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A Chipped Stone Crescent from CA-SMI-681, San Miguel Island, California

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In this short paper we describe a crescent fragment recently found at a site on San Miguel Island. Crescents are important terminal Pleistocene and Early Holocene time markers in California and the Great Basin, but knowledge about their distribution, chronology, and function is limited by incomplete reporting of their occurrences in the published literature. Although several crescents were found on the Channel Islands by antiquarians or early archaeologists, very few have come from known sites or specific contexts. The crescent from CA-SMI-681 comes from an upland lithic scatter, a context that supports a utilitarian function associated with the manufacturing, use, and maintenance of points and related hunting equipment. The crescent adds to the evidence for a substantial presence of Paleo-coastal peoples on San Miguel and the other northern Channel Islands.

In the far western United States, chipped stone crescents are widely viewed as terminal Pleistocene or Early Holocene time markers (Erlandson 1994; Fenenga 1984; Frederickson and Grossman 1977; Jertberg 1986; Justice 2002), although their chronology remains only generally delimited. They are one of the most emblematic artifacts in California archaeology, especially those 'eccentric' varieties that include specimens that resemble a bear (Koerper and Farmer 1987), one of which serves as the official prehistoric artifact of the state of California. Usually found in sites near ancient lake, wetland, or coastal settings, crescents are often interpreted as transverse projectile points, possibly used in hunting waterfowl or seabirds (Fenenga 1984; Tadlock 1966). Their wide geographic distribution and considerable morphological diversity suggest, however,

that their function may have varied through both space and time. Wardle (1913) and Heye (1921) suggested that Channel Island crescents were surgical tools, for instance, while others have argued that some eccentric specimens from coastal California were zoomorphic amulets or animal effigies (Koerper and Farmer 1987; Ruth 1936). Justice (2002:116) even noted a morphological similarity to the *ulus* ("women's knives") used in arctic North America—although a similar morphology does not necessarily imply functional similarity.

Roughly one hundred crescents have been reported from the California coastal region over the years, including several specimens reported for the Santa Barbara and San Luis Obispo areas (Erlandson 1994:176; Erlandson and Braje 2008; Erlandson, Rick, and Vellanoweth 2008:39; Fenenga 1984; Greenwood 1972:26; Jertberg 1986; Ruth 1936). Roughly 30 to 40 percent of these crescents have come from the Channel Islands, where they have been reported from San Miguel, Santa Rosa, San Nicolas, and Santa Catalina islands (see Fenenga 1984; Heye 1921; Jones 1956; Wardle 1913). Unfortunately, understanding the chronology and function of crescents along the California coast has been hampered by the fact that most specimens lack detailed provenience, firm stratigraphic context, or clearly associated radiocarbon dates. Many mainland specimens come from multicomponent sites, for instance, which have been mixed by bioturbation, plowing, and other soil disturbance processes. On the Channel Islands, where bioturbation and stratigraphic mixing are less problematic, nearly all the documented crescents until recently were collected by early amateurs or antiquarians (e.g., Heye 1921; Jones 1956; Wardle 1913) and are lacking in detailed provenience data or temporal control.

Recent research on San Miguel Island has begun to shed more light on the context and chronology of chipped stone crescents on the Channel Islands and the California coast. Erlandson (2005) reported the first island crescent from a stratified context, a nearly complete specimen found eroding from a shell midden soil exposed in the sea cliff at Daisy Cave (CA-SMI-261) on San Miguel Island, in a stratum (E/F) dated between about 10,200 and 8,500 cal B.P. (see Erlandson et al. 1996). The Daisy Cave specimen supports an Early Holocene age for crescents along the California coast, but a more precise age within this 1,500-year period could not be determined. Erlandson and Braje (2008)

