The focus of this paper will be to compare burial complexes from three late prehistoric and Protohistoric sites located in southwestern Los Angeles County. It is the goal of this analysis to provide an overview of Gabrielino cultural traditions through the comparison of artifact assemblages and the burial associations of funerary objects from the three sites. These three collections will serve as contemporaneous indicators of Protohistoric burial practices of indigenous Gabrielino culture.

The three sites chosen for discussion here are CA-LAN-270, known as the Los Altos Site; CA-LAN-138, known as Malaga Cove; and CA-LAN-2682, or the ARCO site. These three sites were chosen due to the fact that they are all late prehistoric to early historic in age and are closely related spatially. All are located within a sixteen mile radius and inside recognized Gabrielino territorial limits in southwestern Los Angeles County. The Malaga Cove site is approximately nine miles northwest of the ARCO site. The distance from ARCO to the Los Altos site in Long Beach is another six and a half miles to the southeast. The proximity and shared cultural affiliation of these sites provides a baseline for the comparative analysis of artifacts and cultural attributes as they occur in all three deposits.

The ARCO site is the only one of these comparative deposits that is associated with radiocarbon dates. The dates are based on carbon recovered from direct burial associations throughout the deposit. Radiocarbon dates returned from Beta Analytic indicate that lower levels of the site correspond with the late prehistoric/Protohistoric transition, while upper levels demonstrate a more recent affiliation with the late Protohistoric and Mission Periods. No concrete radiocarbon dates were obtained for the comparative material from either the Malaga Cove Level Four or Los Altos assemblages. The sensitivity of their associations with burial deposits make it highly unlikely that temporal parameters that are based on radiocarbon or hydration analysis will ever be established due to Native American Graves Protection and Repatriation Act (NAGPRA) legislative restraints. The chronological affiliation of these three sites is instead demonstrated on the basis of comparable material culture and burial attributes. The presence of sensitive time markers such as glass trade beads, *Olivella* ground and rough disk beads, and small projectile points serve to frame the undated Los Altos and Malaga Cove deposits in terms of relative chronology. The two sites can then provide a baseline for comparison with the ARCO assemblage.

**MALAGA COVE**

Malaga Cove is generally recognized as a type site for the south coast region. The deeply stratified deposit documents one of the longest
continual occupation episodes recovered on the south coast. The radiocarbon dates from the terminal depths of the deposit returned a date of 7000 years before present (ybp) (Walker 1952:51). The site stratigraphy and material culture assemblage provided the central framework of early cultural chronological sequences for the region.

The Malaga Cove site is located in the city of Torrance between Redondo Beach to the north and Palos Verdes to the south. The site itself is located on a sand dune directly above Malaga Cove which lies within Santa Monica Bay. Correlation of this location with ethnographic sources indicate that this site is the Gabrielino village of Chowigna described in 1542 by the Cabrillo expedition (Walker 1952:27).

The original discovery of this site was due to natural erosion of the dune, which exposed the buried archaeological deposit in cross section. The site was excavated in 1936 and 1937 by Edwin Francis Walker and a group of volunteers through the Southwest Museum in Los Angeles. Excavation of the deposit revealed four stratified cultural levels. The stratified levels were designated as Levels I through IV, with Level I framing the earliest cultural levels and Level IV associated with terminal occupation of the site.

This study focuses on the cultural attributes associated with Level IV, which has been estimated to date to the Protohistoric through early historic periods based on the attributes of the artifact assemblage. Level IV materials are associated with burials and included large mortars and pestles, basket hopper mortars, shell fishhooks and beads, soapstone, painted gaming stones and projectile points (Walker 1952:32). The only historic artifacts recovered from the site were glass trade beads from the opening levels of the Level IV deposit, which indicates that the site was likely abandoned prior to extensive European contact.

