

SHELL BEAD PRODUCTION AT INTERIOR CHUMASH VILLAGES

JOAN BRANDOFF AND DAN REEVES

The making of shell beads on the Santa Barbara Channel Islands is well documented. Santa Cruz Island in particular is known for the industry of bead production from Olivella shells. Was bead production occurring at interior Chumash villages? The Santa Ynez Mountains are a 3,000-ft. obstacle between the coast and the interior. Excavation at an interior village resulted in relatively large quantities of shell beads, along with shell fragments representing production of Olivella shell beads. Was this a unique situation, or did bead production occur at other interior villages? Excavated materials and reports from several interior villages are reviewed for evidence of shell bead production.

The making of shell beads on the Santa Barbara area Channel Islands of coastal central California is well documented. Santa Cruz Island in particular is known for the industry of bead production utilizing *Olivella* shells at villages on the west end of the island. The shell beads produced there were generated as an economic medium rather than ornamentation. As such, shell bead money is considered to be a means of redistributing resources between the mainland and islands, traded from the islands for food and other goods from the mainland. Island people had access to marine resources and shellfish, but fewer terrestrial plants and animals. This accepted explanation for the development of the bead-making industry presents bead production as a specialized craft conducted in specific environments or villages and families. The causal factor was a need to develop a tradable commodity to exchange for food with people from other environments.

But were the islanders the only ones making shell beads? Was bead making or bead production occurring beyond the coastal and island zones at interior villages, beyond the place where the raw materials, the shells, were collected? That seems unlikely because of the 3,000-ft.-elevation mountain range separating the coast and the interior. We perceive the Santa Ynez Mountains as a significant barrier. And yet inland villages contain abundant fragmented shell.

The variety and abundance of plant foods available to villages located inland make those villagers the likely suppliers to the bead makers, or the other end of the exchange relationship.

This article did not begin with this research question, but rather from observations when cataloging the collection from the interior village of Najalayegua. The small-scale excavation had resulted in over 500 shell beads, primarily *Olivella* shell beads, along with some whole *Olivella* shells and *Olivella* shell detritus. The odd shape of some of the *Olivella* detritus led to the question: Were they making shell beads here? And the subsequent question: Is there evidence from other interior villages of making beads from *Olivella* shells?

RESEARCH

Did bead production occur at other interior villages, particularly from *Olivella* shells, or does Najalayegua represent a unique situation? Four archaeological collections and three excavation reports were examined for the presence of or references to *Olivella* shell detritus. All excavations were of village sites in the middle and upper Santa Ynez River drainage, commonly considered to be Ynezeño Chumash villages. This approach allowed a look across the landscape (Figure 1).

The Santa Ynez River is the drainage proximate to the coastal zone where the densest Chumash population occurred. It is the area into which people would have immigrated first in response to population pressures and/or the search for terrestrial foods. All villages were occupied in the late period, although not exclusively then.

