

MUSEUM COLLECTIONS AND PROVENIENCE: EXAMPLES FROM THE MATURANGO MUSEUM

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Museum collections are characterized by a range of provenience detail, from well-documented recent professional excavations to random items contributed by the interested public. Even within the category of professionally excavated collections, great variation in provenience detail exists due to increasing rigor over the years. Because of the varying levels of detail available, utility of museum collections for research purposes depends strongly on the research goals. This paper discusses four research projects undertaken based on Maturango Museum collections, and shows that even items with limited provenience information can provide valuable data on certain research questions.

INTRODUCTION

Concern over the scale and scope of the illicit antiquities trade has grown over the course of recent years and has led governments and archaeological societies to take steps to discourage the looting of artifacts (American Schools of Oriental Research 2003; Archaeological Institute of America 2007). While well-intentioned, such guidelines are open to interpretation, and may, in some cases, have unintended consequences which are counterproductive. In particular, collections with limited or poor provenience information may still provide valuable data for research, depending on the nature of the research questions. This paper discusses the issue from the perspective of a small museum which holds archaeological collections, with four case studies.

MUSEUM COLLECTIONS

The Maturango Museum is a not-for-profit museum in Ridgecrest, California, whose mission is stated as follows:

The mission of the Maturango Museum is to preserve, interpret, and develop an appreciation for the natural and cultural history of the Northern Mojave Desert through research and education, and to promote the arts [Adopted by the Board of Trustees June 9, 2003].

Maturango Museum programs include: archaeological research; publications in rock art, local history, and archaeology; and curation of archaeological collections. The collections curated include items to which the Museum holds title, and also collections from excavations on government-owned lands for which the agency retains title. The Museum has a curation Memorandum of Understanding with the Ridgecrest office of the Bureau of Land Management and complies with the curation standards of 36 CFR 79.

Collections held by a museum typically are what could be called a “mixed bag,” ranging from artifacts donated by community members to professionally excavated collections. This variety is reflected in the accuracy with which point of origin is known; generally, items donated from casual or avocational collections have limited to poor provenience information associated with them. Despite the best good-faith efforts of a museum to ascertain the source of donated items, it is often not possible to do so rigorously.

Even professional collections are uneven in provenience information and completeness. The standards expected of professional excavations have evolved over the years, so often older professional collections have poor provenience data by modern standards. Issues associated with such collections include less accurate measurement standards, lost field notes, incomplete analyses of collections, loss of parts of collections (e.g. items sent out for analysis years ago and never returned), and analysis based on assumed functional classifications instead of morphological classifications.

Despite these limitations, museum collections can provide valuable resources for research. Four case studies are presented here describing the use of collections from the Maturango Museum, which show the value of such collections for certain research questions. The cases include a large avocational collection (the Henry collection); a small, poorly provenienced collection (the Little Lake Biface Cache); a medium-scale, early collection excavated to professional standards (the Ray Cave collection); and a large-scale, early collection excavated to professional standards (the collection from the China Lake project of Dr. Emma Lou Davis). In each case the collection is described, the approach and findings of the recent research project are summarized, and an assessment of benefits and limitations is provided.

CASE STUDIES

I – The Henry Collection

The Henry collection, curated at the Maturango Museum, is a collection amassed by the late Ron Henry, a research chemist, who spent his professional career at the Naval Weapons Center, China Lake. He was an avid hiker and outdoorsman, who spent much time hiking and camping with his children in the Mojave Desert, Sierra Nevada, and surrounding areas during the 1960s and 1970s. In the course of these outings, he collected many artifacts (surface finds), as was customary in those days. He donated the collection to the Maturango Museum in 1987.

The collection consists of several hundred artifacts, primarily durable ones, including flaked and ground stone, beads, and pottery. Henry was a systematic person, and he kept good notes on locations; although this was before the advent of GPS, he noted location to township, range, and section from topographic maps; in a few cases the locations are given to quarter-section, and in others there are descriptions such as “200 yards above the narrows of Goler Canyon.” Thus, the provenience could be characterized as “regional,” in that general locations are known, but certainly not to the level of a site.

This collection includes a large number of temporally diagnostic artifacts from the El Paso Mountains, southwest of Ridgecrest, in the northern Mojave Desert. In 2005, the present author examined the collection to identify artifacts which might be chronological markers from the El Paso Mountain region, to provide data to support investigations of settlement and subsistence patterns in the area, which has seen relatively little systematic archaeological survey (Rogers 2006). Prior excavations at four sites have suggested a strong Rose Spring/Haiwee Period occupation component but have provided no direct evidence of later use (see citations in Rogers 2006).

