A Guide to the Use of Museum Collections for Archaeological Research

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There is an increasing recognition of the value and use of archaeological collections housed in museums and repositories to answer important research questions (Childs 2006; Goetze and Mills 1991; King 2016; MacFarland and Vokes 2016; Rothschild and Cantwell 1981), and this is likely to increase in the future (Surovell et al. 2017). Collections-based research uses existing archaeological collections rather than undertaking new excavations and/or surveys. These collections are housed in museums that both hold collections and have public outreach/education missions and in repositories that lack a public education/outreach mission (Archaeological Collections Consortium 2016). Despite the unparalleled potential of these collections, most researchers are unfamiliar with the basic organizational principles used by the curators/archivists/museum directors/collections managers (i.e., collections professionals) who care for and safeguard archaeological archives and collections. This article is designed to serve as a guide for researchers who are venturing into collections-based research for the first time and parallels recent discussions on the use of archival material (Kirakosian and Bauer-Clapp 2017).

ABSTRACT

From a perusal of archaeological and museum journals it is apparent that there is a rich literature dealing with topics such as the place of museums and repositories in anthropological research, engagement with indigenous/descendant populations by archaeologists working in a variety of settings (including collections-based research), and research centered on the study of existing archaeological collections. Despite this rich literature, however, the archaeological researcher who wishes to use collections in archives, museums, or repositories for the first time is often perplexed by how to gain access to collections, how to communicate with archive/museum/repository professionals, the constraints that archive/museum/repository professionals work under, and—at an even more basic level—what the difference between an archive, a museum, and a repository actually is. This article addresses some of these questions and provides a practical guide to opening up the vast research opportunities presented by existing collections.

Un examen detenido de revistas arqueológicas y de museos revela que hay una copiosa literatura sobre temas tales como el rol de los museos y repositorios en la investigación antropológica, el compromiso con las poblaciones indígenas o descendientes por parte de arqueólogos que trabajan en una variedad de situaciones (incluyendo la investigación basada en colecciones) y la investigación centrada en el estudio de colecciones arqueológicas existentes. Sin embargo, a pesar de esta rica literatura, el investigador arqueológico que desee por primera vez utilizar colecciones en archivos, museos o repositorios a menudo se enfrenta a perplejidades acerca del acceso a las colecciones, la comunicación con los profesionales de archivos, museos o repositorios, las restricciones bajo las cuales trabajan estos mismos profesionales y, a un nivel aún más básico, la diferencia entre un archivo, un museo y un repositorio. Este artículo aborda algunas de estas preguntas y proporciona una guía práctica para abrir las puertas a las amplias oportunidades de investigación presentadas por las colecciones existentes.

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Although some researchers have experience as collections professionals and a large segment of collections professionals have current or past research experience, these two groups often think about collections differently. Both groups care about the collections and the research conducted on them but also have different primary concerns and work under different constraints. People on both sides of collections (those charged with their care and those wishing to study them) have made considerable advances in ethics, theory, and methodology (Childs 2004, 2006; Lindsay and Williams-Dean 1980), but these advances do not always line up seamlessly. Additionally, because the advances are often published in different venues, scholars from both perspectives are not always aware of these differences. As a result, it can be difficult for researchers looking at collections for the first time to understand these differences and work productively in the collections world.

In presenting a guide for researchers working on existing collections, I have several goals. The first is to clarify the differences in the way researchers and collections professionals think about collections. All collections professionals share a set of ethics, theory, and method centered on balancing the needs and care of the collections, research on the collections, and the needs and wishes of descendant populations, but institutions have differences in their missions, stakeholders, and the constraints within which they operate. I follow this discussion with a practical guide for setting up a collections-based research project, actually conducting the research, and citing the institutions that house the collections (note: I use the term *collections* to include both the material culture and field notes from archaeological projects in this article unless otherwise stated).