described five crescents found on the surface of a large lithic scatter (CA-SMI-679) overlooking Cardwell Point near the east end of San Miguel Island. This site was originally thought to date to the Early Holocene, but we have recently obtained a radiocarbon date of ~11,800 cal B.P. for a well-preserved marine shell fragment from a small patch of intact shell midden, suggesting that some chipped stone crescents on the Channel Islands may have been used in the terminal Pleistocene (Erlandson and Braje 2008). CA-SMI-679 seems to be a multicomponent lithic workshop located near a geological source of Cico chert and Monterey chert cobbles (Erlandson, Braje, and Rick 2008). Associated with the CA-SMI-679 crescents were scores of biface preform fragments, abundant large core and biface reduction debris, and several stemmed Channel Island Barbed points (see Justice 2002)—also known as Puntas Arenas or Arena points—that also seem to be Early Holocene markers (see Braje 2007; Braje and Erlandson 2008; Erlandson and Braje 2007, 2008; Glassow et al. 2008).

A CRESCENT FRAGMENT FROM CA-SMI-681

In 2006, we found another crescent fragment at a site known as CA-SMI-681 (Lotah's Wheel site), situated roughly 230 meters above sea level on the south slopes of San Miguel Hill and about 1.6 km. from the south coast (Fig. 1). The site is located on the west rim of Forneys Canyon, one of the larger drainages that dissect the south coast and southern escarpment, just below a shallow saddle on the east flank of San Miguel Hill. Forneys Canyon may have been one of the main overland travel routes for people moving between two prime locations on San Miguel, the Cuyler Harbor area on the north coast and the Crook Point area on the south coast. The site provides some limited protection from the strong northwesterly winds that buffet San Miguel Island during much of the year, ready access to commanding views of the surrounding area, and proximity to fresh water during the wet season. Unfortunately, heavy soil erosion associated with overgrazing during the historic period has led to the deflation of most of the CA-SMI-681 soils, limiting our ability to reconstruct the original structure and function of the site.