The analysis (Rogers 2006) was based on point typologies, bead typologies, and ceramics. It showed occurrence of diagnostic artifacts from the Marana Period, plus statistically significant differences in the temporal patterns of artifact occurrence between the eastern and western regions. This suggested, first, a continued Marana Period use of the El Paso region as a whole. It further suggested a difference in temporal patterns of use between the western and the eastern regions: the former showed a peak in the Rose Spring/Haiwee Period and a decline in the Marana Period, while the latter showed a continual increase into the Marana Period (Rogers 2006).

This case shows the research value of a collection which has provenience only to the regional level. The collection includes surface items only, with no excavation;

furthermore, the survey method could best be described as idiosyncratic, neither truly judgmental nor yet truly stochastic. Unfortunately, Henry’s notes do not include any information about patterning of the artifact distributions or associated features except for occasional references to “house rings.” Nevertheless, it is possible to draw reasonable conclusions at the regional level, but certainly not at the site level.

Parenthetically, it can be observed that the data derived from this collection are about as good as it gets for regional studies of the El Pasos. Very few sites have ever been systematically investigated and reported in the region, and none are ongoing at present. The area has been heavily impacted by motorcyclists and 4-wheelers since Henry’s time, including roads cut through archaeological sites, and few surface artifacts are to be found now. Henry was inadvertently preserving a portion of the vanishing heritage of the El Pasos for future research.

II – The Little Lake Biface Cache

In about 1963 a collection of 27 large obsidian bifaces was donated to the Maturango Museum. The origin of the collection is unclear, and there are at least two different stories of the source. According to one, the collection was purchased from a gem and mineral show, and was donated to the Museum by Rhea Blenman, a member of the Museum Board of Trustees. The other story is that it was found in the desert by a young man who was hunting for snakes, and was bought by a man associated with the Museum and subsequently donated. The location was noted only as the “Little Lake area.” Unfortunately, all the principals are now deceased, so it is unlikely we will ever know more about the provenience of this collection. The collection bears a 1963 accession number.

The cache reposed (or languished) in the Museum curation area until 2001, when Elva Younkin, the Museum Curator at the time, brought it to the attention of Alan (Gold) Garfinkel, who recognized it as archaeologically significant. Garfinkel and his colleagues undertook an analysis of the cache, conducting XRF sourcing, obsidian hydration analysis, and a technological analysis. The bifaces are large, with a mean length of 139 cm and a mean weight of 348 g (Garfinkel et al. 2004). They were assessed as bifacial cores, probably intended for the trans-Sierran obsidian trade (Garfinkel et al. 2004). The obsidian was sourced to the Sugarloaf area of the Coso volcanic field, adjacent to Little Lake. Furthermore, traces of silty mud adhering to them suggest having been cached in a marshy or lacustrine environment, as one would expect at Little Lake.

The surprise was the age of the bifaces. Obsidian hydration measurements showed a mean rim thickness of 3.8 μ , and all were under 4.0 μ except one outlier at 5.6 μ . At

Coso hydration rates, this suggests an age of no earlier than 650 B.P. (Garfinkel et al. 2004). They concluded:

The cache would lend some limited support to the continued use of large biface cores as a means of production and transport of portable units of tool stone significantly later than might be expected and in a volume/mass that is surprising [Garfinkel et al. 2004].

This case demonstrates again the research value of a small collection with poor provenience information. In this case the biggest issue was knowing the collection existed at all, since it sat in storage for nearly 40 years before coming to the attention of a scholar. This collection would have been valuable even with no provenience information at all, since the mere existence of such recent trade biface cores fabricated of Coso obsidian was unexpected. Unfortunately, the circumstances of the discovery of the cache are almost completely unknown, so we have no knowledge of associated features or artifacts, nor of the method of caching. The provenience was adequate for the research questions asked, however, and the cache provided unexpected data on the duration of the prehistoric trans-Sierran obsidian trade.

III – The Ray Cave Collection

The Ray Cave site (CA-INY-444) is a small rock shelter located in the Coso Mountains of southern Inyo County, California, on the North Range of the Naval Weapons Center. The site was discovered in 1966 by a bird hunter and was excavated in 1967 by a volunteer field crew under the direction of George Kritzman and J. F. Fitzwater. Charles Rozaire of the Southwest Museum arranged the permit. The excavation was documented by Hillebrand (1972) and Panlaqui (1974).

An extensive array of artifacts, including basketry, was found on the surface of the cave, and the deposits within the cave were approximately 1.5 m deep and included a burial. The artifact assemblage from the site included projectile points, modified and utilized flakes, beads, basketry, cordage, worked wood, and ground stone; historic items including cloth, rope, and tin cans were found on the surface at the site. Thirty-eight metates were measured and left at the site; lithic debitage was weighed and counted and left on site, except those flakes which appeared to have been utilized or modified (Panlaqui 1974). The assemblage contained artifactual evidence which was interpreted as indicating use over a span of 4,000 years, up to and including the historic period; there was no midden or other evidence of intensive occupation, so use was probably never more than seasonal (Panlaqui 1974).

