

# **The Plantation Cache and a New Charmstone Type from Northern California**

by:

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**Note:** This article was produced by the CDF Archaeology Program to inform its web audience of the discovery of a unique artifact type found in northern California and the results of our research to interpret its age, function, distribution, and archaeological significance. The specific locations of sites discussed in the text are not disclosed in conformance with state law.

This is an expanded version of our original paper dated January 24, 2006 which we hope to submit for publication. This article has been created in HTML format for viewing on the CDF Archaeology Program website at: <http://www.indiana.edu/~e472/cdf/plantation/index.htm> . This version created in PDF format will enable readers to print a paginated copy of the article. Until such time as it might be published, the citation for this article should be:

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## **Introduction**

This report describes an unusual assemblage of artifacts found in a pine tree plantation near Camptonville in Sierra County, California. The location of the discovery, the nature of the artifacts represented, and information from ethnographic sources all suggest the assemblage represents a cache of a shaman's ritualistic paraphernalia. This find is particularly important in two respects. First, it represents the discovery of a specialized type of archaeological site that is rarely encountered, but important to understanding Native culture and land-use. The knowledge of such sites also is important to archaeologists who manage resources in locations where similar phenomenon might be encountered. Second, the cache contains what we believe to be a previously unrecognized form of charmstone that may have diagnostic spatial and temporal significance, as well as other important implications.

The Plantation Cache was found in 1983 by Registered Professional Forester (RPF) Wendy Johnston while developing a pine tree plantation in Sierra County, California. Upon identifying the find, Johnston contacted Dan Foster, CDF Senior State Archaeologist, who then conducted a field visit and recorded the site. The unusually large bipointed oval charmstone stood out and came to be referred to as the "football", an unfortunate identifier, but one that has subsequently stuck. Since the discovery of the Plantation Cache artifacts, several additional examples of the

associated “football” type charmstone have been identified. Until recently, this particular form appears to have been missed or overlooked, although there are over 100 years of published research on California charmstones (for a review of charmstone typologies and discussion of another CDF discovery, see Hector et al. 2005). The football type charmstone is similar in appearance to the more common “lemon” type found in northern California, but it is much larger and of different material than are most lemon-shaped stones. Foster and Johnston’s (1983) description of the large, football-shaped charmstones with blunt or tapered ends was included in the Elsasser and Rhode study of charmstone types (1996:16), but provisionally placed into their catch-all “unique” category (Type U). They suggested additional research on these may be warranted with “further finds” that might clarify their status. This paper provides an opportunity to call further attention to these unusual artifacts and to formally add the type to the archaeological record.

## Discovery and Context of the Cache

Susan Hector recently interviewed Wendy Johnston, now with Vestra Resources in Redding, California, about her 1983 discovery. During the summer of 1982, Johnston was working on a progeny test site on a hilltop near Camptonville, at an elevation of 3,400 feet in Sierra County, California. The location had burned in the past, and had been logged, leaving few trees remaining on the slope. Originally, the hill had been covered with black oaks. The slope was prepared for planting by ripping the soils to a depth of 18", and all vegetation was removed. Small pine trees were planted. In the spring of 1983, Johnston revisited the location to check on the trees.

A sparkling white object caught her eye--the quartz, football-shaped charmstone. Nearby lay an elongated mano and a potato-shaped rock. Figure 1 is a photograph taken of the discovery in 1983, with Johnston kneeling near the artifacts. All three objects were covered with orange clay, and must have been buried below the ground surface. She carefully inspected the discovery site, but observed no additional artifacts, rocks, or anything else unusual. Johnston knew Foster, and had spoken to him many times about archaeology and forestry, so she contacted him to come see the location and artifacts. Foster visited the site in August 1983 and observed that there was no evidence of any archaeological midden deposit, nor any other artifacts located in proximity to the finds. This location is devoid of field stone, and the three specimens that Wendy found stood out as foreign to the surroundings.



*Figure 1. Registered Professional Forester Wendy Johnston at the discovery location for the Plantation Cache artifacts, CA-SIE-378, in 1983. (Photo by Dan Foster)*

The Plantation Cache was found within the ethnographic territory of the northern Nisenan (Kroeber 1925: Plate 37, Map showing Territory and Villages of the Maidu and Miwok). An archaeological village site with midden, artifacts, and milling, recorded as CA-SIE-7, is located approximately ¼ mile from the discovery. CA-SIE-7 is a large, multicomponent habitation site located in a meadow (Wheeler and Stevens 1980). Four basalt points were observed at the site. Nearby, CA-SIE-337 was recorded as a lithic artifact scatter possibly associated with CA-SIE-7; basalt projectile points were also found at that site (Stevens et al. 1980).

Foster realized that the three artifacts discovered by Wendy Johnston may represent a cache, perhaps a group of objects used by a shaman and either deposited in an oak tree or buried. He proposed that the shaman may have been visiting or affiliated with the village recorded as CA-SIE-7. No one who observed the discovery saw any evidence that the artifacts were buried in any recognizable pit or other feature. They do appear to have been buried at the time they were disturbed by site preparation for planting, although this might have simply occurred through natural processes. The Plantation Cache was recorded as CA-SIE-378.

### **Contents of the Plantation Cache: Description of the Artifacts**

The Plantation Cache contained only three known artifacts. It is, however, quite possible that these objects were once included with other perishable materials that did not survive the elements. For this area, Kroeber (1925: 426) states: "The shaman's paraphernalia are not destroyed at his death among the northeastern Maidu, but are carefully preserved for his children. Should they be too young at the time, their mother or some other relative maintains the knowledge of their hiding place. These paraphernalia include certain objects called *yompa* (hill dialect *yomepa*) which apparently are made by the shaman out of feathers and other objects." Ethnographic and archaeological examples of shaman's bundles from elsewhere in California invariably contain a variety of animal and vegetable materials, as well as mineralogical specimens including pigments, crystals, fossils, and oddly-shaped rocks.

There are other instances where a reported "shaman's cache" contained as few as three objects (Langenwalter 1980), although others have included considerably more, such as the cached assemblage of eighty ritual objects described by Wallace from Pacific Palisades (1987: 47-58) or the remarkable collection found stashed in Bowers Cave (Elsasser and Heizer 1963). Noteworthy in the Plantation Cache are the presence of grinding implements, essential tools in the outfits of curing doctors who made extensive use of herbal medicine.

The individual artifacts associated with the Plantation Cache are described below:

#### **Football-shaped Charmstone (Figures 2, 3, and 4)**

This football-shaped artifact is made of white quartz that was extensively shaped by pecking and was then heavily ground and polished. Polishing striations are numerous, distinctive (in the correct lighting), and perpendicular to the long axis. Both ends are ground flat, but one end shows signs of battering and some small spalling scars. The object measures 184 x 74 x 68 mm, and weighs 1303.2 g. The artifact has been stained with reddish-brown material that may

represent intentional coloring with ochre, natural discoloration from the surrounding soil, or a combination of these (see Figure 3).

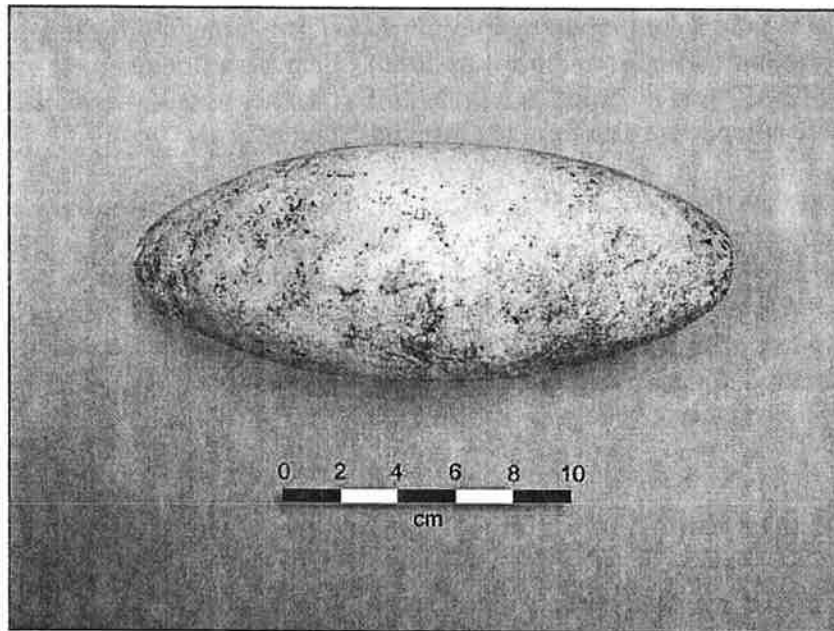


Figure 2. *The Plantation Cache Quartz Charmstone. (Photo by ASM)*

The polished surface on the exterior of this artifact indicates it is a complete, finished object. It is not perforated, nor is there any evidence there ever was any attempt to do so. Given its biconical symmetry and lack of perforation, it does not appear to have been designed for suspension. Similar “cigar-shaped” charmstones from the Santa Barbara Channel were attached around the middle and suspended horizontally (King 1990: 265, Figure 33). In this respect, they are reminiscent of bone gorges used for line fishing in that region, and they may have been symbolic of that activity. Many of those charmstones still retain traces of asphaltum, sometimes with string impressions still present. The Plantation specimen bears no evidence of any adhesive, or any other obvious reason to believe that it was ever suspended.

The flat, squared-off ends (see Figure 4) of the Plantation charmstone may be significant. These are unlike the pointed, incurved ends of the lemon-shaped charmstones or of other football-shaped ones (see example from CA-SHA-1760/H described below). The ends of the Plantation specimen, and others like it, resemble the ends of pestles used in stone mortars. Medicine pestles were used by Native doctors and perhaps these somehow functioned in this way.

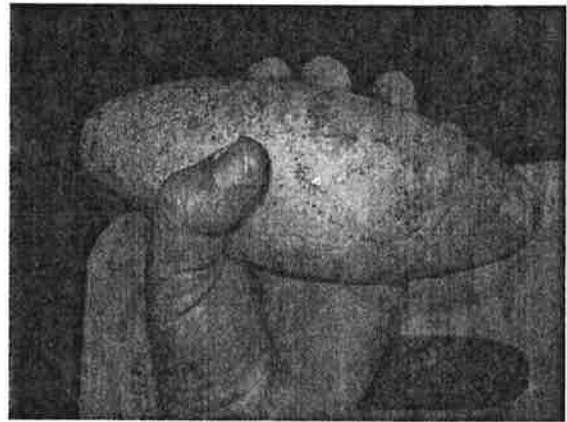
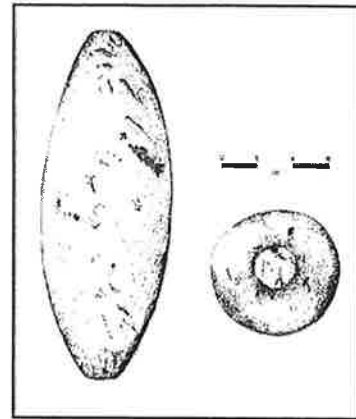


Figure 3. *The Plantation Charmstone in Dan Foster's hand showing size and red stains on artifact. (Photo by Linda Pollack)*

The Plantation charmstone was manufactured of brilliant white opaque quartz. This would be an extremely hard material to grind and polish (Hardness of 7+ on Mohs scale). Quartz is known to have piezoelectric properties, which makes it glow when rubbed against another stone and create sparks when struck. Quartz pebbles are identified in the southwest as "thunder and lightning" stones due to this property and were used in ceremonies by priests. These qualities may also have been realized with the Plantation charmstone, resulting in the polished surface and possible use-wear on its ends.



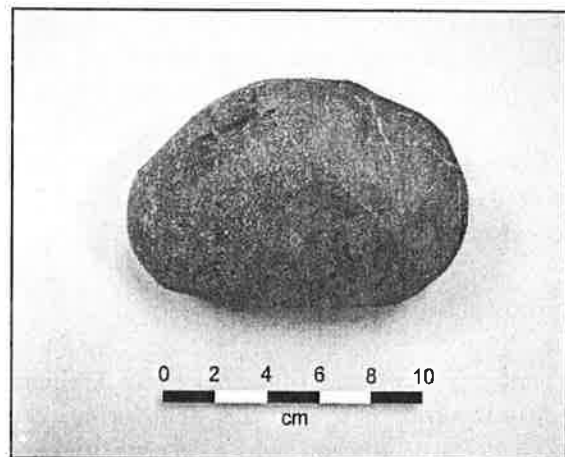
*Figure 4. Drawing of the Plantation Charmstone by B.J. Ciccio showing profile at cross section and blunted ends.*

The absence of a perforation may be related to the hardness of the material, but more likely to style. In central California, perforated charmstones generally precede unperforated ones, and the perforated charmstones are usually made of harder stone materials. The Plantation specimen, like other football type charmstones, remains to be dated in any meaningful way. How this style fits into this trend remains to be determined.

As discussed elsewhere in this paper, the author's believe this football-shaped charmstone is representative of a distinct form that is formal type of charmstone. Following Ragir (1972), the Plantation artifact is the Type Specimen for the Football Type. Based on analysis of a variety of charmstone data, this type can be discriminated upon the basis of shape, size, material, and geographic distribution.

