

Determining Tribal Boundaries Through Potsherds- An Archaeological Perspective

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Abstract

It has become popular since the 1970s to combine the Juaneño and Luiseño Indians based on linguistic similarities. If these people were indeed one group, the material culture from Late Prehistoric sites should be analogous. Artifact inventories from archaeological investigations in Orange, Riverside, and San Diego counties are compared to each other as well as to a "typical" Luiseño component. It is shown that one category differs markedly between sites found in traditional Juaneño territory and those in the Luiseño sphere. The manufacture and utilization of ceramic vessels may well mark a boundary between two groups of people in the late pre-contact period.

Introduction

Some of the Indian groups of coastal California, which were in a mission sphere of influence 230 years ago, are referred to by the name of the mission with which they were affiliated. This particularly occurs in coastal Southern California. The Gabrielino name is associated with the Mission San Gabriel, the Juaneño with the Mission San Juan Capistrano, the Luiseño with the Mission San Luis Rey, and the Diegueño (more recently called Ipai and Tipai after two of the three language dialects of the Diegueño) with the Mission San Diego.

Kroeber (1925) was one of the first scholars to present definitive areas for Indian groups in California when he devoted a chapter to each and included tribal boundaries. The present paper is concerned with two groups from coastal Southern California, the Juaneño and the Luiseño (Fig.1) These two groups are part of Kroeber's "Shoshonean wedge" that divided the Hokan speaking Chumash and Diegueño. He apparently combined the Spanish description of the Juaneño language beginning 12 leagues south of the mission, between San Onofre and Las Pulgas Creeks in San Diego County, with a map drawn by Couets in 1850 (reproduced in Engelhardt 1922) to resolve his boundary. Oxendine (1983) followed Shipek's (1979) placement of a boundary further north, between San Onofre and San Mateo Creeks, but there is no reason given by either of the latter for this choice.

Sparkman (1908) preceded them all in his work with the Luiseño. Although he drew the Luiseño boundary line "to the sea near San Juan Capistrano" he also said the language at Capistrano and Saboba differed "considerably from that of the remainder of the Luiseños, and by some the people of these places are not included among the Luiseños" (Sparkman

