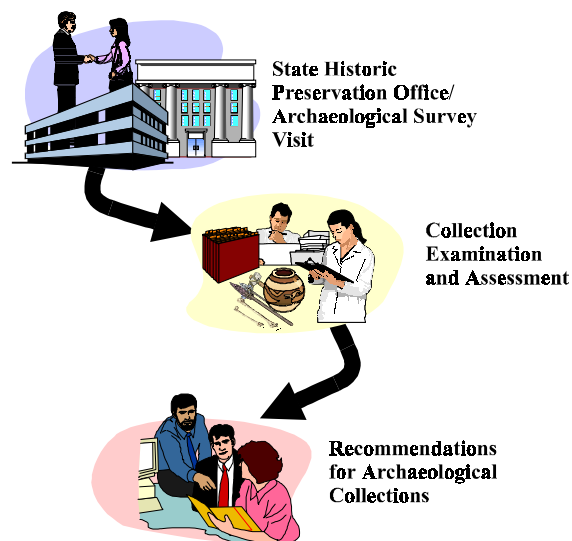


Figure 5. The three-step process employed by SLD personnel to locate DoD archaeological collections

protect the collections for the future (Figure 5). The identification and assessment have been completed for the Western and Mid-Atlantic states, and will be completed for the entire United States by December of 2000.

Identification of Archaeological Collections

In order for the SLD to provide DoD with a detailed listing of all its archaeological collections and an assessment of their

curatorial status, personnel from the SLD first had to locate all the collections. Though apparently straight forward, this task turned out to be the most time consuming part of the entire process. Historically, archaeologists have been less than vigilant in consistently accounting for collections because the national emphasis has primarily been on excavation and artifact generation rather than on long-term collections management. Certainly there are professional institutions that have scrupulously cared for collections; however, for the most part, collections management has not been a priority among archaeologists or the agencies responsible for the collections.

Furthermore, archaeological reports focusing on materials from federal land are as plentiful as the sites they discuss. However, very seldom do any of the reports mention where the archaeological collections are curated. This is a common occurrence and is symptomatic of the blending of two aspects of archaeological research in this country. That is, there are laws that dictate the need for investigation and there are laws that mandate the protection of collections from those investigations, but there is no mechanism to ensure that anyone trying to find the protected collections will be successful.

In order to overcome this obstacle, SLD personnel conducted a blanket literature review of any and all pertinent archaeological information pertaining to federal land. The hypothesis being that the documents would in turn lead to the collections. The first step was to visit those repositories of archaeological documentation (e.g., State Historic Preservation Offices, or Archaeological Surveys) that are located in every state and charged with maintaining the two most basic records of archaeological research—the site form and the site report.

Considered an institution by most in archaeology, the site form is the initial record filed that identifies a particular archaeological site and often documents the general work conducted at the site. A site form number, first developed by the Smithsonian Institution, is assigned to the site

making it unique within its state of origin and the country as a whole. The site form then is the first and in some cases the only record that exists for a particular archaeological property.

In most investigations, however, especially those conducted under the auspices of state or federal legislation, the site form is accompanied by a report-of-findings that provides specific and detailed scientific information pertaining to the location, excavation, and analysis of materials from archaeological sites. Beyond these sources, other reference materials, such as journal publications, academic papers, and correspondence, are also consulted for any information they might provide on a particular archaeological collection. This information forms the backbone of the SLD research for DoD and is used to determine where the actual collections are located.

This strategy proved to be tedious, but was efficient in locating DoD collections. SLD personnel have examined literally tens of thousands of site forms and thousands of reports in order to locate military archaeological collections throughout the United States. Through this exhaustive overview of these various types of archaeological literature, the SLD has identified over 18,119 ft³ of archaeological material and 2,518 linear feet of associated documents from Department of Defense military installations in the United States (Table 4, Figure 6).

Assessment of Archaeological Collections

Artifacts

Once a collection is identified, the next step in the inventory project was to physically visit and inspect the materials. This examination was conducted by a team of specialists from the SLD, whose expertise encompasses fields such as archival research, archaeology, physical anthropology, collections management, and biology. Using these subject matter experts, collections were

Table 4.
Department of Defense Archaeological Collection
Totals for United States by State