#### **Potato-shaped Artifact (Figure 5)**

This artifact has been referred to as potato-shaped but could also be seen as having the shape of an animal, a tumor, or almost anything you could imagine. If it were not associated with the other two artifacts in the cache, there is nothing about it that suggests it represents a cultural artifact. Natural stones with unusual shape or color were often collected by native people and imbued with special meaning and qualities. In the American Southwest, these are called fetishes. A natural rock may appear to the collector in the shape of a totem animal or dream messenger. In the right light, the potato-shaped stone can be seen to have the shape of a bear. In California, special stones were sometimes heated and used in healing practices. Polished, but otherwise unmodified stones in known curing outfits have been attributed to this function.



*Figure 5. The Plantation Cache Unmodified, Potato-shaped Stone. (Photo by ASM)*

The banded material of which it is composed appears to be some type of sedimentary stone. The banding appears to be more resistant to wear. Some areas of the artifact appear to be polished, but on closer examination this polishing seems to be natural since both high and low points are equally smooth. The artifact measures 126 x 81 x 65 mm, and weighs 908.3 g. While itself a red-brown color, the stone also bears a reddish stain like the other two artifacts in the cache.

### **Two-handed Mano/Pestle (Figure 6 and 7)**

This elongated hand stone is made of vesicular basalt or basalt-like stone. It is well-shaped on all aspects, but only two edges were flattened from use. The object measures 200 x 71 x 57 mm, and weighs 1209.6 g. The pores or vesicles of the stone contain reddish material that may be ochre or the natural surrounding iron-rich soil matrix. Milling tools for grinding pigments occur in known shaman's kits (Kelly 1978: 420, Figure 5), and this implement might have seen use for this purpose.

Artifacts similar to this are known from northeastern California, where they usually served as a combination two-handed mano and pestle (Miles 1963:45; Figure 1.239).

## **Discussion**

The Plantation Cache is an important discovery and warrants some discussion in terms of both the subject of the cache and its implications, as well as the issue of the football charmstone and the merits of assigning it formal typological status. Each of these topics will be reviewed.

### **Interpretation of the Cache**

Francis (Fritz) Riddell, former State Archaeologist and retired supervisor of the California State Parks archaeology program, was extremely interested in the Plantation Cache artifacts, having worked with them in the CDF training collection for several years. Like Foster, Riddell proposed the idea that the artifacts might represent a buried, disturbed cache. More specifically, he theorized that the black oaks that were growing on the hillside before it was cleared had hollows that could have been

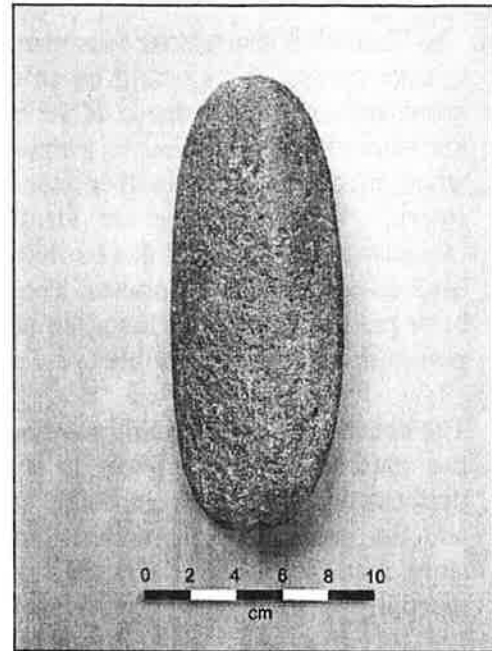


Figure 6. *The Plantation Cache Two-handed Mano/Pestle. (Photo by ASM)*

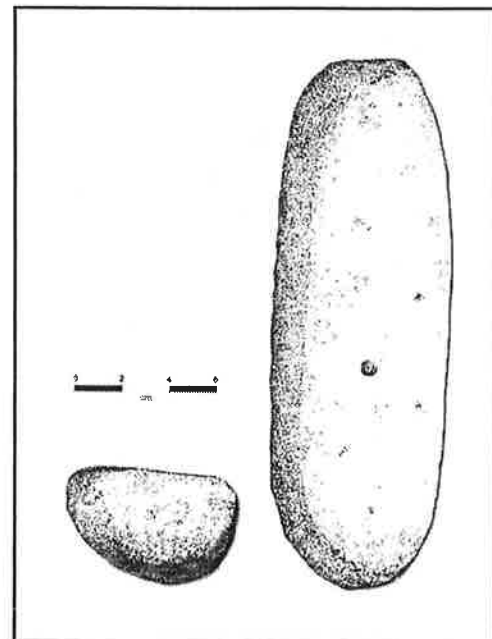


Figure 7. *Drawing of the Plantation Cache Two-handed Mano/Pestle by B.J. Ciccio. Note the pronounced shouldering.*

used by shamans to cache their powerful ceremonial objects. Power items are often stashed away and hidden from others who do not have the knowledge of their use. A curing shaman would only bring these objects out at certain times. Riddell's proposition would explain why these ceremonial objects were found on a hill and not in the nearby village.

Riddell's theory has its basis in the ethnographic literature of the area. The Yana collected small round stones that had unique color, marks, or shape to cure disease, bring hunting luck, and bestow other benefits to the owner (Sapir 1908). The territory of the Yana, located east of the Sacramento River between Pit River and Rock Creek, is situated in the vicinity of the Plantation Cache site and the other sites discussed in this article (Johnson 1978: 361). The following information on Yana "luck-stones" is from Sapir (1908) and may be relevant to interpreting the Plantation Cache:

They were believed to bestow good luck upon their finder and possessor in whatever pursuit he required their aid.... As a rule, the possession of these luck-stones was kept a secret, as indicated, for instance, by the fact that they were not kept in the house, but in some secluded spot in the woods known only to their possessor.... The spruce basket, with its luck-stones, was not placed on the ground, but was hidden up in a tree, so that no one might touch it.

The most potent of the luck-stones were "small, white prismatic rocks, generally of quartz," and referred to by his informants as "diamonds" (Sapir 1908). Quartz has a special quality that was recognized by native people. Whitley et al. (1999) described the belief that fracturing quartz releases power; this is largely due to the fact that quartz and quartzite are piezoelectric. Both rocks produce a luminescent glow when struck, but more so with quartz. Quartz crystals, for example, were prized for this reason. In recognition of the physical properties of quartz, Native Americans used quartz extensively for religious and ritual items (Whitley et al. 1999: 10).

Kroeber (1925: 426) is quoted above in regard to the dispensation of shaman's paraphernalia among the Nisenan, and his remarks undoubtedly apply to neighboring tribes. The fact that certain tribes passed on shamanistic paraphernalia, while others destroyed it at the shaman's death is significant. This comment has implications for explaining the isolated occurrence of the Plantation Cache and why its contents may never have ended up "destroyed" in a cemetery. Observations like this may be helpful in sorting out ritual practices and cultural boundaries and through time using charmstone data.

Broadly speaking, throughout northern California there was a distinction between curing shaman, or doctors proper, and dreaming or clairvoyant shaman (Kroeber 1925: 423-424). There also were special classes of shaman. For the Maiduan groups, Kroeber (1925: 427) lists rain doctors, or weather shamans, rattlesnake doctors, and grizzly bear shamans. He believed the Maidu were at the northern limits for rain doctors due to the environment, suggesting this class was not particularly important (Kroeber 1925).

Among the Wintu, charmstones were primarily hunting amulets (Kroeber 1925:361). The McCloud Wintu kept lucky stones outside the house, because if having intercourse in the house, such a stone might make the possessor sick or blind (Voegelin 1942: 202). These lucky stones

were passed on at death. A Valley Maidu (Konkow) informant from near Chico told Erminie Voegelin (1942) that charmstones were "kept in an old oak tree by a person who knows how to take care of them."

For the Shasta, Holt (1946:326-336) provides one of the most detailed descriptions of religious conceptions and shamanism known from California ethnology. Her data came from interviews with Dixon's (1907) principal informant Sargent Sambo, a hereditary chief of the Klamath River Shasta (Holt 1946: 299). Sargent was also a shaman, as was his paternal grandmother and four paternal aunts (Holt 1946: 328). Among the Shasta, shamans were chiefly women, with males thought "less proficient" in this profession (Holt 1946: 327). Shamans were persons of great importance to the tribe "and in them and their ceremonials almost the whole ritual of the people is included (Holt 1946: 238, citing Dixon 1907: 471)." They were not popular, however, as "a doctor is no friend to anybody except her own family (Holt 1946: 328)." A shaman could not take part in any dance, except the puberty, took no active role in any funeral, and did not gamble (Holt 1946: 328). The position of shaman was usually hereditary, with a shaman selecting one of her own children, or those of a brother or sister (Holt 1946: 328). Shasta shaman received their power from the "*axaiki*", mysterious spiritual powers that inhabited all of Shasta territory (Holt 1946: 326). They were conceived as of a human form and inhabited rocks, cliffs, lakes, rapids, mountain summits, and eddies and rapids in streams (Holt 1946: 326). Many animals were also regarded as *axaiki*, who were the cause of all disease, death, and trouble. They became the guardians of shamans and were often inherited by them (Holt 1946: 326).

A Shasta shaman's child could not become a shaman during her lifetime according to Dixon (1907: 471), but could according to Holt (1946: 328), provided they did not use the same *axaiki*. Then, at the mother's death, the daughter took over her paraphernalia and received her *axaiki*, or if the daughter was not yet a shaman, the *axaiki* would come to her later when she was (Holt 1946: 328). A shaman had an assistant to care for her paraphernalia, a woman relative. Sargent's assistant was his mother (Holt 1946: 328). Holt's (1946: 328) description of the curation of the shaman's outfit relates directly to the Plantation Cache discovery.

When not in use, the paraphernalia were hidden in the woods. They received no special attention other than being carefully wrapped and placed in a tree, under which red paint was kept in ten spots on a board. The paraphernalia must be away from the odor of burning, or the shaman would die. Nothing a shaman used in her professional capacity must be underground. Upon her death her paraphernalia were hung away on a tree where they would be blown away or naturally destroyed. For a year or more after a shaman's death, her assistant daily put out paint for her different *axaiki*, telling them she was putting out this paint for them and asking them to care for the children. Sometimes she also put out other things, such as feathers, in the nature of small offerings to them.

The ethnographic record of northeastern California, in spite of inherent weaknesses, provides a coherent basis for explaining the Plantation Cache. There are sufficient examples and explanations for the caching of powerful and potentially dangerous ritual paraphernalia to infer the Plantation Cache is an archaeological example of such a site. The contents of the cache suggest the property of a curing shaman, as grinding implements imply the preparation of herbal



medicine. It is noteworthy that grinding implements were associated with a Coast Miwok curing/poisoning shaman's kit (Kelly 1978: 420-421), but absent from a Tubatulabal weather shaman's fetish bundle (Fenenga and Riddell 1978; n. d.).

It is possible that the Plantation Cache represents a votive offering, a shrine, or some other kind of specialized functional location. Ethnographic descriptions of other kinds of ritual sites in this region, however, do not conform as clearly to the Plantation discovery as do the shaman's cache descriptions.

### **Justification for a New Formal Charmstone Type**

In 1936, Alfred Kroeber published a landmark survey of the status of California prehistory and concluded "California prehistory has long been resistive to interpretation and promises to remain so (1936:115)." Seventy years later, this statement holds true, in part perhaps because few researchers chose to heed his advice elsewhere in that same paper. Here, after reviewing evidence and possible approaches to sorting out cultural chronology, he had stated "Our one thin guiding thread backward into the prehistory of most of California is... the much-debated plummet-shaped stone which the historic Indians did not make but did use as a charm." He went on to add, "Other artifacts may ultimately prove to be even more useful; but it does seem as if the charmstone, treated by the strict Nordenskiöld method, or analogously to the potsherd in pottery areas, will definitely help us to arrive at interpretations on cultural sequences (Kroeber 1936: 114)." Kroeber realized that the study of these artifacts in terms of their relative frequencies, possible changes in form, and so on, would require systematic classification and he was encouraging California archaeologists to pursue this. This paper is an attempt to follow his advice by presenting evidence that we believe substantiates the idea that the American football-shaped charmstones we have described here constitute a formal regional type. The existence of this specialized type of charmstone presents implications that bear on Kroeber's concerns, as well as issues of relevance to more modern anthropologists.

Initially, Foster believed the Plantation Cache charmstone to be unique, but in the years after its discovery, a few other nearly identical objects came to his attention. All of them shared the following characteristics:

- They were made of high-quality white quartz.
- They all were relatively large -- approximately 20 cm long and 8 cm wide.
- They were all football shaped, although some had tapered ends and others had blunt ends.
- All were found in the northern Sacramento Valley or adjacent foothills.

Impressed with this group of artifacts, Foster paraded the Plantation Cache contents around the state, including the Annual Meetings of the Society for California Archaeology, and showed them to as many of his colleagues as he could. Among those he consulted were Albert Elsasser and Peter Rhode who were in the process of revisiting the issue of California charmstones and preparing a typological study (Elsasser and Rhode 1996). Dr. Elsasser provided the following suggestions regarding the classification of the football charmstone type in a letter sent to Dan Foster:

Dear Dan: Thanks so much for sending along the information on the Northern California charmstone. It is indeed a new type, so far as I can see, though I think the closest we can come is to include it as a rare variant of the smaller lemon-shaped example of the north. I'm afraid that we cannot do it full justice in a large article, and therefore suggest that you go ahead and publish it, and designate it as an oval-shaped form with blunt ends ... (Elsasser 1991).