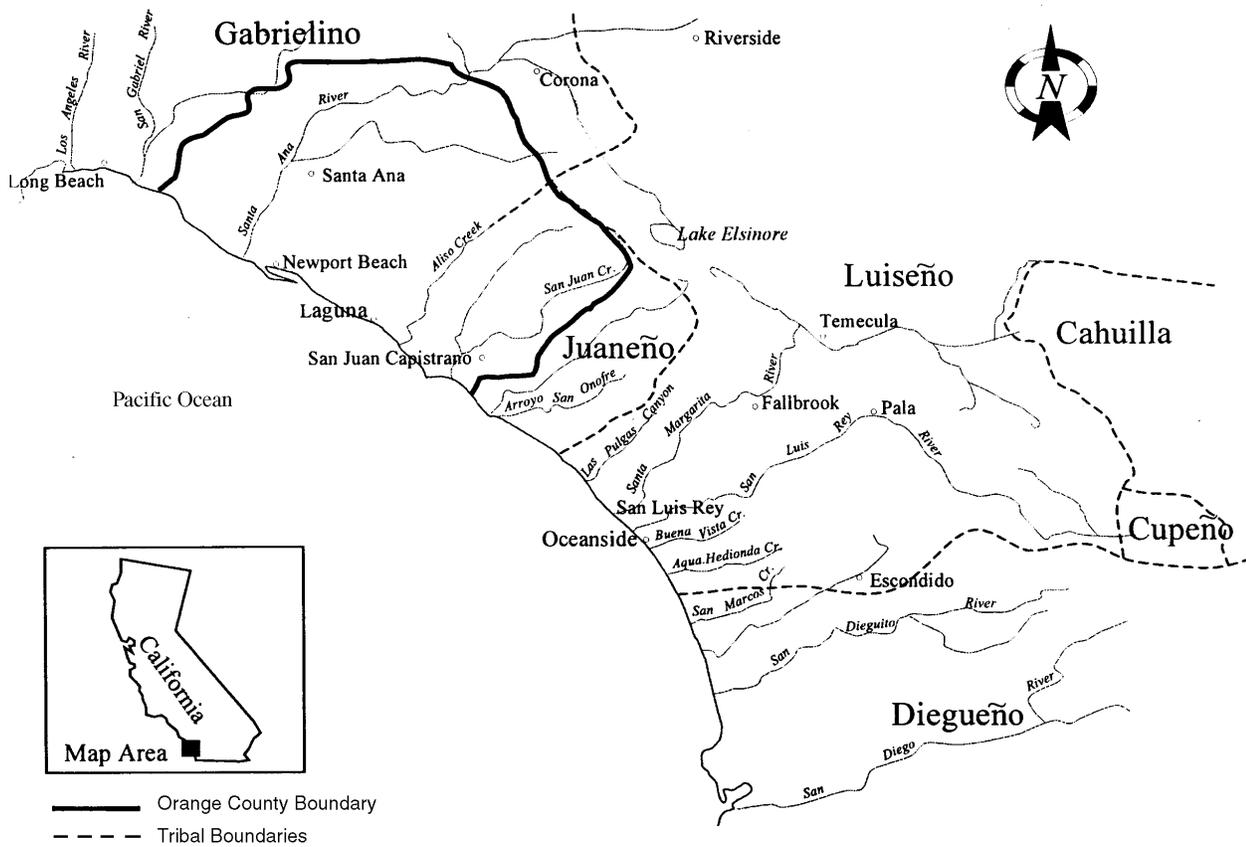


Fig. 1. Regional Boundary Map (after Kroeber, 1925).

1908:189). The coastal portion of this boundary lies within the confines of Camp Pendleton, a Marine Corps base which covers 19,700 acres in San Diego County, immediately south of Orange County. Recent work by ASM Affiliates, Inc. (Reddy 1998) lists 415 archaeological sites on the base; 382 prehistoric, 12 both prehistoric and historic, and 21 historic. The map with the sites noted indicates one possible boundary line which is neither on a stream nor contains sites. It runs very close to Kroeber’s original boundary.

The northern Juaneño boundary with the Gabrielino is also somewhat of a puzzle. Kroeber, with all others following his lead, placed the northwestern boundary of the Juaneños along Aliso Creek (north of San Juan Capistrano). This is unusual (and has been challenged by Cameron, 1974 and others), as most groups claim both sides of a waterway. Archaeological sites line Aliso Creek on both sides, from the Pacific Ocean to its terminus in the foothills of the Santa Ana Mountains. Not all were occupied at the same time of course, nevertheless, there are thirty-three sites on the northwest side of the creek and forty-seven on the southeast, with some directly across from each other.

The issue of whether or not the Juaneño and the Luiseño were linguistically and culturally one group has been discussed by Sparkman (1908), Kroeber (1925), White (1963), and Oxendine (1983), among others. The basis for many of these opinions can be traced to John P. Harrington's (1942) distribution lists of cultural elements. Harrington acquired his data after 1900 from three informants, two of Gabrielino/Island descent and one Juaneño raised at San Gabriel. Only two of the informants answered the seven inquiries regarding pottery, with the most answers (5) offered by the one female informant. Three of the five "present" answers, given by the other two, were labeled as "doubtful" by Harrington.

It also seems pertinent to mention that the first Spanish explorers considered the Juaneño and Luiseño to be two different groups and frequently mention the 'language of the Juaneño' or the 'language of San Juan Capistrano' (Engelhardt 1921, 1922) indicating a perceived variation from other nearby groups. More importantly, the archaeological record shows a distinct difference in the material culture found in the Late Prehistoric sites, which occurs very near to Kroeber's 1925 boundary.

The southern boundary for the Luiseño is placed at Agua Hedionda, first mentioned by Pedro Fages (1937) and confirmed by True, Meighan, and Crew (1974) on the basis of archaeological material recovered through excavations and surveys. This same principle can be used for other tribal boundaries. Although very little extensive archaeological work took place in Southern Orange County before the mid-1980s or on Camp Pendleton before 1990, a large pool of information, albeit mostly gray (unpublished) literature, is now available for previously unknown archaeological sites.

