

THE BOYER COLLECTION: AN EXAMINATION OF THE IDEAL AVOCATIONAL COLLECTIONS

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The Boyer collection was donated to the Maturango Museum in Ridgecrest, California, in 2010. It was cataloged in 2016 and spanned from 1960 up to the 1980s. The Boyer collection is unique among avocational collections due to Barry Boyer's precise collection and documentation methods, leading to precise provenience on nearly every specimen. This article is an overview of the significance of the Boyer collection in the archaeology of eastern California and the comparative data potential of provenienced avocational collections.

AVOCATIONALISM

What is avocationalism? Avocational is a term used for a hobby or something that is otherwise outside of someone's profession. Avocational archaeology has been around since the dawn of the science and has been a bane to trained archaeologists as well. Avocational collections often end up in the hands of museums after someone passes away and a family member clears out the estate. They can often be turned over to museums or land agencies due to personal guilt after someone spends decades "just collecting arrowheads" and later learns about archaeological resource law or cultural preservation. Some avocational collections span many decades and many jurisdictions. One such example is the Ron Henry collection, which encompasses the jurisdictions of the U.S. Forest Service (USFS), National Parks Service (NPS), and the Bureau of Land Management (BLM). These collections are often stored in substandard conditions and, as such, can be subject to enhanced degradation. At the Maturango Museum in particular, many collections were delivered in a variety of containers, including Ziploc bags, See's candy boxes (such as the Zumstein collection), Riker mounts with glue, glasses cases, coin purses, and many others. What is most frustrating about avocational collections, other than the loss of cultural heritage and oft-ignored cultural resource laws, is that there is often no provenience for the artifacts. This reduces the data potential of the specimens and unfortunately renders the artifacts useless for anything more than a teaching collection. There is no need to lose hope, however, as the right avocational collection can present high data potential.

An avocational collection is of extra use if some provenience data is present. Examples of provenience that are useful are section/township/range, locations on quadrangle maps, town names, and even general location information such as "9-Mile Canyon" or "Sheep Springs area." With this locational data, one can begin to assess the collection for additional analytical methods, such as regional projectile point typology trends, site use (e.g., seasonal, forage processing, lithic procurement, lithic reduction, religious/shaman use, game hunting/processing), as well as analysis by X-ray fluorescence (XRF), obsidian hydration (OH), and obsidian hydration dating (OHD) (in that order and with depositional data). Site data from avocational collections can also be used to start a new field school location, as was the case for the Borden collection by Dr. Helen Wells of California State University, Los Angeles (CSULA), and Don Storm of the Ridgecrest BLM field office. Data potential is not entirely lost, however, if there is no provenience listed. Some research uses for unprovenienced collections are as teaching collections or lithic analysis through replicative studies, flake terminations, and use wear analysis. In some cases, one can judge the handedness of a tool user/manufacturer as well.

THE BOYER COLLECTION

The Boyer collection, which was donated to the Maturango Museum in 2010, was collected by Barry Boyer over a span of 30 years from the 1960s through the 1990s beginning during his teenage years. Boyer served as the base archaeologist for Edwards Air Force Base in California from 1993 until he passed away in

2010. I cataloged the collection in 2016 with the aid of Maturango Museum interns Daisy Zajicek, Emma Dauplaise, and Kirsten Carroll. The Boyer collection includes 1,386 artifacts from over 200 sites along the eastern Sierras, with most sites having strong provenience. Most of the sites are from the Sierra Nevada canyon mouths, specifically 5-Mile Canyon, as well as the El Paso mountain range to the southeast that runs along Garlock Fault.

The Boyer collection is unique in an avocational collection. Boyer took impeccable notes even as a teenager, including time of day and cloud cover in his notebook and handmade catalog tags. He created his own site names and “trinomials” and employed a system of survey descriptors as follows: C- looking carefully on feet; F- walking fast, with or without expectation of finding something; P- picked up before realizing it was an artifact; and K- walking on hands and knees. Boyer also included Native American site names, tribe names, and citations of the tribes and sites using Julian Steward’s famous 1938 book *Basin-Plateau Aboriginal Sociopolitical Groups*. His dedication to archaeology was admirable, especially for being so young. An entry of his survey notes from 05/05/1966 reads “8AM, sunny. Acute Appendicitis, also found rattlesnake.” In addition to impeccable notes, Boyer included to-scale scientific drawings of his finds, which allowed many artifacts to be relocated in the donated collection. His drawings included notes of color variation and texture of the artifacts. The collection also contains many photographs of the artifacts that are present and absent from the donated collection, as well as negatives of the photos. The photographs are annotated on the back, which again proved useful in matching artifacts from the collection with his field notes.