To incorporate the football type into the charmstone typology developed by Elsasser and Rhode would require either grouping them with their ovoid shape Type O or symmetrical spindle shape Type S, or instead lumping them together with cogstones, propellers, and objects from outside of California do not seem to us to have merit. Doing any of these would only serve to obfuscate their significance, which is embodied in their recognition as an artifact class.

We believe the football-shaped charmstones constitute a distinct class, or type. The type is characterized by:

- 1) A bipointed oval outline morphology that is reminiscent of the shape of an American football. The ends may be either pointed or blunted (these traits identify possible subtypes). Cross-sections vary from round to flattened oval shape. Curvature of the outline margins is rounded and not angled at midsection (as are Ragir's Type B3). Length to width ratio for the Type Specimen is 2.49; the range for the type is 1.97 to 2.49.
- 2) Relatively large size. Type specimen is 184mm in length; range for type is 160-193mm. Widths vary due to variation in cross-section. Type Specimen measures 68 to 74mm in width; range for type is 68mm to 80mm in width.
- 3) Manufactured usually of high-grade quartz or quartzite; sometimes of other hard stone.
- 4) Distribution in the northern Sacramento Valley and adjacent foothills. Type Specimen is from historic Maidu (Nisenan) territory; others from Konkow, Yana, Shasta, and Wintu territories.

Each of these criterion merit substantiation. Some comments will help justify our position.

Charmstones are not particularly common in the northern Sacramento Valley, or in adjacent regions to the east or north. Large collections usually contain only a few esoteric artifacts relative to large numbers of projectile points, milling equipment, and other utilitarian implements. In contrast, charmstones and other oddities dominate large archaeological collections from the San Francisco Bay, the Sacramento-San Joaquin Delta, and the San Joaquin Valley. The football-shaped charmstone form is presently distinct, in part, because of its distribution in an area where charmstones are virtually unknown, either archaeologically or ethnographically.

Football charmstones are further distinct in their absence from the San Francisco Bay Region, the North Coast Region, and the Sacramento-San Joaquin Delta Region. These are areas where large numbers of charmstones have been recovered and collections relatively intensively studied. This absence explains why the type has been overlooked by past researchers. Heizer (1949:

Figure 8f) illustrates an unperforated Type B3 “diamond” shape charmstone that looks very similar to the football specimens. He also presents a photograph of a burial from CA-SAC-107 that shows one or more similar charmstones (Heizer 1949: Plate 3d). This photo was duplicated in Moratto (1984: 204, Figure 5.13) to show a “typical” Windmill charmstone grave association. It is very unusual for Windmill charmstones to not be perforated, so these are not “typical”. For comparative purposes, we present a close up view of this photo (Figure 8), and an illustration (Figure 9, item f), from Heizer’s (1949: Figure 8) typology that shows an example of one of the CA-SAC-107 specimens.

The 1935 photograph of a Windmill Pattern burial from CA-SAC-107 (Moratto 1984:204, Figure 5.13) reveals at least six charmstones in association, and two of these do indeed look like they could be additional examples of the new charmstone type discussed in this paper. They appear to be quite large, unperforated, football-shaped with blunted ends, and possibly made from bright white stone – perhaps quartz (Figure 8). To investigate this further, the authors contacted Natasha Johnson of the Phoebe Hearst Museum of Anthropology to inquire if those two charmstones could be located in the collections housed at the museum. There are 93 charmstones in the collections from CA-SAC-107 but unfortunately, the two depicted in that photograph could not be immediately located, so we were unable to confirm or refute the possibility that additional examples of this new type were recovered at the Windmill Site.

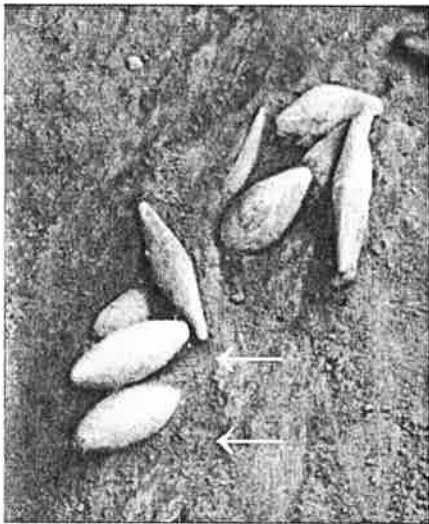


Figure 8. Possible football charmstones from 1935 excavations at CA-SAC-107. (Photo modified by ASM from photo in Moratto 1984:204, Figure 5.13)

Natasha Johnson reviewed the collection of 93 charmstones from CA-SAC-107, then sent us information on approximately 8 specimens which somewhat resemble our proposed new charmstone type. She graciously provided photographs, catalogue numbers, and descriptions. Most of these were either too small, were perforated, or simply didn’t match the morphological bipointed oval outline closely enough and were excluded. Two of these, for example (Figures 10 and 11) were similar in shape but too

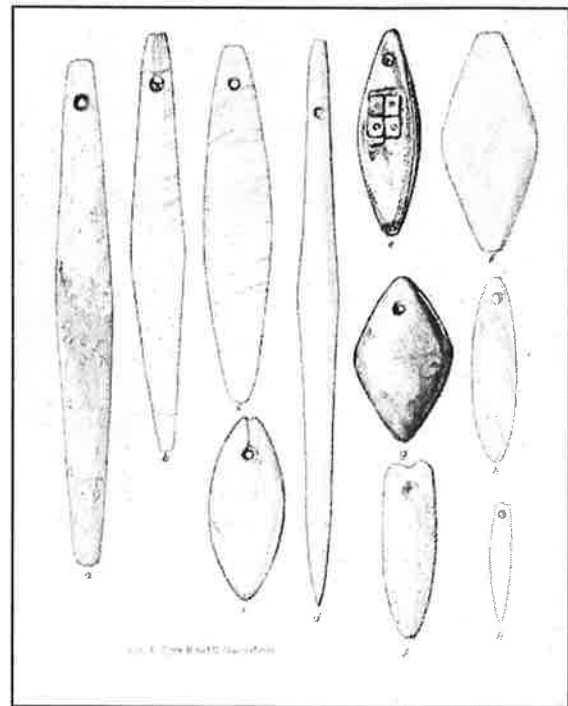


Figure 9. Illustration of an imperforate bipointed Type B charmstone from CA-SAC-107. (From Heizer 1949: Figure 8f)

small in length, 75 and 98 mm respectively. They both appear to be a good fit for Sonia Ragir's (1968) Type B3 discussed below. Two additional charmstones from CA-SAC-107 (Figures 12 and 13) are also similar but too small and are perforated with a biconically-drilled hole at one end.

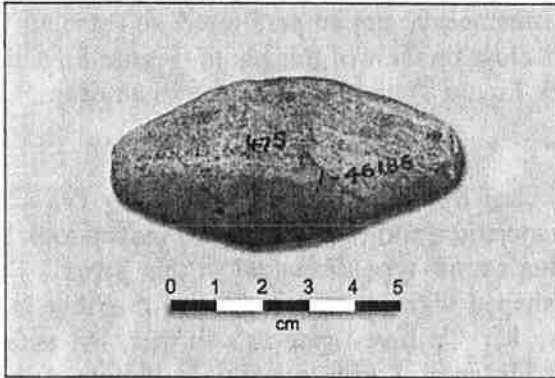


Figure 10. Charmstone from SAC-107 recovered in 1937. Catalogue number 1-46186. (The Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

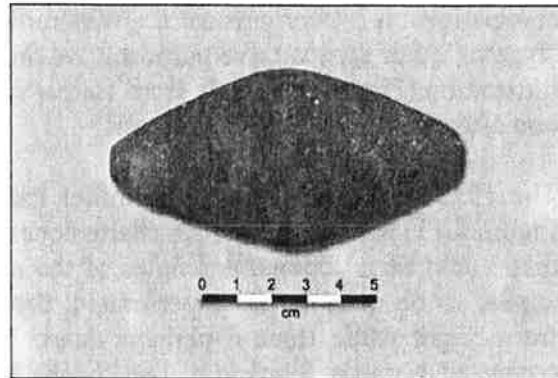


Figure 11. Good example of Type Diamond Shaped Type B3 described by Sonia Ragir. Catalogue number 1-46283. (The Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

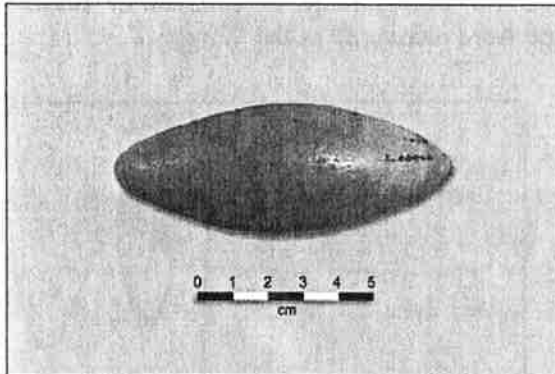


Figure 12. Bipointed, Perforated Charmstone from SAC-107. Catalogue number 1-46462. (The Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

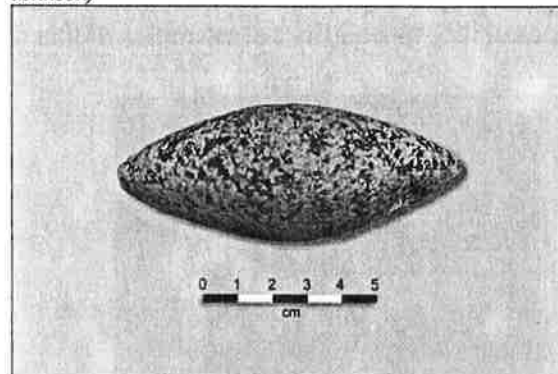


Figure 13. Bipointed, Perforated Charmstone from SAC-107. Catalogue number 1-46222. (The Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

Sonia Ragir reanalyzed the Windmill materials and in her revision of the charmstone typology noted that the Type Specimen (LM-16280) for the diamond shape Type B3 charmstone is unperforated and “probably unfinished” (Ragir 1968:169). She notes that two of ten others from CA-SAC-107 have “incipient perforations”. Type B3 charmstones are somewhat similar in form to football charmstones, including having their “tips and ends flattened” (Ragir 1968:169). However, Ragir indicates they are “always short” ranging from 65-118mm in length with a “marked angularity” at midpoint (Ragir 1968:169). Furthermore, very few Windmill charmstones were made of quartz, although quartz crystals themselves were frequent grave associations. For these reasons, we believe the football charmstone type is not represented within sites of the Windmill Pattern.

Probably the highest concentration of charmstones in California occurs in the San Joaquin Valley, where collections numbering in the hundreds of specimens are known (Gifford and Schenck 1926; Fenenga 1999). There are no published examples of charmstones from this region that resemble the football charmstones described here. However, there is an imperforate

biconical charmstone form that occurs in small numbers in collections from the Tulare Lake Basin (Fenenga 1999). Most of these are smaller than the size range indicated by the northern footballs, but stone is scarce in the floor of the San Joaquin Valley. These occur in two forms, blunt-ended "barrel" shaped and pointed "lemon" shaped. A material summary is not available, but one of the lemon-shaped examples in the Van Den Enden-Jackson collection is made of a crystalline material that appears to be fluorite (Fenenga 1999). At present, we are hesitant to include the Tulare Lake materials with those from the north end of the Great Valley, although this may eventually be warranted with additional study. The lack of similar charmstones in the intervening regions suggests there may be no relationship between the series from Tulare Lake and the northern football type.

These football-shaped stones are among the largest charmstones known from California, and one form where size is considered a defining criterion. There are larger charmstones known from California. The longest of all Windmill Culture charmstones is from CA-SAC-107 and measures 370mm in length (Ragir 1972). It is of an uncertain "pestle" type and is a unique artifact. Because it was made of the same blue schist that many other Windmill charmstones are made of, both Heizer and Ragir identified it as a charmstone. Hudson (1979:366; Figure 4) reported an incomplete specimen from Point Conception in Chumash Territory that measured 304 x 25 mm. The Point Conception specimen is of the "cigar-shaped" type known from that region. These occur in a gradient of sizes that retain this same form.

The football type charmstone can be distinguished by its consistently large size. In northern California and areas of the adjacent Great Basin, both lemon-shaped and diamond-shaped stones occur. These other forms can be discriminated from the football type by length. This can be seen in Figure 14. Here, the diamond-shaped stones are principally known from Washo and Modoc territory in the Great Basin, where they are identified as "hunting charms" (Wilson 1963), "gaming stones" (Howe 1968: 196-197) or "lucky for gambling" (Voegelin 1942: 201), "net weights" or "stone sinkers" (Tuohy 1968:214-215, Figure 3), and recently as "sling stones" (York and York 2006). Some examples of this form from Sierra County are presented in Figures 15 and 16.

These are considerably smaller than the football charmstones, with most being between 50 and 70mm in length. The small diamond-shaped stones have been found in several contexts that allow age assessments. They occurred at Lovelock Cave, Nevada in deposits where they occurred in the Early Lovelock Phase, likely between 3400 and 2900 B. P. At Kramer Cave, Nevada a single specimen was recovered that falls between 4300 and 3000 B. P. (Hattori 1982:151). Large numbers of these artifacts occur in southeastern Oregon, and they were identified in stratigraphic context at Nightfire Island, where they disappear after 2,400 B. C. (Sampson 1985:235). If the football type charmstone is related in any way to the diamond type, these dates may have relevance. Regardless, the diamond type stone artifact appears to have some temporal significance where it occurs.

