

# **SHE SORTS SEASHELLS IN ORDER TO RESTORE: SHELL AND STONE BEAD ANALYSIS OF AN ORPHANED COLLECTION FROM THE ANTELOPE VALLEY**

SARAH E. BERTMAN  
UNIVERSITY OF CALIFORNIA, LOS ANGELES

*From 1982 to 1986, a series of excavations took place at the Totem Pole Ranch site by former Antelope Valley College faculty and students. The site is believed to be the historic Ranchería Maviayek occupied by the Serrano people during Spanish contact. This article reports the initial results from the analysis of shell and stone beads recovered over the four years of excavation. The analysis in this article presents temporal typological changes represented through the diversity of the collection, insight to possible trade and exchange networks, and the impact of Spanish influence on methods and tools used in bead production.*

## **TOTEM POLE RANCH SHELL AND STONE BEADS**

The shell and stone beads excavated from the Totem Pole Ranch site (AVC 184) in the western Mojave Desert provide important information regarding the chronology of the site, economic and political networks, and insights into the impact of Spanish influence on methods and new tool use in bead production. The focus of this article is to present an overview of the variety and density of shell specimens and the large quantity of known steatite and other soapstone beads that were recovered from the site. Totem Pole Ranch was likely occupied during the Late Prehistoric Period by the ethnographic Serrano village of Maviayek (Earle et al. 1995:23), and it is suggested that the site continued to be occupied during historic times due to the presence of glass beads (Earle et al. 1995:24). Preliminary analysis of the recovered shell beads from this site, particularly *Olivella biplicata* Class H Needle-Drilled Disks as classified by Bennyhoff and Hughes (1987) and Milliken and Schwitalla (2012) aid in determining the suggested chronology of the site.

## **METHODS**

Over the course of nearly three months during the summer of 2018, the shell and stone beads recovered from Totem Pole Ranch excavations were analyzed by current students and past alumni of the Antelope Valley College (AVC) Anthropology Department. Through a process of re-cataloging, each sample was weighed, measured, assigned a new catalog number if needed, and entered into an online database. This student-led initiative also focused on recovering and reading the field excavation notes taken by previous AVC students who excavated the site. Although the goals of this project were to analyze the shell and stone beads, this process refined and made us aware of any previous catalog issues, and gave a brief overview to the materials and species present in the collection and their attendant archaeological patterns. The preliminary analysis of these shell and stone beads was carried out using Milliken and Schwitalla's (2012) *California and Great Basin Olivella Shell Bead Guide* and accompanying *Olivella Shell Bead Replica Set*, and cross referenced with Bennyhoff and Hughes' (1987) *Shell Bead and Ornament Exchange Networks Between California and the Great Basin*.

## **DETERMINING CHRONOLOGY THROUGH TYPOLOGY**

*Olivella biplicata* shell beads are among the most common artifact types recovered from archaeological sites in California as they have been used for over 10,000 years (Bennyhoff and Hughes 1987). Seriation of *Olivella* beads has been used to distinguish different temporal units in the archaeological record. Throughout the shell and stone bead samples recovered from Totem Pole Ranch, 262 samples were noted as *Olivella*

*biplicata* shell. Of these 262 collected samples, 233 were classified into a preliminary typology using Milliken and Schwitalla (2012) in addition to the correlating *Olivella* Shell Bead Replica Set. With use of the replica set, the 233 *Olivella* beads were then identified by class as outlined in the Bennyhoff and Hughes (1987) and Milliken and Schwitalla (2012) shell bead guides, in order to understand the typology of beads represented. The suggested class identifications of these beads are Class A: Spire-Lopped, Class B: End-Ground, Class D: Split Punched, Class E: Lipped, Class F: Saddles, Class G: Saucers, Class H: Needle-Drilled Disks, and Class K: Callus Beads. Of the beads identified to class at Totem Pole Ranch, nearly 43 percent were noted as fire-affected. Although no human remains were recovered from this site, Sutton (2016:276) suggested that Totem Pole Ranch may have been a small village, which would indicate that a number of activities may have occurred here. To date, there are no known burials at Totem Pole Ranch; however, the fire-affected beads might suggest mourning activities.