Analysis of the Malaga Cove assemblage was based both on artifact attributes and written sources. Artifacts recovered from Malaga Cove are housed at the Southwest Museum, and were made accessible for analysis by the antiquities curator, Mr. George Kritzman. In addition, Walker's field notes, correspondence, and field catalog from the original excavation were made available for reference by the Southwest Museum Library. This information served to supplement the overview of the deposit published by Walker in Five Prehistoric Archaeological Sites in Los Angeles County, California (1952).

Analysis of the Malaga Cove collection made clear the limitations of the data recovered from excavation. Early excavation practices focused almost exclusively on the recovery of formal artifacts. Materials such as shell and lithic manufacturing debris were considered to be of little interpretive value and were generally discarded. This collection bias is evident in the analysis of the Malaga Cove materials, which contained few non-formal artifacts. Although the artifactual materials have been well stored in the museum, some materials are unprovenienced and difficult to correlate with the descriptive database.

Pot hunting of the Malaga Cove site by private collectors is well-documented in the Southwest Museum archives. One such individual corresponded with Walker, providing him with notes, pictures and artifact descriptions of an extensive and quite impressive private collection from the site. At least four private collectors are known to have been actively hunting artifacts from the site in the 1930s, from information that they provided to Walker. Some of these materials were later donated to the Museum. While these materials were indicative of the type of artifacts used at the site, they were unprovenienced and therefore not included in this comparison, except to note presence.

CA-LAN-270, THE LOS ALTOS SITE

The Los Altos Site is a late prehistoric site that is located in Long Beach, about one mile north of California State University, Long Beach at Bellflower Boulevard and the Los Coyotes Diagonal. The site was discovered during housing construction, and subsequently excavated by Professor Ethel E. Ewing of CSULB. A report written by Eleanor Bates was published by the Pacific Coast Archaeological Society in 1972, in
which she describes the site as, "a fairly typical southern California Village site" (Bates 1972), which was permanently occupied and associated with a concentrated burial deposit.

Artifact types found at the site include shellfish and other food remains, milling implements, shell and stone ornaments, stone pipes, drilled stone slabs, and a large collection of chipped stone implements. This deposit did not contain any historic artifacts, indicating that this site had been abandoned prior to European contact.

The Los Altos artifact collection is currently housed at CSU Long Beach. Permission to study the artifacts was granted by Dr. Dan Larson of CSULB and facilitated by lab director Juliet Christy. The collection is currently held in a transitional state, while in the process of being recataloged in order to establish burial associations for NAGPRA compliance. This resulted in the incomplete provenience of the artifact assemblage in terms of burial distributional data.

CA-LAN-2682, THE ARCO SITE

The ARCO site exhibits a transitional temporal association encompassing the late prehistoric, Protohistoric, and Mission Periods. It is a multi-component site, exhibiting evidence of use as a shellfish processing locality during the late prehistoric period and as a burial site later in time. It was discovered during trenching for an electrical substation on the ARCO refinery property which is located at the corner of Wilmington and Sepulveda Avenues in Carson, California.

Trenching activity resulted in a large number of burials being destroyed by heavy machinery. However, 25 burials remained intact for in situ excavation. Trenched materials were screened for recovery of artifacts and human bone at the request of the Gabrielino. Analysis of the recovered trenched materials is still incomplete at this time, but they consist principally of shell food remains, with a few small associated artifacts and bone.

This paper focuses primarily on those items recovered in provenienced burial contexts, with discussion of items recovered from the unprovenienced trenching spoils offered in secondary support of the data. Artifacts recovered from the ARCO site are discussed in terms of presence and absence and then correlated with those similar items recovered from the other two sites.

The ARCO site has very definitive artifact types in the two burial levels, the upper and the lower. The lower level displays a cultural assemblage which appears to be associated with the late prehistoric to Protohistoric transition. This is evidenced in burial practices and material culture indicators. Upper levels appear to illustrate a Protohistoric Period cultural assemblage. These two strata will be compared to the similar deposits at Los Altos and Malaga Cove. This discussion will focus on utilitarian, ornamental, and ceremonial artifact classes occurring in each chronological period at each site.

