

## REPORTS

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### A Shell Projectile Point from the Big Sur Coast, California

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IN the summer of 1986 a rescue excavation was conducted by a University of California, Santa Cruz, archaeological field class at an eroding shell midden, CA-MNT-1223 (the Dolan I Site), on the Big Sur coast (Fig. 1). Situated 70 km. (45 mi.) south of the city of Monterey in ethnographic Esselen territory, the site had been recorded two seasons earlier by another field class during the completion of a cultural resources survey of Landels-Hill Big Creek Reserve (Jones et al. 1987). Full results of the excavation will be detailed in an impending report, but the most unusual find was a Desert Side-notched projectile point made from a fragment of abalone (*Haliotis rufescens*) shell.

#### THE SITE

MNT-1223 is situated at an elevation of 370 m. (1,200 ft.) straddling the edge of a tiny coastal terrace, 0.8 km. (0.5 mi.) from the shoreline. It covers an area of approximately 1,365 square meters, although half of this is strewn down the slope of a steep cliff that was created by a major land slump. Ten 1 x 2-m. units were excavated on the edge of the cliff, and these showed the midden to be fairly shallow: most of the cultural materials were found at depths no greater than 70 cm. below surface. In addition to the erosion, the midden was substantially mixed by rodent activities. The site produced an impressive array of artifacts including a hopper mortar, shell and steatite beads, projectile points, bone tools, and a single flexed burial. Shell remains were dominated by California mussel (*Mytilus*

*californianus*) with lesser proportions of at least ten other common rocky coast mollusks. Vertebrate faunal remains were dominated by elements of black-tailed deer (*Odocoileus hemionus columbianus*). Given its small size and the diverse artifact assemblage, the site can confidently be classified as a temporary camp.

#### THE ARTIFACT

The projectile point (specimen 34-7-27) was found in the 20-30-cm. level of Unit 7. It measures 26.0 mm. in length, 13.5 mm. in width, and 2.0 mm. in thickness, has a neck width of 5.1 mm., and weighs 0.9 g. It appears to have been made by the same techniques used in the manufacture of shell ornaments; the shell was cut and ground, not flaked. As can be seen in Figure 2, the point corresponds to the General subtype, defined by Baumhoff and Byrne (1959:37), although it is 1 mm. shy of the minimum length criterion for that subtype. Other examples of this type were common in the midden, although the rest were made from Monterey and Franciscan cherts. The only other point type recovered from the site is a small, unnotched, triangular, concave-based point that has been classified variously as Coastal Cottonwood by Koerper and Drover (1983:16), Canaliño Swallowtail (J. Bennyhoff, personal communication 1986), and Canaliño (King 1978:68). Regardless of nomenclature, both this and the Desert Side-notched specimens are consistent with the rest of what is clearly a single-component Late Period assemblage. Bead types included large spire-lopped *Olivella* (A1c), large punched spire-lopped *Olivella* (A4c), round thin-lipped *Olivella* (E1a), oval thin-lipped *Olivella* (E1b), cupped *Olivella* (K1), and *Mytilus* disks (M2), all of which are consis-

