Chapter	Eight
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Archaeological Curation: An Ethical Imperative for the Twenty-First Century

In the course of studying and practicing archaeology, we constantly come across a familiar parable that has been with us since early graduate school lectures and is still heard today at professional meetings. This parable states that 1) archaeology is, first and foremost, a science grounded in basic research methods and 2) that, as a science, all archaeological data should be saved for future study and educational purposes. Though often proclaimed, we don't think that many archaeologists really listen to its message. In fact, the parable has become a sort of social science "pseudo babble" that justifies constant excavation while doing little to further the use of existing collections for either scientific research or general educational purposes. There are exceptions, but on the whole, archaeologists value new material over old even though they often argue the opposite position.

We, therefore, feel justified in stating here that ethical practice within this discipline should include the care of archaeological collections as a priority. These collections should be valued, curated, and studied, not just by archaeologists, but by everyone with a professional interest and the results of those studies should be made widely available. If, as Ned Woodall suggested to one of the authors thirty years ago, a discipline is judged by how it treats its data, then we as a discipline have an ethical responsibility to treat our data much better than we have thus far.

Background

Archaeology, like other disciplines, has spent serious time and attention during the past thirty years developing its own set of ethics, or guiding philosophy, with respect to various aspects of the profession (see the appendix for various codes of ethics). The Antiquities Act of 1906, the National Historic Preservation Act of 1966, the

Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979 all mention, in varying levels of detail, the importance of professionally maintaining archaeological collections for the future and underscore the importance of the conservation ethic in archaeology. However, for the past score the importance of the conservation ethic in archaeology. However, for the past century collections generation has far outweighed collections management, especially with respect to time and funds expended. If curation resources are not adequate, then reinterpretation and reproduction of results—fundamental tenets of science—become impossible. If archaeologists and museum professionals do not adscience—become impossible. If archaeologists and museum professionals do not adscience to a strict code of conduct for the long-term care of these materials, then everything else they espouse, such as education, outreach, and scientific explanation, is moot.

Curation—The 1970s, 1980s, and 1990s

Since 1976, a number of major symposia on archaeological curation have taken place at various professional meetings. All the papers have acknowledged, in one form or another, a crisis within American archaeology and that the crisis relates directly to the condition of archaeological collections. Some topics discussed at early events focused on the use of regional centers for curation (Farnsworth and Struever 1977:13–15; Hester 1977:4–10) or examined the proper ways to store collections (Ford 1980:55–62), the growing use of computers for collections management (Wilcox 1980:43–52), and the ethics of curation itself (King 1980:10–18). Many of the topics first mentioned almost thirty years ago (Marquardt 1977) and further explored in recent years still elicit similar discussion points, and they are still valid. Though topics may vary, each time archaeological curation is discussed a common theme quickly surfaces: something should be done and done quickly to address the long-term care of archaeological collections.

For most of the past century, collections care, albeit nonstandard and unevenly applied, has centered on objects. By the 1980s, those advocating the care of everything associated with an archaeological collection (e.g., associated documents) finally began to be heard. Andrea Lee Novick (1980:35) notes that it is easy to forget nally began to documentation generated from archaeological investigations (field-work and research), but that the documents are no less important than the objects and no less protected by legislation. Richard I. Ford (1984:135) notes that it is important to remember that an archaeological collection is not just objects, but documentation and objects. Thus, in the last few years artifacts and records were, at least implicitly, united forever in terms of importance and necessity. Sydel Silverman (1992:1) points out that for anthropology, records are more than historical references to events; they are primary data and stand for objects and associations that are unique and, in some cases (as in archaeology), no longer available for examination.