Culture History Overview

The prehistoric peoples of coastal Orange County are assumed to have followed a seasonal round of hunting and gathering. Wallace (1955) and Warren (1968) presented the principal culture histories accepted by most local archaeologists. They are generalized plans which pertain to the southern California coast and span the known prehistoric occupation of the area. Refinements and area distinctions within these broad frameworks have been made by Rice (1976), Rice and Cottrell (1976), Kearns (1979), Lyneis (1981), Koerper (1981), and others.

The time frame of interest for this paper is the Late Prehistoric Period. It occurred from about A.D. 500 to contact in Orange County and is called the Shoshonean Tradition by Warren, thus relating it to the Great Basin cultures. Numerous small projectile points and some steatite objects occur at this time. In San Diego County, prehistory is separated into three divisions by Welch and Ezell (1978 App. 4): the San Dieguito, La Jollan, and Late Prehistoric Complexes. The latter complex has been divided into San Luis Rey 1 (about A.D. 500 to 1500 or 1600) and San Luis Rey II (A.D. 1500 or 1600 to 1850). The distinction between the two is the introduction of Brown Ware pottery during the second phase.

While all of the indigenous peoples in the study area were using manos and metates, mortars and pestles, hammerstones, and small triangular projectile points during the Late Prehistoric Period, the one artifact which has been noted in relative abundance in late sites of one group but not of the other is ceramic, now in the form of pottery sherds. While most archaeologists agree that the Gabrielino did not have a pottery culture but the Luiseño did, there is disagreement as to whether or not the Juaneño used pottery.

Although Kroeber (1925:629) includes the Juaneño with the pot-making groups of Southern California in his chapter covering the Gabrielino, no pottery is mentioned in the Juaneño chapter. Furthermore, in discussing the Cahuilla, Kroeber (1925:702-703) lists the pottery making groups, excluding the Gabrielino, and not mentioning the Juaneño at all. In another section of his seminal work, Kroeber (1925:822) lists the tribes that made pottery and added "probably not by the Gabrielino: with the Juaneño status unknown."

The use of ceramic vessels, to the extent they become one of the major components of an archaeological site in the form of sherds, is one of the material culture traits which can be used to separate Late Prehistoric Juaneño habitation sites from those of the Luiseño. Settlement patterns also appear to differ between the Juaneño and Luiseño, with the latter having more permanent villages. Oxendine (1983) observes that a single locus settlement was probably the norm for Luiseño villages, although a few had multiple loci. (A comparison of the habitation sites of the two groups should be the subject of further research.) She further states that pottery sherds can be found on the surface of every Luiseño village which is composed of only one locus (Oxendine 1983:178) and lists the minimal cultural attributes of Late Prehistoric Luiseño villages as visible midden, bedrock milling features, pottery sherds, Cottonwood Series projectile points, and, usually, pictographs.

The Data Base

This paper will address the number of pottery sherds found in sites in several southern California counties. The ceramic percentages discussed below were measured against only shaped artifacts. Unmodified flakes were omitted from the totals. Each lithic artifact usually represents one tool except, perhaps, in the case of small groundstone fragments. Although the vast majority of potsherds recovered from archaeological sites consists of pieces small in size and representing only one pottery type, most archaeological reports give only the number of sherds recovered and not the total weight, so the raw data presents very skewed totals. While numbers alone make it impossible to estimate the "minimum number" of vessels represented, it is the only avenue open at this time.

In delineating an artifact inventory which might address the issue of a cultural affiliation, it is necessary to examine site records and excavation reports for the surrounding areas also. In addition to the likelihood that some reports may be overlooked, there is a major problem involved when attempting this comparison. It is one shared by areas all along the southern

California coast, and that is site destruction before any, or perhaps the most casual, notation of its location was made; therefore, what has been left to be studied is distorted from the outset. In addition, reports have not only changed dramatically since the Works Progress Administration (WPA) excavation efforts in the 1930s, there is also a great disparity in how archaeologists report their work today. (WPA reports are variously printed under the authorship of Ashby and Winterbourne, Winterbourne, or WPA). Different types of analyses are important to different researchers.