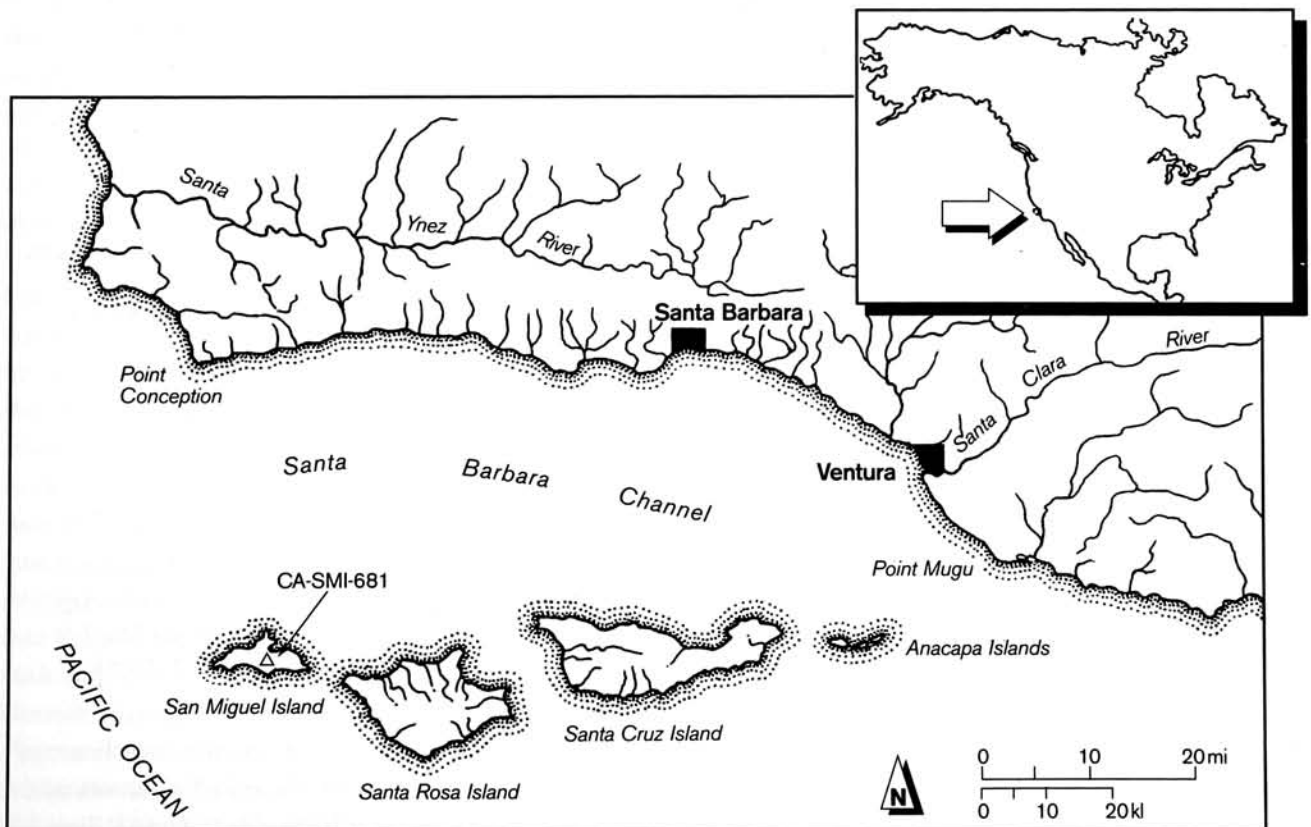


Figure 1. Map of Santa Barbara Channel and San Miguel Island, showing the approximate location of CA-SMI-681 (adapted by T. Braje from Kennett 2005:2).

However, our 2006 reconnaissance suggested that CA-SMI-681 contained multiple components, an inference based on stratigraphic and technological associations. In the central site area, for instance, we found a small and badly disturbed exposure of a sparse shell midden eroding from the remnant of a low sand dune. This low density midden, consisting primarily of very small California mussel (*Mytilus californianus*) shell fragments, has not been dated, but Holocene dunes appear to have moved into this area only in the last 5,000 years or so. A fragment of a relatively well-made sandstone pestle found near the edge of the midden also suggests that this component dates to the Middle or Late Holocene.

An older and more extensive component consists of a low-density lithic scatter embedded in or eroded from a well-developed "Green Mountain" soil (see Johnson 1972:232). No datable organic remains were found in this soil, but the chipped stone crescent fragment and several bifaces found near the eastern site margin suggest that this basal component dates to at least the Early Holocene. Elsewhere on San Miguel Island, where dune sand has covered several archaeological sites embedded in this soil, they have always been at least 7,000 years old (Erlandson, Rick, and Peterson 2005).

Finally, a circular feature of stone cobbles in the northern site area appears to be the remnants of a 'medicine wheel' reportedly built by Native American consultant Kote Lotah during an archaeological project sponsored by the National Park Service and the University of California, Santa Barbara in 1982. This historic feature, roughly 2.0 x 2.5 meters in diameter, also contains four internal spokes in a cross-like formation marking the four cardinal directions.

Along the west rim of Forneys Canyon, in the northeastern area of CA-SMI-681, Erlandson found the crescent fragment in a deflated and low density scatter of chipped stone artifacts, including three other Monterey chert biface fragments. One of these is a fragment of a biface preform, another is an undiagnostic point fragment, but the third is a heat-fractured projectile point preform that has a retouched base typical of a Channel Island Barbed point. The crescent is the most finely flaked of these four biface fragments and represents roughly 40 percent of a whole crescent (Fig. 2). It is a medial fragment that still retains remnants of an excurvate axial blade and

a flattened base with several small lateral notches and projections (see Fig. 3). The crescent was made from a mottled brown and gray Monterey chert, once thought to be exotic to the Channel Islands but now known to be locally available on San Miguel Island (Erlandson, Braje, and Rick 2008). No clear signs of heating (i.e., potlids or heat-crazed fractures) are evident on the crescent, but several burned or heat-treated bifaces from other early San Miguel Island sites suggest that thermal treatment of chert was part of the technological repertoire of early islanders. The fractures on either end of the crescent fragment, both oriented perpendicular to the long axis of the artifact, offer no clear evidence for whether the crescent was broken during manufacture, during use, or after deposition. The relatively high degree of finish suggests that the crescent could have been discarded at CA-SMI-681 after it broke during use, but it could also have broken in the later stages of manufacture.

