Emergent Cultural Traditions in the Central Sierra Nevada Foothills

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Study of contact-era archaeological assemblages from sites situated in the lower elevation areas of Yosemite National Park suggests that some projectile points dating to this time period reflect the blending of cultural traditions of the Great Basin and northern San Joaquin Valley. This same pattern appears to extend down into the central Sierra Nevada foothills, and may mark one consequence of increased non-native presence and pressure on the coast at this time and displacement of native people from their traditional territories.

This paper considers evidence for the development of cultural traditions in the central Sierra Nevada foothills in late prehistory and into the historic era, but was initially prompted by an archaeological observation in the higher elevations of the Sierra Nevada in Yosemite National Park. During recent research on contact-era culture change in Yosemite Valley (Hull 2002), excavation was undertaken at two sites spanning the apparent introduction of non-native disease and subsequent substantial native population loss documented in ethnohistoric accounts. Site CA-Mrp-57 was selected to represent an "immediate" pre-disease occupation, with radiocarbon dates from a hearth feature dating the excavated area of the deposit to circa A.D. 1600. Site CA-Mrp-62, on the other hand, provided data on immediate post-disease lifeways, with radiocarbon dates, shell beads, and glass trade beads indicating use circa A.D. 1820. Despite the evident use of both sites for habitation and the general similarity of the flaked stone assemblages with respect to technology, material, and functional types, one clear distinction was evident between these sites in terms in the Desert Side-notched projectile point assemblages. A noteworthy proportion of the 20 such points from CA-Mrp-62 exhibited distinctly serrate (as opposed to simply denticulate) edges, while this characteristic was absent from the sample of ten Desert Side-notched points recovered from CA-Mrp-57.

Although Baumhoff and Byrne (1959) did not discuss serration in their seminal study of Desert Side-notched points in California—and the significance of this trait has never been examined in detail within Yosemite or elsewhere in the central Sierra Nevada—a preliminary review of regional literature suggests that the presence of this feature within Yosemite Valley assemblages may have its origins in contact-era demographic change to the west. In addition, the geographic and, perhaps chronological, distribution of this trait may have greater implications for understanding the genesis and persistence of cultural traditions over a much wider area.

Geographic Evidence

Review of the Yosemite archaeological literature indicates that serrate Desert series points have been located in several areas, with site-specific provenience or artifact associations suggesting that this trait relates to immediate post-contact occupations. Specifically, Fitzwater (1962:243) noted that serrate Cottonwood Triangular points dated to a particularly late component at a site in El Portal on the eastern Park boundary, while Montague and Mundy (1995:Table 3) identified six serrate Desert Side-notched points at a site in Hetch Hetchy Valley to the north. This latter deposit also contained glass beads, and five of the serrate points exhibited no visible hydration rim, an observation consistent with relatively recent use. Individual serrate Desert Side-notched points have also been found at other areas within Yosemite, including Wawona (Ervin 1984:159), El Portal (Riley 1987:53) and Big Meadow (Hull 1991b:82; see also Bennyhoff 1956:34; Keefe *et al*. 1999), but artifact-specific temporal information is lacking and many such sites represent multi-component deposits.

Looking to surrounding areas, a cursory review of the north-central Sierra projectile point compendium (Jackson *et al*. 1994) indicates that serrate Desert Side-notched points are present on the Groveland and Mi-

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wuk ranger districts of the Stanislaus National Forest, but are rare or absent north of the Middle Fork of the Stanislaus River (see Jackson *et al.* 1994). Unfortunately, temporal information for such specimens is lacking. Downstream on the Stanislaus River, serrate Desert Side-notched points are known from sites within the New Melones Reservoir project. Serrate Desert Side-notched points were also relatively common at sites at New Don Pedro Reservoir on the Tuolumne River (Van Horn 1976), although in this case, such specimens may not be quite as recent as those noted in Yosemite. Only CA-Tuo-279 contained both serrate Desert Side-notched points and objects of Euroamerican manufacture, while the three remaining sites with such points were all thought to post-date A.D. 1500 but lacked non-native debris. For collections along both the Tuolumne and Stanislaus rivers, serrate Desert Side-notched points account for approximately 10 to 15 percent of the points within this series, a figure consistent with that noted at CA-Mrp-62.