UTILITARIAN ITEMS

All artifacts classified as utilitarian fall into the following categories: fishing implements, milling equipment, pottery, flaked stone artifacts, and miscellaneous. While bone tools such as awls and basketry needles were recovered in all three deposits, their associations with burials are unclear and will not be discussed.

In terms of fishing equipment at Malaga Cove, there were large numbers of Haliotis shell fishhooks, both provenienced and not. Walker reported finding the cache of a shell worker in Level IV, including Haliotis fishhook blanks and five drills of the type used for making fishhooks (Walker 1936:2). These data indicate fishing was an important subsistence practice that occurred at the site in the late prehistoric period. Interestingly both Los Altos and ARCO deposits exhibited almost no fishing equipment. A single fishhook and one harpoon fragment were all that was recovered from Los Altos and only a single bone gorge from ARCO. This seems to conflict with the faunal evidence which has a high incidence of fish bone and vertebrae. This may be explained by alternative fishing methods employing perishable equipment such as nets or traps.
Milling equipment was recovered from both Malaga Cove and Los Altos in substantial quantities. At Malaga Cove, milling equipment appeared through the upper two components. The bowl mortar was associated with Level III, a Late Archaic assemblage, while the basket-hopper mortar appeared in the upper component, the Level Four assemblage, which is associated with the late prehistoric period. Los Altos mortar types were of the flower-pot and bowl-shaped varieties, manufactured from steatite, sandstone and basalt. Handstones and pestles were also recovered. The pestles were of the tapering cylinder type with half of them concentrically ringed at the bottom. None of the Los Altos milling implements were associated with burials, except for one small bowl fragment. Millingstone technology is a very common component of site assemblages in southern California, so it is surprising that the ARCO assemblage contained only two artifacts that could be classified as milling: a steatite bowl fragment directly associated with an upper level cremated skull, and one possible mano fragment. This would seem to indicate that the milling at Los Altos was associated with the site occupation and not the burials, and the lack of milling at ARCO is a burial phenomenon.

Pottery did not appear to have significant usage at any of these sites. There was no record of any being recovered from Malaga Cove. Los Altos had forty-five potsherds of Tizon brownware, representing portions of two vessels. Bates judged that the sherds came from two "globular jars" (1972:38). At ARCO, pottery was found in only trace amounts. In addition to a fragment thought to be from a pipe or sucking tube, there was one incised rim sherd of Tizon brownware found in the trenching spoils. This fragment appears to be from a jar type of vessel.

Flaked stone artifacts are another major utilitarian tool type. Level Four of Malaga Cove was the only context in which Walker found projectile points. Due to the time period in which this site was excavated, it does not appear that debitage was collected during data recovery, so one cannot say conclusively that lithic tool manufacturing occurred at this site. Under Walker's classifications from the field catalog, the types of chipped stone artifacts consisted of thirty-nine percent projectile points, twenty-four percent knives, and seventeen percent drills (1937:1-8). Walker described the materials used for these artifacts as mostly Franciscan chert, in some cases chalcedony, and rarely obsidian. He stated that he, "prefer[ed] to think that the obsidian came from Tulares and had a connection in trade with the Steatite that reached there" (Walker 1936/37:2). The projectile points consisted of seventy percent leaf-shaped, twenty-five percent triangular, and five percent stemmed (Walker 1952:63). Due to incomplete provenience information and burial descriptions, we were unable to pinpoint which, if any, of the projectile points were associated with burials.

At Los Altos, flaked stone artifacts occurred with one third of the burials. These included projectiles of both Cottonwood series and large stemmed and leaf dart points. A high percentage of obsidian occurred within the deposit, approximately five percent of the total lithic assemblage, including debitage. Formed obsidian artifacts are large Archaic forms only. Obsidian debitage was dominated by secondary and tertiary forms indicating that the reduction of obsidian blanks occurred at the site. Debitage of other material was not collected from the site.