MUSEUMS, REPOSITORIES, AND COLLECTIONS PROFESSIONALS

Archaeological collections are housed in a variety of different facilities ranging from federal and state repositories housing collections from either a large region or a particular government bureau (Bureau of Land Management, National Park Service, Forest Service, etc.) to large private and public museums to tribal museums to small regional museums. All of these institutions have different missions, priorities, stakeholders, and constraints. Although all welcome and encourage research on their collections, their ability to accommodate outside researchers differs due to differing priorities as well as shortages in budget, space, and/or staff (Barker 2010; Bustard 2000; Keene 2006; Lindsay and Williams-Dean 1980; Rothschild and Cantwell 1981; Silverman and Parezo 1992). Specifically, federal and state repositories have been set up expressly to house archaeological collections as part of the cultural resource management directive of public lands. Although there is variability within this group, in general, their missions are dominated by the preservation and stewardship of the cultural resources under their care and the facilitation of research on these collections. As such, they may have dedicated work space for visiting researchers and may be able to dedicate staff to assist researchers in pulling collections from storage, photographing specific materials, and photocopying field notes if given sufficient warning of a researcher's visit and approval of the research project (see below). This can be contrasted with small regional museums that have public education as their primary mission. Although collections professionals in these settings take their responsibilities of preservation and stewardship of the cultural resources just as seriously as their colleagues in repositories, they often lack the space and time to help researchers. For example, in a small museum, the same individual may have primary responsibility for fund-raising, exhibit construction, conservation, legal compliance, and public tours (Keene 2006; Lindsay and Williams-Dean 1980). As such, there are considerable constraints on the time and space they may be able to make available to visiting researchers, and it is incumbent upon the researcher to understand and work within such constraints.

Despite these differences, collections professionals share a code of ethics and a body of method and theory regarding the material under their care (Buck and Gilmore 2010; Burcaw 1997; Bustard 2000; Childs 2004, 2006; Silverman and Parezo 1992). Understanding these ethics, theory, and method will help researchers design collections-based research projects. For example, because they have specific questions regarding the archaeological record they are attempting to address, researchers often think of cultural and archaeological context first and then ask what objects, matrices, eco-facts, features, and so on are recovered from those contexts. In contrast, collections professionals generally think of the objects first, specifically their conservation needs, their storage needs, how they fit into the catalog system, and where they are housed (Barker 2003; Buck and Gilmore 2010; Bustard 2000; Keene 2006; MacFarland and Vokes 2016). Researchers may wish to have all the notes and objects from a single provenience set in front of them, but the material may not be stored together due to differing conservation and storage requirements. As a result, field notes, photos, and electronic data may be housed in an archive room; the organic material (basketry, cloth, sandals, floral and faunal material) may be housed in special environmentally controlled cabinets; and the inorganic material (ceramics and lithics) may be housed on open shelves. Given this variability, how should researchers prepare themselves to fruitfully work with collections?

A GUIDE TO RESEARCH DESIGN FOR COLLECTIONS-BASED RESEARCH

When contemplating research on collections you must set up a research design just as you would for field-based research (Table 1). In constructing your research design, you must determine what type of information is needed—Is it purely object-based, with only broad reference to provenience (e.g., stylistic variability in Tularosa Black-on-white bowls in a large region), or tied to specific locales or times (e.g., differences in food preparation and storage between Hopewell and Mississippian period farming hamlets on the Ohio River)? The first may make use of collections from the late 1800s to today with provenience information of varying quality beyond the site the material was collected from, while the second may require examination of field notes and artifacts investigated with modern excavation techniques.

Locating the Collections

Once you figure out what type of material you need to address your research question, you need to determine where the

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TABLE 1. Steps of Collections-Based Research.

Task	Action
Define research questions	Determine the type of data and collections needed.
Locate collections	Preform a literature search.
	Correspond with the collections professionals at the institution.
Formal requests for access	Use the forms on the institution's website.
	Include a detailed research design with the type of data to be collected.
Use of the data	Follow the institution's requirements on the use of data, photographic images, and methods of citation.
	Provide the institution with copies of the resulting reports and publications.

collections are housed. A search of previous research articles, exhibit catalogs, site reports, permits, and other materials housed at state historic preservation offices and networking with professionals at conferences (including, if possible, the original excavators) will provide an indication of likely museums and repositories. These sources, however, are not always accurate; collections may have been moved to another facility, may have been repatriated, or may have restrictions placed on their use by descendant populations. A formal e-mail of inquiry as to the availability of the collections can help you move to the next step in the research process (see Figure 1 for two examples). In your e-mail inquiry, state what materials you are interested in examining and a general outline of your research questions. By referencing your research questions, collections professionals not only can search for the specific collections you are asking about but may be able to suggest other useful resources in their collections. Then be patient. It may take some time for the collections professionals to track down the information you wish to examine, especially with older collections that are not fully integrated into the electronic catalog system or if you are working with small institutions with limited staff. Remember, although collections professionals genuinely want to help you in your research, they have other constraints and demands on their time.

Formal Requests for Access to Collections

Once you have determined where the collections you are interested in reside, it is time to write a full-blown, detailed research design. This action not only keeps your project on track; it helps the collections professionals facilitate your research. Included in the research design should be specific research questions, catalog numbers (if known), sampling procedures, analytic methods, analysis forms, time lines, and probable publication/dissemination outlets. Stewardship of a collection requires the museum/repository to know not only what collection(s) you wish to examine but the potential impact on the material and why and how the data will be used.