Still further north, a review of manuscript notes for the Delta-area collection of Elmer Dawson at the Phoebe A. Hearst Museum at the University of California, Berkeley, suggests that such points were present at CA-Sac-6 and CA-SJo-43, with the points at the latter site all associated with a single burial. Justice's (2002) recent compendium of projectile point data for California and the Great Basin also suggests that a serrate Desert Side-notched point was recovered from CA-Sac-112 on the lower Cosumnes River. These three sites evidently occur near the northernmost extent of this technological feature, although the foothill area from the middle Stanislaus River to the Cosumnes River is notably devoid of such specimens (e.g., Johnson 1967; White 1988). Rather, sites on the Mokelumne and Cosumnes are in the Valley proper. It appears that in all these cases, as in Yosemite, serrate Desert Side-notched points are made of obsidian rather than chert.

To the south of Yosemite, serrate Desert Side-notched points of obsidian have been found in late contexts at the Ellison site in Mariposa (Rondeau and Wulf 1998), as well as at both Buchanan and Hidden Reservoirs (Moratto 1972; Wallace 1970) in the southern Sierra foothills. Sites at the latter location primarily date to the contact era, consistent with the pattern evident in Yosemite. In contrast, such serrate points are relatively rare at sites east of the Sierra Nevada, including being notably absent from the contact-period deposits examined by Arkush (1995).

In light of these geographic data (Figure 1), it appears that the presence of serrate Desert Side-notched points in the central Sierra Nevada may relate to factors deriving from California's central valley rather than the Great Basin. In fact, the geographic distribution in the foothills is generally coincident with Central and Southern Sierra Miwok traditional territory (see Levy 1978). As such, it is tempting to ascribe this feature to these particular ethnolinguistic groups. The occurrence of serrate Desert Side-notched points in the lower Cosumnes area, however, is somewhat at odds with such a conclusion and, therefore, may suggest a more complicated genesis for this trait. Moreover, placing this observation within a broader temporal and geographic context suggests potential origins in cultural traditions of the northern San Joaquin Valley and Delta Augustine Pattern of the Late Period. Specifically, this apparent western influence may be indicated by an earlier tradition of projectile point serration known as Stockton Serrate.

Stockton Serrate arrow points of the Diablo, Cosumnes, and Stockton districts encompassed leaf-shaped, stemmed, and corner-notched varieties, and were common from circa A.D. 700 until at least the early portion of Phase II of the Late Period (circa A.D. 1690; King 1978:68). These points appear in the archaeological record relatively abruptly, with no clear antecedent tradition of serration in this, or adjacent, areas. Stockton Serrate points were first described in detail in print by avocational archaeologist Ernest Johnson in 1940 (Johnson 1940), while more recently, Justice (2002:Map 40) has summarized the geographic distribution of what he terms the "Stockton cluster." Justice and others have made much of what is perceived to be an unusual investment of time and effort in the manufacture of such points, which Justice (2002:352) describes as "well beyond that of basic functionality." In addition, Hester (1974; Hester and Heizer 1973) engaged in a brief debate with other researchers in the early 1970s over the possible functional utility of this trait. Archaeological evidence, however, clearly indicates that these objects served as projectile points in routine activities rather than serving some other function or representing a practice restricted to burial or similar limited circumstance. In addition, regional archaeological evidence appears to be consistent with the *in situ* addition of serrations to already existing projectile point types, although this feature is also coincident with the introduction of the bow and arrow and, therefore, reduction in overall point size.

Desert Side-notched points, on the other hand, were evidently introduced to California via the Great Basin. Discussing the geographic distribution and likely temporal placement of each of four subtypes they defined, Baumhoff and Byrne (1959; see also