Other utilitarian flaked stone tools associated with burials included scrapers, a chopper, agraver, and a drill. The majority of this material is Monterey and Franciscan chert with chalcedony, quartz and jasper also occurring. Ninety percent of the projectiles recovered from burials were leaf-shaped dart points, and the remaining ten percent are Cottonwood Triangular (Bates 1972:10-36) points.

The lithic assemblage from the upper level burial units at ARCO represents all five stages of manufacture, with biface thinning and margin preparation flakes the most common type of debitage present. In terms of formed artifacts, over half of those recovered from the upper levels are biface fragments, indicating that late-stage biface thinning and trimming were taking place at the site during the later time periods.
Forty percent of the total diagnostic tools at ARCO are concave based Cottonwood series points. The remaining tools are comprised of twenty-five percent leaf-shaped Cottonwood series points, seventeen percent Cottonwood Triangular points, thirteen percent drills, and the final three percent miscellaneous small tools. The primary material type, banded Monterey chert, comprises eighty percent of the total. Eight percent is fused shale, four percentis chalcedony, and the remaining four percent is quartzite, quartz, metavolcanic, and obsidian which each occur at under one percent of the total. Franciscan chert did not occur.

One miscellaneous utilitarian artifact type recovered at Los Altos and Malaga Cove is arrowshaft straighteners. Bates numbers the total of arrowshaft straighteners recovered from Los Altos at eleven (1972:9). Arrowshaft straighteners of soapstone were also recovered from Malaga Cove, where they only occurred in Level Four (Walker 1952:39).

All three sites have evidence of the use of asphaltum. Generally it was used as an adhesive. Malaga Cove remains show extensive use of asphaltum. Items showing asphaltum residue include: projectile points, hopper mortars with residue around the rim, Haliotis shells with plugged holes and Hinnites and Haliotis shells containing chunks of asphaltum. Asphaltum was generally applied with tarring pebbles.

In addition to use as an adhesive, Los Altos had a tiny bowl that was associated with burial fourteen that appears to be completely made out of asphaltum. At the ARCO Site, asphaltum was used as an adhesive, and in one case to plug the holes of a Haliotis shell.

**ORNAMENTAL**

Artifact types categorized as ornamental fall into the following classes: beads, and miscellaneous ornaments. Burial association of the beads could not be ascertained from the Malaga Cove data, nor were they classified. The dominate bead types observed from the Malaga Cove collection were Olivella edge-ground wall beads, and Olivella cupped. Most of the beads present in large numbers were from the donated private collections and were wall and callus Olivella, with a few examples of Tivella disk beads.

The tiny glass beads found at Malaga Cove consisted of one purple and two greenish-blue beads. The two blue beads were typed as Spanish and occurring after 1800 (Walker 1952:68).

Other ornaments recovered from the Malaga Cove site include a columella ornament, Haliotis disks, and a Megathura ring. Very finely made examples of Megathura rings and Haliotis ornaments were observed, again in the donated private collection.

The primary ornament shell type recovered from Los Altos was beads. The predominant bead type is tiny disk beads of which there were over 2,000. Two hundred ninety-six Megathura rings were recovered from the site, and forty-four of the complete specimens occurred in burials. Also recovered were twenty punched Chestnut Cowrey shells, half of which were associated with one burial. Three Haliotis pendants were also recovered, none of which were associated with burials.

Three stone ornaments were cataloged as occurring at Los Altos. The burial of a 2-to 4-year-old child was accompanied by a tiny greenish-black Catalina Schist (as identified by Bates 1972:50) pendant, and several tiny Olivella disks. The remaining two stone ornaments are beads of a tubular type and also a disk type, and were not associated with burials.

