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# **Title**

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# **Permalink**

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# **Journal**

Journal of California and Great Basin Anthropology, 27(1)

# **ISSN**

0191-3557

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# **Publication Date**

2007

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# REPORTS

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

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An unusual assemblage of artifacts was found by a forester at 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 may be interpreted as a cache of a shaman's ritualistic paraphernalia. The find is particularly important in two respects. First, it represents a specialized type of archaeological site that is rarely encountered, but is important to understanding Native American culture and land use. Second, the cache contains what the authors believe to be a previously unrecognized form of charmstone, one that may have diagnostic spatial and temporal significance. The knowledge of such sites is also important to archaeologists who manage cultural resources in locations where similar artifacts might be encountered.

The Plantation Cache was found in 1983 by Registered Professional Forester (RPF) Wendy Johnston during development of a pine tree plantation in Sierra County, California. Upon identifying the find, Johnston contacted Dan Foster, CAL FIRE Senior State Archaeologist, who then conducted a field visit and recorded the site. The unusually large, bipointed oval charmstone (Fig. 1) attracted their attention and came to be referred to as the "football," which in retrospect is an unfortunate identifier, but one that has subsequently been used as an informal but effective descriptive term. Since the discovery of the Plantation Cache artifacts, several

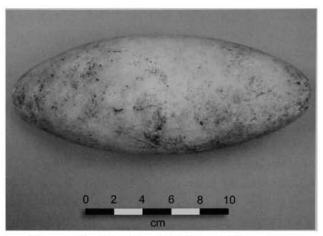


Figure 1. The Plantation Cache Quartz Charmstone. (Photo by ASM)

additional examples of the associated football-shaped type of charmstone have been identified. Until recently, this particular form appears to have been overlooked, although information from over 100 years of published research on California charmstones is available. The football-type charmstone is similar in appearance to the more common "lemon-shaped" type found in northern California, but it is much larger and is made of a different material than are most known lemon-shaped charmstones. Foster and Johnston's (1983) description of large, football-shaped charmstones with blunt or tapered ends was included in a study by Elsasser and Rhode (1996:16) of charmstone types, but was provisionally placed into their catch-all "unique" category (Type U). They suggested that additional research on these might be warranted and that further finds might help to clarify their status. The Plantation Cache discovery provides an opportunity to call attention to these unusual artifacts and to formally add the "football" form charmstone to the archaeological record.

# DISCOVERY AND CONTEXT OF THE CACHE

Registered Professional Forester Wendy Johnston was recently interviewed by one of the authors (SMH) regarding her discovery of the Plantation Cache site in 1983. Johnson stated that during the summer of 1982, she was working on a progeny test site located 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, which had originally been covered with black oaks. The slope was prepared for planting by ripping the soils to a depth of 18 inches, and removing all vegetation. Small pine trees were then planted. In the spring of 1983, Johnston revisited the location to check on the trees.

A sparkling white object caught her eye; it turned out to be a football-shaped quartz charmstone. Nearby lay an elongated mano and a potato-shaped rock. All three objects were covered with orange clay, and appeared to have been buried below the ground surface. She carefully inspected the discovery site, but observed no additional artifacts, rocks, or anything else unusual. Johnston invited Foster to visit the location and study the artifacts. Foster visited the site in August, 1983 and observed that there was no evidence of any archaeological midden deposit or any additional artifacts in the vicinity. The location is devoid of field stone, and the three specimens that Johnston found were conspicuous and foreign to their surroundings.

Kroeber (1925: Plate 37) has identified the area where the Plantation Cache was found as being within the ethnographic territory of the northern Nisenan. There are four archaeological sites located nearby that may be associated with the Plantation Cache. A large, multicomponent habitation area with midden, artifacts, and milling features (CA-SIE-7) was recorded in a meadow approximately one-quarter mile from the Plantation Cache (Wheeler and Stevens 1980). Another site (CA-SIE-332), located one-half mile from the Plantation Cache, was recorded as a lithic scatter possibly associated with CA-SIE-7; four basalt projectile points were found at that site (Stevens et al. 1980). A possible ethnohistoric cemetery and Maidu burning ground (CA-SIE-3) was recorded one mile south of the Plantation Cache (Elsasser 1954a). Elsasser (1954b) also recorded a large site containing obsidian artifacts, bedrock milling features, and a "steatite labret" as CA-SIE-77; this site is one mile north of the Plantation Cache location.

The three artifacts discovered by Wendy Johnston have been interpreted by the authors as comprising a cache, and as perhaps being a group of objects used by a shaman and either deposited in an oak tree or buried. No one who observed the initial discovery saw any evidence that the artifacts were buried in any recognizable pit

or other feature. They do appear to have been buried by disturbances during site preparation for planting, although their burial might also have simply occurred through natural processes. One of the authors (DGF) has speculated that the shaman may have been visiting or affiliated with the village recorded as CA-SIE-7. The Plantation Cache is recorded as CA-SIE-378.