Bill Hildebrandt brought to the authors' attention a similar type of artifact found on some Pacific islands. Robert and Gigi York, in researching Micronesian slingstones, some of which are football-shaped, pointed out that bipointed football stones were preferred over the bow and arrow as a weapon of war (York and York 2005). Most of these objects are small, approximating the

size of the diamond-shaped charmstones found in northern California. However, some of the specimens are highly polished and oversized, indicating a possible ritual or ceremonial use. Photographs graciously supplied by the Yorks show that there are striking similarities to the football charmstones of northern California. Although not as large as the Plantation Cache charmstone, and not made of quartz, the forms are very similar (Figures 17 and 18). Some of these objects fall into the lemon charmstone type size range. Note the fiber sling shown in Figure 17.

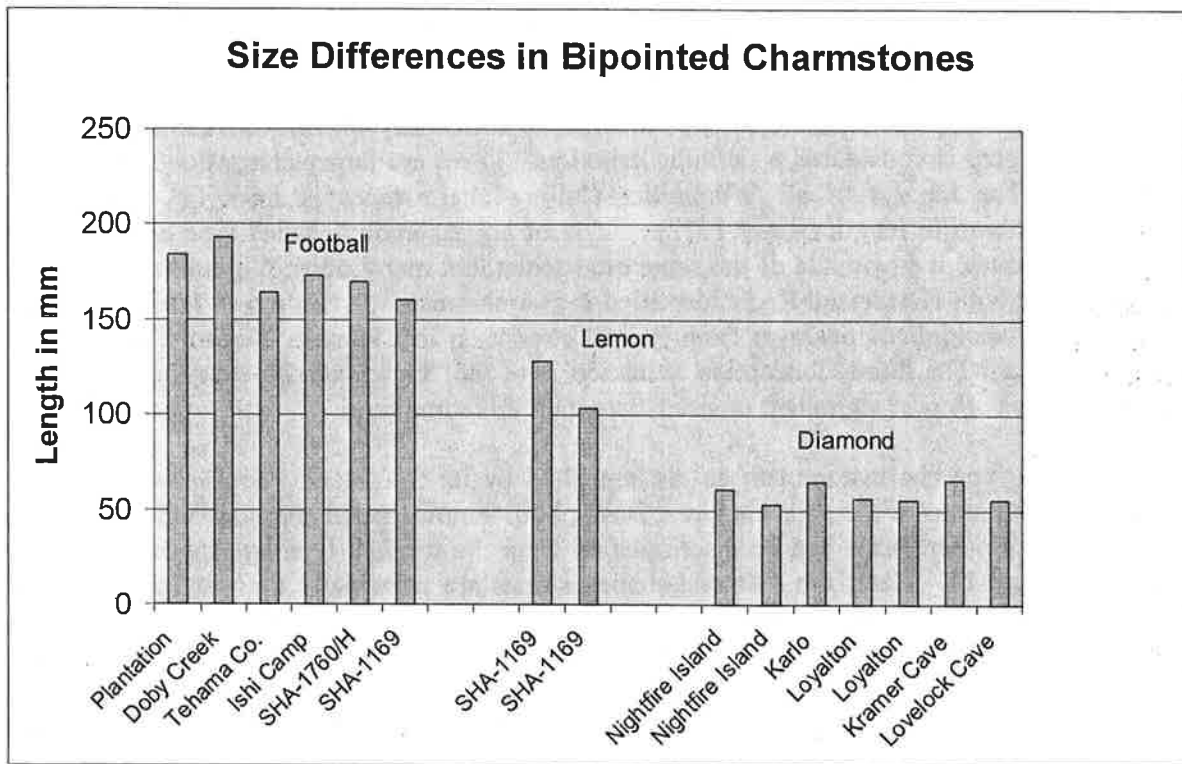


Figure 14. Histogram showing size distinctions between imperforate bipointed charmstone types.

If the Plantation Cache charmstone was used as a slingstone, why was it made of quartz, and so finely finished and polished? Size (weight = 1303 grams) and quality of manufacture argue against the Plantation Cache charmstone having been used as a slingstone.

The lemon-shaped bipointed stone class is problematic, but appears to be a distinct charmstone type. Unfortunately, the specimens we have found for comparison constitute only a small sample. Communication with Dr. Gregory White during preparation of this article resulted in hints of other examples of possible lemon and football-type charmstones. Dr. White, California State University Chico, mentioned that non-perforated, tapering football charmstones were found by Mark Kowta and Keith Johnson during excavations in Butte County in the 1960s and 1970s. These sites contained components dated to 2200-1100 years before present. We believe additional specimens are likely to turn up and eventually clarify the relationship between the lemon and football types of charmstone. At present, length and perhaps raw material distinguish the two.

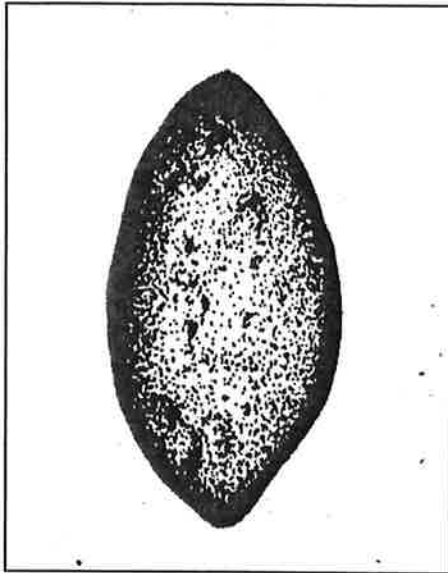


Figure 15. Diamond-shaped charmstone from Loyalton Rockshelter. (Drawing from Wilson 1963)

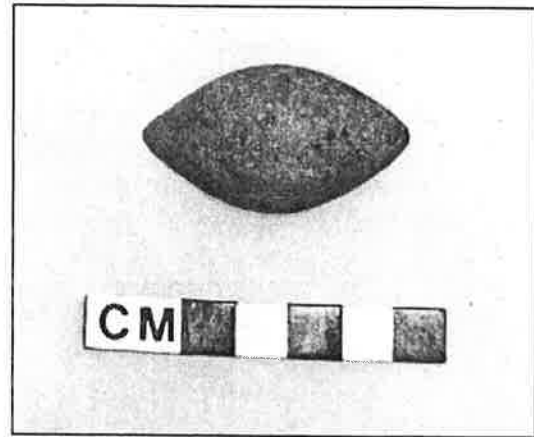


Figure 16. Diamond-shaped charmstone from private collection in Sierra Valley. (Photo courtesy of Dan Foster)

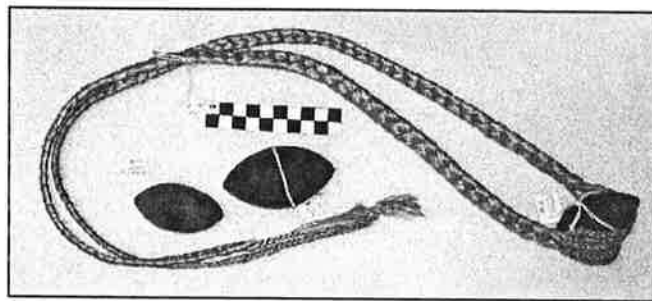


Figure 17. Chuuk Sling and 3 basalt Slingstones at the American Museum of Natural History. (Photo by R. York, November 22, 2004)

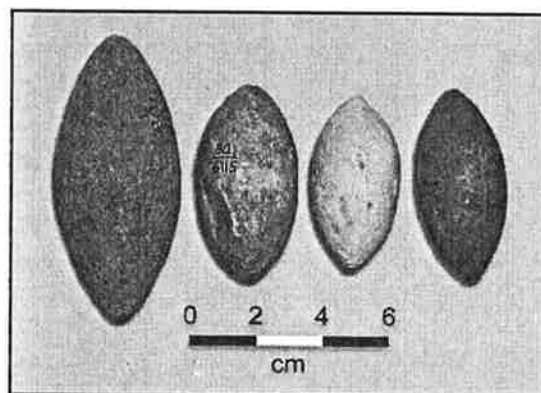


Figure 18. Four Slingstones at the American Museum of Natural History from Guam, made of limestones, coral, and basalt. (Photo by R. York, November 22, 2004)

## Other Football-Type Charmstones

For over twenty-two years, the three artifacts recovered from the Plantation Cache Site were included in the collection of artifacts used by CDF to help train RPFs and other resource professionals working on CDF projects to recognize prehistoric sites and artifacts so the resources could be protected during project activities. Over 2200 individuals have completed this training and were encouraged to watch for similar types of artifacts. It was theorized that if the Plantation Cache football charmstone was indeed a new type (and not simply a curious but enigmatic find) that additional discoveries might support this idea.

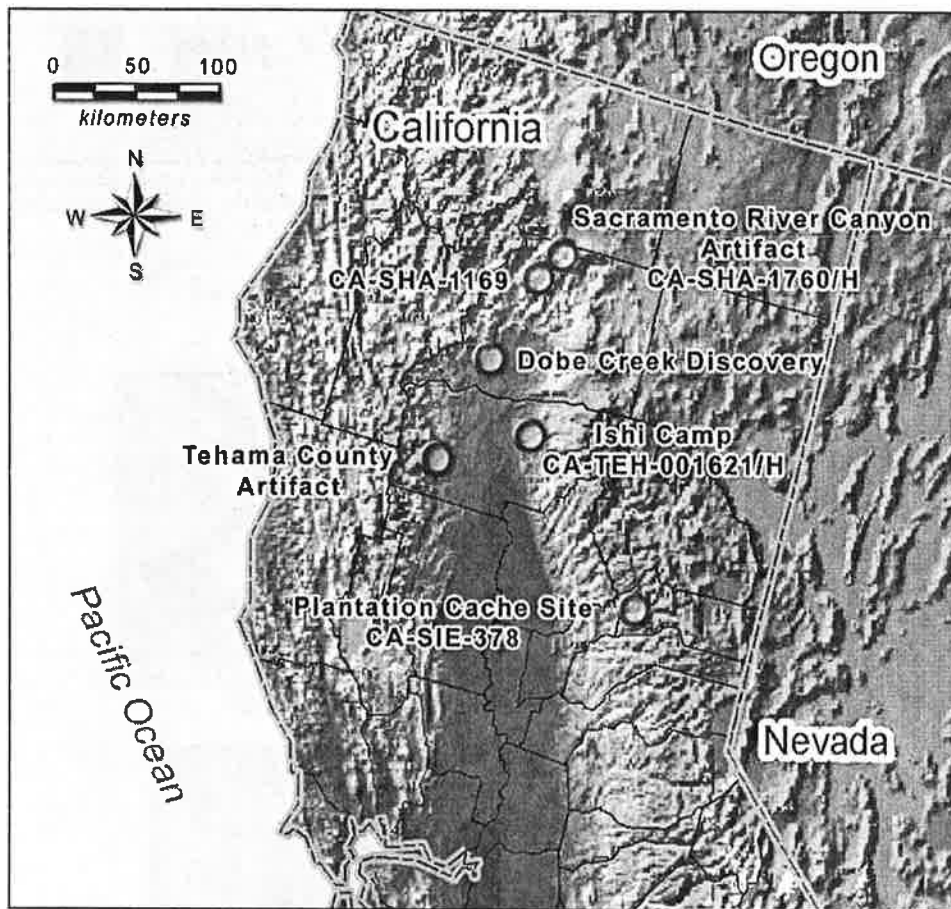


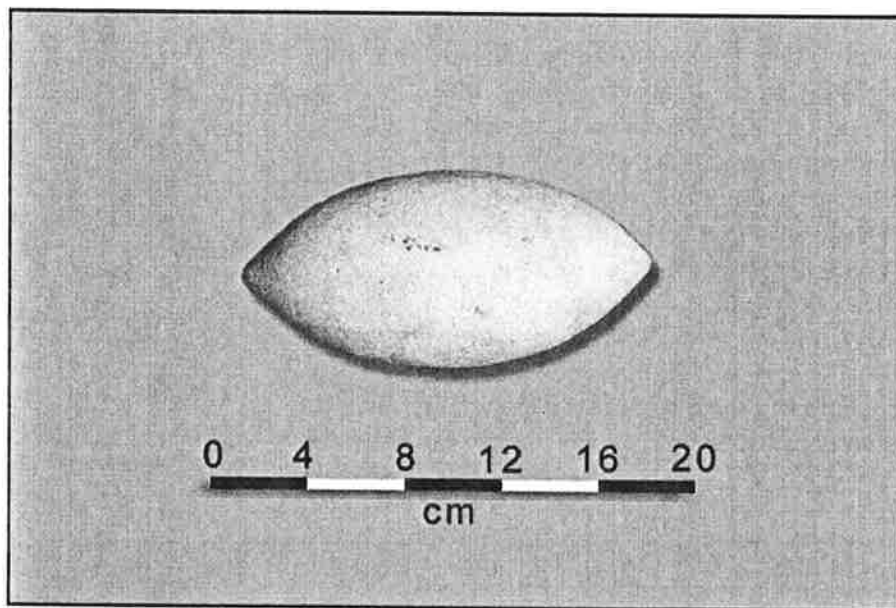
Figure 19. Map of Football-shaped Charmstone locations discussed in the text.  
(Figure prepared by ASM based on information provided by Dan Foster)

Five other nearly identical large charmstones with tapered ends have been found in northern California. All are very similar to the Plantation Cache quartz charmstone, although two are of different materials. Figure 19 shows the discovery locations of all six known artifacts.