With the publication of 36 CFR Part 79 by the National Park Service in September 1991, definitions, standards, procedures, and guidelines were established for federal agencies, for the first time, to preserve prehistoric and historic cultural materials and their associated documents—an important step in and of itself as it explicitly tied records to objects. This regulation, though an unfunded mandate, authorized archaeologists to build costs for curation directly into their contracts with the agency sponsoring the investigation. It established guidelines to ensure the proper maintenance of these collections in perpetuity and created a link between federal cultural resource managers and museum professionals and archaeologists. It also defined an archaeological collection as including associated documents (field notes, photographs, background information, and "administrativia"), forever connecting the artifacts to the records generated during their excavation. For federal collections, artifacts and records remain the property of the government and both are tequired to be adequately managed.

Discussion

Our aim here is to draw attention to a process through which practitioners of archaeology can begin to ascertain whether they are approaching long-term collections care with ethics in mind using what Joseph Fletcher (1966:26–39) calls an empirical set of inquiries that are neither too simplistic nor too specific in scope, but grounded on specific, case-based needs.

Ethics are, after all, about making choices. Good choices—particularly those that benefit long-term care and use of archaeological collections—require a systematic approach and critical analysis of available options. This last point cannot be emphasized enough.

Our process for making such choices begins with a basic statement: proper care for archaeological collections should take a balanced approach. For example, we have encountered many curation facilities with exemplary computer systems and database abilities for recording information about their collections, but with collections stored in buildings with no fire-suppression systems or no security of any kind. Some collections are stored in state-of-the-art buildings or in the best museum-quality cabinets that money can buy, but lack a system to adequately track the materials, have no user-friendly way of allowing access to the materials by interested researchers, and have only temporary staff to assist them. In many cases, curation facilities are merely snapshots of a particular interest on the part of their staff. They often do not reflect a coherent understanding of what is important for proper curation but exhibit a separatist zeitgeist characterized by overdevelopment of one aspect of collections care and complete disregard for another.

Proper Curation—A Critical Assessment

Adequate curation requires examination at two levels. The first level deals with curation planning, prior to and during fieldwork. The second focuses on basic long-term collections management issues.

Curation Planning

Curation planning and execution are best summed up as a review of choices made at the preexcavation phase of a project. A set of field curation and collections management protocols should be in place before any excavation begins. These protocols need to be mutually agreed on by the principal investigator and the institution that will house the materials and should be flexible enough to allow their transition into a long-term management plan. Archaeological projects that institute rigorous sampling protocols before excavation begins greatly increase their chances that a long-term facility will accept their collections.

The reality of the current environment, however, is that the number of professionally adequate repositories that actually have space for collections seems to be dwindling by the day. This being the case, we need to make ethical choices to alleviate the burden placed on the facilities. This can only be done through aggressive management of what is being excavated. In short, archaeologists who are involved in active excavation programs need to make better decisions about how much is enough when it comes to excavation. Additionally, we need rigorous criteria that focus first on intensifying the existing archaeological record for an area or region to guide the decisions of where to dig, and how much and what kind of material to recover. In terms of state and federal archaeological investigation, we are not far from the point where contracts must be more stringent about the kinds of materials we recover (e.g., Archaic, Woodland, Historic) based on what we already know about an area. For example, why should archaeology in the Midwest continue to focus on Mississippian materials, while the Archaic and Woodland periods are still vastly underreported? Similarly, we may soon have to decide when it is appropriate to deaccession materials that we already have, even if they have not been examined. Countless cubic feet of soil samples that have never been analyzed and, in all likelihood, are no longer useful may be better removed from a collection to make room for additional material classes.

Would such positions signify an end to excavation? No, but they would illustrate the intention of the archaeological community to seriously address collections management responsibilities. In the end, the best curation practices cannot compete with an unchecked collections generation paradigm. Ethical decisions on both sides of the house must be made—now.

Long-Term Management

Long-term collections management requires a systematic approach that takes the long view and examines curation facilities along several fronts. A review of the overall completeness of the facility and its staff provides a solid baseline from which to gauge organizational abilities to care for collections. This review includes an examination of the building first, followed by an assessment of the curation system, and finally an examination of the administrative infrastructure of the organization. This multitiered approach is the only way to adequately gauge the professionalism and accountability of a curation facility. We also believe this analysis system should be used by individual archaeologists to ensure their collections receive the best long-term care.