Cultural Constituents of the Boyer Collection

The cultural constituents from the Boyer collection, while leaning heavily toward flaked stone, are incredibly varied (Figure 1). Of the 1,386 artifacts, 284 are bifaces, 16 are core tools, three are crescentics, 41 are debitage flakes, seven are drills, 37 are other flake tools, 235 are preforms, and 522 are completed projectile points. Of the completed projectile points, 386 are arrow sized, including UnID (unidentified) Arrow tag, and 122 are dart sized, including UnID Dart tag (Figure 2). The beads of the Boyer collection are also incredibly varied, including various forms of *Olivella* shell beads, red on white glass trade beads, blue on white glass trade beads, and blue hexagonal trade beads, as well as steatite beads. Most of the beads are from the El Paso Mountains area including White Hills, Black Mountain, and Sheep Springs, with the bulk of the others from the Sierra canyon mouths such as 5-Mile and 9-Mile canyons, both of which are prominent archaeological areas. There is a lesser frequency of pottery in the Boyer collection, mostly represented by potsherds. Of the 19 sherds, 13 are body fragments and six are rim fragments. Most of the sherds come from either 9-Mile or 5-Mile canyons. One potsherd in particular exhibits the coil method of manufacture as well as heat varnish on the inside of the pot from being used for cooking.

The Eastern Sierra, specifically the canyon mouths, and the El Paso Mountains are heavily represented in the provenience of the Boyer collection (Figure 3). The sites from the eastern Sierras are heavily represented in the Sierra canyon mouths, namely 5-Mile and 9-Mile canyons. Both of these canyons are located up Highway 395 to the left, before Rose Valley. Many other areas of archaeological import are in this region, some being the Borden site, the site of CSULA’s field school; Little Lake, home to the Stahl Site and Atl-Atl Cliff; and Haiwee Dam further north, home to many more archaeological sites. Because of 5-Mile Canyon’s prominence in archaeological collections housed at the Maturango Museum, strong comparative data trends can be seen between the aggregate data and the Boyer surveys (Figure 4). The trend indicates an extreme uptick in activity after the introduction of the bow and arrow during the Haiwee period (1,600-900 B.P.), as seen in the Rose Spring series with a slow tapering towards Desert series points such as Cottonwood and Desert Side-notched (Sutton 1993). The same trend is visible in a data comparison of the Ron Henry collection, totaling 9,044 artifacts, and the Boyer collection in the El Paso Mountains (Figure 5). The El Paso Mountains figure heavily in the archaeological record of the Mojave Desert and are home to the Last Chance Archaeological District. Most of the El Pasos are BLM wilderness, and the range sits at an average elevation of 1,479 m or 4,854 ft (USGS 1981). The key difference between the data comparison of the surveys of the