State	Army		Navy		Air Force	
	Artifacts	Records	Artifacts	Records	Artifacts	Records
Alabama	192	6	—	—	3	1
Alaska	55	5	1	—	7	5
Arkansas	—	—	—	—	19	3
Arizona	264	21	22	3	122	4
California	1036	131	2957	332	411	293
Colorado	408	92	—	—	7	8
Connecticut	—	—	1	1	—	—
Delaware	—	—	—	—	16	5
DC	2	—	—	—	—	—
Florida	34	—	2281	30	469	124
Georgia	174	50	397	38	20	5
Hawaii	154	14	1058	23	100	10
Idaho	—	—	—	—	1	2
Illinois	10	1	—	—	—	—
Indiana	61	11	—	—	2	1
Iowa	33	1	1	—	—	—
Kansas	348	7	—	—	—	—
Kentucky	141	34	—	—	—	—
Louisiana	427	144	—	—	4	2
Maine	—	—	—	—	6	3
Maryland	74	11	237	17	1	1
Massachusetts	27	5	—	—	2	2
Michigan	—	1	—	—	2	1
Missouri	254	21	—	—	—	—
Montana	—	—	—	—	1	3
Nebraska	—	—	—	—	—	—
New Hampshire	—	—	1	1	15	3
New Jersey	18	6	2	1	1	—
New Mexico	290	132	—	—	73	21
New York	971	119	10	2	31	5
Nevada	15	5	7	7	27	13
North Carolina	170	31	36	10	1	1
North Dakota	—	—	—	—	1	1
Oklahoma	442	87	—	—	—	—
Oregon	—	—	—	—	—	—
Pennsylvania	70	5	—	1	—	—
Rhode Island	—	—	3	2	—	1
South Carolina	46	3	797	60	17	1
South Dakota	—	—	—	—	1	1
Tennessee	4	1	—	—	15	3
Texas	1922	347	2	3	179	14
Utah	24	20	—	—	37	4
Virginia	455	31	151	19	5	1
Washington	68	13	212	8	—	1
Wisconsin	1	—	—	—	—	—
West Virginia	—	—	1	1	—	—
Wyoming	—	—	—	—	156	61
Total	8190	1355	8177	559	1752	604

Note: Artifact totals are in cubic feet and record totals are in linear feet.

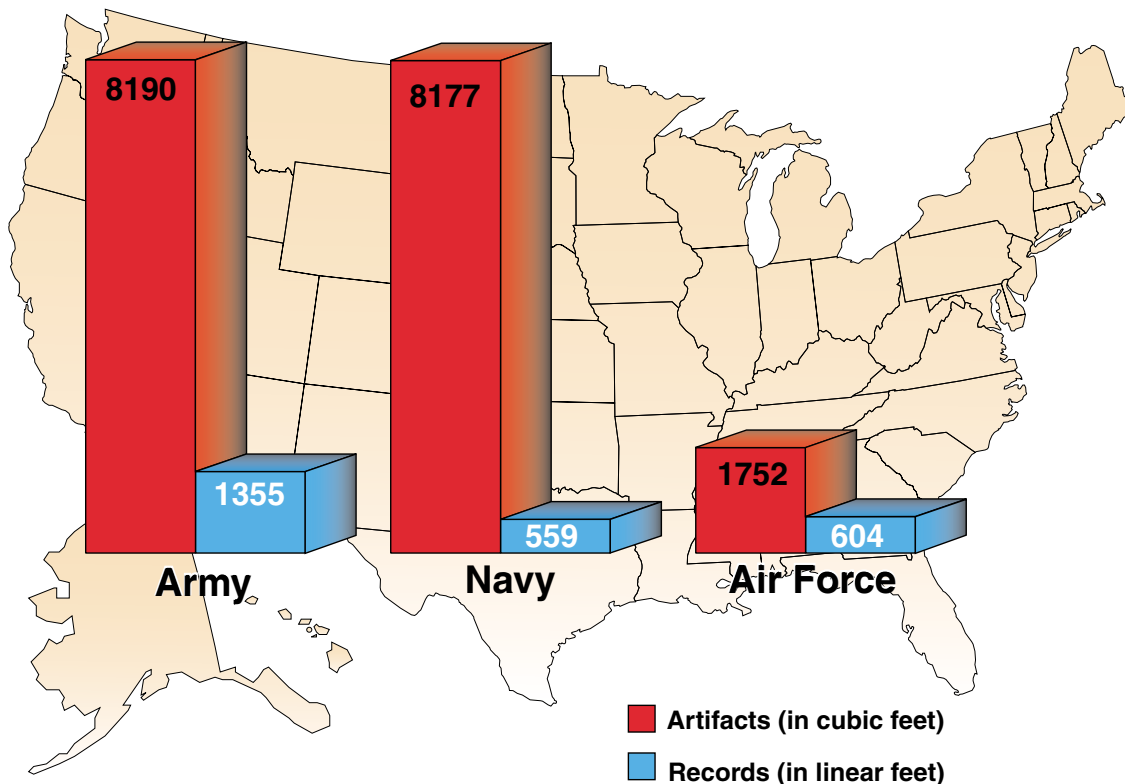


Figure 6.
*Department of
 Defense
 Archaeological
 Collection Totals
 for the United
 States by Military
 Branch.*