# CONTENTS OF THE CACHE: DESCRIPTION OF THE ARTIFACTS

The Plantation Cache yielded only three artifacts. It is, however, quite possible that these objects were once associated with other perishable materials that did not survive the elements. In reference to the region in which the Plantation Cache was found, Kroeber (1925:426) has stated:

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); others have included considerably more, such as the cached assemblage of eighty ritual objects from Pacific Palisades described by Wallace (1987:47–58), or the remarkable collection found in Bowers Cave (Elsasser and Heizer 1963). The presence of a mano, an essential tool in the assemblage of curing doctors who made extensive use of herbal medicines, is worth noting as being part of the Plantation Cache. The individual artifacts associated with the Plantation Cache are described below.

# Football-Shaped Charmstone

This artifact is made of white quartz. It was initially shaped by pecking and was then heavily ground and polished. Polishing striations are numerous, distinctive (in the correct lighting), and oriented perpendicular to the

long axis. Both ends are ground flat, but one end shows signs of battering and has some small spalling scars. It measures 184 x 74 x 68 mm., and weighs 1303.2 g. It is stained with a reddish-brown material that may represent intentional coloring with ochre, natural discoloration from the surrounding soil, or a combination of these. The polished surface on the artifact indicates that it is a complete, finished object. It is not perforated, nor is there any evidence of any attempt to perforate it. Given its biconical symmetry and absence of perforation, it does not appear to have been designed for suspension.

Similar "cigar-shaped" charmstones from the Santa Barbara Channel region were attached or tied around the circumference and suspended horizontally (King 1990:265, Fig. 33). In this respect, they are reminiscent of the bone gorges used for line fishing in that region, and they may have symbolized that activity. Many cigar-shaped charmstones still retain traces of asphaltum, sometimes with string impressions still present. The Plantation Cache specimen, however, does not appear to have ever been suspended; it bears no evidence of any adhesive, nor does it have any obvious wear patterns.

The flat, squared-off ends of the Plantation Cache charmstone may be significant, since they are unlike the pointed, incurved ends of the lemon-shaped charmstones or those of other football-shaped examples (see description under CA-SHA-1760/H below). The ends of the Plantation Cache charmstone, and others like it, resemble the ends of pestles used in stone mortars. Mortars and pestles were used by Native Americans to grind and process herbs (Kroeber 1925:528); perhaps the Plantation Cache charmstone also functioned in this way.

The Plantation Cache charmstone was manufactured from brilliant white opaque quartz, an extremely hard material to grind and polish (measuring 7+ on the Mohs scale). Quartz is known to have piezoelectric properties; it glows when rubbed against another stone and creates sparks when struck. Quartz pebbles were identified in the Southwest as "thunder and lightning" stones due to this property, and were used in ceremonies by priests. These same qualities may also have been present in the Plantation Cache charmstone; a similar usage might have produced the polished surface and the possible use-wear on its ends.

The absence of a perforation may be related to the hardness of the material, but is more likely attributable

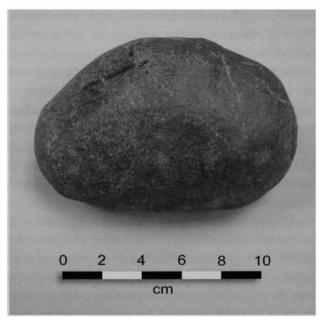


Figure 2. The Plantation Cache unmodified, potato-shaped stone. (Photo by ASM)

to stylistic attributes. In central California, perforated charmstones generally precede unperforated ones (Elsasser and Rhode 1996:10–11) in time, and the perforated charmstones are usually made of harder lithic materials. The Plantation Cache specimen, like other football-type charmstones, probably can not be dated by any known chronometric technique, and of course it is consequently impossible to determine where this specimen would be placed in even an approximate stylistic sequence. Where this style of artifact falls temporally remains to be discovered.

As discussed elsewhere in this paper, the authors believe this football-shaped charmstone represents a distinctive, formal type of charmstone. In fact, the Plantation Cache artifact could be considered the type specimen for the "football" variety of charmstone types identified by Ragir (1972). Based on an analysis of available charmstone data, this type can be distinguished by its shape, size, material, and geographic distribution.

## Potato-shaped Artifact

This artifact has been referred to as potato-shaped, but it could also be described as having the shape of an animal, a tumor, or almost any other object (Fig. 2). If it were not associated with the other two artifacts in the cache, there would be nothing about it to suggest that it represents a

culturally significant object. Natural stones with unusual shapes or colors were often collected by native people and imbued with special meaning and qualities; e.g., fetishes in the American Southwest. A natural rock may appear to the person possessing it to have the shape of a totem animal or dream messenger. The potato-shaped stone can be seen to have the shape of a bear. In much of California, special stones were used in healing practices; unmodified stones in known curing assemblages have had healing functions attributed to them (Hudson and Blackburn 1986:278–279).