Building Assessment

One of the most basic requirements for adequate curation is a structure or repository constructed with that purpose in mind or updated to accommodate specific curation needs. Using 36 CFR Part 79 as a guide, we suggest that adequate curation, at the building level, includes fire detection and suppression systems, environmental controls and security systems, sound building construction and structural adequacy, plumbing, building egress, handicap accessibility, regulatory and site issues, and space availability and use.

Adjustments can be made during the construction or retrofit phase, for example, moving pipes so they do not hang above collections or readjusting the placement of gas lines or electricity to allow for a specialized use area, but all this needs to be considered early in the design process to avoid costly reconfigurations later on. Similarly, adequate size to hold current and future collections must be considered as early as possible to ensure that the facility is not filled to capacity by the time it opens.

The composition of a collection is the driving force behind the level of environmental attention necessary for a facility. At a minimum, a curation facility must have regulated heat and air conditioning and be accompanied by at least some basic form of humidity and temperature monitoring and control system. For some types of collections, a well-maintained heating, ventilating, and air conditioning (HVAC) system may be enough to provide adequate environmental control. In some cases, the complexity of an archaeological collection may demand more. Zoned control of spaces for specialized types of collections is the most efficient use of an HVAC system.

We also place janitorial and pest programs under the umbrella of environmental control. Without aggressive integrated pest management plans that include both monitoring and control, the best-planned facility will experience rapid deterioration of its collections by insects, mold, dust, and other pests.

Fire detection and suppression are a must for any facility holding archaeological collections. Suppression cannot be equated merely with the presence of fire extinguishers. While not specifically laid out in any regulation or guide, proper fire detection and suppression has come to consist of an electronic fire alarm system that notes increases in heat, presence of smoke, and can transmit notification to the personnel of the building and to the local fire department or a central monitoring station able to dispatch fire services. Training on the system for all employees of the facility should include training and equipment for hearing and other physically impaired personnel. The same applies to security systems in terms of the priority given to both detection and deterrence and their applicability to all employees.

Facilities possessing these characteristics—characteristics that we consider to be the minimum—represent a solid base from which to build a well-rounded curation program. Again, one of the biggest problems nationwide is overemphasis on one system over another. Ethical curation seeks balance of all needs.

Curation System Assessment

The second basic ethical requirement for any repository is consistency within the curation system being used. Adequate curation includes flexibility-to accommodate the needs of a particular collection—and a logical, delineated baseline of repository protocols-to create continuity of management for all materials. At a minimum, the following points should be considered for proper curation.

Labeling Artifacts will be consistently labeled with a simple system, described in protocols, to ensure protection of provenience and other identification information. The system should make sense and enable someone unfamiliar with a collection to easily understand it. Labeling systems should not be "personal codes" decipherable by only one or two individuals. We do not suggest that each and every specimen always be labeled. Again, use a system that combines efficient use of time and funds. We do, however, advocate the use of archivally stable products. Acid free, polyspun paper inserts may be included in the bag holding the artifact to reinforce the bag label. Labels should be written using archival-quality pens or laser-quality printers. Record collections need to be properly labeled as well, using archival, permanent ink or laser print on labels and archivally stable products, such as foilbacked labels for materials like photographs.

Housing Acid-free boxes with telescoping lids are excellent primary containers for housing archaeological collections. Placing box labels within inert plastic sleeves affixed to the front of the box will greatly increase the life of the container, maximizing its usefulness and cost. Because collections are stored in perpetuity, but with the goal of being used for research, containers that will support the wear and tear of use are very important to the longevity of the materials. For internal containers, inert plastic four-milliliter bags are a minimal standard. Because longevity is a concern, better-quality storage materials only increase the level of care for the materials. Records need to be stored in archival folders and kept within acidfree, banker-type boxes with exterior labels identical to those used for artifact boxes.