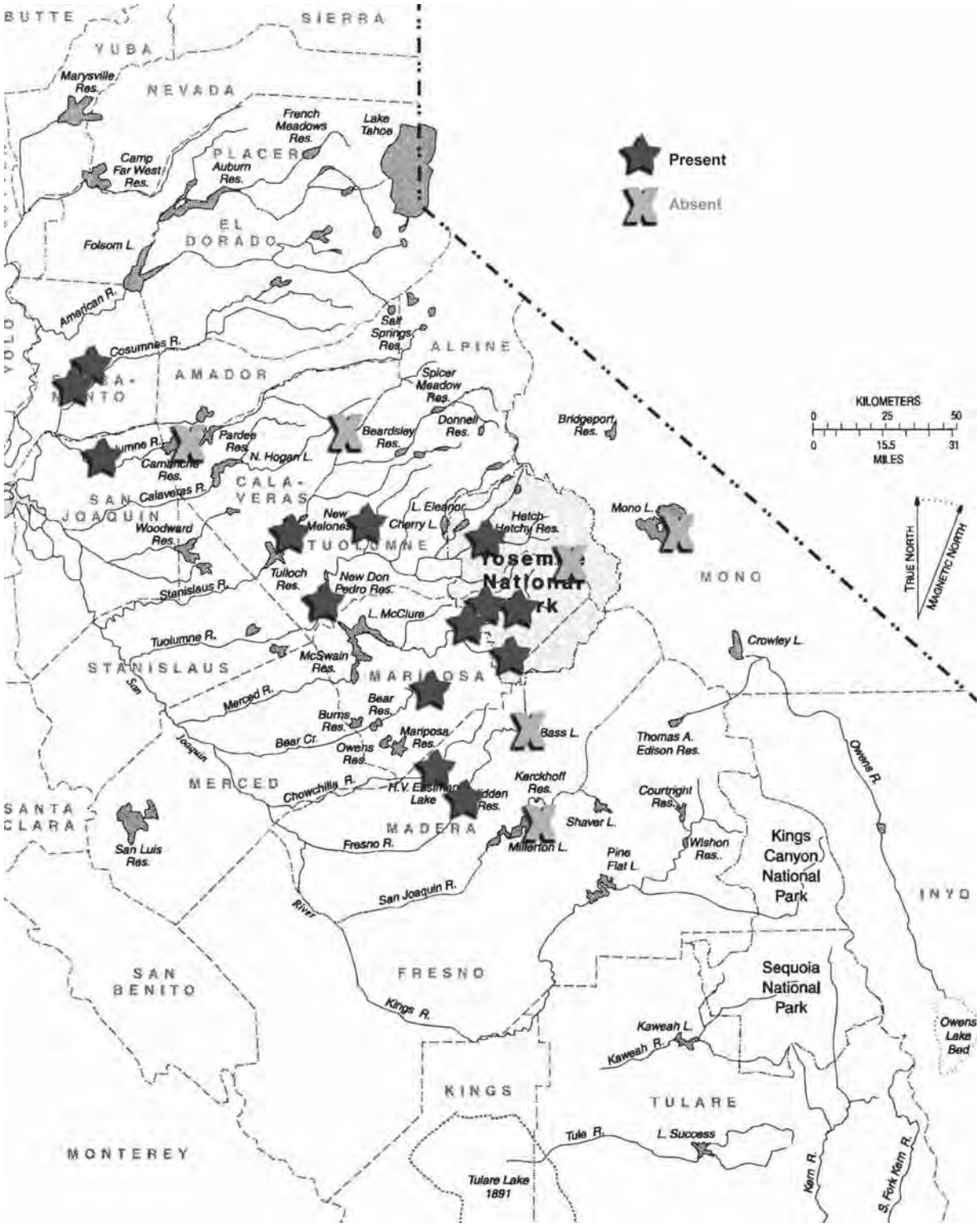

Figure 1. Distribution of serrate Desert Side-notched projectile points in Central California (base map from Hull and Moratto [1999]:Figure 4.1).

Justice 2002:Figure 35) concluded that General subtype points were introduced into the central Sierra Nevada around A.D. 1350. The Sierra subtype was thought to have been introduced about 100 years later. Use of both General and Sierra subtype Desert Side-notched points persisted into the post-contact period in the Sierra Nevada. In contrast, Baumhoff and Byrne (1959) concluded that such specimens in the Delta area were primarily restricted to Phase II of the Late Period; that is, to use after circa A.D. 1500. They also concluded that points of obsidian in the Delta reflected local manufacture with imported raw material, while specimens of chert were evidently produced elsewhere and brought to the area as finished artifacts. More recently, Justice (2002:Maps 46 and 48) has built on this work, mapping the distribution of various subtypes of Desert Side-notched points in California and the Great Basin. In the central Sierra Nevada foothills, his distributions are generally consistent with Baumhoff and Byrne's (1959) initial assessment, although elsewhere he may be recognizing the Delta subtype somewhat more broadly than as defined by Baumhoff and Byrne (1959).