Several problems are immediately obvious in this kind of a study. One piece of ceramic is certainly not equal to a mano or a projectile point. Sherds should be weighed by ware and then compared to the weights of various complete vessels. This would give a more accurate picture of the items which were actually used by the people. For example, a small ceramic bowl 6.3 cm high with a 13.3 cm diameter rim weighs 189.9 grams. A small *olla* (water jug), broken at the neck, is 12 cm high with a maximum circumference of 47.5 cm and a weight of 392 grams. Seven Brown Ware sherds from one site in the Orange County study area weigh 32.7 grams and 17 Buff Ware sherds total 32.3 grams. Unfortunately, very few site reports offer sherd weights and some that do, neglect to include a sherd count.

Another dilemma is phraseology. "Historic" sherds can mean both Brown Ware made after the missions were in operation and also "European-made" ceramics commonly called "China." This is confusing in Late Prehistoric site reports when "ceramics" are lumped together. Also, Brown Ware, Brownware, Brown ware, and brownware are a few of the spelling variations used in site reports. Nonetheless, using data with the same shortcomings produces a framework to sort out information, particularly when that information is as clear-cut as the present data.

The percentages used in this study include only sherds and not clay figurines, pipes, or pieces of wattle and daub. The first occur much earlier in time, the second over a much wider area (and also begin to appear somewhat earlier), and the third is rarely mentioned. Likewise, bedrock milling features are not included in total artifact counts because of the number of reports that do not give aggregate figures.

The selected type of archaeological sites examined for this study have been grouped by rivers and drainages where possible. From the north, in undisputed Gabrielino territory, is the Los Altos Site in Long Beach, then south to the Santa Ana River (between Huntington Beach and Newport Beach), Upper Newport Bay, a broad expanse of land inland from Corona del Mar, Morro Canyon, Laguna Canyon, and ending at Aliso Creek.

Not many Late Prehistoric sites have been examined in inland Orange County. Of the four that have, one is at the west end of the Coyote Hills in Fullerton and three others are in Santiago Canyon, Black Star Canyon, and the Los Piños Site in the Santa Ana Mountains. The first three are located in Gabrielino territory and the last in Juaneño.

Along the coast, in Juaneño territory, are Aliso Creek, Salt/Sulphur Creeks, San Juan Creek, the Segunda Deschecha in San Clemente, and the Canyons of Christianitos/San Mateo and San Onofre in San Diego County's Camp Pendleton.

Continuing south in coastal San Diego County, Luiseño Territory, are the drainages of Horno, Las Pulgas, Santa Margarita (all within Camp Pendleton), the San Luis Rey River, Buena Vista Creek, and Agua Hedionda. Inland areas (beginning near Lake Elsinore) include the individually examined sites in Riverside County of Cole Canyon, Wildomar, CA-RIV-1864, the Tenaja Village Site, Fallbrook Site 7, Lake Rancho Viejo, San Marcos/San Vicente Lake Site (southeast of Poway), Temeku, and Molpa the Luiseño "type site" in San Diego County.

Shell beads and potsherds are counted individually, as they are listed in site reports. There is no way of estimating the number of finished artifacts they may represent i.e. necklaces or pots. The origin of the sherds is not addressed unless specifically referred to by the archaeologist. As mentioned, ceramic pipes, while sometimes noted, are not considered part of the ceramic vessel inventory in this paper. Because of several recent spates of archaeological activity in the study area, some work inadvertently may be omitted.

Los Angeles County - Gabrielino Territory

Los Altos Site (CA-LAN-270) is one mile north of CSU Long Beach. It is a Late Prehistoric village site located 3 miles inland from the Pacific Ocean and 2.3 miles from the Orange County border (Bates 1972). Thirty-four 5' x 5' units were excavated in addition to three trenches, the latter being mainly sterile. The total number of 2,672 artifacts includes 2,327 shell beads and 45 potsherds, which were thought to represent two vessels due to the workmanship visible on the sherds. The many beads are probably due to the burials which were discovered. The sherds make up 1.7 per cent of the total artifact inventory (Fig. 2).

An "impressive amount of native pottery" was recovered from two trash pits near the **Los Cerritos Rancho (CA-LAN-696)** in Long Beach (Evans 1969:72). The 1836 and 1844 census reports do not mention anyone living on this site at that time so Evans believes the potsherds date to two years later when there was a residence on the property. Evans (1969:74) also lists the Hugo Reid adobe and sites at Los Encinos and the San Gabriel Mission, as well as Sepulveda's "casa de campo" near Newport Bay and CA-ORA-76 as containing native pottery which encompass dates from 1800-1850.