### **Sacramento River Canyon (CA-SHA-1760/H) Charmstone (Figure 20)**

The discovery of this artifact came to the attention of Foster as a direct result of CDF Archaeological Site Recognition Training. One of the RPFs in training, Jon Miller, notified Foster that he knew of another artifact similar to the Plantation Cache object. The artifact was collected by a friend and colleague of Miller within the boundaries of a site later recorded as CA-SHA-1760/H (Elliott 1988). It is also made from white quartz, but is slightly more “lemon” shaped; it has pointed ends. Site CA-SHA-1760/H is located on a terrace west of the Sacramento River. The prehistoric component of the site had been severely disturbed by later historic mining activity. At one time, the prehistoric site was a large habitation area. Projectile point types found at the site indicated that it was a Late Period site. The site is in the ethnographic territory of the Okawanuchu, a branch of the Shasta Indians.



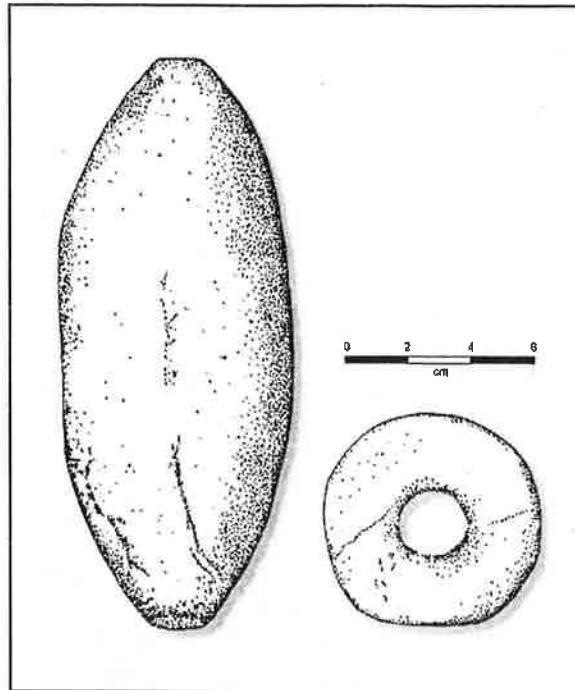
*Figure 20. Sacramento River Canyon Charmstone. (Photo courtesy of Jon Miller)*

### **CA-SHA-1169 Charmstone**

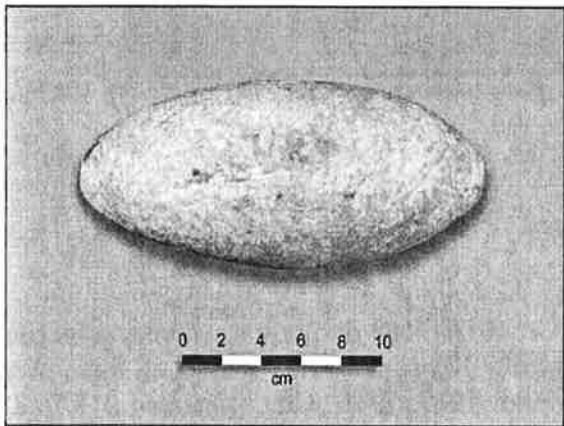
Six other charmstones were found nearby at site CA-SHA-1169 during excavations associated with improvements to Highway 5 in the Sacramento River Canyon. Three of these were described as “lemon-shaped” (Basgall and Hildebrandt 1989: E.4). One, specimen 215.16.82, falls close to the size category of quartz charmstones discussed in this article. This artifact is 160 mm long and 71 mm wide. However, the charmstones found at CA-SHA-1169 were all made of fine-grained igneous stone, not quartz. Based on the size criterion and the hardness of the material, this specimen is included here as another example, although it is slightly shorter than others.

### **Doby Creek Charmstone (Figures 21, 22, and 23)**

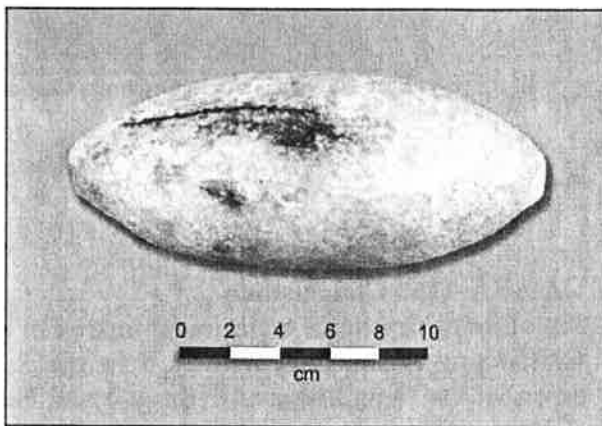
This charmstone is made of white quartz with blunted or flat ends. In 1984, Foster attended the Society for California Archaeology annual meeting in Salinas. That year, the society had invited its members to bring unusual or interesting artifacts for display. Foster brought the Plantation Cache quartz charmstone. During the meetings, Merla Clark informed Foster that she had found a nearly identical artifact at a ranch west of Ono in Shasta County, on the west bank of Doby Creek. Clark (1985) noted that artifacts had been found at the ranch over the years, and that larger sites with house pits and midden were present on nearby property. She also found other types of charmstones, including the more common lemon-shaped and grooved types. Ms. Clark suggested that the quartz charmstone may have been used as a "lightning stone." In the American Southwest, matched quartz stones were rubbed together to produce light; Whitley et al. (1999) cited numerous references to the use of "lightning stones" by traditional people to create a spark or glow that was the manifestation of power and the supernatural.



*Figure 21. Doby Creek Charmstone. (Sketch by B.J. Ciccio)*



*Figure 22. Doby Creek Charmstone, view 1.  
(Photo by Merla Clark)*



*Figure 23. Doby Creek Charmstone, view 2.  
(Photo by Merla Clark)*

### **Tehama County Charmstone (Figures 24 and 25)**

A fourth specimen was discovered in western Tehama County in 1987. This white quartz artifact measures 164 mm in length with a diameter of 68 mm at mid-section, and is pointed on both ends. CDF Forester Chuck Schoendienst (who had seen the original football charmstone in the CDF training collection) observed this specimen in a private artifact collection recovered from a ranch in western Tehama County and reported the discovery to CDF Archaeologist Richard Jenkins. Working cooperatively with the landowner to support a series of CDF projects on this ranch, Jenkins was able to borrow the artifact from the landowner to photograph and have it illustrated (Jenkins 1991). The artifact was then returned to its owner. Unfortunately, recent communication with the landowner in our attempt to obtain additional photographs revealed that the specimen has been lost since it was returned to the rancher in 1987.

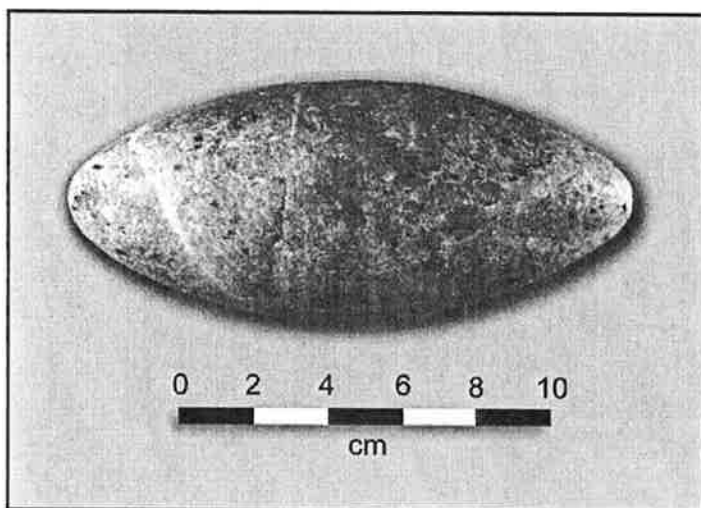


Figure 24. Tehama County Charmstone. (Photo by Rich Jenkins)

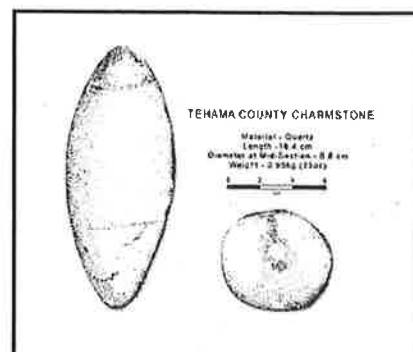


Figure 25. Tehama County Charmstone.  
(Sketch by B.J. Ciccio)

### **Charmstone from CA-TEH-001621/H (Ishi Camp) (Figures 26, 27, 28, and 29)**

Site CA-TEH-001621/H, the Ishi Camp site, was tested by California State University, Stanislaus (CSUS), to investigate the archaeological resources located at the CDF Ishi Conservation Camp.

After the initial excavation of four test units, CSUS was brought back to the site to monitor utility trench excavation. The trenches were excavated in locations outside those tested the previous year (Napton and Greathouse 2000b). The excavation of one of the trenches revealed a remarkable feature, and an archaeological test unit, Unit 5, was established to investigate the feature (see Figure 26).

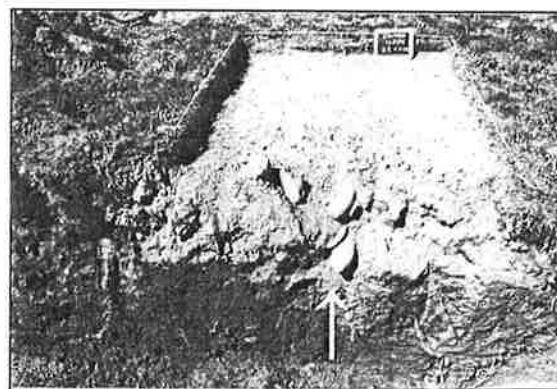


Figure 26. Charmstone from Ishi Camp, CA-TEH-1621/H. Photograph of charmstone in situ, as found in association with other rocks and artifacts. (Photo by L.K. Napton and E.A. Greathouse)

Within excavations levels 1-3 (0-30 cm), an intact feature was found. The feature contained: “three handstones, three lenticular disks or discoids, one ‘charmstone’, two milling base fragments, one utilized flake, one projectile point fragment (non-diagnostic), and ten associated unmodified andesite cobbles.” (Napton and Greathouse 2000b: 9). The disks are very thin, not

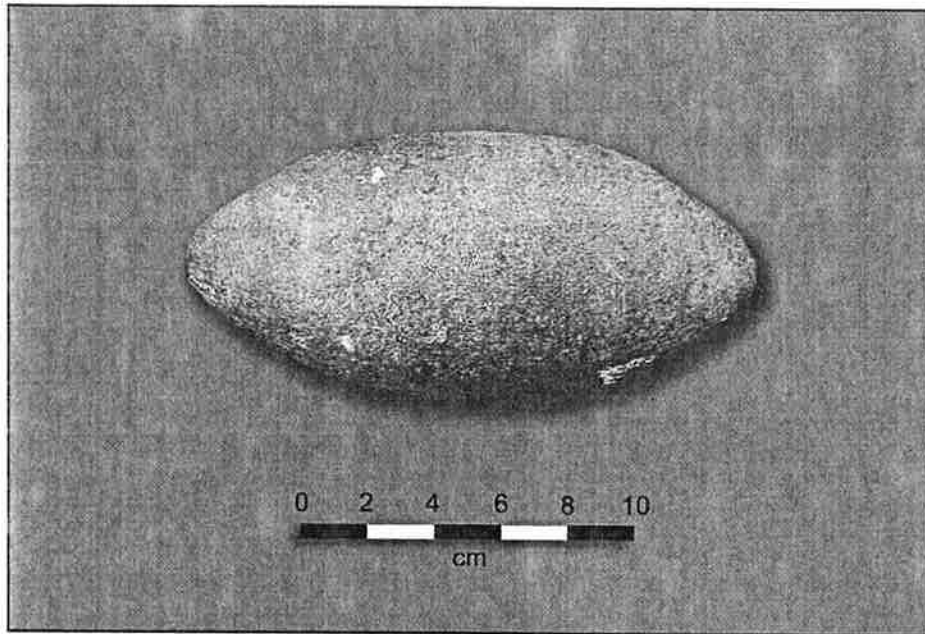


Figure 27. Charmstone from Ishi Camp, CA-TEH-1621/H, view 1. (Photo by Rich Jenkins)

like discoidal stones found in southern California.

The charmstone found in the feature is a “football” type, measuring 173 mm long, 88 mm wide, and 76 mm thick. It is made of a hard, fine-grained, dark green metavolcanic stone, not quartz like the other examples. It weighs 1235.3 grams. On April 21, 2006, CDF Northern Region Archaeologist Richard Jenkins collected data on the charmstone and photographed it (Figures 27, 28, and 29) at California State University, Chico, where it is curated. The following notes are from Jenkins' (2006) observations of the charmstone:

Both sides of this bi-pointed artifact appear to have been used as a mano. One side has a smooth polished surface; the other is smooth also but with obvious peck marks probably intended to re-sharpen and enhance its grinding capability. The sides that taper to the ends of the artifact show obvious pecking from the shaping process and have not been further smoothed, through grinding, as is the case with the other charmstones that I have examined. The small circular flat ends themselves exhibit battering suggesting use as a pounding tool. It is possible that the artifact may have originally served as a bifacial mano and that the tapering ends may have been added afterward.