Shell beads were the most common artifacts recovered at ARCO, with over 1,125 found. The dominant types are Olivella cupped and tiny saucer; also present are lipped Olivella beads, and historic forms of Olivella wall disk beads. Occurring in smaller amounts are bone beads, Haliotis disks, tube beads of Tivella and possibly Hinnities, Tivella disk beads and Olivella bushing beads. In the overall picture, the bead types at ARCO are more varied than those at Los Altos and more numerous than those recovered at the Malaga Cove excavation.
All thirteen glass trade beads recovered were of the most common variety, drawn glass, also identified as cane beads. Fifty percent are translucent and the remaining fifty percent are opaque. Fifty-seven percent of the beads are blue, twenty-nine percent white, and the remaining fourteen percent are clear.

Only eight other ornamental artifacts were recovered at the ARCO site. Only one of these was recovered in situ. Four of these were Haliotis pendants, one of which was recovered from the upper level. Three perforated carved bone claw replicas, reported to have been used during the mourning ceremony (Bonner 1999) were recovered from trenching spoils. A single steatite pendant fragment resembling the one from Los Altos and also of a similar material was recovered from trenching spoils at ARCO.

CEREMONIAL

The Mourning Ceremony was a very elaborate ceremony held every one to four years by the Gabrielino. According to Bean, "The mourning ceremony honored the souls of those who had died since the ritual was last performed, and its performance helped them achieve release from the earth and entrance into the land of the dead (1972:136). At the culmination of the Mourning Ceremony, which involved several rituals, the belongings of the dead were burned, according to Hugo Reid, in a deep hole with a fire kindled in it. Afterwards, the hole was filled in and tamped down (Reid 1852:42). According to C. Hart Merriam (McCawley 1996:156), even the poor would contribute large offerings of shell money, food and gifts in order to prove their devotion to the dead.

Although there is no evidence of this ceremony being held at the Los Altos site, strong evidence for it was found at both Malaga Cove and the ARCO Site. At Malaga Cove, Walker (1952:65) reported that there were, "piles of burned stones indicating a mourning ceremony," in Level 4. Unfortunately no other details were available, nor did he mention any artifacts associated with this feature. At the ARCO site evidence of the mourning ceremony was manifest in a number of ways. The most concrete evidence is found in lower unit 22, where seventy-one burned shell beads were recovered. This was the highest per unit bead count from the in situ deposit, along with a large stemmed obsidian dart point, the only one of its type on the site, and a perforated Catalina schist gorget exhibiting ochre stains. This deposit is not associated with any burials; the presence of scorched earth indicates that this was the site of a burning ritual. Three similar gorgets and a perforated stone tube were recovered at Los Altos also. The stone tube is thought to have served shamanistic functions by Hudson and Blackburn (McCawley 1996:99).

Catalina steatite, schist and soapstone artifacts such as the gorgets were present at all three sites. Steatite was mined extensively from various sources on Santa Catalina Island, which lies 25 miles west off the coast of Malaga Cove.

Although not from Level Four, it seems appropriate to mention that a stone gorget was found at Malaga Cove on top of a cairn in Level Two. The gorget is described as being made of fine sandstone, _inch thick, 4 3/4 inches long and four inches wide, with four holes drilled through it and incising on one side (Walker 1952:60). Although it has fewer holes than the ones from Los Altos and ARCO, it indicates a long standing cultural tradition.

An additional example of burial ritual at ARCO occurs in units 15 and 19. In unit 15, which contained a complete infant cremation, nine small shell and stone beads were recovered, only one of which was burned. In unit 19, there was a disturbed partial cremation and a degraded basket with a Catalina schist eccentric within, that resembles a sewing bobbin. The fact that these artifacts were not burned indicates that they were placed after the cremation was completed. Eccentrics similar to the one from ARCO were found at Malaga Cove by collectors and at Los Altos, but neither one is known to have any burial context.