Documentation Records, notes, reports, catalogs, related historical documents, and photographs are all integral components of an archaeological collection. Proper curation requires 1) submission of all original documents with the artifacts for permanent curation and 2) a repository capable of managing this documentation in addition to any artifacts it receives. Submission of at least one full copy of all records is recommended, although two are preferred for safety. Paper documentation must be on acid-free paper. Associated documentation accompanying a collection of artifacts should include

- Ownership document (legal title) for archaeological materials and a complete listing of all components of the collection including the number of containers, their contents and associated provenience units, and all accompanying documentation.
- · A catalog of the artifacts by provenience unit. While recognizing that there are different levels of cataloging, minimally all should include an identification of the object, material of manufacture, and quantification (count and/or weight). A discussion of how the catalog system was composed and how it operates is mandatory.
- · A description of the artifact classes according to the best-current levels of professional knowledge is recommended. Notation regarding artifacts stored outside of their provenience unit should be included.
- A copy of the final report, site location data, project scope of work, and any relevant historical documentation pertaining to the site.
- A statement indicating whether conservation treatment was performed, a list of those objects treated, and a complete description of the treatments used. If conservation was not complete, a list of those objects requiring immediate attention must be included.
- · An archivally stable photocopy of all original field and laboratory documentation.
- · A master set of permanent black-and-white photographs, negatives, color slides, and videotapes using the best current standard films and papers. All photographic material needs to be, minimally, labeled using archivally stable methods, with the site, provenience, and catalog number. A catalog describing the images of all photographic materials must be included in the collection.
- Electronic data (tape, disks, and so on) may accompany the documentation and should be accompanied by a statement describing the system (including a schedule for backing up the data) and software used and the content of each disk, tape, and so on. Standardized methods for the storage of electronic data will likely be developed in the future.

As noted earlier, records should be stored in a similar manner to objects, using archivally stable boxes, folders, labels, and inks.

Conservation All archaeological excavation carries the professional obligation to preserve the objects and records generated through both proper curation and appropriate conservation treatments. Conservation of perishable material is an ethical responsibility and an essential element in the archaeological process. Although conservation is under the purview of a separate group of professionals (objects and document conservators), the responsibility for securing the services of such experts falls to the managing archaeologist. Conservation treatments must be appropriate to the material and its condition and should reflect the best-current standards in methodology and materials. All treatments should be carried out by or under the supervision of an adequately trained professional. All treatments must be fully documented; this documentation becomes a part of the site's permanent archive.

Policies and Procedures A discussion explaining how artifacts and records are organized and cataloged should accompany the materials. It is important to make clear how a curation system works so that others can easily interpret it and access the collections. In addition, it is important that a repository possess written protocols and procedures that outline all of its capabilities with respect to archaeological collections. Such items include, but should not be limited to, discussions of the following policies:

- Accession files—files that list all materials formally accepted as part of the
- Location identification—a finding aid that shows where collections are stored within the storage area.
- Cross-indexed files—files that tie collection information to one or more salient characteristics (e.g., information pertaining to a particular collection is linked to the archaeological site that generated the collection).
- Published guide to collections—a report that lists holdings of the museum, to be used as a reference guide only.
- Site-record administration—a policy that allows for the integration of state site forms or reports that pertain to archaeological sites that generated the collections.
- Computerized database management—a policy that sets forth a particular
 database to be used to record the holdings of the museum, the frequency
 with which the database will be updated and backed up, and the extent of
 information that will be available for museum staff and researchers to use.
- Minimum standards for acceptance—a policy that clearly defines and outlines the types of collections the museum will accept.
- Curation policy—a policy for museum personnel to follow when a collection has been offered to the museum for permanent, long-term care.