Note: Navy stats include Marine Corps

assessed according to 36 CFR Part 79 (Table 4). The first and one of the most important pieces of information collected during the assessment was the size of the artifact collection (in cubic feet) and the associated records collection (in linear feet). Information gathered for each collection includes an overview of the kinds of artifacts that comprise the sample. For example, collections can contain a single or multiple categories of material. Some collections comprise hundreds of cubic feet of only one type of material (e.g., lithics) whereas another collection may only consist of 25 ft³ but be comprised of many classes of artifacts (e.g., 70% lithics, 10% animal bone, 5% pottery, 15% metal).

In order to gain as complete an overview as possible of the composition of the collection, each material class was identified and recorded for later analysis. Because each category may require a specific method of conservation, recording the kind of material was very important to understanding the long-term needs of the collection. For instance, if a collection is comprised solely of lithic artifacts

requiring long-term curation, housing and conservation practices will be different from those employed on a collection containing prehistoric pottery.

Information pertaining to the level of artifact labeling was gathered as was information on the extent of the laboratory processing of the materials (e.g., cleaning, sorting, cataloging). For example, information on labeling is important when one considers that without adequate labels a collection cannot be easily located or described. If collections cannot be located, they cannot be used for educational purposes and are thus of little value to anyone. Similarly, ascertaining the level of processing is very important in determining not only what work remains to be undertaken on the collection, but the curatorial history of the collection as well.

Finally, extensive information was gathered concerning the type of containers that hold the collections. If collections are kept in substandard containers, the artifacts could be directly affected (e.g., through breakage, contamination or other forms of damage and loss). Similarly, if storage conditions are substandard or improperly housed, the

collection could likewise be placed in danger of deterioration.

Records

Besides making detailed examinations of the artifacts, SLD personnel also examined documentation that is associated with a particular collection, observing the organization, composition, condition, and the level of deterioration, if any, that has affected the records. Documentation of all aspects of an excavation become keenly important when one considers that the archaeological site from which the collections came is often completely destroyed in the course of excavation. The only way to recreate the site is through the integrity of items, such as field notes, excavation forms, and photographs that are generated during excavation. If this documentation is not stored in a manner that ensures its integrity, not to mention its

accessibility, the artifact component of the collection becomes the only tangible evidence that the site ever existed. If the records are not maintained and the artifacts curated in a poor fashion, any future research potential is immediately arrested and the investment in the original investigation squandered—objects without original supporting documentation cease to be scientific or educational data and become only expensively-generated curios.

Storage

In addition to examining the artifacts and documents, a detailed examination of the storage containers and facilities were also conducted. Collections assessed by the SLD were found in all manner of facilities (Table 5), some better suited to collection storage than others. More often than

Table 5.
Types, Frequencies, and Percentages of Facilities Curating Federal Archaeological Collections

Type	Frequency	Percentage
Archaeological Firms	73	30
Museums	38	16
DoD Installations	73	30
University Departments	37	15
Government Offices	23	9
Totals	244	100

Figure 7.
Substandard curation containers encountered during the research project.



Figure 8.
Substandard housing and labeling for artifact containers encountered during research of federal archaeological collections.

not SLD personnel found that many collections were housed in various, substandard containers (Figure 7), were inadequately labeled (Figure 8), and were



Figure 9.

Example of an unsafe curation storage used to house federal archaeological collections.



Figure 10.

Example of a cramped storage facility for federal archaeological collections.

stored in unsafe (Figure 9) or cramped storage facilities (Figure 10). This kind of treatment is unfortunate considering the importance of these irreplaceable resources.

In short, because of the lack of attention paid to archaeological curation, long-term management of federal collections has been uneven and collections are often not properly housed. In many instances our national inventory found that collections have been left in the possession of facilities that are not qualified curation repositories. Even though these facilities may possess staff with adequate training in curatorial practices, they are not appropriate curation facilities and cannot devote the requisite attention that the collections require. Similarly, collections located in museums or university departments are housed in appropriate institutions, but may not be properly managed. In some cases museum collections have been neglected for over 60 years. Some collections have remained untouched since the day they were removed from the earth. Additionally, the age of some museum repositories increases the risk to some collections.