Dr. Greg White also examined the artifact and made the comment that the ends of the artifact remind him of those seen on stone pestles used in wood mortars (see comment above regarding the Plantation artifact as a possible medicine pestle). Greg also noted that the artifact has not been washed and is thus a candidate for biochemical studies that might provide insight into the true use of this tool.

In addition to this important discovery, 9 projectile points were found during trench excavation. Three were identifiable, one of which was an obsidian Gunther Barbed type (Napton and Greathouse 2000b: 5). The CSUS investigators also noted the abundance of milling implements recovered from the trenches, in contrast to the scarcity of these artifacts noted during the previous test excavations.

CSUS was called out again to investigate further proposed construction at the Ishi Conservation Camp. Four test units were excavated within the footprint of a proposed building (Napton and Greathouse 2001). As a result of the test excavations, obsidian, basalt, and andesite flakes in quantities and types similar to the previous excavations were found. However, animal bone was scarce, in contrast to Area A, and milling implements, abundant in the prior utility trench excavations, were also lacking.

Napton and Greathouse (2001: 7-8) concluded that, although 9 excavated units was a limited sample, the results of the investigations suggested that there were important differences between the various areas of the site. The CSUS investigators proposed that Area A was on a knoll, and had the deepest midden deposit. They proposed that the utility trenches were excavated in a disturbed area where the upper soils had been graded away, leaving only the lower strata preserved. The final test excavations, in the building footprint, were mostly in fill, possibly placed on top of buried, intact cultural deposits.

The charmstone cache was found in Levels 1-3 of the utility trench excavation. If the CSUS investigators are correct, and the upper levels of the site were graded away in this area, the feature is not associated with the most recent occupation of the site as would appear from its stratigraphic position. In fact, the unit was terminated at 40 cm, indicating the feature was associated with the older components of the site. The discovery of the charmstone cache in a

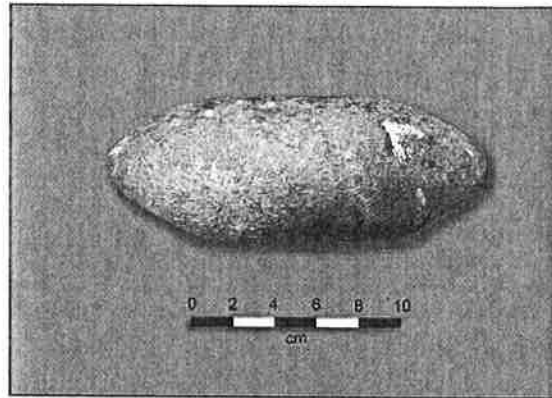


Figure 28. Charmstone from Ishi Camp, CA-TEH-1621/H, view 2. (Photo by Rich Jenkins)

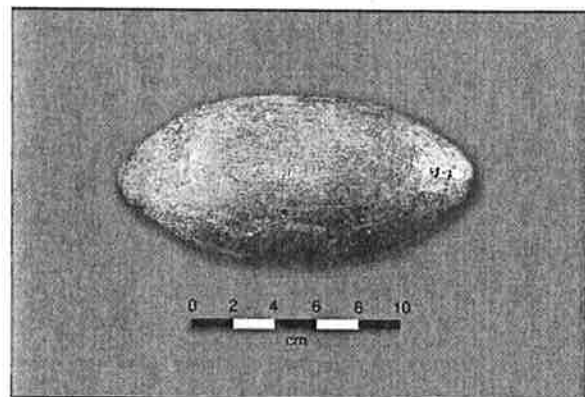


Figure 29. Charmstone from Ishi Camp, CA-TEH-1621/H, view 3. (Photo by Rich Jenkins)

part of the site where milling implements were abundant may also have interpretive value. The presence of five ground stone artifacts in the charmstone cache feature also is important.

Both the Ishi Camp and the CA-SHA-1169 charmstones were discovered as a result of controlled archaeological investigations within the boundaries of obvious archaeological sites. Interestingly, these are the smallest and most different examples we recognize as footballs. The discovery of these within village sites indicates this charmstone form can occur in different contexts.

## **Conclusions**

The discovery of the Plantation Cache has called attention to an unusual type of archaeological site. In this paper, we have made a case that this site represents the archaeological remnants of cached shaman's paraphernalia. Ethnographic sources from a variety of tribes indicate the caching of ritual items was common, so it is not surprising that archaeologists might occasionally come across such a location. The Plantation Cache adds to a small list of known examples of sites of this, or a similar nature, from California.

We also have demonstrated, with the discovery of six nearly identical artifacts from northern California, that the associated football charmstone is not a unique object. It is our contention that the football charmstone represents a legitimate formal Type that has heuristic value for California archaeology. Criteria have been presented that identify the proposed Football Charmstone Type and discriminate these from similar forms. The authors anticipate that additional examples will be identified, and hope that this article results in more artifacts coming to light.

## **Acknowledgements**

We would like to thank the people involved in the discovery of the new football charmstone type, including Wendy Johnston, Jon Miller, Chuck Schoendienst, Rich Jenkins, Merla Clark, L. Kyle Napton, and Elizabeth Greathouse. These people were all instrumental in bringing forward the information necessary to define this artifact type. The authors would also like to thank the late Albert Elsasser, Bill Hildebrandt, Steve Shackley, Natasha Johnson, Elaine Sundahl, Greg White, and Robert and Gigi York for assisting us in our research on the football type charmstones. All made good suggestions and provided information about lines of inquiry, which were greatly appreciated. We also acknowledge the work of the late Fritz Riddell, who recognized that the Plantation Cache charmstone was a new type of artifact, and B.J. Ciccio who rendered four of the illustrations used in this paper. Photographs were prepared by Zee Malas of ASM Affiliates; Zee took materials that were of various quality and created the clear, clean images in this report. Any errors and omissions are solely the responsibility of the authors.

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## CHARMSTONES: A SUMMARY OF THE ETHNOGRAPHIC RECORD

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### ABSTRACT

Charmstones are an artifact type which has intrigued California archaeologists from the earliest excavations in the late 1800s right up to the present. These artifacts have appeared in a variety of contexts in archaeological deposits spanning hundreds of miles and thousands of years. Although charmstones have played a minor role in building regional temporal chronologies, their function in prehistoric California has often been ignored or treated speculatively by archaeologists. This paper has two goals: (1) to provide a synthesis of the disparate and far-flung ethnographic accounts regarding charmstone function and use, and (2) to serve as a reference on this subject for archaeologists seeking to use ethnographic analogy as an explanatory or interpretive tool.

### INTRODUCTION

Before beginning any discussion of charmstones, it is necessary to provide the basic physical criteria used in this study to label an artifact as a "charmstone." After reviewing a variety of California archaeological literature, it became apparent that there is a general consensus as to what constitutes a charmstone. The basic criteria are as follows: (1) made of stone; (2) entirely shaped by manufacturing processes (i.e., grinding, pecking, or polishing); (3) cylindrical or elongate in form (rather than tabular or discoidal); (4) generally between 7 and 20 cm. in length; and (5) either perforated or non-perforated. While these criteria are neither all-inclusive nor extremely precise, they provide the simple definition necessary for further discussion.

Charmstones have been found in archaeological sites throughout much of California. Geographically, charmstones are most common in the Central Valley, the Delta, and the San Francisco Bay area, but they have also been found in the western foothills of the Sierra Nevada, on the coastlines of northern and central California, and in the North Coast Ranges and South Coast Ranges (Moratto 1984; Elsasser and Rhode

1996). Charmstones have been found in a variety of archaeological contexts: as isolated artifacts (Blake 1872); in groups or caches (Latta 1949; Sutton 1996); at possible charmstone manufacturing sites (Elsasser 1955); as unassociated artifacts in larger middens; and as burial associations. Because of their association with burials, charmstones have played a minor role in building regional temporal chronologies (e.g., Beardsley 1954). Readers seeking an archaeological overview of California charmstones are referred to Elsasser and Rhode (1996).

The question of what charmstones were used for is an old one in California archaeology. California charmstones began to appear in natural history literature in the late 1800s (Foster 1868; Blake 1872; Abbott 1879), as California was first being heavily settled and developed by Euroamerican settlers. The earliest of these accounts refer to charmstones as "plummets" because of their physical resemblance to plumb-bobs. These early accounts of charmstones were written by the antiquarian artifact collectors of the day, and tended to be sensationalistic and highly speculative by today's standards, proposing an amazingly wide range of possible uses for these mysterious artifacts. The most common

explanation was that they were used as fishing sinkers (Blake 1872; Abbott 1879; Rau 1884). The term "charmstone" first appeared in an article published by Lorenzo Yates in 1889. Yates' article is important not only for coining the term "charmstone," but because the label Yates chose for these artifacts was derived directly from Native American informants' testimony that these artifacts were in fact used as charms rather than as utilitarian tools.

The antiquarian fascination with charmstones was renewed in the early decades of the 20<sup>th</sup> century, as a new breed of anthropologically-trained archaeologists turned their attention to interpreting native California's material culture. Many of the antiquarian hypotheses, and especially the fishing sinker idea, resurfaced in the work of Heye (1921, 1926), Gifford and Schenck (1926), and Schenck and Dawson (1929). Discussions of charmstone function during this period were generally less speculative, however, and typically focused on the question of ceremonial versus utilitarian use. In terms of charmstones, archaeologists of this period made disappointingly little use of a growing body of ethnographic data generated by Alfred Kroeber and his students at the University of California beginning in the early 1920s. Unfortunately, the early dichotomy between archaeology and ethnography on the question of charmstone function has continued to the present day. For the most part archaeologists have been content to re-work the speculations of earlier archaeologists in the absence of ethnographic data (but see Sutton 1996:52). There has been no systematic study of the ethnographic data on this subject, and archaeological discussions of charmstone function have generally remained within the well-worn rut of ceremonial versus utilitarian function (see Moratto 1984).

In reviewing ethnographic information on charmstone use in native California, it became apparent that ethnographic accounts of charmstone use provide a relatively clear and consistent definition of charmstone function. Although there were regional and even intra-regional variations in function, Native American informants over large geographic areas in California have given amazingly similar information

on this subject to ethnographers for almost a century. It is argued that this is the logical starting point for a more effective interpretation of these artifacts. The purpose of this study is therefore to summarize this information.

## METHODS

A wide range of historical and ethnographic materials were consulted during the course of this study, and three basic criteria were used to determine which ethnographic accounts to include in this paper. First, the term "ethnographic" will refer here to information directly witnessed by the ethnographer or provided directly by a Native American informant. Second, only ethnographic accounts from aboriginal groups native to California were included. Similar artifacts appear elsewhere in North America (Hodge 1910; Moorehead 1900; Pennypacker 1938; Rau 1884; Reiger 1990), but an in-depth look at the ethnography of these areas is well beyond the scope of this paper. Finally, each account had to provide a clear description or illustration of the "charmstone" under discussion. This was designed to eliminate potentially confusing references to other types of natural or artifactual stones (such as quartz crystals) commonly referred to as "charmstones," "luckstones," or simply "charms" (e.g., Levi 1978, Loeb 1926, Sapir and Spier 1943). Simple descriptions such as "plummet-shaped," "pear-shaped," or "perforated and oblong" were acceptable in the context of other descriptive information.

These criteria resulted in the identification of 16 sources of information regarding charmstone use among approximately 17 linguistic groups (Table 1). Stylistically, these sources can be divided into five major categories: antiquarian ethnography, Kroeberian ethnography, Culture Element Distributions (CEDs), oral narratives (i.e., myths), and modern ethnography. These materials vary wildly in theoretical outlook, content, and thoroughness, making comparison difficult. To overcome this difficulty each account was reduced to its basic content and plotted in table form (Tables 1-3). This simplistic approach is useful for conveying uneven information in a coherent manner, but is not advocated as a

substitute for the primary sources. In building Tables 1-3, sources which discussed charmstone use among more than one linguistic group (e.g., Gifford and Kroeber 1937) were broken down by language family. No information was intentionally omitted, although similar information with slight differences (for example, "...hung near salmon net" and "...hung near fishing stream") were often subsumed in one category. Negative information (for example, a statement that charmstones were *not* manufactured) has also been tabulated, as this information proved to be important in defining certain attributes. The resulting tables present a surprisingly wide range of functions, modes of use, and associated qualities.

## RESULTS

### Function

On the key question of function (Table 1), the ethnographic data overwhelmingly support the "ceremonial" or symbolic explanation long ago advocated by Kroeber (1925:936) and other ethnographers, but generally treated with suspicion by archaeologists. Although the sources attributed a surprisingly wide range of supernatural powers to charmstones, the overriding theme was their ability to influence the outcome of natural phenomena such as fish runs, animal behavior, drought, and sickness. A subtheme emerged, especially in northern California, indicating that they were also used to control social phenomena such as love, gambling, and war.

The most commonly reported charmstone function was their use as hunting and fishing charms. While these themes were repeated throughout different regions of the state, the actual physical use as hunting charms varied considerably: they might be, "tied over openings in [a] deer fence" (Gifford and Kroeber 1937:186); hung at good hunting places; or, "put into the stuffed deerhead decoy, for luck" (Kroeber 1930:391). Use as fishing charms was similar--they were generally hung on a pole near a fish net or weir or on a tree next to the stream. A Wappo informant told Yates that they were believed to, "travel in the night through the water to drive the fish up the creeks to favorite fishing places, or

through the air to drive the land game up towards certain peaks and favorite hunting grounds" (1889:304).