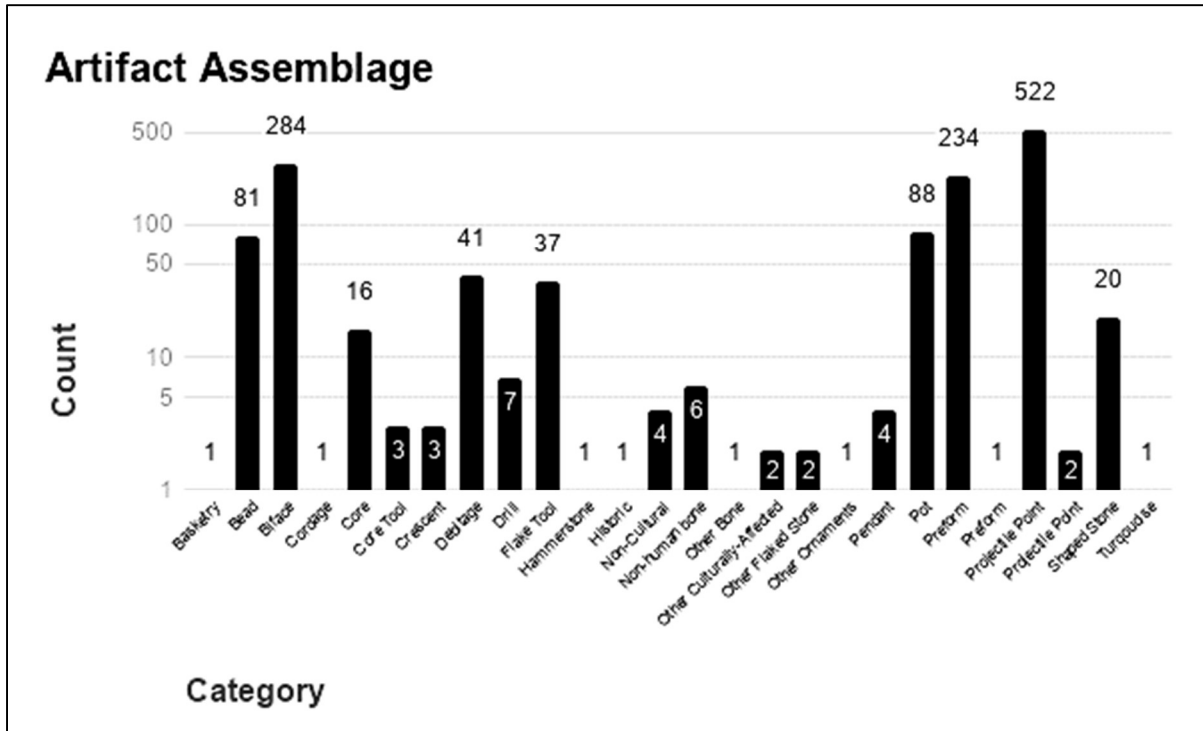


Figure 1. Artifact assemblage from the Boyer collection.

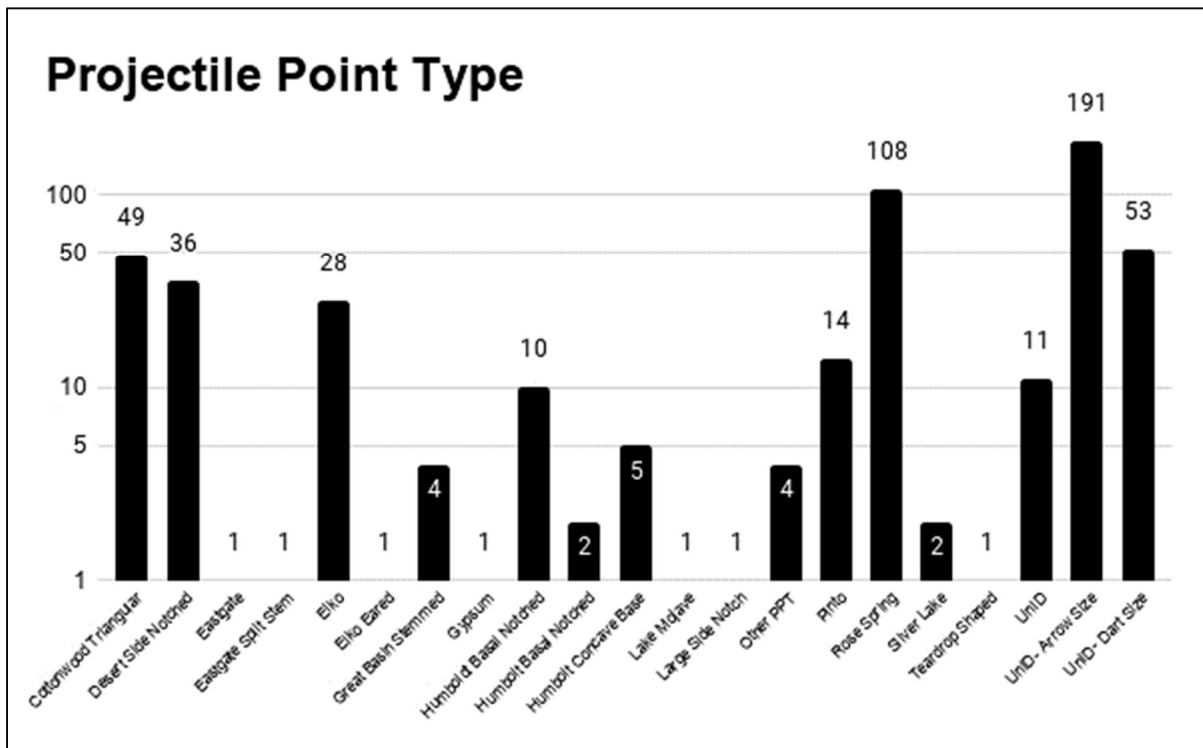


Figure 2. Projective point types in the Boyer collection.

