

SOMETHING OUT OF NOTHING: THE SIGNIFICANCE OF MARGINAL SITES

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ABSTRACT

How significant is a materially marginal archaeological site? At this time, there are several papers explicating the significance of marginal sites and there is at least one model describing a programmatic approach for dealing with these sites. Using information derived from behavioral models, ongoing lithic analyses, obsidian hydration, and x-ray fluorescence from two sparse lithic scatters in the Bridgeport area, Mono County, California, in conjunction with similar information from neighboring sites, this paper examines how marginal sites may contribute to a better understanding of regional chronological sequences, land use patterns and exchange systems.

INTRODUCTION

The significance of marginal archaeological sites has been an area of great concern in contract archaeology. In this paper, I propose how two sparse lithic scatters in the Bridgeport area, CA-MNO-2435 and CA-MNO-2466 (see Figure 1), contribute to the regional archaeology.

Five sites in the Bridgeport area were investigated as part of a CALTRANS highway widening project. I discuss the two smaller sites of these investigations.

There are two major adaptive modes of settlement/subsistence expectations for sites in the Bridgeport area. During the Newberry Period (and possibly earlier) the Bridgeport area was used for specialized hunting with temporary hunting camps by small, wide-ranging groups. Later, (1400 to 1000 years ago) social groups became less mobile and use of the area shifted to generalized seed and plant collecting, which included the appearance of upland pinon camps and the abandonment of temporary hunting camps.

Also, some characteristics of "background scatter" are expected due to the proximity of the sites in the Bridgeport area to a number of obsidian sources. Background scatter is the seemingly unending light scatter of lithics punctuated here and there with small clusters of measurably higher densities.