The banded stone of which this specimen is composed appears to be a sedimentary material. The banding itself appears to be composed of a more resistant intrusive material that has weathered or worn differently than the rest of the object. Some areas of the object appear at first to be polished, but on closer examination the polish seems to be natural. The artifact measures 126 x 81 x 65 mm., and it weighs 908.3 g. The parent material is reddish-brown, and it also bears a reddish stain like the other two objects in the cache.

## Two-handed Mano/Pestle

This elongated hand stone (Fig. 3) is made of vesicular basalt or a basalt-like stone. It is well shaped, and the two faces were flattened from use. The object measures 200 x 71 x 57 mm., and it weighs 1209.6 g. The pores or vesicles of the stone contain a reddish material that may be ochre or be derived from the natural surrounding iron-rich soil matrix. Milling tools for grinding pigments are known to have been present in Coastal Miwok shamans' kits (Kelly 1978:420, Fig. 5), and this implement might have been used for this purpose. Similar artifacts have been identified in northeastern California, where they usually served as a combination two-handed mano and pestle (Miles 1963:45, Fig. 1.239).

#### DISCUSSION

The Plantation Cache is viewed by the authors as an important discovery, and one that warrants some discussion in terms of both its purpose and its implications; in addition, some consideration needs to be given to the issue of the charmstone variety described here and the merits of assigning it formal typological status. Each of these topics is reviewed below.



Figure 3. The Plantation Cache two-handed mano/pestle.
(Photo by ASM)

# Interpretation of the Cache

The late Francis (Fritz) Riddell, former State Archaeologist and supervisor of the California State Parks archaeology program, was extremely interested in the Plantation Cache artifacts, having worked with them in the CAL FIRE training collection for several years. Riddell first 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 used by shamans to cache their powerful ceremonial objects. Power items are often 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 suggestion 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 on the area. The Yana collected small round stones that had unique colors, marks, or shapes to cure disease, bring luck in hunting, 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, included the vicinity of the Plantation Cache site and the other nearby sites discussed in this article (Johnson 1978:361). The following information on Yana "luckstones" provided by Sapir (1908:42) seems highly 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 luckstones 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," which Sapir's consultants referred to as "diamonds" (Sapir 1908). Quartz has a special quality that was recognized by native peoples. Whitley et al. (1999) have discussed the belief that fracturing quartz releases power; this is largely due to the aforementioned piezoelectric properties of quartz and quartzite. Both produce a luminescent glow when struck (quartz to a greater degree). Quartz crystals, for example, may have been prized for this reason. Native Americans used quartz extensively for religious and ritual items (Whitley et al. 1999:10) in recognition of its physical properties.

Kroeber's (1925:426) remarks regarding the distribution of a shaman's paraphernalia among the Nisenan probably applied to neighboring tribes as well. The fact that certain tribes passed on shamanistic paraphernalia, while others destroyed it at the shaman's death, is significant. This has implications for explaining the isolated location of the Plantation Cache and why its contents were never destroyed or interred in a cemetery. Such observations may be helpful in defining ritual practices and cultural boundaries through time.

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

Among the Wintu, charmstones were primarily hunting amulets. The McCloud Wintu kept lucky stones outside the house, because if one had sexual 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) consultant from near Chico told Voegelin (1942) that his or her 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) has provided one of the most detailed descriptions of religion and shamanism known from California ethnology. Her description included details of a shaman's paraphernalia that relate to the Plantation Cache. Holt's data came from interviews with Dixon's (1907) principal consultant, Sargent Sambo, a hereditary chief of the Klamath River Shasta (Holt 1946:299). Shasta shamans received their power from the "axaik," mysterious spiritual powers that inhabited all of Shasta territory (Holt 1946:326). Axaik were perceived as being of human form and inhabiting rocks, cliffs, lakes, mountain summits, and eddies and rapids in streams (Holt 1946:326). Many animals were also regarded as axaiki, and the axaik were believed to be 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*. At the mother's death, the daughter took over her paraphernalia and received her *axaiki*; if the daughter was not yet a shaman, the *axaiki* would come to her when she had become one (Holt 1946:328). A shaman had a female relative as an assistant to care for her paraphernalia. Sargent's assistant was his mother (Holt 1946:328). Holt's (1946:328) description of the storage of the shaman's toolkit 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.

Ethnographic data such as that obtained by Holt provides a logical basis for interpreting the Plantation Cache. There are sufficient examples and explanations of the caching of powerful and potentially dangerous ritual paraphernalia to infer that the Plantation Cache is probably an archaeological example of such a cache. The contents of the cache suggest that they were the property of a curing shaman, and the grinding implement (or implements) found with the charmstone might have been used in the preparation of herbal medicines and/or ochre. 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).