Once your research design is written, investigate the policies of the museum/repository you wish to visit regarding access to its collections. The person you initially contacted at the institution may send you a packet including the institution's request form(s) for access to collections when answering your initial inquiry. If not, the forms generally can be found on an institution's website. Take particular note of the method of applying for access, restrictions on the type of analysis allowed (destructive vs. nondestructive), restrictions on the type of information you can collect (photographic, photo copies, measurements), restrictions on when and where the analysis must occur (Can collections be loaned, or must all examination occur at the facility?), and fees that may be charged for use of archived photos and use of the copy machine. For example, some institutions may allow sourcing analysis on sherds but not whole vessels. Additionally, due to the concerns of descendant populations, institutions may prohibit isotope analysis of human bone. These restrictions may require you to adjust your research design.

Once you understand the policies of the institution, fill out the required forms, append your research design and a curriculum vitae, and submit your request. As part of the request, you will be asked when you wish to schedule your visit. In stating your preferred time, keep in mind that other constraints may affect your request and that you may need to be flexible. Staff shortages, closing of collections to facilitate visits and ceremonies by descendant populations, and the time required to process your request (which may require approval by a governing board that only meets quarterly) may impact timing. In most circumstances, you cannot remove collections/archived material from a facility, and collections professionals will need to block out time to both pull the required material from their collections and be available while you are working on the material. Depending on the security protocols of the institution, the latter may require that a staff member be physically in the room while you are examining the material, and that individual must be able to schedule other tasks around your visit. I recommend planning/requesting visits six to eight months in advance to provide sufficient flexibility to allow the collections professionals time to ensure uninterrupted access and adequate time and space for you to conduct your research.

Use of the Data and Citing the Institution

Finally, you must work with the institution to understand restrictions on the use of photographs and copies of the material in publication. For example, there may be restrictions on photographic images of burials, grave goods, and field notes; or the institution may require the use of its own photographic images of objects, and these may incur a cost. Even if no photographs or archived materials are used in the resulting reports or publications, the institution housing the material must be cited, and it may have rules about how this should be done. Many institutions must be able to document publications resulting from research on their collections as part of their yearly reports and budget requests. Therefore, it is imperative that you make sure you work with the collections professionals to appropriately cite the institution and inform them of publication outlets as you move through the publication process. Finally, you should send them the results of your analysis and copies of any thesis, dissertation, and/or publications that result.

A) Good Afternoon Dr. ______

I am beginning a major research project centered on the stylistic and morphological characteristics of Tularosa Black-on-white bowls dated to the Tularosa phase in the Highlands of New Mexico and am trying to locate collections in anticipation of writing a grant proposal. Because this is a stylistic study of bowls found over a broad area, the particular site the vessel is recovered from is less important than the bowl itself. Do you have whole vessels of this type in your collections that I could include in the analysis? If so, could you estimate the number of bowls that are available for analysis? I have included a preliminary proposal for the project outlining the research question and data collection methods and my CV for your convenience.

Thank you in advance for your assistance on this matter.

B) Good Afternoon Dr. ______

I am conducting a research project that examines differences in food preparation and storage between Hopewell and Mississippian period farming hamlets on the Ohio River, with a specific emphasis on the material (field notes and artifacts) from excavations at the Tucker and Pine Springs sites. Based on records at the State Archaeologist's Office, your repository is where this material is housed. Is this material still housed at your repository? If so, can you please tell me the process to request access to this material? A preliminary proposal for the project specifying the type of material requested and the analysis methods proposed is included in the attachment (a CV outlining my research credentials is also attached).

If you could provide me with information regarding the formal process for requesting permission to examine the collection as well as the dates in June (8 months from now) that it would be convenient for me to visit your repository I would greatly appreciate it.

Thank you in advance for your assistance on this matter.

FIGURE 1. Examples of introductory e-mails used at the beginning of collections-based research projects for (A) stylistic analysis over a large area and (B) an analysis of material from a particular site.

CONCLUSIONS

Collections-based research has the potential to address numerous research questions, and its importance in archaeological research will continue to grow through time. Research on collections must be approached with the same care and deliberation as field-based research. Specifically, well-designed research plans must be formalized, and sufficient time must be allocated so that collections professionals can evaluate your request, present it to their research boards if necessary, and pull the collections you need. It is the researchers' responsibility to understand the differing constraints and missions of the repositories and museums they wish to visit and comply with all restrictions on the use of the collections they may have. I have attempted to provide a framework here for researchers embarking on collections-based analysis for the first time so that the research potential of archaeological collections may be reached.

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Data Availability Statement

No original data are presented in this essay.

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