- Records management policy—a policy that outlines how records will be maintained by museum staff; this includes records that are donated and accessioned by the museum, as well as those documents generated by museum staff.
- Field-curation guidelines—guidelines created by a repository and sent to archaeological contractors and used to adequately prepare collections for placement in that facility.
- Loan procedures—a policy that outlines how the museum will honor any loan requests for a collection or collections.
- Deaccessioning policy—a policy that outlines how the museum will remove
 a collection from its holdings (there is currently no deaccessioning rule for
 Department of Defense collections; all parts of its collection are currently
 required to be maintained in long-term storage).
- Inventory policy—a policy that outlines how the museum conducts an inventory of its holdings, with what frequency it executes the inventory, and the pertinent individuals who are notified of the inventory and its results.

A curation system that encompasses the aforementioned points will make it easier to store and manage materials. Such a system satisfies minimal curation standards, and institutions with such a system in place that also emphasize a multidisciplinary approach to curation are strong curation partners and able to ensure a healthy long-term care environment for collections.

Infrastructure Assessment

Proper archaeological curation cannot simply consist of using the best products available or of creating a staff of capable professionals in collections management and conservation. Though integral to a successful curation program, one cannot forget that the best-laid plans for curation will not come to fruition without funding or a well-executed museum business plan. The last basic need for adequate curation is, thus, an infrastructure that is well rounded and aggressive in creating programs that bolster the curation component of the repository through a strong administrative unit cognizant of the needs of the collections and aware that the collections cannot sit undisturbed on a shelf. Collections must be preserved and used to reach their full potential. The administrative capability of a museum can be summarized as the ability to excel in fund-raising and outreach programs, to be open to partnerships, to engage in cooperative agreements, and to have a secure grasp on budget and real estate issues.

Curation facilities have borne the brunt of costs for curation for years. Even though the passage of laws like the Archaeological Resources Protection Act of 1979 and regulations such as 36 CFR Part 79 have supported more planning for curation at the budget-programming level, additional funds are still required. Although new contracts often carry some healthy funding for curation, older collections still lack

the requisite attention. Only those curation facilities with developed programs that use their collections to create revenue for neglected materials and their long-term care will thrive as professional centers of collections management. Healthy outreach programs that use a repository's holdings to educate and stimulate interest in archaeology by the public will succeed in garnering support for all programs. Obtaining funding for curation is exceedingly difficult for, while donors are quite apt to provide money for expeditions to recover new material or for building new wings to display their collections, they are reluctant to provide monies for the less "sexy" side of archaeology. Buying boxes and bags for artifacts or providing funds for databases to record repository information just isn't glamorous enough for some donors. Outreach programs have become very good sources of fund-raising for collections facilities. While the majority of those funds need to go into developing additional outreach programs, some should funnel into other programs included in the institution's mission. Not only do these programs succeed in securing funds, but they also succeed in tying the materials to the public and making them real to the average person. Collections sitting in a box on a shelf do not intrigue people, but collections available for people to touch or examine excite the mind and make archaeology interesting on a whole new level.

An aggressive commitment to securing cooperative agreements with other agencies or groups must also be the goal of a professional curation facility. Many repositories hold materials from a variety of state and federal agencies. In some cases, they have done so for a very long time with little or no remuneration for their effort. Creating agreements that bind these agencies together to help with the costs of proper collections management not only helps the repository, but also creates a partnership between the facility and the particular agencies that can grow and serve everyone. Costs can be absorbed, building additions can be planned and constructed, and collections can receive care that begins to reflect the monetary effort used to excavate them in the first place.

Critical examination of the administrative infrastructure of a repository is important because it allows one to understand the institution's capabilities in the more business-oriented aspects of curation. Institutions with a strong administrative and financial understanding of collections management and a strong vision of their mission are best suited to serve as long-term curation facilities.

Conclusion

Many of the examples we have used and the references we make to specific instances are driven by our personal experiences and focus on federal collections identified in the United States. It is important to note, however, that ethical choices are faced by all practicing archaeologists regardless of what part of the world constitutes their research area. Colleagues working in other countries may work with different laws and regulations, but still have a responsibility to preserve the archaeological record as best as they can. In fact, internationally, the challenge is often greater. Although we have limited funds for curation in the United States, such funds are practically nonexistent overseas, thus making ethical decisions all the more acute.