The beads recovered from Totem Pole Ranch (Table 1) are most notably comparable to those that were retrieved from the Lovejoy Springs site (CA-LAN-192; Price et al. 2009). From this site, 363 shell beads were analyzed that were representative of the same class identifications as those from Totem Pole Ranch with the addition of Class C: Split Beads and Class J: Wall Disks. Because Lovejoy Springs includes a cemetery area, Sutton (2016:276) described the site as being a “major village location.” Although there are clear similarities between the shell beads recovered from Lovejoy Springs and Totem Pole Ranch, the high percentage of fire-affected beads excavated from Totem Pole Ranch is notable.

*Table 1. Olivella biplicata Shell Beads from Totem Pole Ranch.*

| CLASS                         | QUANTITY | FIRE-AFFECTED |
|-------------------------------|----------|---------------|
| Class A: Spire-Lopped         | 36       | 17            |
| Class B: End-Ground           | 32       | 20            |
| Class D: Split Punched        | 1        | 0             |
| Class E: Lipped               | 32       | 5             |
| Class F: Saddles              | 7        | 5             |
| Class G: Saucers              | 80       | 41            |
| Class H: Needle-Drilled Disks | 12       | 3             |
| Class K: Callus Beads         | 33       | 10            |
| Totals                        | 233      | 101           |

*Note: Class assignments are from Bennyhoff and Hughes (1987) and Milliken and Schwitalla (2012).*

## TRACING ECONOMIC AND POLITICAL CONNECTIONS

With regard to trade and exchange networks that may have linked the site at Totem Pole Ranch to other locations and different Native American groups, there is much discussion as to how the raw materials and beads were obtained and by whom. Totem Pole Ranch is situated near Littlerock Creek, streaming off the Mojave River, which served as a “linear oasis that provided resources to support village life” (Sutton and Earle 2017:6). Earle (2005) suggested that during the late eighteenth century, the political geography of the area reflected the great importance of this corridor and long-distance trade, especially of Pacific Coast shell beads.

Major trade destinations for marine shell beads appeared to be coastal southern California and the southern San Joaquin Valley. In particular, ethnographic accounts in 1776 by Spanish missionaries state that *Olivella* shell beads were directly obtained from the Channel Island Chumash who were known for their craft specialization and bead manufacturing (Earle 2005:12). Although the shell bead recoveries from Totem Pole

Ranch reflect a high quantity of *Olivella* shell beads, it should be noted that a number of other shell species were found, such as clam breakage; this may correlate to the clamshell disc type of artifacts imported from the Cuyama Valley from Chumash territory (Earle 2005:12).

The stone beads from Totem Pole Ranch were predominantly cataloged as steatite, with various specimens of unknown soapstone beads. A total of 214 steatite/soapstone beads was recovered from the site, nine of which were fire-affected. Although the majority of these beads was nearly uniform in size, as seen in the documented weights and measurements, there was minor variation in color and size. A dark grey/black steatite dominated the color range of these beads, yet other colors such as white and red were observed.

Due to the high quantity of steatite/soapstone recovered from the site, there was inevitable questioning as to its origins and how it was processed. The two major sources of soapstone-producing geologic units in the Los Angeles County are the Santa Catalina Schist on Santa Catalina Island and the Sierra Pelona Schist near Palmdale (Rosenthal and Williams 1992:219). Because the western Mojave Desert has steatite sources, there should be considerable questioning of the idea that soapstone and steatite may not actually be imported to this area, but rather locally used or even exported (Rosenthal and Williams 1992:220). Rosenthal and Williams (1992:221-222) stated that the talcose rocks from Santa Catalina Island are soapstone, and the contrasting rocks from the Pelona Schist outcrop near Palmdale are finer grained and richer in talc, suggesting that they are steatite or talc rock. The authors also noted that the quarrying was not as obvious an activity of natives using the Sierra Pelona Schist as no tools have been noted at the outcrop. Instead, at several drainages below the Sierra Pelona, they observed small “hand-sized” blocks of steatite measuring roughly a few tens of centimeters in length; this suggests that these fractured blocks could have been easily collected and made into small ornaments or tools (Rosenthal and Williams 1992:222-223). With this information, it is plausible that the cataloged steatite beads from Totem Pole Ranch are, in fact, local steatite from the Sierra Pelona, and that natives could have been producing their own small beads and pendants from fractured blocks acquired from water drainages.