Evans contends a steady supply of utility kitchen ware was needed and it was provided by the local Indians. This does not address the present question but illustrates how Brown Ware production was in demand by the ranchers and other newcomers in historic time. It also explains the number of sherds found in historic sites.

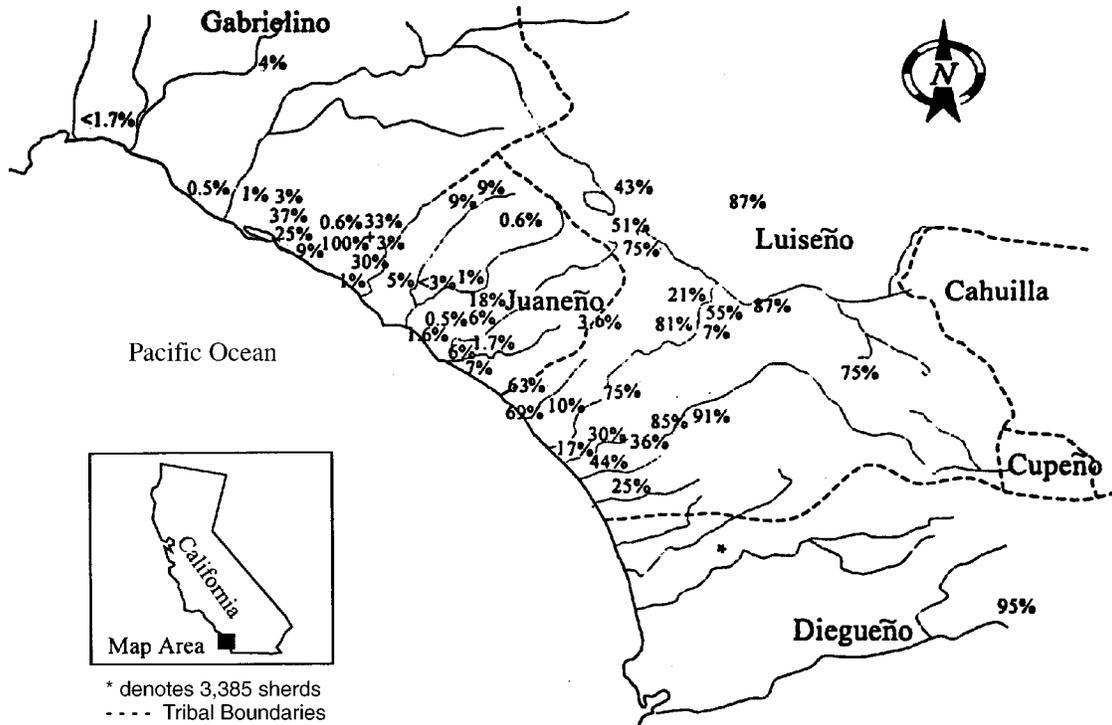


Fig. 2. Ceramic sherd percentages.

Orange County - Gabrielino Territory

Santa Ana River

While a number of sites line both sides of the Santa Ana River near the coast, only those which contain pottery are listed below. Of the eight sites along the Western Bluff, only one mentions sherds.

The Harper Site (**CA-ORA-302**) is located on the west bank of the Santa Ana River, three miles from the ocean and 50 feet above sea level (Lauter 1977). Eleven units, five-foot square, were excavated by students from CSU Los Angeles in 1971 under the direction of Hal Eberhart. Forty-seven artifacts were recovered including 1 potsherd. The second season at ORA-302 in 1972 saw a conversion to the metric system and six units, each 2 meters square, were excavated (Marshall 1979). The total yield from the two seasons is 176 artifacts including the single sherd. This represents less than one-half of a percent of the artifacts collected.