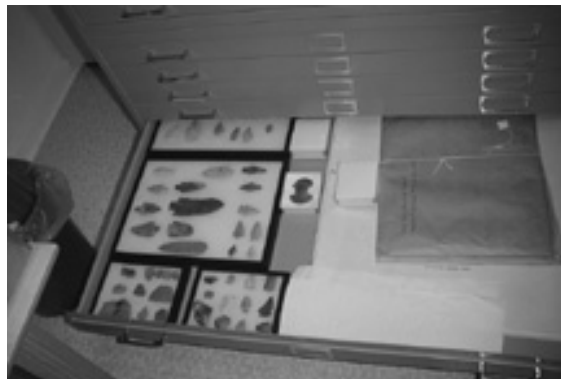
Not all museum or university repositories are in such dire straits. In fact, SLD personnel has visited a number of repositories that are examples of proper curation and exemplary collections management (Figures 11, 12, and 13). However, until a national strategy of collections management is adopted for archaeological collections and the necessary funding is made available, many repositories in



Figures 11.

Example of a well-managed federal archaeological collections repository.

Figures 12 and 13.
Examples of properly curated Department of Defense Archaeological Collections .



the United States will continue to be inadequate.

Recommendations for Archaeological Collections

Once assessment of a particular collection is complete, SLD personnel generate data that are used to form recommendations that curators and collections managers can use to better care for federal collections in their charge.

These recommendations include specific comments pertaining to the conservation/rehabilitation of a collection as a whole or to individual parts of the collection. The recommendations balance the care required for federal collections and the growing costs of providing that care.

Additionally, the SLD provides recommendations for the best type of storage containers to hold various types of archaeological material based on the specific need of the collection in question.

In addition to collection-specific recommendations, the SLD also provides detailed evaluations of the types of facilities

housing the materials and provides architectural analysis and expertise to those institutions interested in moving collections to a better facility, rehabilitating a facility, or in designing and building a made-to-suit curation facility.

Finally, the SLD has the archival expertise to rehouse and organize archives, prepare guidelines for records and to suggest various types of documentation management systems to ensure the best care for the associated records so integral to each individual archaeological collection.

Curation and the Department of Defense

To date, the DoD response to curation has been exceptional and wide scale in nature. Since 1992, the DoD Legacy Resource Management Program has provided funding for various aspects of a comprehensive DoD curation strategy.

First, DoD developed a national plan to inventory all collections from their lands. SLD personnel have now completed this inventory for the entire United States.

Second, DoD has used the findings of the SLD curation teams and has echoed concerns noted by the rest of the archaeological community—curation is only as good as the amount of funding available for it—and has begun a process to identify professional repositories for their collections.

Most specifically, the repository research has been oriented towards locating institutions that will assist the DoD in curating federal collections in a manner reflective of their scientific importance to archaeology and befitting the financial investment of the American public. Thus far, data suggest that 25 institutions in the western United States are possible candidates to assist DoD in maintaining its archaeological collections. Data for institutions in the eastern part of the country has been compiled and presented to DoD for evaluation. Once evaluated, DoD will have a pool of institutions capable of accepting

DoD archaeological collections for long-term curation.

Third, DoD has begun to address rehabilitation concerns for its materials. Once the search for suitable repositories has been completed, each collection will be reinventoried, cataloged for easy access, and rehoused to be preserved and easily accessed by interested researchers or the public.

Implementation of this process will help to ensure that DoD archaeological collections receive proper, standardized care by qualified individuals. When completed, it will represent the largest federal agency that has located its collections, curated them, and developed a long-term management plan so that the collections are accessible to researchers and the public. It will, likewise, help to validate the considerable financial investment made by the American taxpayer for archaeology by allowing for greater use of the collections for research and general educational pursuits.

Conclusion

If this article has begged the question, ‘Why excavate the material if it is not going to be maintained properly?’ then it has served its purpose. This is the question facing archaeology today and one that must be addressed in all possible haste. As far as

federal archaeology is concerned, some agencies have understood the question and its solution—proper curation of DoD collections, though a slow process, now has focus and is proceeding quite well. Collections and their needs are being assessed and long-term curation facilities are being identified. This is a far cry from what has been the national attitude towards these treasures. DoD has recognized that its archaeological collections are national treasures. The concept of being responsible stewards is now even recognized at the installation level. Archaeological collections may not affect the majority of Americans on a daily basis, but they are important heritage assets and as such are an investment made by the people of this country to preserve our collective past.

Acknowledgment

These efforts have been funded by the DoD Legacy Resource Management Program. More information on the DoD Legacy program is available at <http://www.dodlegacy.org>. Copies of curation reports produced by this project are found at <http://www.denix.osd.mil>.