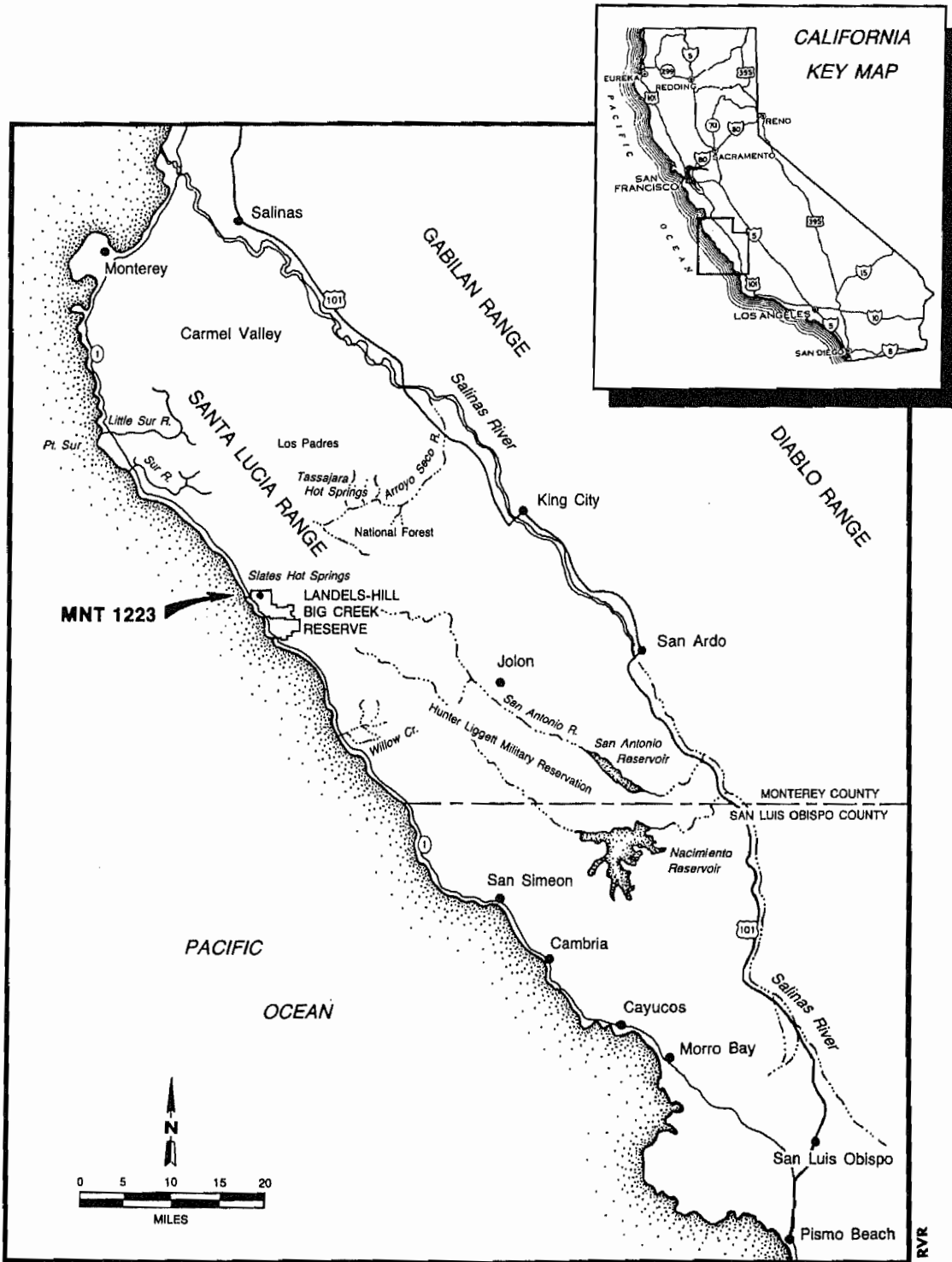


Fig. 1. The central California coast and the location of CA-MNT-1223.