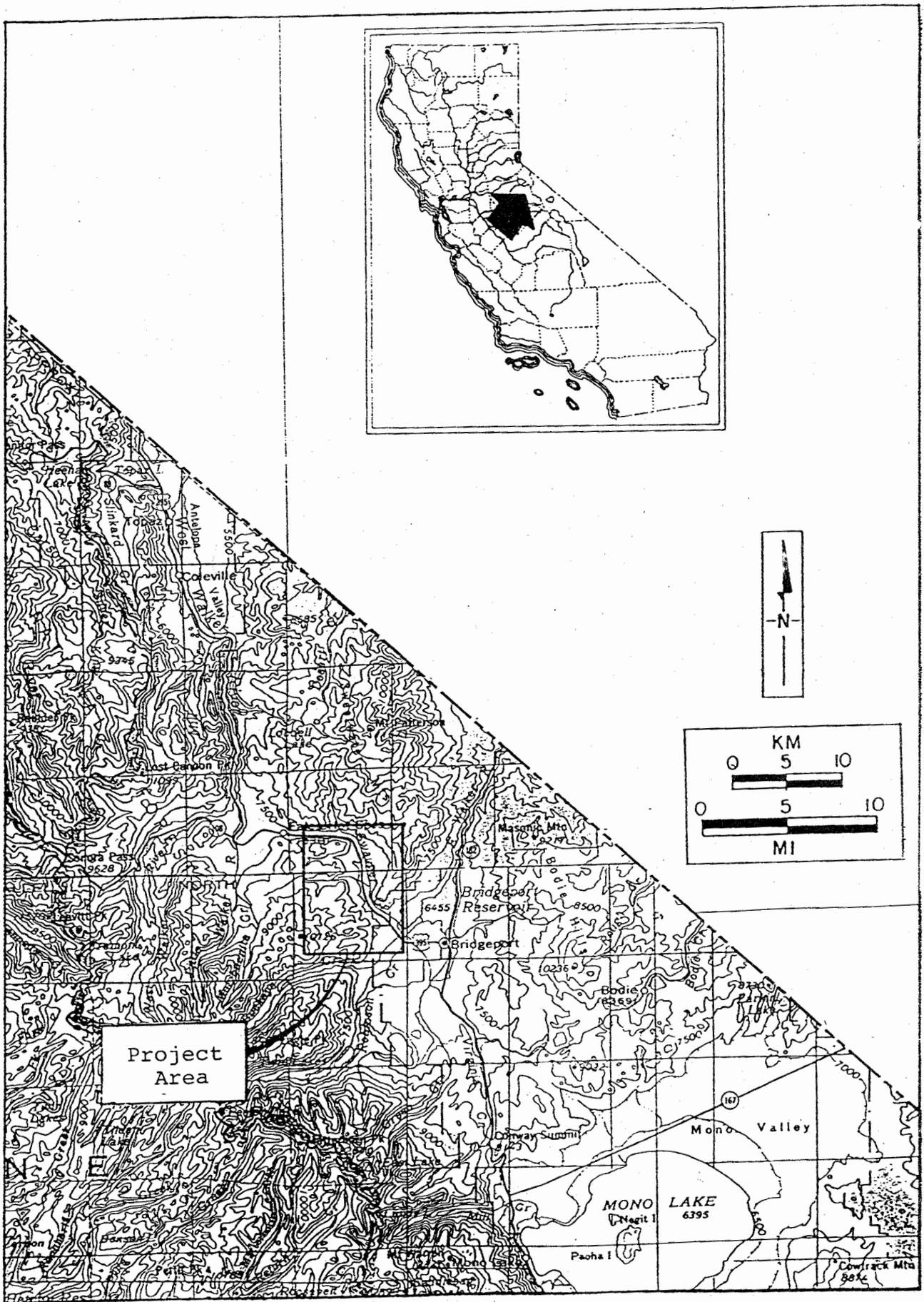


Figure 1. Site Vicinity Map

SIGNIFICANCE

There is an array of journal articles and book chapters that discuss the concept of significance. Some are definitive and some are prescriptive. Some of these writings include Talmage and Chesler's (1977) "The Importance of Small, Surface and Disturbed Sites as Sources of Significant Archaeological Data", Tainter's (1979) Mountainair study, Fredrickson's (1985) Geysers Geothermal study, and the California Office of Historic Preservation's California Archaeological Resource Identification and Data Acquisition Program (CARIDAP) for Sparse Lithic Scatters (Jackson et al. 1988).

Overall, the theme common to the definitive writings is that every marginal site has some sort of significance. It seems that all of the practical examples for evaluating significance I reviewed for this presentation discuss individual sites. In one case (see Talmage and Chesler 1977) it was suggested among other things that, instead of looking at the marginal site as a whole, artifacts should be considered individually and dealt with in the analysis as the common denominator. This study suggests that with marginal sites the emphasis should be put on artifacts and artifact clusters, disregarding criteria such as size and apparent significance of sites, to help clarify aboriginal subsistence and procurement activities, thereby demonstrating the importance of small surface sites in archaeological explanation (Talmage and Chesler 1977:7). According to Talmage and Chesler (1977:1):

Small site investigations are particularly necessary in settlement pattern studies where the configuration of the full range of archaeological data must be sampled in order to obtain a viable base to make inferences relevant to prehistoric procurement activities, socio-political systems, culture contacts and demographic patterns.

In cases where sites are disturbed, Talmage and Chesler (1977:7) contend that "as long as the cause and pattern of disturbance can be outlined, the archaeologist can add disturbance variables into interpretation of the remaining distribution of artifacts."

OHP's programmatic model, CARIDAP, establishes minimum standards for resource identification and treatment. It recognizes that lithic scatters contain limited but valuable data and establishes procedures and guidelines to efficiently recover that information.

SYSTEMS THEORY

The model used in my discussion to interpret the information derived from the results of CA-MNO-2455 and CA-MNO-2466 is Greg White's "Archaeology of Parts" (1984). His model is particularly helpful, in this case, bridging research questions to the actual information derived from the fieldwork. It helps define inter- and intra-site variability more clearly and also, helps connect information from these two sparse lithic scatters with information from the more complex neighboring sites (CA-MNO-564, CA-MNO-566, and CA-MNO-2456) (see Dahlstrom and Bieling, this volume).

METHODOLOGY

Both CA-MNO-2455 and CA-MNO-2466 were systematically surface surveyed, using 2 meter wide transects. All cultural materials, including flakes, were flagged to determine the overall distribution of the cultural material. After the survey at CA-MNO-2455, cultural materials were collected and the site was mapped based on the locations of the pin flags. Due to the sparseness of materials and their locations in very disturbed areas of the site, along with the in-field assessment that the materials were characteristic of "background scatter", no subsurface investigation was conducted at this site.

With CA-MNO-2466, after the intensive surface survey, 14 surface transect units, or STUs, were employed to determine if the site had any depth. STUs of 50 by 200 cm were investigated at intervals of five to ten meters and it was determined that, yes, this site had depth. STUs with high frequencies of artifacts were investigated further until, at 20 cm, sterile soil was found. Laboratory analyses included lithic analyses, obsidian hydration, and x-ray fluorescence. Since the cumulative Bridgeport analyses indicates that Bodie Hills and Casa Diablo obsidians predominated, and since Tremaine's induced hydration experiments point to a roughly 1 to 1 relationship between hydration rates of the two obsidians, all obsidian hydration data have been lumped (Tremaine 1990).