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 closely to the Plantation Cache discovery as do the descriptions of caches of shamanic paraphernalia.

# 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" (Kroeber 1936:115). Seventy years later, his statement still holds true, in part perhaps because few researchers chose to heed the advice that he offered elsewhere in the same paper. After reviewing the evidence and possible approaches to sorting out cultural chronology, he 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." Kroeber went on to add, "Other artifacts may ultimately prove to be even more useful; but it does seem as if the charmstone...will definitely help us to arrive at interpretations on cultural sequences" (Kroeber 1936:114). He realized that the study of these artifacts-involving such factors as their relative frequencies, possible changes in form, and so on-would require systematic classification, and he encouraged California archaeologists to pursue this. The current article is an attempt to follow Kroeber's advice by presenting evidence that we believe substantiates the idea that the football-shaped charmstones we have described here constitute a formal regional artifact type. The existence of this specialized type of charmstone has implications that bear on Kroeber's concerns, as well as on issues of relevance to contemporary anthropologists.

Initially, Foster believed that the Plantation Cache charmstone was unique, but in the years following its discovery, other nearly identical objects came to his attention. All of them shared the following characteristics: (1) they were made of high-quality white quartz; (2) they were all relatively large—approximately 20 cm. long and 8 cm. thick; (3) they were all shaped like a football, although some had tapered ends and others had blunt ends; and (4) all were found in the northern Sacramento Valley or in the adjacent footbills.

Impressed with this group of artifacts, Foster exhibited the Plantation Cache contents around the state, including at 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 of them (Elsasser and Rhode 1996). Elsasser provided the following suggestions regarding the classification of the "football" type of charmstone (Elsasser, personal communication 1991):

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 end.

To incorporate the football type into the charmstone typology developed by Elsasser and Rhode would require either grouping them with the ovoid-shaped Type O or the symmetrically spindle-shaped Type S, or lumping them together with cogstones, propellers, and objects identified outside of California that do not seem to be relevant. An attempt to accommodate this unique charmstone variety in an existing typological category would only obfuscate their significance, which necessitates their recognition as a distinct artifact class.

We believe that the football-shaped charmstones constitute a distinct class, or artifact type, characterized by the following attributes:

- (1) A bipointed oval morphology that is reminiscent of the shape of an American football. The ends may be either pointed or blunted (these traits may identify possible subtypes). Cross-sections vary from round to flattened oval. Curvature of the outline margins is rounded and not angled at the 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. The type specimen is 184 mm. in length; range for the class is 160–193 mm. Thicknesses vary due to variations in cross-section. The type specimen measures 68 to 74 mm. in width; the size range for the type is 68 mm. to 80 mm. in thickness.
- (3) Usually manufactured from high-grade quartz or quartzite; sometimes of other hard stone.
- (4) Distribution includes the northern Sacramento Valley and adjacent foothills. The type specimen is from historic Maidu (Nisenan) territory; others are from Konkow, Yana, Shasta, and Wintu territories.

These criteria are substantiated in the following paragraphs.

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 tools, and other utilitarian implements. In contrast, charmstones and other non-

utilitarian artifacts are abundant in large archaeological collections from the San Francisco Bay, the Sacramento-San Joaquin Delta, and the San Joaquin Valley (Elsasser and Rhode 1996:14). The football-shaped charmstone is currently distinct, partly because of its presence in a region where charmstones are virtually unknown, either archaeologically or ethnographically.

Football-shaped charmstones are also distinctive 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 where collections have been rather intensively studied; such an absence explains why this type of artifact has been overlooked by past researchers. Heizer (1949:Fig. 8f) has illustrated an unperforated Type B3 diamond-shaped charmstone that looks very similar to the football-shaped specimens. He has also published a photograph taken in 1935 of a burial at site CA-SAC-107 that contained one or more similar charmstones (Heizer 1949:Plate 3d). Moratto (1984:204, photo caption) has stated: "Extended skeletons often oriented toward the west and furnished with charmstones and other artifacts, typify the Windmiller mortuary pattern."