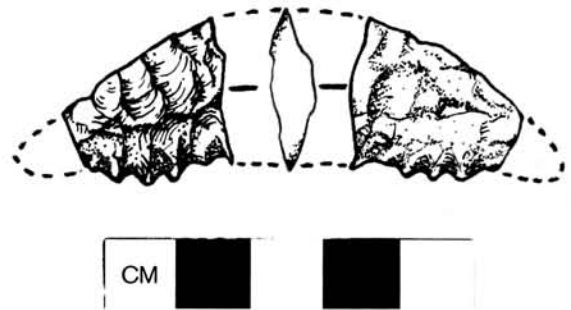


Figure 2. Drawing of the CA-SMI-681 crescent fragment, showing both sides of the artifact as opposite ends, with a cross-section (drawn by Deana Dartt).

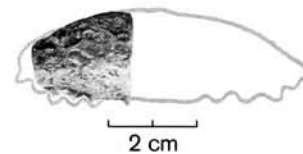


Figure 3. The CA-SMI-681 crescent fragment superimposed on Fenenga's (1984) outline drawing of a Type 3A crescent from San Miguel Island (photo by J. Erlandson; graphic by T. Braje).

Typologically, the crescent appears to fit Fenenga's (1984:17–18) description of "Type 3A" crescents, and it is very similar to some of Tadlock's (1966:663) Type I/II (Quarter or Half Moon) crescents. Such crescents, which are among the more common varieties found

on the northern Channel Islands, are similar to the non-eccentric types found throughout much of the western Great Basin, the Pacific Northwest, and California, where they are strongly associated with lakes, wetlands, estuaries, or coastal areas (see Erlandson 1994; Fenenga 1984; Frederickson and Grossman 1977; Tadlock 1966).

CONCLUSIONS

The chipped stone crescent fragment from CA-SMI-681 represents one of the first Channel Island specimens that can be securely associated with a specific site and a relatively secure cultural and geographic context. Although not firmly dated, the morphology of the CA-SMI-681 crescent is consistent with several other Early Holocene or terminal Pleistocene crescents found on San Miguel Island. The context of the find, a low-density lithic scatter in an upland pericoastal setting, suggests a utilitarian function for this crescent fragment. In describing five crescents found recently near the east end of San Miguel Island, Erlandson and Braje (2008) also argued for a utilitarian function, possibly as transverse points for hunting aquatic birds. Whatever their function, crescents recently found at several San Miguel sites provide further evidence for a substantial presence of early maritime peoples on California's Channel Islands during the Early Holocene and terminal Pleistocene.

As we noted earlier, crescents similar to the CA-SMI-681 specimen have been found in early sites scattered across much of North America's Far West, from the Pacific Northwest, the Great Basin, and California (see Fenenga 1984; Tadlock 1966). The wide distribution of stylistically similar chipped stone crescents argues for broad cultural links among early coastal and interior peoples in the Far West, including extensive human interaction and exchange networks (for goods and ideas) among Early Holocene peoples throughout the area (see Fitzgerald et al. 2005). Thus, chipped stone crescents such as the CA-SMI-681 specimen are of interest as chronological markers for Early Holocene and terminal Pleistocene occupations, as evidence for broad adaptive similarities among early coastal and interior populations, and as an avenue for understanding the extent of cultural interaction and information exchange in early Native North America.

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