SITE DESCRIPTIONS

CA-MNO-2455 is situated west of Bridgeport Valley within the canyon of Swauger Creek about three-quarters of a mile above its outlet into the valley (see Figure 2). CA-MNO-2466 is the northernmost of the five sites investigated. All five sites are located within a six mile long corridor that extends along Swauger Creek from Pimentel Meadows southward through Huntoon Valley to the western edge of Bridgeport Valley.

Site CA-MNO-2455 is a highly disturbed sparse lithic scatter

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of obsidian flakes and tools, measuring 60 meters north/south by 200 meters east/west and is located on both sides of Highway 395 (Figure 2). The site setting is characterized by sagebrush and riparian vegetation communities located near an intermittent water source. As you can see from the distribution of hatched areas on Figure 2, there are numerous recent cultural disturbances to the site. These include: the cut and fill construction of Highway 395, evidence of an old road cut, two graded, unpaved roads and the channelization of an intermittent stream running through the site.

CA-MNO-2466 is a small, discrete and relatively pristine sparse lithic scatter measuring 20 meters north/south by 30 meters east/west (see Figure 3). The site is bordered on the south by Highway 395 and on the north by the yard and driveway of the property's resident and owner. There were several flakes located directly adjacent to the highway and in and around the yard and driveway, but content suggests that these flakes were redeposited from their original locations elsewhere on the site.

CA-MNO-2466 was predominantly a surface phenomenon as indicated by the presence of eight obsidian flakes recovered from the 0-10 cm level of the STUs and only one piece recovered from the 10-20 cm level of the STUs.

FINDINGS AND INTERPRETATIONS

The cultural materials recovered from each site include chipped stone tools and manufacturing debris. Small, reworked projectile points are typical of arrow points. The projectile point recovered from CA-MNO-2466 fits this description. This point, made of Bodie Hills obsidian, may be associated with hunting activities. This would mean that the site function of CA-MNO-2566 is more generalized than the Newberry period site, CA-MNO-2455.

One projectile point, one biface fragment, and obsidian debitage were recovered from CA-MNO-2455. The projectile point recovered from this site (see Figure 4) was a medial fragment resembling an Elko/Gatecliff series point as defined by Thomas (1981).

Obsidian hydration studies on cultural materials from CA-MNO-2455 resulted in hydration rim readings that ranged from 1.4 to 5.3 microns with a reading of 4.2 microns for both the projectile point and biface fragment from this site, and the full range of rim readings for the debitage (see Figure 6). Figure 6 shows the hydration readings by type of material for each site. As you can see, there is an outlying reading of 1.4 microns, but for the most part the rim readings fall within 2.7 and 5.3 microns.

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Figure 4. 89-23-8, 4.2 microns



Figure 5. 89-22-5, 1.5 microns

The projectile point recovered from CA-MNO-2466 (see Figure 5), appears to be an Elko Corner-notched type point included in the Elko series as defined by Thomas (1981). The point is small, has been reworked, and is made of Bodie Hills obsidian.

The obsidian hydration analyses conducted with material from this site produced rim readings that range from 1.2 to 3.7 microns with a mode between 1.2 and 1.7 microns. The single projectile point recovered from the site has a reading of 1.5 microns, the biface fragment has a reading of 1.3, and the debitage has a tight cluster of rim readings between 1.2 and 1.7 microns with one outlying hydration reading at 3.7 microns (see Figure 6).

Based on the hydration data, it appears that CA-MNO-2455 was occupied over a long period of time falling, generally, within the Newberry period. This indicates that CA-MNO-2455 is a site characterized by "background scatter" associated with the general long-term use of the area. CA-MNO-2466, on the other hand, was occupied relatively late with a short burst of activity. This site might represent a single cultural event.

Family camp sites (or base camps of specialized task groups) would be expected to be relatively shallow, small in area, limited in their artifactual assemblages, and temporally discrete.

CA-MNO-2466, apparently is a single component site. That is, its deposits are limited to the upper 20 cm in an area less than 30 meters in diameter. It has a limited assemblage, an absence of ground stone, and a close clustering of hydration readings.

INTERSITE COMPARISONS

Sites CA-MNO-2455 and CA-MNO-2466 were the smallest of the five sites investigated as part of the Highway 395 project. Site CA-MNO-2455 fits in with the other four sites in time of use, but CA-MNO-2466 stands out as being the only single component late site.

All of the sites investigated during this project, except for CA-MNO-2466, have major Newberry period components combined with occasional indications of late occupation (for example, BRMs, pottery and a glass bead). And within these Newberry sites all, except the sparse lithic scatter at CA-MNO-2455, have diverse assemblages with a wide range of hydration readings, ground stone (namely BRMs and a milling slab), and a variety of point forms including Humboldt, Gatecliff, Elko and possibly Little Lake series points.