Green and translucent crystals were found at Los Altos. There is no evidence of these at Malaga Cove or ARCO. There are many correlates throughout Southern California, such as Goff's
Island (Winterbourne 1967:44) and LAN-702 (Cottrell 1978:27-51), where quartz crystals were recovered in association with archaeological deposits, and were thought to have served a ceremonial function.

Included in this section are steatite pipes and sucking tubes. They occurred in tubular forms at Los Altos and ARCO. The example from Los Altos is steatite and directly associated with a burial. The ARCO pipe is also steatite and all three fragments were recovered from the trenching spoils.

Pigment types which were found at all three sites include diatomaceous earth and red ochre. Malaga Cove had at least one piece of diatomaceous earth that was described as "spearhead shaped" (Walker Field Catalog 1936/37: 1-8) and thought to have been used as white paint. Red ochre was referred to as red paint in all three components, and chunks are present in the stored artifact collection. Los Altos had an abundance of red ochre chunks in the collection but no diatomaceous earth. The ARCO site had diatomaceous earth associated with a burial and abundant red ochre, not only in chunks but also on the facial areas of one of the craniums and on a few artifacts including a deer bone shaman wand, which is unlike anything found at the other sites. Ochre was also present on the surface of a pecten shell and on the stone gorget. The aforementioned shaman wand was found clutched in the hand of a male individual and was stained red at the tip.

Malaga Cove also had an abundance of painted gaming stones, an item not found at either of the other two sites. The majority of these seems to have been found on the surface by collectors, but as mentioned above, at least four were found during excavation of Level Four.

CONCLUSION

The scarcity of artifacts included with burials may indicate that the majority of grave items were held to be used later in the mourning ceremony and not buried directly with the deceased. The ceremony may have been held at a location differing from the site of the burial. In the cases of high status burials such as shamans, or those of children, more grave goods appear to have been placed in direct association with the interment.

The late prehistoricand Protohistoricdeposits at all three sites show strong correlations in terms of artifact assemblages as has been shown through the evidence presented. In summary, all three sites produced late varieties of projectile points, similar bead and ornament styles, steatite eccentric, and utilized materials which were available locally or through trade, such as Catalina steatite, chert, and asphaltum. All of the sites have no more than trace amounts of pottery. All three have similar burial practices: flexed or extended inhumations, very few cremations, and very limited amounts of grave goods.

There are a number of traits which are not shared by all of the sites, however. While Los Altos and ARCO have similar gorgets, there are none from Malaga Cove. In general, the artifact assemblages from Malaga Cove and ARCO have much more in common with each other than they do with Los Altos, such as the presence of glass trade beads and similar shell bead types. This is most likely a function of their shared, slightly later dates, as compared to the earlier Los Altos site. The ARCO site has several unique aspects, including the presence of carved claw replicas, the bone wand, and the lack of milling equipment.

One can compare these differences to those of modern neighborhoods. Each neighborhood is a product of its environment and its residents, and the result is a place that is similar to nearby neighborhoods, but has a flavor all its own. The same seems to have been true for the late prehistoric and Protohistoric Gabrielino. There are far more commonalities among these three sites than differences, and their shared traits might well serve as a baseline for identifying and comparing other late prehistoric and Protohistoric cultural traditions in the south coast region.

Unfortunately, because these three sites have been severely disturbed or completely destroyed, the only source of further study remaining is intense reevaluation of these sites and comparison of all similar sites in the area. These site types are still being discovered today.
New technology and current gray literature should be used together with the collections available in order to identify more distributional traits occurring across the prehistoric landscape.

REFERENCES CITED

Bates, Eleanor

Bean, Lowell John

Bonner, Wayne
1999 Personal communication.

Cottrell, Marie G.

McCawley, William

Reid, Hugo

Walker, Edwin Francis
1936/37 Field catalogue.

Winterbourne, J.W.