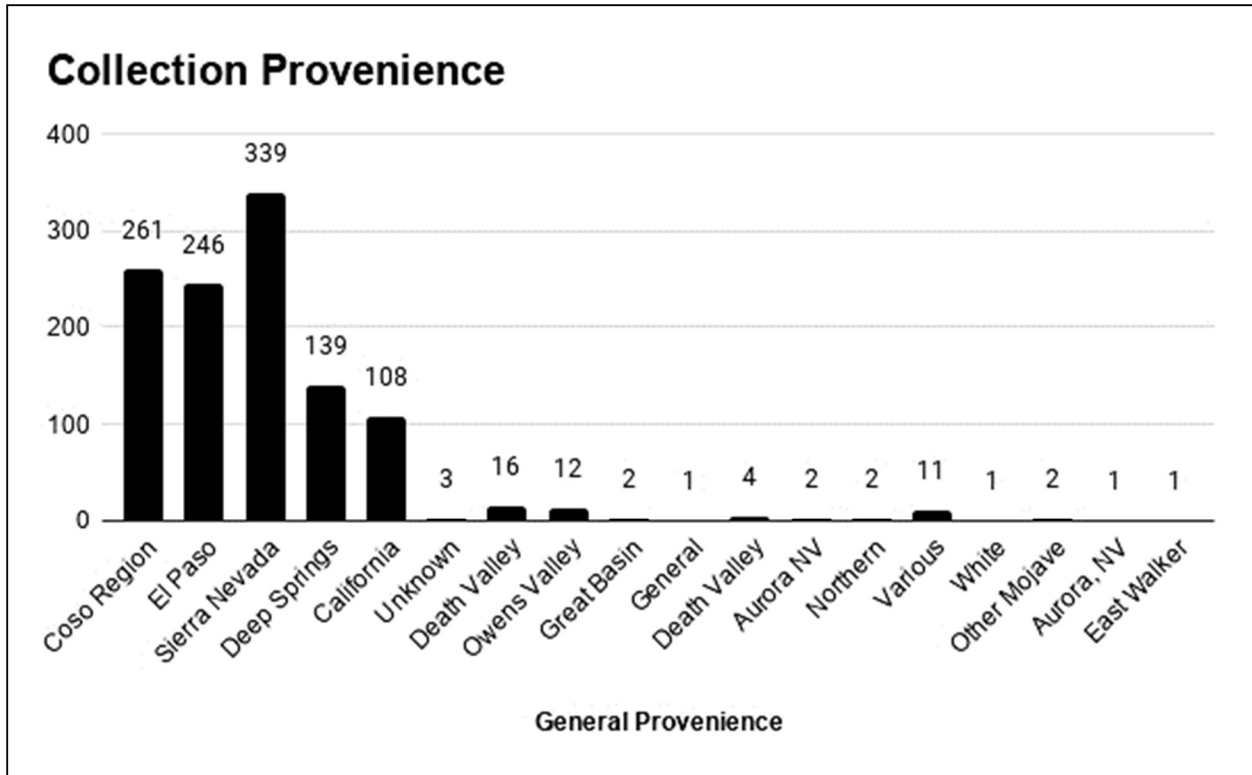


Figure 3. General provenience for the Boyer collection.