The photograph of a burial at site CA-SAC-107 (Heizer 1949:Plate 3d) reveals at least six associated charmstones, two of which look like they could be additional examples of the new charmstone type discussed here. They appear to be quite large (assuming the blade of the trowel is 6-7 inches in length), are unperforated, are football-shaped with blunted ends, and are possibly made from a bright white lithic material-perhaps quartz. We contacted Natasha Johnson at the Phoebe Hearst Museum of Anthropology to ask 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; unfortunately, the two depicted in the photograph could not be immediately located, so we were unable to confirm the possibility that additional examples of this new type were recovered at the Windmiller Site. Natasha Johnson reviewed the collection of 93 charmstones from CA-SAC-107 and provided information on approximately eight specimens that resemble the proposed new charmstone type. She has graciously provided photographs, catalogue numbers, and descriptions. Most of the specimens are either too small,

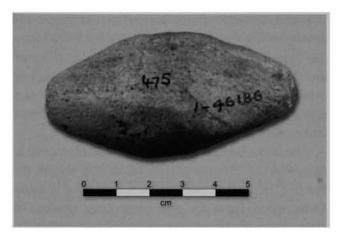


Figure 4. Charmstone from SCA-107 recovered in 1937. Catalogue number 1-46186. (Phoebe Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

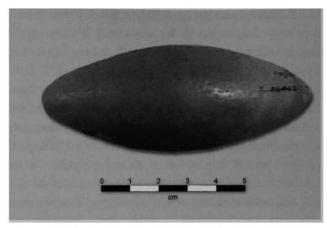


Figure 6. Bipointed, perforated charmstone from SAC-107. Catalogue number 1-46462. (Phoebe Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

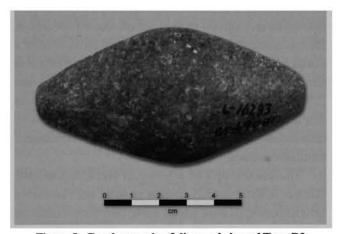


Figure 5. Good example of diamond-shaped Type B3 described by Sonia Ragir. Catalogue number 1-46283. (Phoebe Hearst Museum of Anthropology, photo courtesy Natasha Johnson)



Figure 7. Bipointed, perforated charmstone from SAC-107. Catalogue number 1-46222. (Phoebe Hearst Museum of Anthropology, photo courtesy Natasha Johnson)

are perforated, or simply do not appear to conform to the morphology—having a bipointed oval outline—closely enough and were therefore excluded. Two of them, for example (Figs. 4 and 5) are similar in shape but are too short, being 75 and 98 mm. in length. They both appear to be similar to Sonia Ragir's (1972) Type B3, discussed below. Two additional charmstones from CA-SAC-107 (Figs. 6 and 7) are also similar, but they are too small and are perforated with a biconically-drilled hole at one end.

Ragir (1972) reanalyzed the Windmiller materials, and in her revision of the charmstone typology noted that the type specimen (LM-16280) of the diamond-shaped Type B3 charmstone was unperforated and "probably unfinished" (Ragir 1972:169). She noted that two of ten

others from CA-SAC-107 had "incipient perforations." Type B3 charmstones are somewhat similar in form to football charmstones, including having their "tips and ends flattened" (Ragir 1972:169). However, Ragir indicated that they are "always short," ranging from 65–118 mm. in length and with a "marked angularity" at midpoint (Ragir 1972:169). Furthermore, very few Windmiller charmstones were made of quartz, although quartz crystals themselves were frequently associated with inhumations. For these reasons, we believe that the football-type charmstone is not represented within known sites of the Windmiller pattern.

The highest concentration of charmstones in California probably occurs in the San Joaquin

### Size Difference in Bipointed Charmstones

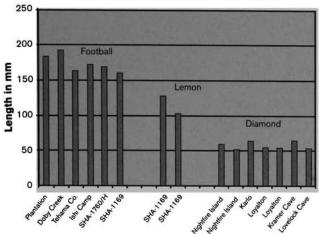


Figure 8. Histogram showing size distinctions between imperforate, bipointed charmstone types.

Valley, where collections numbering in the hundreds of specimens are known (Fenenga 1999; Gifford and Schenck 1926). There are no published examples of charmstones from this region that resemble the football type described here. However, unperforated biconical charmstones occur in small numbers in collections from the Tulare Lake Basin (Fenenga 1999). Most of these are smaller in size than the northern football type. They occur in two forms: blunt-ended and barrel-shaped, and pointed and lemon-shaped. A summary of their material 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 hesitate to include the Tulare Lake materials with those from the north end of the Sacramento Valley, although this may eventually be warranted after additional study. The absence of similar charmstones in the intervening regions might suggest that there is no relationship between the series from Tulare Lake and the northern football type.

The football type of charmstone is distinguished by its consistently large size, and we consider this to be one of the criteria defining the type. The longest Windmiller Culture charmstone is from CA-SAC-107, and is 370 mm. in length (Ragir 1972). It is evidently a "pestle" type of charmstone and is apparently unique. Because it was made from the same blue schist as many other Windmiller charmstones, both Heizer and Ragir identified it as a charmstone.



Figure 9. Diamond-shaped charmstone from private collection in Sierra Valley. (Photo courtesy of Dan Foster)

Hudson (1979:366, Fig. 4) has described an incomplete specimen from Point Conception in Chumash territory that measured 304 x 25 mm. The Point Conception specimen has the "cigar-shape" known from that region. These occur in a gradient of sizes that retain the same form.