### **SPANISH INFLUENCE SEEN IN *OLIVELLA* BEAD PRODUCTION**

Of the cataloged 233 *Olivella* shell beads from Totem Pole Ranch, 12 have been categorized as Class H: Needle-Drilled Disks. As outlined in Milliken and Schwitalla (2012:56), these beads are “Historic period wall disk beads with similar perforations drilled by metal needles obtained from Spanish immigrants,” and are known to have been manufactured along the coast of California and on the Channel Islands. Earle (2005) described ethnographic accounts in which Spanish missionaries, specifically Fr. Garcés who visited this area during the late eighteenth-century, recognized that trade and manufacture of shell beads shaped a wider system of political alliance throughout native cultures of the region; this interchange of goods was eventually seen as a way to integrate Spanish influence and move towards missionization.

The Class H: Needle-Drilled Disk *Olivella* beads recovered from Totem Pole Ranch are noted to have characteristics of both ground and rough, chipped edges. This distinction is important to point out as it suggests a difference in manufacture and craft specialization of *Olivella* shell beads as new tool use has been integrated. Earle (2005:16) stated that traditional *Olivella* wall and saucer disc beads with ground and smooth edges were typical of the end to late prehistoric times. However, circa 1780, *Olivella* disc beads with unground and rough chipped edges appear and production of this bead type persisted as late as the 1830s. This form of production suggests that craft labor expended per bead significantly dropped (Earle 2005:16). Earle (2005:16) referenced Harrington and Kroeber’s work in this area for beads that were described as “flat and irregular in shape.”

### **FUTURE RESEARCH**

Future analysis of the shell and stone beads from Totem Pole Ranch suggests further refinement of the class identification of *Olivella* shell beads. The density of *Olivella* shell beads has proven comparable

to other archaeological sites from the Antelope Valley, yet uniquely different with regard to the percentage of fire-affected beads. Refining the identification of *Olivella* beads by a scholar with more expertise will allow for a better understanding of the chronology and temporality of Totem Pole Ranch. Future research on the prevalence of fire-affected *Olivella biplicata* will greatly contextualize the possibility of burials or mourning activities that may have occurred at the site.

An additional focus on the lithics from the site will give greater understanding to the speculation that bead manufacturing may have occurred at Totem Pole Ranch. The possibility of microdrills obtained from the lithic remains might indicate what activities were taking place, what beads may have been manufactured, and during what time period this occurred.

Although the *Olivella* shell samples make up a large portion of the collected shell specimens from this site, a large quantity of *Haliotis rufescens* was also recovered. The preliminary analysis of this shell species proved to be difficult in that much of it was categorized as “breakage.” These samples could not be counted as they were seemingly fragile and would continue to break. Among this “breakage” were a number of modified *Haliotis* pieces as well as larger raw material rims of the shell that were only noted to be found below 50-cm levels. Analyzing these shell remains might indicate if this material was being transported to the site and then manufactured. However, because the site had the greatest amount of disturbances within the first 30-40 cm from a multitude of different activities, as suggested by the principal investigator during its excavation over the years, comparing the amount of *Haliotis* found within the first 30-40 cm to that found in lower levels is necessary to understand if this “breakage” was due to disturbances at the site or if it is the waste production of *Haliotis* beads and ornaments.

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