Another commonly reported function (in northern California) was in curing sickness. Informants from three different Pomo groups linked charmstones to curing doctors, "who might have one in outfit and touch [the] patient with it to cure illness" (Gifford and Kroeber 1937:185).

Among the groups of southern California, charmstones are most strongly associated with rainmaking ceremonies, a function absent from northern California ethnographic accounts. This theme is illustrated in a Yokuts informant's account of a rain-doctor's attempt to bring rain: "He put a little water on the unuk [charmstone] before he sang to make it rain. If he dipped it in the water and then sang and danced, he could bring a flood" (Latta 1949:204). Similar ethnographic evidence appears in other accounts of the Yokuts and neighboring Chumash (Henshaw 1885; Driver 1939), while a Chumash oral narrative clearly links charmstones to thunder and lightning (Blackburn 1975). It is interesting to note that Latta's account also strongly ties charmstones to fishing success. Anecdotal evidence from the early settlers that Latta interviewed suggests that the purpose of the Yokuts rainmaking ceremonies was in fact to, "bring water into streams during drought, and to induce the large trout of Tulare Lake to migrate up the various branches of the lower Kaweah River" (1949:201).

Various other "supernatural" abilities have also been attributed to charmstones: controlling wild fires, bringing fresh air into a house, and bringing luck in love, gambling and war. Unfortunately, however, these themes are not recurring in the literature, and are treated with suspicion by this author. They do, however, suggest the influences of enculturation and/or the dynamic nature of an artifact's role within a given culture.

Finally, four utilitarian functions are also mentioned, but follow a similar pattern--none of them are mentioned in more than one account. Three of these functions (fire drill, skin-processing tool, and weaving tool) appear in a single account of the Sierra Miwok (Barrett and Gifford 1933). The

authors themselves question the veracity of the informant's information, stating, "We suspect that these attributed uses were only guesses on the part of the informant" (p.213). It is important to mention that one ethnographic account does clearly state that charmstones were used as net sinkers (Gifford and Kroeber 1937:217). Puzzlingly, however, this account also says that charmstones were found, rather than manufactured, and that they were feared--both of which are traits of "charm" objects. It is possible that they were used in this case as net-weights that had the added value of bringing good fortune

#### Use and Storage

The reported modes of physical use of charmstones (Table 2) roughly parallels the information regarding function. As mentioned above, charmstones were commonly hung near fishing or hunting areas, often above the fish net or deer net. They might also be worn on a cord around the neck by a hunter (Collier and Thalman 1991:134) or a shaman (McKern 1922:254). Again, the pattern for southern California was quite different. Their use as charms for bringing rain took place in a ceremonial setting, where they might be sprinkled with seed or other offerings, ritually dipped in water, or sung over by a rain doctor.

Reported modes of storage included burying charmstones underground, storing them (by shaman) with shaman's gear, keeping them in or near deer-head hunting decoys, and keeping them inside family dwellings.

It is interesting to note that the ethnographic information concerning the actual physical use and storage of charmstones appeared less coherent than that for function. There are three possible explanations for this lack of coherence: (1) the ethnographic data simply reflect the loss of traditional knowledge; (2) traditional practices of charmstone use and storage varied significantly from group to group prior to contact; and (3) the information regarding use and storage practices was under-reported, and the small sample size did not allow clear patterns to emerge. While this diversity may help archaeologists explain their findings on a case-by-case basis (indeed, an account can be found to explain the presence of

charmstones in almost any archaeological context), it offers nothing but confusion to those hoping to use ethnographic literature to actually guide their research.

#### Charmstones and Social Roles

Perhaps the most useful pattern this study identified was the clear association between charmstones and shamanism (Table 3). Ethnographic accounts throughout California emphasized the supernatural nature of charmstones--and the need for a religious specialist to properly harness their power. Differences seemed to exist between southern and northern California, however.

Accounts from northern California commonly portrayed charmstones as dangerous items that might harm the wrong people: "They were powerful and most people wouldn't touch them" (Kroeber 1930:391); "Not brought into house because bad for children" (Gifford and Kroeber 1937:217); and, "Paralysis resulted from touching charmstone" (Gifford and Kroeber 1937:185). The use of charmstones by shamans as part of a curing ritual has already been mentioned, but a careful reading of the ethnography reveals that shamans were in some cases also involved in using charmstones for success in hunting and fishing. "Plummet-shaped charmstones [were] tied with grapevine over openings in deer fence by singing shamans" (Northern Pomo; Gifford and Kroeber 1937:186); "...but a shaman or wizard would keep [the charmstone] and hang it by a string from a pole set by his salmon net or weir..." (Patwin; Kroeber 1930:287). The ethnography does not portray charmstone use as exclusively within the realm of shamanism, however. A few accounts (e.g., Loeb 1926; Gifford and Kroeber 1937; Collier and Thalman 1991) clearly state that they were used individually by hunters or fishermen without the help of a shaman.

Accounts from southern California (i.e. Chumash and Yokuts) also clearly tied charmstones to shamanism, but in a different way. First, there is no mention of charmstones being "dangerous" in the wrong hands. Latta's informant, for example, tells of would-be rain doctors trying to use charmstones in ceremonies designed to bring rain:

Lots of Indian Doctors tried to learn this song. They wanted to be *Tripne* [supernatural] Rain Doctors. They tried to sing it, but never learned it right. I heard them sing lots of times, but I never sang my song for them. They were only *Ahntru*. They wanted to be *Tripne* (Latta 1949, 205).

Latta's account makes no mention of sickness or other ill effects stemming from the "misuse" of charmstones, nor do any of the accounts from southern California.

Second, accounts of charmstone use from southern California tend to portray charmstones as something used in the context of public ceremony, rather than on an individual basis. Henshaw provides one of the more colorful accounts:

The twelve sorcery stones were arranged in a circle close together. In the center was placed the *Tu-caut* [a special quartzite pebble]; chia (the generic name for seed meal), together with down from the breast of the white goose, was then spread over the stones. Red ochre was then sprinkled over the whole. A dance was held around the pile, while three old men sang, keeping time with rattles. This or similar ceremonies was observed for curing the sick, bringing rain, putting out fires in the mountains, calling fish up the streams, when war was to be made, etc., etc. (Henshaw 1885:110).

Yates' and Latta's accounts (Chumash, 1889; Yokuts, 1949) differ somewhat in detail, but also describe charmstones being used in the context of public ceremony.

#### Reported Origin and Supernatural Properties

Several other reported attributes reinforced the symbolic nature of charmstones and their apparent association with shamanism (Table 3). First, several informants asserted that the charmstones were found as is, and were not manufactured. While it is somewhat unclear how these statements should be interpreted, a Patwin account puts the question of origin squarely in the

realm of symbolism and mythology: "Such a stone was said to be a thunderbolt and was usually found, according to the owner, buried in the ground at the foot of a tree that had been struck by lightning" (McKern 1922:254). This concept of a non-human origin is common among "magical" or "charm" objects. Gifford and Kroeber, for example, also report the obsidian spear blades in a shaman's kit as being "found, not made by him" (Northern Pomo; 1937:199). The association with lightning, which was found in two other charmstone accounts (Kroeber 1930; Blackburn 1975), is also common among "charm" items. Loeb tells us, for example, that "gambling charms were sometimes taken by the Eastern Pomo from trees which had been struck by lightning" (1926:216).

Another attribute which was repeated in several accounts was the charmstones' ability to move by themselves. Yates' account, previously mentioned, tells of charmstones herding deer and fish; other accounts tell of charmstones running away from or returning to their owners. Self-locomoting objects are in fact common throughout California ethnography, and are generally considered "magical" in nature, such as quartz crystals or large obsidian blades (e.g., Levi 1978:47; Collier and Thalman 1991:368).

## CONCLUSIONS

The question of charmstone function in native California is in fact clearly addressed by the ethnographic literature. Although the data are neither entirely complete nor entirely consistent, they do provide a recognizable picture of the role charmstones played in the cultures of prehistoric California. In northern California charmstones were most frequently used to bring good fortune in fishing and hunting, and in curing the sick. In southern California they appear to have been used primarily in bringing rain, which may have been related to fishing success, a second reported charmstone function in that area. Throughout California, charmstones were used primarily by religious specialists, whether singing, curing, or rain doctors. The charmstones' role in native cultures as "charm" or "magical" objects is further witnessed by several commonly reported

attributes: their non-human origin, ability to cause sickness, powers of self-locomotion, and association with thunder.

## NOTES

I thank Sonoma State instructors Thomas Rosin and Greg White, my 1994 proseminar classmates, and my wife Cassandra for comments which have improved this paper. Dr. Rosin's assistance and instruction have served me well throughout my graduate career. I must also thank Pete Rhode for compiling his "Charmstone Compendium," a collection of different charmstone references which sparked my interest in the subject and served as a good starting point for this study.

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1943 *Culture Element Distributions: XXIV Central Sierra*. University of California Anthropological Records 8(4).

Sketchy checklist associates charmstones with curing and weather doctors among the Yokuts, Mono, and Miwok; no explanatory notes provided.

Barrett, Samuel A. and E. W. Gifford

1933 *Miwok Material Culture*. Yosemite National Park, California: Yosemite Natural History Association.

Brief ethnographic account is very unusual: informant lists three different utilitarian functions for three different styles of charmstones. Barrett's comment bears repeating: "We suspect that these attributed uses were only guesses on the part of the informant."

Blackburn, Thomas C. (ed.)

1975 *The Rejected Suitor* (No. 76). In: *December's Child: A Book of Chumash Oral Narratives*. Berkeley: University of California Press.

The only oral narrative I am aware of which is clearly about charmstones (#39, "Coyote and the Sopo," is also probably about charmstones, but fails to provide clear description); rescued from John P. Harrington's notes. Entertaining and

significant, narrative nonetheless provides little "practical" knowledge, as story takes place on a mythical level. Both stories associate charmstones with thunder and lightning.

Collier, Mary E. T. and Sylvia Barker Thalman (eds.)

1991 *Interviews with Tom Smith and Maria Copa: Isabel Kelly's Ethnographic Notes on the Coast Miwok Indians of Marin and Southern Sonoma Counties, California*. San Rafael, California: Miwok Archaeological Preserve of Marin. Valuable write-up of Isabel Kelly's original field notes from 1931 and 1932 contains detailed primary information about charmstones. Reported functions and attributes are generally consistent with other ethnographic information from this area. Most interesting is Tom Smith's assertion that charmstones were manufactured as a source of income (contradicting fellow informant Maria Copa). This unambiguous reference to charmstone manufacture is unique, and generally contradictory to other ethnographic accounts.

Driver, Harold E.

1939 *Culture Element Distributions: VI Southern Sierra Nevada*. University of California Anthropological Records 1.

Sketchy CED checklist indicates that charmstones were used by the Yokuts for causing "whirlwinds" and making rain; no explanatory notes provided.

Gayton, Anna H.

1948 *Yokuts and Western Mono Ethnography I: Tulare Lake, Southern Valley, and Central Foothill Yokuts*. University of California Anthropological Records 10(1).

Ethnographic account from the Southern Valley Yokuts ties charmstones to rainmaking.

Gifford, E.W. and Alfred L. Kroeber

1937 *Culture Element Distributions: IV Pomo*. University of California Publications in American Archaeology and Ethnology 37(4).

The CEDs at their best: notes list detailed ethnographic data regarding function, use, attributes, and origins of charmstones. Use as hunting and curing charms is consistent among the several groups discussed – Pomo, Patwin, Nomlaki, and Lake Miwok. Brief mention of use as fishing sinkers among the River Patwin is puzzling, as it is the only ethnographic account in California of charmstones being used for this purpose.



Harrington, John P.

- 1912-1922 Unpublished manuscript materials, on file at the Smithsonian Institution, Washington, D.C. Notes on Chumash shamanism mention charmstones as shamanic gear. A published summary of these notes can be found in: Applegate, Richard B., 1975, The Datura Cult Among the Chumash. *Journal of California Anthropology* 2(1):7-17.

Henshaw, Henry W.

- 1885 The Aboriginal Relics Called "Sinkers" or "Plummets." *American Journal of Archaeology* 1(2):105-114.  
The first article to question proposed utilitarian functions and use ethnographic data to suggest a ceremonial function; clear arguments and detailed ethnographic data make this an essential.

Kroeber, Alfred L.

- 1925 *Handbook of the Indians of California*. Washington, D.C.: Smithsonian Institution Bureau of American Ethnology Bulletin 78.  
Accounts of charmstone use among the Chumash, Wintun, and Yokuts are somewhat sketchy, but clearly portray charmstones as hunting, fishing, and rainmaking charms. Far more worthwhile is Kroeber's insightful commentary on the subject of charmstones as a whole, in which special attention is given to debunking the "tenacious" myth of use as fishing sinkers.  
1930 *The Patwin and Their Neighbors*. University of California Publications in American Archaeology and Ethnology 29.  
Brief mentions of charmstone use among the Patwin and Valley Maidu. Reports functions to be (respectively) fishing and hunting charms.

Latta, Frank F.

- 1949 *Handbook of Yokuts Indians*. Oildale, California: Bear State Books.  
Amateur ethnographer Latta has gathered detailed ethnographic data from San Joaquin settlers and elderly Yokuts. Use of charmstones as fishing and rainmaking charms is central to Latta's account, which provides a short song associated with charmstone use, as well as interesting archaeological information.