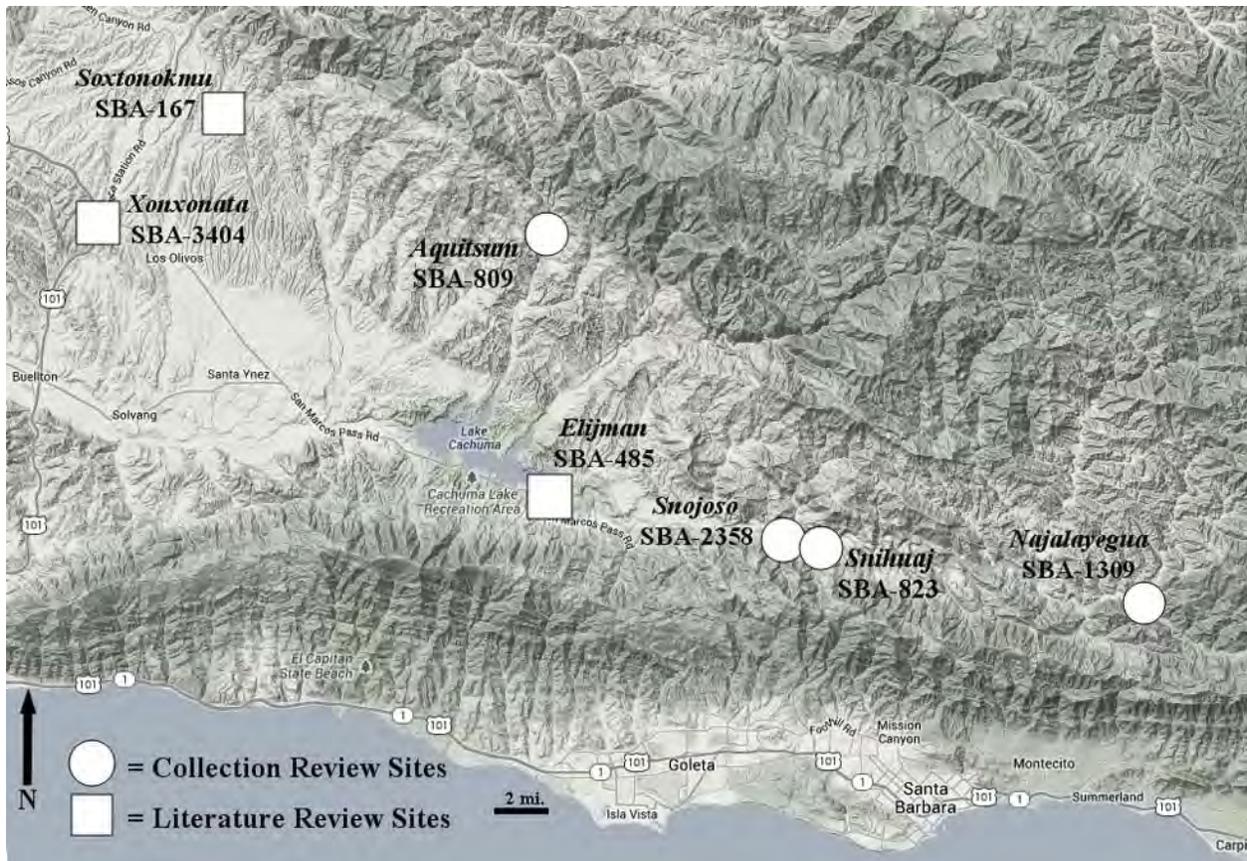


Figure 1. Interior village collections and excavation reports examined.

Three archaeological collections examined came from villages in the upper Santa Ynez River drainage: Najalayegua, Snihuaj, and Snojoso. The fourth collection came from Aquitsum, in the middle or central Santa Ynez River drainage. All collections are from public lands, in Los Padres National Forest.

Excavation reports from three other interior villages in middle the Santa Ynez River drainage were reviewed; Elijman, Soxtokmu, and Xonxonata. *Olivella* shell beads are commonly found; but is *Olivella* shell detritus common? Shell fragments are common components of interior villages, mostly *Chione* and other edible species. *Olivella* is not a source of food.

Excavation reports, without the accompanying archaeological collections, indicated the presence or absence of *Olivella* shell detritus. Review of collections allowed identification of breaks of shell fragments that were intentional and unnatural wear. The reports allowed expansion of the sample for the middle Santa Ynez River which, in addition to the archaeological collection from Aquitsum, provided a means to compare two sections of the river drainage. Were villages on the upper Santa Ynez River different from villages in the middle area in regards to making *Olivella* shell beads?

REVIEW OF COLLECTIONS

Najalayegua

SBA-1309 is a village occupied in the late period, with the range of occupation unknown. Located on a terrace on the north side of the upper Santa Ynez River drainage, it is the easternmost village of the study and in the most mountainous terrain. The site was excavated as part of a field school jointly held by Los Padres National Forest and Cal State Dominguez Hills in 2008 and 2009. Four 1-m-

sq. units were excavated. The site is on land where base camps for wildfire fighting are often located when the adjacent backcountry burns. The site was tested to determine whether intact archaeological values still existed after 200 years of subsequent nonnative occupation and use after the last village occupants. The archaeological collection has been catalogued, but little else. Funds were not available for analysis, so the faunal remains have not been sorted, nor were other materials from the collection subjected to analysis. The site contained a large number of fish bones and otoliths, in addition to abundant fragmented shell.

During cataloging of the collection, it was noticed that some of the *Olivella* shell detritus exhibited breaks or cuts that appeared unnatural. The excavation yielded 532 shell beads, including a number that were less than 3 mm in outer diameter. The site yielded bead blanks and modified shell of *Tivela*, in addition to *Haliotis* shell shaped detritus and beads, mussel, and *Dentalium* beads. The connection to the coast is strong at the site, as exhibited by the marine remains and ethnographic kin relationships with people of the coastal villages. Individuals from this village were the first mission converts from the interior (Brandoff-Kerr 2009).

Twenty pieces of *Olivella* shell were identified as exhibiting unnatural cuts, including longitudinal shell pieces that included the spire to canal, spires only, columellas only, and sidewalls with right-angled cuts, in addition to many whole *Olivella* shells. This finding led to the question, were the people making shell beads? Are these kinds of items occurring in the collections from other interior villages?

Snihujaj

SBA-823 is a late period village on a terrace on the south side of the Santa Ynez River in the middle portion of the upper Santa Ynez drainage, at the confluence with a south-flowing tributary creek. It was excavated in the 1980s by the Forest Service. Although the collection has been sorted and portions have been analyzed, the collection is uncatalogued.