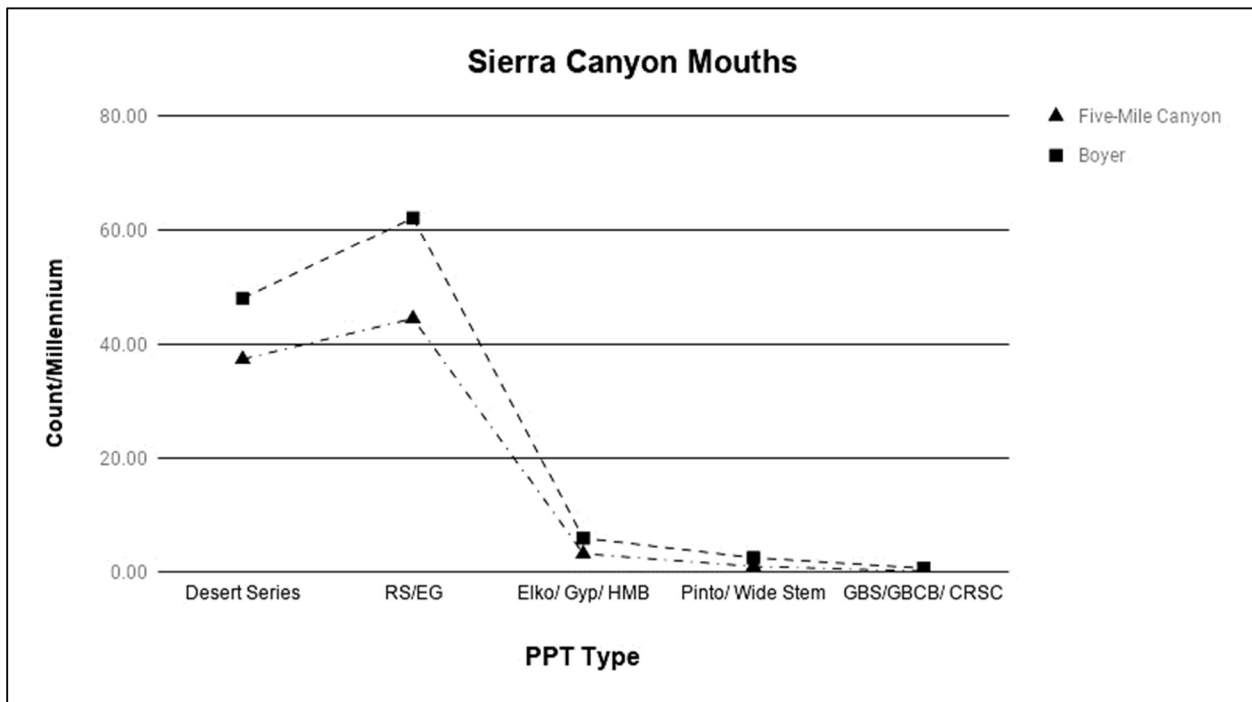


Figure 4. Data trends between the Five-Mile Canyon and Boyer collections in the Sierra Canyon mouths.

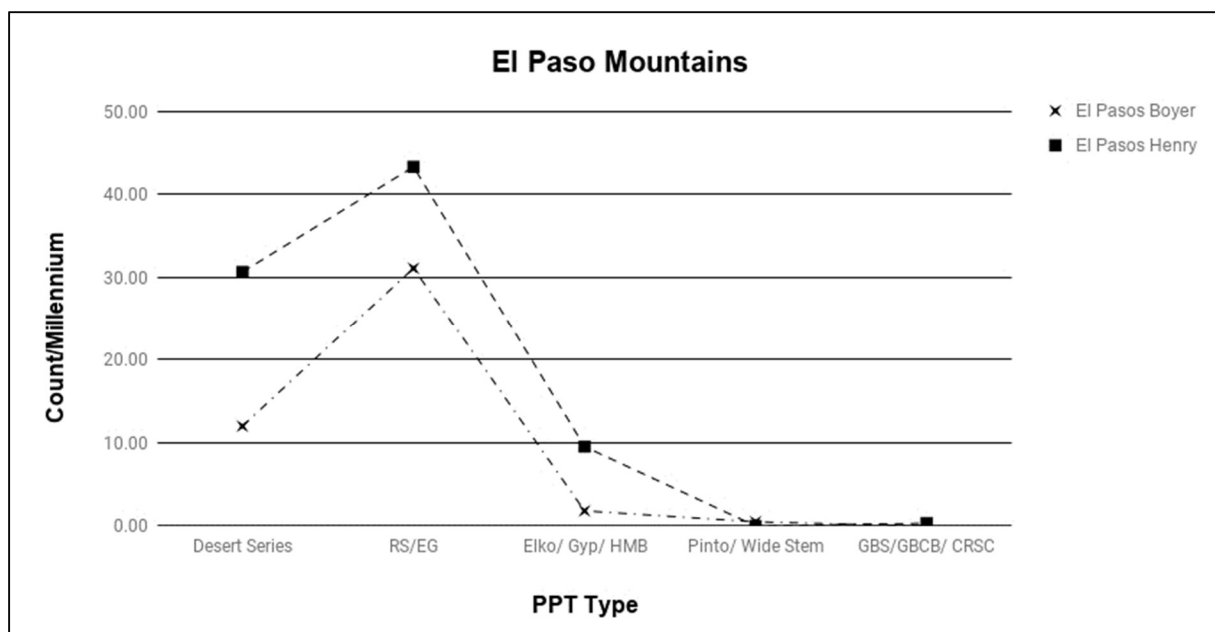


Figure 5. Data comparison of the Ron Henry and Boyer collections in the El Paso Mountains.