Loeb, Edwin M.

- 1926 Pomo Folkways. *University of California Publications in American Archaeology and Ethnology* 19.

Brief account of charmstone use among the Pomo (which group is unclear -- possibly Eastern); reports function as deer-hunting charm. Account is unusual in hinting at charmstone manufacture (versus curation), and in mentioning that they might be sold.

McKern, W. C.

- 1922 Functional Families of the Patwin. *University of California Publications in American Archaeology and Ethnology* 13(7).  
Excellent discussion of shamanism makes brief mention of charmstones as shamanic gear. Also reports charmstone attributes such as self-locomotion and association with thunder and lightning, which are consistent with other accounts.

Peri, David W.

- 1985 An Ethnographic Survey of the Cloverdale (Makahmo) Pomo. MS on file at the U. S. Army Corps of Engineers, San Francisco District.  
Recent ethnographic account of charmstone function(s) among the Southern Pomo. Account confirms functions commonly reported elsewhere (i.e. hunting, fishing, and curing), but is unique in reporting additional uses as gambling and love charms.

Yates, Lorenzo G.

- 1889 Charm Stones: Notes on the So-Called "Plummets" or "Sinkers." In: Annual Report of the Smithsonian Institution for the Year Ending June 30, 1886; Part I, pp. 296-305. Washington: Government Printing Office. The article that coined the term "charm stone." Yates also questions proposed utilitarian functions and presents ethnographic data corroborating Henshaw's earlier account. Yates' detailed accounts of ceremonial use among the Chumash and Napa (Wappo?) make this article an essential. Excellent illustrations.  
1890 Charm Stones: Notes on the So-Called "Plummets" or "Sinkers." *Bulletin of the Santa Barbara Museum of Natural History* 1(2):13-28.  
A reprint of Yates' important 1889 article; contains slightly more detailed accounts of previous ethnographic information as well as additional illustrations.

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Table 1. Reported functions of charmstones. Key: X = positive statement (e.g., used by shaman); O = negative statement (e.g., not used by shaman); blank boxes = no information collected.

	Charmstones: reported functions																
	Ceremonial, symbolic, or magical										Utilitarian						
	Fishing charm	Hunting charm	Rainmaking charm	Bringing whirlwind (and rain?)	Bringing fresh air into house	Controlling wildfires	Multi-purpose charm (shaman)	Curing sickness	Gambling charm	Fortune telling	Love charm	War charm	Fishing sinker	Fine drill	Tool for skin-processing	Tool for spinning textiles	
Linguistic Group																	Source
Pomo (Southern)	X	X						X	X		X						Peri 1983
Pomo (Northern)	X	X						X									Gifford and Kroeber 1937
Pomo (Central)																	Gifford and Kroeber 1937
Pomo (Southern)		X															Gifford and Kroeber 1937
Pomo (Eastern)		X						X									Gifford and Kroeber 1937
Pomo (Southeastern)								X									Gifford and Kroeber 1937
Pomo (Southwestern)																	Gifford and Kroeber 1937
Pomo (Eastern?)		X															Loeb 1926
Wappo	X	X										X					Yates 1889
Patwin (River)													X				Gifford and Kroeber 1937
Patwin	X																Kroeber 1930
Patwin																	McKern 1922
Nomlaki																	Gifford and Kroeber 1937
Maidu (Valley)		X															Kroeber 1930
Miwok (Lake)		X															Gifford and Kroeber 1937
Miwok (Coast)	X	X			X												Collier 1991
Miwok (Sierra)														X	X	X	Barrett and Gifford 1933
Miwok (Sierra)																	Aginsky 1943
Mono (Central Sierra)				X													Aginsky 1943
Yokuts	X	X	X				X										Latta 1949
Yokuts (Southern)			X	X													Gayton 1948
Yokuts (Southern)			X	X													Driver 1939
Yokuts			X														Kroeber 1925
Yokuts (Central Sierra)				X													Aginsky 1943
Chumash/Yokuts																	Blackburn 1975
Chumash												X					Yates 1889
Chumash	X		X			X	X	X		X		X	O				Henshaw 1885
Chumash																	Harrington 1912-1922

Table 2. Reported modes of use and storage. Key: X = positive statement (e.g., used by shaman); O = negative statement (e.g., not used by shaman); blank boxes = no information collected.

	Charmstones: use and storage																
	How used											Storage					
Linguistic Group	Hung near fishing area or net	Hung near deer net	Left on mountain peaks	Worn on a cord	Hung on canoe	Dipped in water	As part of set	As idol to be paid respect	As part of ceremony	Sprinkled w/ seed, offerings	Burned at shaman's death	Disposal in body of water	Underground (buried)	In shaman's bag	In deer-head decoy	In dwelling	Source
Pomo (Southern)				X													Peri 1985
Pomo (Northern)		X															Gifford and Kroeber 1937
Pomo (Central)																	Gifford and Kroeber 1937
Pomo (Southern)																	Gifford and Kroeber 1937
Pomo (Eastern)		X												X			Gifford and Kroeber 1937
Pomo (Southeastern)											X						Gifford and Kroeber 1937
Pomo (Southwestern)																	Gifford and Kroeber 1937
Pomo (Eastern?)															X		Loeb 1926
Wappo	X		X		X									X			Yates 1889
Patwin (River)																	Gifford and Kroeber 1937
Patwin	X																Kroeber 1930
Patwin				X													McKern 1922
Nomlaki																	Gifford and Kroeber 1937
Maidu (Valley)															X		Kroeber 1930
Miwok (Lake)																O	Gifford and Kroeber 1937
Miwok (Coast)				X									X			X	Collier 1991
Miwok (Sierra)																	Barrett and Gifford 1933
Miwok (Sierra)																	Agnasky 1943
Mono (Central Sierra)																	Agnasky 1943
Yokuts	X					X	X		X	X	X	X					Latta 1949
Yokuts (Southern)						X											Gayton 1948
Yokuts (Southern)																	Driver 1939
Yokuts						X											Kroeber 1925
Yokuts (Central Sierra)																	Agnasky 1943
Chumash/Yokuts																	Blackburn 1975
Chumash	X			X				X	X								Yates 1889
Chumash						X	X		X	X							Henshaw 1885
Chumash																	Harrington 1912-1922

Table 3. Reported users, origin, and supernatural attributes of charmstones. Key: X = positive statement (e.g., used by shaman); O = negative statement (e.g., not used by shaman); blank boxes = no information collected.

Charmstones: personnel, origin, and supernatural attributes															
Linguistic Group	Used by...			Origin				Supernatural attributes							Source
	Singing, curing, or rain doctor	Hunter, fisherman, or warrior	Others	Found as is	Manufactured	Inherited	Sold	Self-locomotion	Associated w/ thunder	Lucky to find	Unlucky to find	Dangerous-can cause sickness	Upon finding, must be sung to, tapped w/ stick	Tobacco ingestion and/or fasting before use	
Pomo (Southern)	X			X				X		X			X		Peri 1985
Pomo (Northern)	X		X	X	O										Gifford and Kroeber 1937
Pomo (Central)	X										X	X	X		Gifford and Kroeber 1937
Pomo (Southern)															Gifford and Kroeber 1937
Pomo (Eastern)	X	O	O									X	X		Gifford and Kroeber 1937
Pomo (Southeastern)	X					X									Gifford and Kroeber 1937
Pomo (Southwestern)											X				Gifford and Kroeber 1937
Pomo (Eastern?)		X			X	X	X								Loeb 1926
Wappo				X				X				X	X		Yates 1889
Patwin (River)				X	O						X				Gifford and Kroeber 1937
Patwin	X		O	X					X			X			Kroeber 1930
Patwin				X	O	X		X	X						McKern 1922
Nomlaki				X	O					X					Gifford and Kroeber 1937
Maidu (Valley)			O									X			Kroeber 1930
Miwok (Lake)	O	X	O	X				X				X	X		Gifford and Kroeber 1937
Miwok (Coast)		X	X	X	X	X	X	X		X		X			Collier 1991
Miwok (Sierra)															Barrett and Gifford 1933
Miwok (Sierra)	X														Agnatsky 1943
Mono (Central Sierra)	X														Agnatsky 1943
Yokuts	X														Latta 1949
Yokuts (Southern)	X		X						X						Gayton 1948
Yokuts (Southern)															Driver 1939
Yokuts	X					X									Kroeber 1925
Yokuts (Central Sierra)	X														Agnatsky 1943
Chumash/Yokuts									X						Blackburn 1975
Chumash	X	X						X		X				X	Yates 1889
Chumash	X														Henshaw 1885
Chumash														X	Harrington 1912-1922

[illegible]

- Observations and/or Comments (i.e., what was not collected, anything unusual or different):

## Daily Cultural Resources Monitoring Form

### BUENA VISTA RANCHERIA

Date \_\_\_\_\_ Monitor \_\_\_\_\_

Project name: \_\_\_\_\_

Location and address of project: \_\_\_\_\_

General summary of activities monitored (list equipment being used, areas and depths of soils removed, color of soil etc:

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Were any cultural or archeological materials found? YES \_\_\_\_\_ NO \_\_\_\_\_

If YES, briefly list types, counts etc.

If YES, attach FIELD INVENTORY LOG

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Comments:

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Were any photos taken? YES \_\_\_\_\_ NO \_\_\_\_\_

If YES, attach PHOTO LOG

\_\_\_\_\_  
Cultural Monitor Signature and Date

\_\_\_\_\_  
Environmental Resource Director and Date

## Field Inventory Log

DATE \_\_\_\_\_

**PROJECT NAME** \_\_\_\_\_

**MONITOR** \_\_\_\_\_

**PAGE** \_\_\_\_\_ **OF** \_\_\_\_\_

**Site #**

Unit #

Accession #

[illegible]



Buena Vista Rancheria  
Individual Artifact Record



Site # \_\_\_\_\_ Project Name: \_\_\_\_\_

Project # \_\_\_\_\_

STP # \_\_\_\_\_ / Trench # \_\_\_\_\_ / Unit # \_\_\_\_\_ / Surface

Unit Size \_\_\_\_\_ × \_\_\_\_\_ M

Orientation: \_\_\_\_\_

Datum Corner: \_\_\_\_\_

Excavator(s): \_\_\_\_\_

Excavation Method: \_\_\_\_\_

Screen Size: \_\_\_\_\_

Photo No.: \_\_\_\_\_

Description of Deposit: \_\_\_\_\_

Disturbances: YES \_\_\_\_\_ NO \_\_\_\_\_; If YES, Describe: \_\_\_\_\_

Is artifact associated with a feature? YES \_\_\_\_\_ NO \_\_\_\_\_; If YES, Describe: \_\_\_\_\_

Artifact Type: (describe, dimensions, material, and sketch)

Comments: \_\_\_\_\_

Recorded by: \_\_\_\_\_

Date: \_\_\_\_\_

## Buena Vista Rancheria Archaeological Unit Level Record

Site \_\_\_\_\_ Unit \_\_\_\_\_ Level \_\_\_\_\_ Excavators \_\_\_\_\_  
 Unit Size \_\_\_\_\_ x \_\_\_\_\_ Unit Orientation \_\_\_\_\_ Date \_\_\_\_\_ Unit Datum \_\_\_\_\_  
 Excavation Method \_\_\_\_\_ Screen Size \_\_\_\_\_ Photo No. \_\_\_\_\_  
 Description of Deposit \_\_\_\_\_

**Disturbances** \_\_\_\_\_  
**Features** \_\_\_\_\_

**Debitage (Quantities & Material)** \_\_\_\_\_

**Bone (Quantity)**\_\_\_\_\_

Formed Artifacts (list, draw to scale)

**Comments** \_\_\_\_\_

Recorder

## Monitoring Information Log



Job Name: \_\_\_\_\_ Start Date: \_\_\_\_\_  
 Lead Agency: \_\_\_\_\_ Work Hours: \_\_\_\_\_  
 Developer: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Superintendent: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Archaeologist: \_\_\_\_\_ Phone: \_\_\_\_\_

Date	BVR Monitors (Initials)	Archeo Monitors	Description of Activity <sup>1</sup>	Description of Findings <sup>2</sup>	Turned in Daily (Y/N)	Photos (Y/N)

1. W/O – Walk Over; A/T – Archaeo Testing; C/F – Cut & Fill; TR – Trenching; SCR – Screening
2. Groundstone Class: MILS – Millingstone; HND – Handstone; PST – Pestle; MRT – Mortar  
 Flaked Stone Class: DEB – Debitage; FLK – Flakes; FKT – Flake Tools; COR – Core; CRT – Core Tool; HMR – Hammerstone; PPT – Projectile point  
 Historic Class: GLS – Glass; BOT – Bottle; BRK – Brick; CER – Ceramics; MTL – Metal  
 Other Class: BONE; SHELL; CHRC – Charcoal; FAR – Fire Affected Rock; FLORAL  
 Features: BRM – Bedrock Mortar; BMF – Bedrock Milling Feature; HRT – Hearth; MID – Midden  
 Other (Explain)

Project #: \_\_\_\_\_

**Trinomial:** \_\_\_\_\_

**Camera Type:**\_\_\_\_\_

**Date:**\_\_\_\_\_ **Page:**\_\_\_\_\_ **of**\_\_\_\_\_

[illegible]