In northern California and part of the adjacent Great Basin, both lemon- and diamond-shaped charmstones occur. These other forms can be distinguished from the football type by their length (Fig. 8). The diamond-shaped stones are principally known from Washo and Modoc territory in the Great Basin, where they have been identified as "hunting charms" (Wilson 1963), "gaming stones" (Howe 1968:196–197), "lucky for gambling" stones (Voegelin 1942:201), "net weights" or "stone sinkers" (Tuohy 1968:214–215, Fig. 3), and most recently as "sling stones" (York and York 2006). An example of an artifact from Sierra County having this form is shown in Figure 9. They are considerably smaller than the football charmstones, with most being between 50 and 70 mm. in length.

The small diamond-shaped stones have been found in several contexts that allow for approximate assessments of age.<sup>2</sup> They occurred in deposits at Lovelock Cave, Nevada dating to the Early Lovelock Phase, which according to Hattori (1982) and others, likely dates to between 3,400 and 2,900 B.P. At Kramer Cave, Nevada, a single specimen was recovered that dates between 4,300 and 3,000 B.P. (Hattori 1982:151). Large numbers of these artifacts occur in southeastern Oregon, and they have

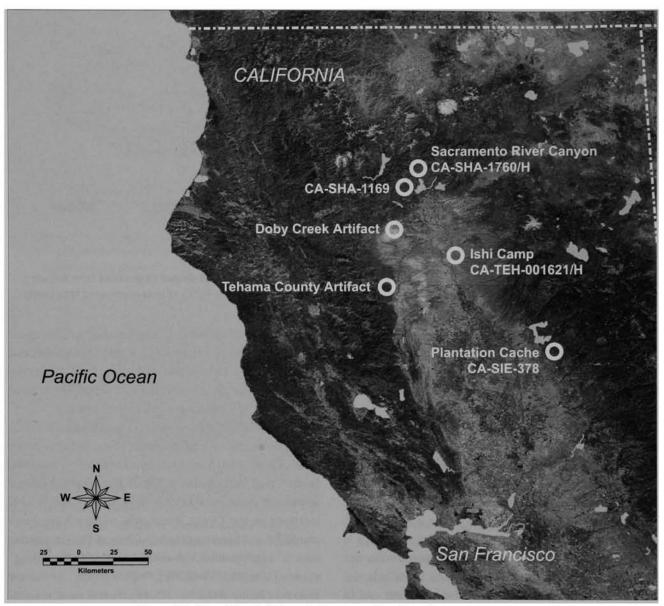


Figure 10. Map of football-shaped charmstone locations discussed in the text. (Figures prepared by ASM based on information provided by Dan Foster)

been identified in stratigraphic context at Nightfire Island. They first appear there in the "5-Scaup Muck" horizon (approximately 5,500 to 5,000 B.P.), and then disappear in the "Upper Small Flake Loams" after 4,400 B.P. (Sampson 1985:235, 511, 514). If the football type of charmstone is related in any way to the diamond type, these dates may have relevance, since the diamond type appears to have some temporal significance where it occurs.

Bill Hildebrandt has brought a similar type of artifact—found on some Pacific islands—to our attention. Robert and Gigi York, researching Micronesian

slingstones (some of which are football-shaped) state that bipointed football-shaped stones were preferred over the bow and arrow as a weapon of war (York and York 2006). Most of these objects are small, approximating in size the diamond-shaped charmstones found in northern California. However, some of the specimens are highly polished and oversized, suggesting that they had a possible ritual or ceremonial use. Photographs of specimens at the American Museum of Natural History (graciously shared with the authors by the Yorks) show that these slingstones have striking morphological

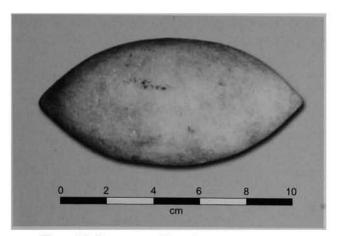


Figure 11. Sacramento River Canyon Charmstone.
(Photo courtesy of Jon Miller)

similarities to the football charmstones of northern California. Although not as large as the Plantation Cache charmstone, and not made of quartz, their forms are very similar. Some of these objects fall into the size range of the lemon-shaped charmstones.

If the Plantation Cache charmstone was used as a slingstone, why was it made of quartz and so finely finished and polished? The size (weight = 1,303 grams) and quality of its manufacture argue against the possibility that the Plantation Cache charmstone was ever used as a slingstone.

The lemon-shaped bipointed stone artifact class is problematic, but it appears to be a distinct charmstone type. Unfortunately, the specimens found for comparison constitute only a small sample. Recent communications with Gregory White at California State University, Chico, have provided hints of other possible examples of the lemon and football types of charmstones. White (personal communication, 2007) points out that non-perforated, tapering football type charmstones were found by Mark Kowta and Keith Johnson at sites in Butte County in the 1960s and 1970s. These sites contained components dating to 2,200-1,100 B.P. We believe additional specimens are likely to be found and will help to clarify the relationship between the lemon and football types of charmstones. At present, length and possibly raw materials distinguish the two.