Nineteen 1-m-sq. units were excavated. Two hundred and seventy-two *Olivella* shell beads were found, in addition to four fragments of *Olivella* shell indicative of bead making, including two bead blanks and one *Olivella* shell spire. The collection also includes modified *Tivela* and an abalone disc. The Snihujaj collection also contains a few beads measuring less than 3 mm in outside diameter.

Snojoso

SBA-2358, a middle to late period village, is located on the western end of the upper Santa Ynez River, on a terrace on the south side of the river near the confluence of a north-flowing tributary creek. It was excavated in the 1990s by the Forest Service and reported by Anderson (1997), whose work was primarily a lithic analysis for her Master's thesis. Nine 1-m-sq. units were excavated. One hundred and forty-four *Olivella* shell beads were found, along with 47 beads of serpentine, including a bead blank, and serpentine detritus. Anderson reported that 90 percent of the shellfish remains were *Chione* and *Protothaca*.

A review of the shell fragments in the archaeological collection revealed the spires of two *Olivella* shells. The spires are the parts of the shell that wear off, or are naturally worn down to an open aperture, from the waves rolling them around the rocky shores where they are found. The presence of spires is evidence of the *Olivella* shell bead making at Snojoso.

Aquitsum

SBA-809 is a village site along Cachuma Creek, a tributary to the Santa Ynez River in the middle section of the drainage. Aquitsum is several miles from the confluence with the river and is at the base of the slopes that rise to the San Rafael range. It sits on Forest land and private property. It was excavated in the 1980s in response to damage from trespass on National Forest lands. Many years later, Matt Armstrong (2006) analyzed the collection for his Master's thesis. His focus was the marine shell

component of the site, determining associations of the village based on the source of the shellfish remains and connections to different environments of the coast.

Though the collection was sorted to species, no *Olivella* shell detritus was found. However, modified *Tegula*, *Tivela*, *Protothaca*, *Chione*, and *Haliotis* shells were present, indicating bead making.

REVIEW OF EXCAVATION REPORTS

Elijman

SBA-485 was a middle and late period village located along the middle section of the Santa Ynez River. It was the easternmost village excavation report reviewed for the middle section of the river valley. In this study, the place where the river exits the more mountainous section of the upper Santa Ynez River's drainage is considered the break point between the upper and middle river sections, based on topography.

This site was excavated several times by several researchers during the 1950s and 1960s, utilizing trenches. Macko (1983) analyzed the results of the previous excavations and excavated some of the back dirt.

Macko reported finding large numbers of shell and stone beads: over 900. The beads were primarily shell rather than stone and primarily *Olivella* shell beads. The analysis of shellfish remains from the excavation reported no *Olivella* shell detritus.

Soxtonokmu

SBA-167 was a late and historic period village also located in the middle section of the Santa Ynez River drainage. Rather than being along the river itself, Soxtonokmu is along the upper reaches of Alamo Pintado Creek, which is a primary tributary of the river. The village is situated along the last gentle alluvial terraces of the creek before the precipitous rise of the San Rafael Mountains.

Soxtonokmu findings were reported by McRae (1999). The village was excavated several times. In the 1950s, at least four pits were dug, including one in the cemetery. In 1960, postholes were dug in a grid across the site, and two 5-by-5-ft. units were excavated. In 1961, a UC Santa Barbara field school excavated the site under the direction of James Deetz and moved a considerable amount of soil in 5-by-5-ft. units. Deetz and his students dug a 20-by-20-ft. block in the habitation area of the village. Deetz's analysis included only a portion of that excavation block that was a 200-ft.² area, dug to a depth of 1.5 ft. Deetz recorded finding 835 shell beads in the analyzed area.

McRae used six of Deetz's 5-by-5-ft. units as the basis of her analysis. She reported 383 *Olivella* shell beads. She also reported *Olivella* shell detritus in all of the units, though not in all levels, and albeit a relatively small amount. McRae reported a total of 15.73 g (42 pieces) of *Olivella* shell detritus, with no more than about 4 g occurring in any one unit, and most units having about 2 g.

Xonxonata

SBA-3404 is another late period village at the western edge of the middle section of the Santa Ynez River drainage. Excavations in the late 1990s were conducted in support of a state highway construction project. Xonxonata sits along Zaca Creek, a tributary to the Santa Ynez River, approximately 6 mi. from the confluence.

At this site, 13 backhoe trenches were opened, four of which were in core midden. Twenty-seven 1-by-1-m units were excavated. Hildebrandt (2004) reported recovering 347 *Olivella* shell beads, and in addition, attributed 21 pieces of *Olivella* shell detritus to bead production. Hildebrandt's report also counted an additional 10 whole *Olivella* shells as bead production materials, concluding that a small amount of *Olivella* bead production occurred at the site.