The Griset Site (**CA-ORA-163**) was excavated by the Works Progress Administration (WPA) in 1938 (Winterbourne 1968). It is on the east side of the Santa Ana River, in what is now the

town of Costa Mesa. Twenty-one “plots” were laid out, each usually containing either sixteen or twenty-four 5' square units. The total artifact count is 144 items including a whale effigy. Six potsherds with a pink semi-glaze on both sides were found on the surface, with the largest piece measuring 47 mm by 43 mm. (The glaze makes them definitely historic; however, this site is often mentioned as containing ceramic without further description and so it is noted here.) While the potsherds make up 4 per cent of the artifacts recovered, Winterbourne quite naturally believed they originated from one of the missions or a nearby adobe.

The Adams-Fairview Site (**CA-ORA-76**) is on the east bluff overlooking the river. Apparently an adobe was built on top of part of the prehistoric site and when the WPA (Winterbourne 1966) was excavating, they found a small burial area (quite disturbed because of the ranching activities) and 81 artifacts. This inventory includes one glass trade bead but no ceramic artifacts. When the Pacific Coast Archaeological Society (PCAS) performed salvage excavations around the old ranch house, the artifact yield was mostly recent historic trash (Chace 1966). In addition, the wife of one of the previous owners had collected artifacts from up and down the bluff by the house and arranged them around her flower beds (not an unusual event). PCAS found a meager assortment of artifacts which included one Brown Ware sherd.

Upper Newport Bay

More than sixty sites encircle the Upper Newport Bay, but only those mentioning sherds are discussed below. They are all located on the east side of the bay and several of them are near historic buildings. **CA-ORA-287** is located at the furthestmost northern extension of the Bay, at an elevation of 40 feet. Four 1.5 meter test units yielded 35 artifacts and 1 Brown Ware sherd or 3 per cent of the total artifacts recovered (Cottrell 1978).

CA-ORA-196, along the upper end of Newport Bay has a history of many different occupations. A prehistoric Indian site became the location for a mission outpost in the 1820s and, later, a rancho belonging to the Sepulveda family. The Pacific Coast Archaeological Society participated in a salvage excavation during 1968 (Chace 1969) and 150 artifacts, 78 Brown Ware sherds, and 985 historic ceramics were collected. Not counting the known historic ceramics, this is a sherd recovery rate of 34 per cent. During later test investigations 38 potsherds were found along with 44 shaped artifacts for a 46 per cent ratio (Cottrell 1976). This is a 37 per cent overall total. When historic ceramics are factored in, the total is 0.9 per cent.

CA-ORA-197 II, just south of ORA-196 at an elevation of 20 feet to 30 feet, was tested by ARI and 26 Brown Ware fragments were recovered together with 77 stone tools, a 25 per cent ratio (Cottrell 1976). A second test report noted an additional 116 total artifacts with 165.46 grams of sherds (Craib 1982). This is less weight than the previously mentioned small bowl at 189.9 grams.

ORA-196 and ORA-197 contained different shellfish remains and were believed to have been occupied at different times. The high percentage of sherds may be due to the use of the area during mission times and the presumed manufacture of Brown Ware pottery at the missions and their outlyers. This idea is reinforced by the fact that four ceramic vessels could be partly reconstructed. This is virtually unknown from other sites in Orange County (but see CA-ORA-13B). Craib (1982:65) noted "...the ceramics should not be construed as additional late diagnostic artifacts for the site, but rather to reflect the historic component from the neighboring site, Ora-196."

CA-ORA-111 Locus 1 had historic artifacts all through the site due to the presence of a golf course, clubhouse buildings, garage, storeroom, gravel driveway, and parking area on the site. Nevertheless, several test excavations took place with an artifact recovery total of 319 items, including 2 sherds or 0.6 per cent (Bingham 1975). **CA-ORA-119a** is located 40 feet above the bay and spans a period from Millingstone to Contact time (Koerper 1981). The equivalent of 300 square meters was excavated with a total count of approximately 2,293 artifacts, including more than 200 Brown Ware sherds and three glass trade beads. (For an in-depth sherd analysis see Koerper et al. 1978.) The sherd recovery is almost 9 per cent.