Hunting and biface reduction probably are task specific. These

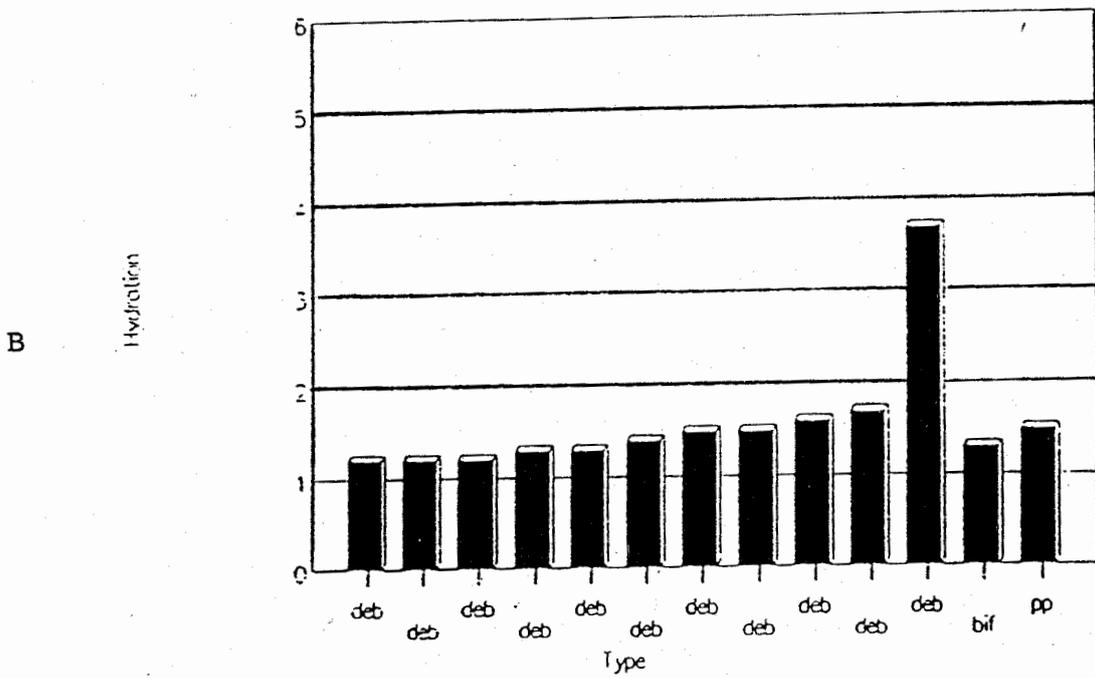
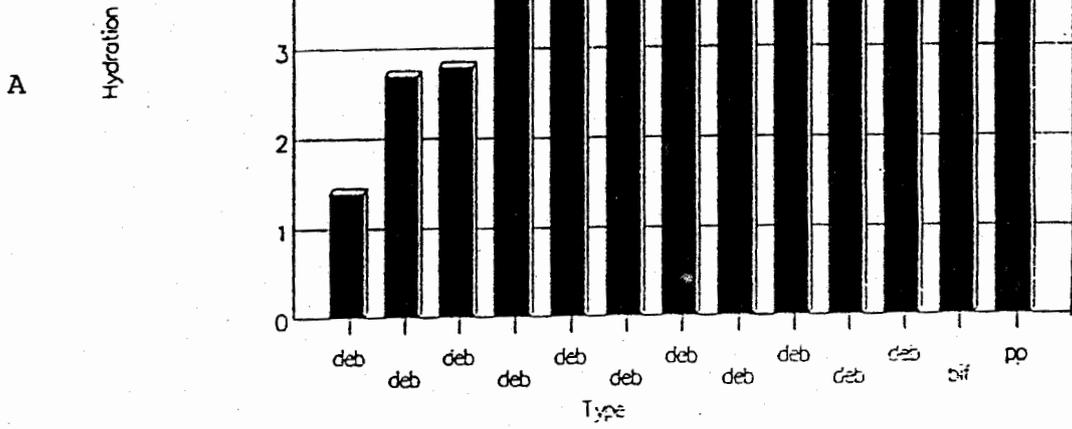


Figure 6. A: Hydration from CA-MNO-2455; B: Hydration from CA-MNO-2466.

tasks are not necessarily done by family groups.

CONCLUSIONS

In conclusion, these two Bridgeport sites have relatively little research potential in and of themselves. But as contributors, they are data points in the prehistoric continuum. Both sites contribute to a better understanding of regional chronological sequences, land use patterns and exchange systems.

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