The faunal assemblage consisted mainly of rodent and lagomorph specimens, with small numbers of mountain

sheep (*Ovis canadensis*), kit fox (*Vulpes macroti*), various lizards, great horned owl (*Bubo virginianus*), and desert tortoise (*Gopherus agassizi*). The faunal collection was assessed as recent, based on fossilization and condition of the bones (Panlaqui 1974). All species represented are found in the area today except marmot (*Marmota flaviventris*).

The single burial was without burial goods and was assessed as “intrusive from the upper levels of the cave” (Panlaqui 1974). Artifacts found near the burial appeared to be random items in the burial soil rather than burial goods (Panlaqui 1974).

Panlaqui (1974) interpreted the site as a temporary campsite, first occupied prior to 2000 B.C. (4000 B.P.) and with a main use period 1500 B.C. – A.D. 1500 (3500-500 B.P.), after which use declined in later periods. The historic materials on the surface within the cave were interpreted to indicate historic period use.

Following analysis at UCLA, the excavated materials and associated field notes were curated at the Maturango Museum under Los Angeles County Museum number A6431.67; the Maturango Museum accession number is 67.27. In July 2006 the collection was transferred to the new Navy curation facility at China Lake. The site has also been designated UCLA Iny-349 with state trinomial of INY-444.

In 1999 the Ray Cave collection was readdressed as part of a Native American Graves Protection and Repatriation Act (NAGPRA) analysis conducted by Far Western Anthropological Research Group in support of the Naval Air Weapons Station (NAWS), China Lake (Gilreath 2000). The conclusions of the study were similar to those of Panlaqui (1974). The analysis was based on the catalog and on published data of Hillebrand (1972) and Panlaqui (1974), but the collection was not physically inventoried nor were new obsidian or radiocarbon measurements made.

In 2005 the staff of the Maturango Museum conducted a NAGPRA analysis focused exclusively on Ray Cave, including physical inventory of the collection. Attempts to place the collection in chronological context were hindered by inconsistencies in the data reported in prior analyses (Gilreath 2000; Hillebrand 1972; Panlaqui 1974). The original analyses did not include radiocarbon calibration; furthermore, since the original work predated Bennyhoff and Hughes (1987), bead typologies were not analyzed; on top of this, there was an error in the obsidian hydration analysis.

Because of these issues, the author of the present paper undertook a reanalysis of the chronological data and constructed a consistent chronology, based on recent methodological advances not available to Panlaqui or Hillebrand. The reanalysis employed radiocarbon, stratigraphy, projectile point typology, obsidian hydration,

and analysis of beads (Rogers 2007). It concluded that the first evidence for use of the Ray Cave site dates tenuously to the Lake Mojave Period, prior to 6000 B.P., with more extensive use in the Newberry Period/Little Lake Periods (3150-1350 B.P. and 6000-3150 B.P. respectively) (Rogers 2007). Lesser use continued into the Haiwee Period (1350-650 B.P.), and Marana Period, and the presence of historic artifacts on the surface suggests use in the historic period (Rogers 2007). The chronological use data were found to be consistent, whether derived from radiocarbon, bead typology, point typology, or obsidian hydration; in addition, occupation beginning in the Newberry Period is consistent with the occupation patterns at sites in the surrounding Coso region (Rogers 2007).

The collection as reanalyzed possessed reasonably good provenience, especially considering the changes in excavation procedures and the passage of time. The provenience accuracy was relatively good, since excavation was by arbitrary 6 in levels in 4 x 4 ft units. Information on the burial was marginal, however, being limited to a short statement in Panlaqui (1974); the original notes (if there ever were any) on excavation of the burial could not be found. Earlier analyses by Hillebrand (1972) and Panlaqui (1974) were hampered by a transcription error in recording obsidian data, and by lack of bead taxonomy and radiocarbon calibration. These problems were correctable, however. In sum, a collection such as the Ray Cave collection is a valuable data source for a variety of research questions.