CA-ORA-64, a large, multi-component site on the east side of Newport Bay, was first tested by a field class from CSU Fullerton in 1971 (Drover 1972). The prehistoric occupation spans at least eight thousand years and, during the first excavations, two pottery sherds were recovered and dated to an early component. They are not typical Brown Ware sherds as described for the Late Prehistoric/Historic sites in the area and Joesink-Mandeville (1983:28-30) suggests comparisons with Mexico, Meso-America, and Ecuador. A select tool sample of 264 artifacts make these sherds (although they are not local and have a far earlier date) about 0.8 per cent of the total (Drover et al. 1983). A final report is not yet available for the most recent archaeological work finished in 1997; however, from the information presently available, it seems safe to say that the sherd percentage is not high. Since the ORA-64 sherds pre-date the pottery under discussion by 3,000 - 4,000 years, they are an anomaly which will not be included in the figures for this report.

Buck Gully is the location of **CA-ORA-190** (Ross 1970), a Late Prehistoric Horizon site in Corona del Mar. It is one mile from the ocean and a little more than two miles southeast of Newport Bay. About 40 five-foot-square units were excavated by Pacific Coast Archaeological Society members. There were 436 artifacts of stone, bone, and shell found, together with 5,147 waste flakes. One pipe fragment was recovered but no potsherds.

The Newport Coast Archaeological Project encompasses a 2,858 acre project area on the former Irvine Ranch, east of Corona del Mar (MacArthur Boulevard), west of Crystal Cove State Park (El Morro Canyon), and reaching from the Pacific Coast Highway to Signal Peak. The 37 archaeological sites examined were divided between Millingstone and Late Prehistoric

occupations, with 16 categorized as Late Prehistoric 2, dating from 650-200 YBP (Mason and Peterson 1994). No potsherds were recovered from any of these sites.

Taylor and Douglas (1982) excavated a small rockshelter a little over 2 miles from the coast in Los Trancos Canyon, northwest of Laguna Beach. This site, **CA-ORA-681**, is located north of Morro Canyon at an elevation of 910 feet. Two sherds were collected on the surface and a 100 per cent excavation yielded five more. The seven Tizon Brown Ware fragments are the only artifacts found in this site and seem to form part of the rim and neck of a globular jar (Taylor and Douglas 1982:98). Of the five small rockshelters in the immediate vicinity, only this one contained pottery.

CA-ORA-281 is located at the mouth of Morro Canyon on a 100 foot cliff overlooking the ocean, south of Corona del Mar and north of Laguna Beach. It was excavated by the WPA (1938) in the 1930s with a total of 150 shaped artifacts recovered, including 2 pottery sherds. One is described as coarse, thick, dark colored, and believed to be possibly “associated with the San Gabriel Mission” while the other is a thin fine-grained “Mohave type.” The sherds equal 1 per cent of the total number of artifacts recovered and this is one of the sites with a non-local sherd. Ashby and Winterbourne (1939:86) described it as having “the fine texture and beautiful desert sunset coloring of the desert Cahuilla vessels.”

Wlodarski et al. (1985) listed 27 registered sites in Laguna Canyon with a presence/absence list for twenty-two characteristic artifacts. Only one site contained pottery. **CA-ORA-309**, situated about 4½ miles up the Canyon from the ocean, at a 1200 foot elevation, was one of several rockshelters tested. The three units excavated yielded 16 shaped artifacts and 7 sherds, which equal 30 per cent of this small inventory.

CA-ORA-13B, also in Laguna Canyon (east on the El Toro Y separation from Laguna Canyon Road), is associated with “Tischler Rock” and was not addressed in the previous report. This area contained a prehistoric site and an adobe, as well as having served as a stagecoach waystation. It was tested by ARMC (Demcak and Allen 1994) and both historic (843) and prehistoric (186) artifacts were recovered. In addition, 61 ceramic sherds were found which equal about 25 per cent of the assemblage. They are unusual because of their size (some being 10 cm in length), the high number of rim sherds, and the fact all but one came from a single unit, an historic dump. Because of the use of this site, it was concluded that the sherds were probably associated with the historic period (Wade 1994).

Also in the Laguna Hills (about 1¾ miles east of ORA-13B), southwest of Leisure World, **CA-ORA-414A** and **B** were investigated by Demcak (1988). One pottery sherd was recovered at **ORA-414A** and 19 at **ORA-414B**. About 86 square meters of earth were excavated at the former with 1,169 artifacts recovered, so the sherd percentage is infinitesimal. The latter site had 50 square meters excavated with a total of 574 artifacts salvaged, or 3 per cent sherds. Of the 19 sherds at ORA-414B, seven were found in one unit.