Figure 2. Interior villages where evidence of *Olivella* shell bead making is found.

RESULTS

Making beads from *Olivella* shells was not uncommon at interior villages, though it does not appear to have been done on a large scale or at every village. There do appear to be some differences in bead-making activity between villages on the upper and those on the middle Santa Ynez River drainage.

Olivella bead-making evidence comes from all three of the villages on the upper Santa Ynez, but at only two of the four villages in the middle Santa Ynez (Figure 2). The Aquitsum collection does contain evidence of bead making, but using *Tivela* and *Tegula* shells rather than *Olivella*. Excavations at most (three) of the middle villages moved significantly more soil than was excavated at the upper villages (two), and are likely better representations of the activities occurring at those sites.

Middle Santa Ynez River Villages

Four villages were examined: one from the collection and three from excavation reports. Three were locations where a significant amount of soil was excavated: Elijman, Soxtokmu, and Xonxonata. Two of the four collections contained relatively small amounts of *Olivella* shell detritus: Soxtokmu (15.73 g; 42 pieces) and Xonxonata (21 pieces). Two villages, one of which was represented by a collection, had no *Olivella* shell detritus: Aquitsum and Elijman. Far more *Olivella* shell beads (800) were found at Elijman, where no *Olivella* detritus was reported, than at either Soxtokmu (383 beads) or Xonxonata (347 beads), where small amounts of *Olivella* detritus were reported.

Upper Santa Ynez River Village

The collections from all three villages (Najalayegua, Snihuaj, and Snojoso) were examined. All contained *Olivella* shell detritus indicative of bead production, albeit in small amounts. The amount at Najalayegua far exceeded the amount found at either of the other upper Santa Ynez River villages. The collections were examined for *Olivella* shell detritus that was not the result of natural breaks, rather than the total amounts of *Olivella* detritus. Shell detritus from two of the sites has not been sorted to species; therefore, counts or amounts of *Olivella* shell detritus are not available. Entire *Olivella* shells were found at Najalayegua and Snihuaj, but not at Snojoso.

DOES THE PRESENCE REPRESENT CONNECTIONS TO ISLAND PEOPLE OR A COTTAGE INDUSTRY?

Conclusions reached from these data are simple presence/absence, and represent broad strokes across the cultural landscape. Like kinship ties between villages, they may indicate group affiliations, defining village associations or groupings indicative of how the peoples aligned themselves with coastal villages, and maybe ultimately the progression of use and settlement in the interior. For instance, did the villages of the upper Santa Ynez consider themselves of the coast or of the interior, Barbareño or Ynezeño? This could speak to early resource exploitation of the upper watershed and settlement to take advantage of a greater variety of plant resources (of the fire-response chaparral and woodland landscape) as opposed to the grasslands and oak savannah of the valley floor. All middle Santa Ynez villages are positioned within or adjacent to large areas of open grassland and oak savannah. These locations are better suited to the exploitation of specific seasonal food plants: grass/forb seeds and acorns. Seasonal villages, and villages created from population pressure, seem a more logical progression in these environments.

The upper Santa Ynez villages may have had stronger connections to and identification with the coastal villages and economy, including bead making. In the late period, it is reported that the son of the chief of the coastal village of Syuxtun, SBA-27, was the chief of Najalayegua (Brown 1967). Recent excavations conducted at Syuxtun revealed evidence of *Olivella* shell bead making, based on an abundance of *Olivella* shell detritus and microblades (Gusick and Gamble 2013) in amounts that far exceed amounts from any of the villages in this study.

Bearskin robes were defining, high-status clothing worn by owners of *tomols*, the channel-crossing canoes (Gamble 2008). The upper Santa Ynez, and the vicinity of Najalayegua in particular, was known for a large bear population well into the historic period, and a more likely source of the bearskins than the coast.

Olivella shell bead-making evidence in the interior may represent family affiliations with craft specialties, and may represent visiting relatives (pursuing their craft with brought materials). It may represent a cottage industry, learning a craft and practicing it on a small scale. Bead making may represent movement of some people from the islands in response to changing conditions of the physical and social environment. Or maybe many people tried their hand at bead making from shell, though not with the intensity or skill of island people, who made it into an industry.

Is it important that *Olivella* shell beads were made in the interior or that bead making occurred in some interior villages but not all? Is it important that one village was making beads, but not utilizing *Olivella*? No evidence has been found to indicate production equivalent to that at the west-end villages of Santa Cruz Island. We know that bead making occurred outside of the islands and coastal zone. The differences found may help to elucidate the complexity of land use and settlement, the movement of people across the landscape, and possibly their responses to changing conditions in the environment and the social system.

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