IV – The China Lake Project

The China Lake Project was undertaken by the late Dr. Emma Lou Davis in 1969-1974 to examine the hypothesis that late Pleistocene fauna (termed Rancholabrean fauna by Davis) had coexisted with humans. The project included surface survey of extensive areas of the western margins of Pleistocene Lake China, coupled with intensive surface collections and some excavation (Davis and Panlaqui 1978). The survey region was an ancient lake margin, now a dune field, with networks of ancient drainage channels, scatters of artifacts, and fossil mammal bone. The collection was analyzed at the Los Angeles County Museum and subsequently curated at the Maturango Museum. In 2006 the collection was transferred to the NAWS curation facility at China Lake. The results of the Davis work were published in Davis and Panlaqui (1978); however, parts of the collection were not analyzed or included in the report (Basgall 2005). In 2004 the NAWS funded a team led by Mark Basgall of the Archaeological Research Center at the California State University, Sacramento, to organize the collection and perform a reanalysis. The results of the reanalysis were published in Basgall (2005).

The reanalysis concluded that the collection was in relatively poor shape and of little use to researchers as

it stood. Provenience of the artifacts was referenced to “stakes,” which specified the general area but little additional detail. Furthermore, there was no comprehensive catalog for the collection, and artifacts were mixed, with no provenience labels, with apparently unprocessed materials and debris. Furthermore, it was found that the fossil bone collection was (and still is) missing, possibly in the possession of whoever did the original faunal analysis. Correcting these issues required a systematic reanalysis of the entire collection of 8,264 items, including cross-correlation with field notes and maps, which Basgall’s team accomplished.

There were analytic problems as well. The original analysis by Davis employed functional categories for many artifacts, such as “borer” or “graver,” whereas modern analysis is generally based on morphological descriptions which avoid functional attribution. The results of the reanalysis thus differ significantly from those of Davis but provide a solid basis for further study.

For the reassessment, chronology was based entirely on projectile point morphology (N=139). Windblown sand at the project site had resulted in significant erosion of artifacts, such that use of obsidian hydration dating was judged to be problematic. Temporally diagnostic points used in the analysis included Great Basin Concave Base, Great Basin Stemmed, Pinto, and Rose Spring; in addition, crescents were present in reasonable numbers and were associated with concave based and stemmed points (Basgall 2005). It was concluded that there were four distinct occupation periods at the site: 12,000-10,000 B.P., 10,000-8000 B.P., 8500-5500 B.P., and a very sparse use in the Haiwee Period (Basgall 2005). There was little evidence for late prehistoric use of the area. Basgall concluded that Davis was correct in her Paleoindian attribution of the site, but not in her assertion of “early man” antiquity (ca. 40,000 B.P.; Basgall 2005).

The China Lake Project collection thus provides a valuable basis for studying the prehistory of a major pluvial lake basin. Despite issues with the original cataloging and analysis, most of the notes and maps were present, and the collection could be meaningfully subjected to analysis based on modern criteria and taxonomies. It is unfortunate that the fossil bone collection is still missing; perhaps it will turn up eventually and provide a basis for study. In summary, the collection gives insights to an important and poorly documented area.

DISCUSSION AND CONCLUSIONS

Two points are clear from these case studies. First, the term “provenience” means many different things to different people. Fundamentally it is a shorthand expression for the accuracy and completeness with which archaeological data are recorded, but the question of how much accuracy is required

for a collection to be described as “well provenienced” is not defined. This brings us to the second point, which is that adequacy of provenience can only be defined in terms of the research questions being asked. For the Henry collection analysis, addressing population patterns, provenience to township/range/section was adequate, while for the Little Lake Biface Cache, simply knowing the right side of the Sierra Nevada was sufficient. In the Ray Cave case, knowing the excavation unit and level was important, but for the China Lake project, attribution to stakes was adequate.

It should be understood that these two points are made in the context of museum collections, i.e., collections which already exist. Since archaeological sites are nonrenewable resources, any dig should be performed to the best standards practicable; nobody would advocate that it is acceptable to perform a new excavation to poor provenience standards. However, museum collections are a different matter. At the time a collection is delivered to a museum, the provenience is already as good as it will get; museum handling can degrade provenience, by losing notes or mixing artifacts, but it cannot improve it. In summary, no amount of museum expertise will improve the provenience of an existing collection (although careful organization of artifacts, catalog, and data can certainly make a collection more usable).

Frequently the bigger issues are knowing that a collection exists which is germane to a research question, and having the desire and resources to utilize it. The Little Lake Biface Cache sat in the collections storage area for 39 years before being utilized. Museum collections could be a wonderful resource for academic programs; for example, analysis of a collection curated in a museum would be an excellent project for a Master’s degree program. Museum collections are seldom used, however, because most schools require Master’s projects to include fieldwork. An acceptable alternative might be to teach fieldwork in field schools, and subsequently permit Master’s projects to utilize museum collections.

Finally, it is arguable that, in some cases, declining to publish “unprovenienced” collections or artifacts is a shortsighted policy. Clearly nobody wants to encourage the antiquities trade. However, declining to publish such artifacts or collections will not decrease their sale value appreciably, but it does deny data to scholars.

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