## Other Football-Type Charmstones

For over twenty years, the three artifacts recovered from the Plantation Cache site have been included in

the collection of artifacts used by CAL FIRE to help train RPFs and other resource professionals working on CAL FIRE projects. The training sessions focused on learning how to recognize prehistoric sites and artifacts so that resources could be protected during project activities. Over 2,200 individuals have completed this training and have been encouraged to watch for similar types of artifacts. It seemed likely that if the Plantation Cache charmstone was indeed a new type (and not simply a curious but enigmatic find), additional specimens would be found; indeed, 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 made of different materials. The discovery locations of all six known artifacts are shown in Figure 10.

Sacramento River Canyon (CA-SHA-1760/H) Charmstone. This artifact came to the attention of one of us (DGF) as a direct result of CAL FIRE Archaeological Site Recognition Training. One of the RPFs in training, Jon Miller, stated that he knew of another artifact similar to the Plantation Cache object. The artifact was collected within the boundaries of a site later recorded as CA-SHA-1760/H (Elliott 1988). It is also made from white quartz, but it is slightly more lemon shaped, with pointed ends (Fig. 11). Site CA-SHA-1760/H is located on a terrace west of the Sacramento River. The prehistoric component of the site was severely disturbed by later historic mining activities. At one time, the Late Period prehistoric site involved a large habitation area. The site is located within the ethnographic territory of the Okawanuchu, a branch of the Shasta Indians.

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 being "lemon-shaped" (Basgall and Hildebrandt 1989:E.4). One specimen (215.16.82) is similar in size to the quartz charmstones discussed in this paper; it measures 160 mm. in length and 71 mm. in thickness. However, all of the charmstones found at CA-SHA-1169 were made from a fine-grained igneous stone, rather than quartz. Based on the criteria of size and the hardness of the material, this specimen is included as another example of a similar artifact, although it is slightly shorter than others.

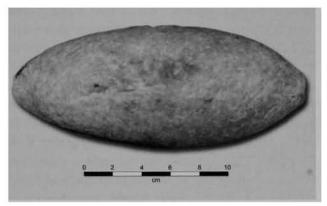


Figure 12. Doby Creek Charmstone, view 1. (Photo by Merla Clark)

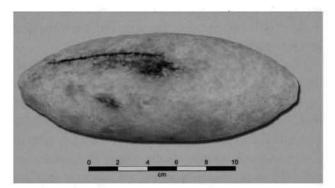


Figure 13. Doby Creek Charmstone, view 2. (Photo by Merla Clark)

Doby Creek Charmstone. This charmstone is made of white quartz, and has blunted or flat ends (Figs. 12) and 13). In 1984, one of the authors (DGF) attended the annual meeting of the Society for California Archaeology in Salinas. Since the SCA had invited its members to bring unusual or interesting artifacts for display that year, Foster brought the Plantation Cache quartz charmstone. During the meetings, Merla Clark informed Foster that she had found a nearly identical artifact on a ranch west of Ono in Shasta County, on the west bank of Doby Creek. Clark (personal communication 1985) later noted that artifacts had been found at the ranch over the years, and that larger sites with house pits and middens were present on nearby properties. She also found other types of charmstones, including the more common lemonshaped and grooved types. Clark suggested that the quartz charmstone might have been used as a "lightning stone." In the American Southwest, matched quartz stones were rubbed together to produce light. Whitley

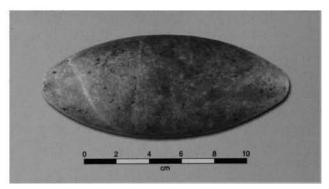


Figure 14. Tehama County Charmstone. (Photo by Rich Jenkins)

et al. (1999) have cited numerous references to the use of "lightning stones" by traditional peoples to create a spark or glow that is considered to be a manifestation of power and the supernatural.

Tehama County Charmstone. A fourth specimen was discovered in western Tehama County in 1987 (Fig. 14). This white quartz artifact measures 164 mm. in length, has a diameter of 68 mm. at mid-section, and is pointed at both ends. CAL FIRE Forester Chuck Schoendienst (who had seen the original football charmstone in the CAL FIRE training collection) noted the specimen in a private artifact collection recovered from a ranch in western Tehama County, and subsequently reported the discovery to CAL FIRE Archaeologist Richard Jenkins. Working cooperatively with the landowner to support a series of CAL FIRE projects on the ranch, Jenkins was able to borrow the artifact and have it photographed and illustrated (Jenkins 1991). It was then returned to the owner.