Taken together, the available geographic and temporal data for Stockton Serrate and Desert Side-notched points in at least the Stockton and Cosumnes districts suggests articulation and co-existence of these two projectile point traditions for perhaps as many as 200 to 300 years (i.e., A.D. 1500 - 1800). It appears that at some point during the Late Period, however, the practice of conspicuous projectile point serration characteristic of Stockton Serrate points was applied to Desert Side-notched points, with concurrent abandonment of production of stemmed, leaf-shaped, and corner-notched serrate points in the Delta area. Moreover, this practice is coincident with a geographic shift to the east from the valley proper into the central Sierra foothills and, perhaps, to the northeast into the lower Cosumnes River area.

EMERGENT CULTURAL TRADITIONS

The archaeological evidence for serrate Desert Side-notched points, then, appears to indicate the blending of two cultural traditions – the use of Desert Side-notched points reflecting influence from the east and the application of serration to such points, consistent with practices to the west. If this is in fact the case, however, to stop analysis of this phenomenon with this observation begs the question of why projectile point serration was initiated and maintained as a tradition at all. For this, we must consider the meaning of "tradition" itself to both the archaeologist and the producers of the archaeological record, as well as consider the context within which serration first appeared in central California. Unfortunately, thorough discussion of the former issue is beyond that scope of this paper, but my use of the concept is influenced by Pauketat's (2001) discussion of "tradition" in archaeology in his recent edited volume entitled *The Archaeology of Traditions*.

With respect to the latter issue, given the apparent abruptness and timing of the appearance of Stockton Serrate points, a parsimonious explanation for this tradition may be that serration arose in response to the so-called Patwin intrusion at circa A.D. 700 - 900 (Bennyhoff 1994). It is thought that this apparently hostile influx of people from the north resulted in displacement of ancestral Bay Miwok to south of the Delta, with a likely ripple effect of subsequent geographic and social adjustment within the larger region that such an event would have entailed. One such response may have been the need to identify and distinguish oneself from the intruders, and projectile point serration may have been a very visible statement in this regard. Weissner (1983) has recognized such visual cues in arrow styles amongst the Kalahari San of southern Africa, and adoption of point serration may have served as particularly persistent "calling card" of identity compared to features associated with perishable items. Moreover, the apparently universal and swift adoption of this feature suggests that such identification must have been deemed particularly urgent, perhaps because of the hostile nature of the incursion. Likewise, the fact that there was no apparent diminution in the expression of this trait as time passed underscores its embeddedness within daily practice.

The apparent "transference" of serration to Desert Side-notched points also seems to support the significance of this particular practice to the actors, if as argued here, such an application represents persistence of a tradition by the same group. Since both Stockton Serrate and Desert Side-notched points evidently relate to bow-and-arrow technology, however, the application of serration to a new projectile point form may signal a more complicated process of negotiation of tradition, particularly since physical displacement may also have been involved in this process. For example, it may be that serrate Desert Side-notched points in the central Sierra Nevada relate to intermarriage or cohabitation of Sierra Miwok with individuals fleeing from the coastal or delta zone as a result of the incursion of the Spanish in the San Francisco Bay Area. Certainly, the fact that serrate points account for only approximately 10 to 15 percent of the Desert Side-notched specimens in single-

component historic-era sites in the foothill zone argues against a wholesale population replacement, if this feature is, in fact, related to the movement of people rather than ideas. Conversely, this less than universal presence may reflect the diminishing significance of such self-expression in a swiftly changing world. The apparent absence of serrate Desert Side-notched points from the foothill area of the Mokelumne and North Fork of the Stanislaus rivers – despite their presence to both the northwest and south, however – is particularly interesting in this context of negotiation. This pattern may signal some existing historical relationships incompatible with the movement of people from the northern San Joaquin Valley into this area. The eastward pressures from non-native incursion on the coast might also account for the potentially slightly earlier occurrence of serrate Desert Side-notched points in the valley margins and foothills, with latest use evident in the western portion of what is today Yosemite National Park and areas to the south along the Fresno River.

To better understand the processes of cultural negotiation in the contact era and the potential light that might be shed on relationships between people in deeper time, additional features of the archaeological record clearly need to be incorporated into analysis., For example, examination of spatial aspects of the daily activities and routines defining culture would contribute to such analysis. Likewise, the current data would be significantly enhanced by consideration of obsidian geochemistry and additional information regarding the subtypes represented in the serrate Desert Side-notched assemblage.

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