Sierra canyon mouths and the surveys in the El Pasos is that there is a steeper decline in occupation during the Marana Period that may have been due to the Medieval Climatic Anomaly, or MCA (Jones and Schwitalla 2008). The effects of the MCA may have been more intense in this region as compared to up north due to increased water scarcity and a hotter and drier climate without the aid of the Sierra Nevada range.

OTHER IMPORTANT COLLECTIONS

The Boyer collection is one of a handful of avocational collections that also have great data and research potential. Ayers Rock, Ron Henry, and the Borden collections are all examples of data-packed museum collections ready for use. The Ron Henry collection is one of the Maturango Museum’s largest and spans four separate management jurisdictions, including the USFS, NPS, and BLM, as well as the Maturango Museum. It is an extensive avocational collection spanning from the 1960s through the 1980s and was donated in 1987. The collection was cataloged in the summer of 2016 and is composed of 9,044 artifacts representing over 500 sites, mainly from eastern California. Most sites have strong provenience, proving useful for the establishment of regional data trends (see Figures 4 and 5).

The Ayers Rock collection is another of the Maturango’s largest collections and presents a wealth of research potential. The collection was excavated in the 1960s but was not fully analyzed until decades later (Whitley et al. 2005). Cataloging the collection began in the summer of 2015 and was completed in the summer of 2016. The full catalog tallied 13,816 artifacts, with the discovery of 11 additional Great Basin Stemmed projectile points that were identified after Kirsten Carroll sorted through the debitage bags (Justice 2002). The debitage and bifaces of the Ayers Rock collection are being extensively studied by Dr. Robert Yohe, Sandy Rogers, and Kirsten Carroll. In 2017, it was concluded that the 2004 report maps were inverted after a visit to the site and each locus, so a remapping of the site was conducted. The site is under further review by the BLM.

The Borden collection is another important avocational collection that has provided immense research potential. The Archaeological Survey Association of Southern California (ASA) conducted work through the late 1960s and early 1970s for road work up Highway 395 through Rose Valley, California. The artifacts

from the Borden collection are a mix of the ASA field work as well as spoils from a 1970 Caltrans gravel pit. The collection was delivered to the Maturango Museum in the summer of 2008 for storage. It has been worked on intermittently through the summers of 2016 and 2017, and many dart points are out on loan for a master's thesis. The Borden collection includes approximately 3,700 artifacts representing an extensive array of Paleoindian and Archaic tools. It also contains small quantities of ground stone, a variety of beads, faunal remains, and other ornaments. Most of the temporally sensitive artifacts are Paleoindian in age, with an abundance of Great Basin Stemmed (n = 107) and Silver Lake (n = 66) points. There is also an assortment of fluted points (n = 27). After a poster presentation by Sandy Rogers and myself at the 2017 Annual Meeting of the Society for California Archaeology (SCA), it was suggested by Don Storm and Helen Wells that we revisit the Borden site due to aqueduct runoff drainage possibly impacting the site. The Borden site is now the location of CSULA's archaeological field school.

DISCUSSION

Avocational collections are an underutilized resource in archaeological research. What the Boyer collection lacks in large artifact count when compared to Ayers Rock, Ron Henry, or the Borden collection, it makes up for in strong provenience, context, and data potential. Collections such as these provide a valuable source of data for regional trend analyses, and even approximate provenience data is useful. These trend analyses can be bolstered by supplemental research and testing such as OH/XRF to be followed by OHD, protein residue analysis, and steatite sourcing in the case of steatite beads. Collections with no provenience are beneficial as well, as they can be used as teaching aids for the public. In 2016, the Maturango Museum hosted a curation day to teach the public how to catalog archaeological collections utilizing an unprovenienced collection. Research technologies expand every year and these sitting collections are prime candidates for study. Many have yet to be cataloged, making them eligible for study through grants such as the SCA's Orphaned Collections Grant (SCA 2019). The most important factor in utilizing existing collections for research is to combat the "curation crisis" that is gripping archaeology today.

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