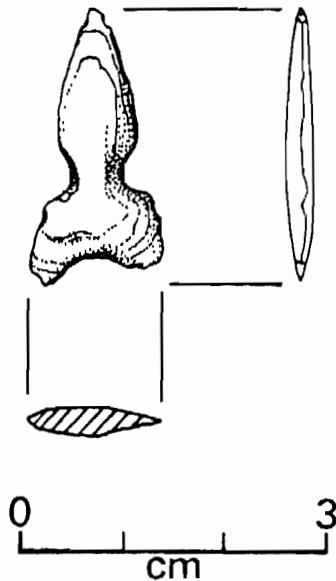
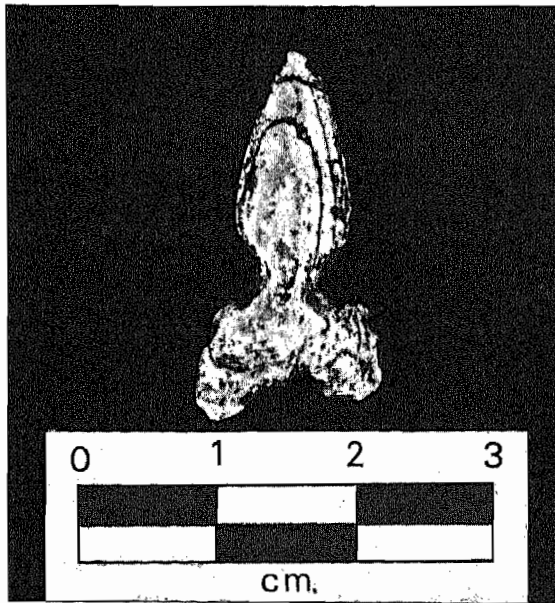


Fig. 2. Photograph and line drawing of abalone projectile point from CA-MNT-1223.

tent with a Late Period occupation (bead nomenclature follows Bennyhoff and Fredrickson 1967).

Although not directly associated with the abalone point or any other artifact, two radiocarbon assays were obtained from midden

abalone shells (*Haliotis rufescens*). One, from the 20-30-cm. level, produced a date of  $1,110 \pm 50$  B.P. (WSU-3578); the other, from the 50-60-cm. level, yielded a date of  $920 \pm 75$  B.P. (WSU-3579). The lack of superposition in the dates reflects the mixed nature of the midden deposit. A hydration reading of 2.2 microns on the only flake of obsidian recovered from the site (sourced to Casa Diablo) further supports assignment of the site to the Late Period.

### DISCUSSION

As far as is known, no shell projectile point has ever been reported from California before. Thus, this specimen adds a new regional variant to the list of raw materials that were resorted to during the Late Period for tool manufacture. Desert Side-notched points made from bottle glass and porcelain are not uncommon and have been reported from Mission San Carlos in Carmel (Howard 1974:46), and a point of antler has even been reported from the Sacramento Valley (Bennyhoff 1957). But the circumstances surrounding the use of bottle glass by mission Indians are significantly different from those that we might presume led the inhabitants of this pre-contact site to resort to such an apparently ill-suited medium. If the point was intended for use, it suggests that the inhabitants of this site did not always have easy access to sources of more appropriate material (i.e., siliceous stone) and may have been somewhat isolated. Such a conclusion also can be drawn from the occurrence of only a single flake of obsidian in 13.4 cubic meters of deposit (screened through 3 mm. mesh). Although the nearest obsidian sources (Casa Diablo and Napa) are a great distance from the Big Sur coast, earlier sites in other parts of Monterey County manifest substantially higher densities of this commodity. MNT-229, for example, a single-component Middle Period site in northern

Monterey County, produced 204 pieces of obsidian from approximately 125 cubic meters of deposit (Dondero 1984; Dietz et al. 1988: 96).

Obviously the recovery of points and debitage of Monterey and Franciscan cherts indicates that raw materials for tool manufacture were not impossible to obtain, but the low incidence of obsidian suggests that site inhabitants may not have had strong trade ties or resource access agreements with surrounding neighbors. Unfortunately, however, we have no way of determining whether its manufacture was mere frivolity. As such, it will ultimately be necessary to acquire more information on the relative abundance and distribution of various lithic materials in this region in order to determine whether there was, in fact, a scarcity of raw materials here during the Late Period. If such a paucity can be recognized, it will be interesting to determine whether it was merely the result of an extreme environment, or whether there were cultural barriers that impeded the flow of goods into this region.

#### ACKNOWLEDGEMENTS

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