Charmstone from CA-TEH-001621/H (Ishi Camp). CA-TEH-001621/H, the Ishi Camp site, was tested by a field party from California State University, Stanislaus (CSUS), in order to investigate the archaeological resources located at the CAL FIRE Ishi Conservation Camp. After the initial excavation of four test units, CSUS returned to the site to monitor the excavation of utility trenches located outside of those tested the previous year (Napton and Greathouse 2000). The excavation of one of the trenches revealed a remarkable feature, and an archaeological test unit (Unit 5) was established to investigate it (Fig. 15). Within 30 cm. of the existing ground surface, a nearly intact feature containing "three handstones, three lenticular disks or discoids, one



Figure 15. 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)

'charmstone,' two milling base fragments, one utilized flake, one projectile point fragment (non-diagnostic), and ten associated unmodified andesite cobbles" was identified (Napton and Greathouse 2000:9). The disks are very thin, unlike discoidal stones found in southern California.

The charmstone found in the feature is a football type object 173 mm. long, 88 mm. wide, and 76 mm. thick, weighing 1,235.3 grams. Unlike the other charmstone examples, which are made of quartz, it is made of a hard, fine-grained, dark green metavolcanic stone. In 2006, CAL FIRE Northern Region Archaeologist Richard Jenkins collected data on the charmstone and photographed it (Fig. 16) at California State University, Chico, where it is curated. The following notes are from Jenkins' (2006) observations of the charmstone:

Both sides of this bipointed 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 resharpen 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.

Gregory White has examined the artifact and commented that its ends reminded him of those seen on stone pestles used in wooded mortars. He also noted that the artifact had not been washed and thus was a candidate for biochemical studies that might provide insights into its use.

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

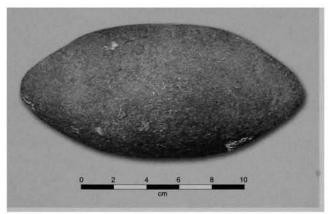


Figure 16. Charmstone from Ishi Camp, CA-TEH-1621/H.
(Photo by Rich Jenkins)

CSUS was called out again to investigate further proposed construction at the Ishi Conservation Camp. Four test units were excavated within an area to be covered by a proposed building (Napton and Greathouse 2001). During the test excavations, obsidian, basalt, and andesite flakes similar in quantities and types to those recovered in the previous excavations were found. However, animal bone was scarce, in contrast to Area A, and milling implements, which had been abundant in the prior utility trench excavations, were also absent.

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

The charmstone cache was found in the utility trench within 30 cm. of the existing ground surface. If the CSUS investigators are correct, and the upper levels of the site had been graded away in this area, the feature was not associated with the most recent occupation of the site, as its stratigraphic position would suggest. In fact, the unit was terminated at 40 cm., and the feature may have been associated with the older components of the site. The discovery of the charmstone cache in a 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 is also significant.

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. It is interesting that these are the smallest and most unique examples recognized as being the football type of charmstone. Their discovery within village sites indicates that this charmstone form can occur in different contexts.

#### **SUMMARY**

The discovery of the Plantation Cache has called attention to an unusual assemblage of archaeological remains. We have presented evidence that supports the hypothesis that they comprise the cached paraphernalia of a shaman. Ethnographic data from a variety of tribes indicate that the caching of ritual items was common, so it is not surprising that archaeologists might occasionally come across such a feature. The Plantation Cache contributes to the small sample of known caches of charmstones in northern California.

We have also demonstrated—in light of the discovery of six nearly identical artifacts from northern California—that the Plantation Cache "football" variety of charmstone constitutes a distinctive type. We believe that the football-shaped charmstone represents a legitimate formal artifact type that has heuristic value for California archaeology. Criteria have been presented that identify the proposed football type of charmstone and discriminate the type from similar forms. We predict that additional examples will be identified, and hope that this paper contributes to that outcome.

#### **ACKNOWLEDGEMENTS**

We would like to thank the people involved in the discovery of the new charmstone type, including Wendy Johnston, Jon Miller, Chuck Schoendienst, Rich Jenkins, Merla Clark, L. Kyle Napton, and Elizabeth Greathouse. They were all instrumental in collecting the information required to recognize and define this artifact type. We also 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. All of them 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. Additionally, we thank B. J. Ciccio, who rendered technical illustrations used in this study. Photographs were prepared by Zee Malas of ASM Affiliates; Zee utilized materials that were of varying quality in order to create the clear, clean images in this report. We also thank the *Journal* reviewers whose comments helped to clarify our thoughts and make this a better report. Any errors and omissions are solely the responsibility of the authors.

#### NOTES

<sup>1</sup>For a review of charmstone typologies and a discussion of another CAL FIRE discovery, see Hector et al. 2005.

<sup>2</sup>Note that the following dates are calibrated radiocarbon dates.

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