As stated earlier, ethical curation for us means the ability to accurately and critically identify those institutions that can offer well-rounded, professional care for archaeological collections. The multiaspect focus we advocate illustrates the need to examine all systems of a curation facility from the building to the curation system, the staff, and the administrative infrastructure. It is our intention that the guidelines we suggest for curation planning and long-term management be applied to any example of ethical collections management. Even though every situation cannot possibly be accounted for in any one approach, the same issues tend to arise everywhere. We are strongly committed to this multitiered examination and suggest that proper curation and ethical treatment of the archaeological record can only be done by institutions that adopt such an approach.

It is clear that, at this point, there exist within the discipline individuals and institutions that excel at cleaning and stabilizing collections. It is equally clear, given recent research, that many of the institutions that currently house archaeological collections do not meet even the minimum guidelines set out in 36 CFR Part 79. Many within the archaeological community still focus on excavation and pay little attention to curation. This is unethical and our profession can no longer endorse the practice. It is time to admit that the only way we can guarantee that our national collections will receive long-term, professional care is to develop national guidelines that outline minimum standards required for professional archaeological repositories and their supporting infrastructure. To that end, we have suggested the basics that such a system should entail. They are minimal considerations, but keeping them in mind will help ensure that ethical choices are made that benefit all concerned.

For far too long, archaeological collections have been treated as one-dimensional with respect to their needs. For far too long, any manner of building has sufficed as an archaeological curation facility, as long as it has had open shelf space and someone to unlock the door. National research over the last decade by a variety of parties indicates that archaeological collections do not simply require clean bags and new boxes. The bar must be raised with respect to long-term care so that the discipline can meet the challenges of legislative mandate and the rigors of scientific research. Proper care requires that. Only those institutions and those professionals that effectively meet the multiple needs should be considered proper stewards for these nonrenewable resources.

10. Brainstorm some creative ways to fund curation.

Discussion Questions

It can no longer be an afterthought or left to nonarchaeologists to pursue. Curation

is everybody's business and all of us, everywhere, need to contribute to the solution.

Ethical curation is the responsibility of the entire archaeological community,

- 1. Should archaeologists stop digging, study what is already excavated, and bring curation up to the minimal standards suggested in this chapter? How realistic is this scenario?
- Discuss some of the ramifications of adopting a reduced excavation/ increased curation paradigm in archaeology.
- 3. Reduced excavation is not enough. Most museums are probably going to have to deaccession some of the material they currently house. Given this, is there a need for national—or international—deaccession regulations, and, if so, who would be best qualified to examine current collections to determine what should be deaccessioned?
- 4. You received slightly more than half the funding you had requested to cover the full expenses of your field project. As a thoughtful, ethical, long-term planner, you calculated that your curation and collections management costs amount to almost one-third of the original budget! How will you adjust your project to the decreased funding?
- 5. Do archaeologists have an ethical responsibility to sample all material classes before handing the materials over to a museum? What form should this sampling take? Should archaeologists submit only a sample of all materials classes for curation by a museum? If so (or if the museum will only accept a sample), how should the sampling be done?
- 6. If all records are an integral part of an archaeological collection, should museums refuse a collection if all record groups are not transferred with the objects for long-term care?
- 7. Should the curation of collections be subject to international standards? To national regulations? Why or why not? If you think we need standards, who should establish them? Who would/could enforce them?
- 8. Do you think graduate institutions should require classes in field curation, collections, and records management? Should graduate students be required to work with and write up one or more collections before receiving a degree? Why or why not?
- 9. Is our discipline at a point where we will no longer be relevant unless we begin, on a national level, to integrate archaeological collections and the story they have to tell into primary and secondary school curricula? What might be the costs and benefits, and to whom, of making archaeological

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Responsibilities to Diverse Publics