Goff's Island (**CA-ORA-8**) in South Laguna is one-half mile north of Aliso Creek along the coast. It was originally excavated by the WPA in 1939-40 (Winterbourne 1967) in "plots," with each of the thirty-nine plots containing from eight to thirty-six 5-foot square units. This site spans a long period of occupation and contained house floors, human burials, and dog burials. Two small glass trade beads were recovered but no potsherds.

Inland Orange County- Gabrielino Territory

Not many Late Prehistoric sites have been examined in inland Orange County. The following range from 15 to 18 miles from the ocean. **CA-ORA-572**, which is *not* Late Prehistoric, is an unusual site (Bissell 1983). It is located nearly on the Los Angeles/Orange County line in Fullerton, at the west end of the Coyote Hills and the elevation for the lower portion of the site is about 200 feet. All artifacts point to a Millingstone occupation, except for the painted potsherds. Twelve pieces of pottery were recovered from the same area and are similar to Sacaton-Red-on-Buff Ware from the Southwest (Bissell 1983:89), which dates between A.D. 900 and A.D. 1100. When artifacts from previous collections are combined with those from Bissell's work, the sherd percentage is 4.

This is one of a unique group of sites in Southern California containing Southwest pottery. Three archaeological sites in Santiago Canyon (at the mouth of Black Star Canyon), east of Irvine Lake in Orange County, were tested by the State Emergency Relief Administration (SERA) and the WPA in 1935 and 1937. None of the sites, **CA-ORA-237**, **-238**, or **-239** contained potsherds although one had two ceramic pipe fragments (Hudson 1969). Artifacts of steatite and shell place them into the Late Prehistoric Period.

The Black Star Canyon Site (**CA-ORA-132**) has been well known as a Indian camp for over one hundred years. While collectors were regular visitors to this area east of Irvine Lake, the only official excavation was undertaken by the WPA in 1937. The director was attracted to this site by the rumor that potsherds were "thick on the ground." After several years of archaeological work in Orange County, the WPA had not yet found sites containing ceramic sherds. Black Star Canyon turned out to be no exception and none were recovered.

Tomato Springs (**CA-ORA-244**) is a multi-component site at an elevation of 55 feet. It contains a full range of Late Prehistoric artifacts, including shell beads and steatite objects. It is known as one of the camping places of the first Portola Expedition in 1769 but it also lacked sherds (Cottrell & Del Chario 1981).

Inland Orange County- Juaneño Territory

In the Plano Trabuco area by Oso Creek, **CA-ORA-469c** is a most unusual site in that it dates to post-contact time but had been buried by a landslide. It was discovered during mechanical earth moving activities and contained steatite artifacts (pipe, bead, bowls), shell beads, and 86

potsherds. Forty-five of these sherds are non-local, painted pieces and 41 are miscellaneous plain ware. At one time, the decorated sherds were identified as Trincheras purple-on-red from northern Mexico (Demcak and Cottrell 1985:34). More recently it has been suggested that these painted sherds may be a dark red-on-red ceramic made by the Pima Indians of southern Arizona/northern Mexico (Cottrell 1991:137). This site was characterized as a probable run-away location where fugitive Indians from the San Juan Capistrano Mission may have hidden for a while (Cottrell 1991:169). Even with the relatively high number of sherds, the ratio is only 9 per cent, counting all sherds and 5 per cent when eliminating the painted sherds.

CA-ORA-862 is in the Arroyo Trabuco, 1½ miles south of ORA-469c. Artifacts from 18 units (some 1.5 meter square and some 1x2 meter square) were analyzed. Shaped artifacts number 559 including 4 glass trade beads, 1 pipe, and 52 sherds or 9 per cent of the total. Cottrell (1991:139) believes this also represents a “runaway” Indian site, used after contact time by individuals leaving or avoiding the San Juan Capistrano Mission.

The Los Piños Site (**CA-ORA-35**) is located west of the Ortega Highway in the Cleveland National Forest at an elevation of 3,840 feet. A total of 107 meter square units were excavated over a period of five field-class seasons by CSU Fullerton archaeology students. The data from these units were combined with materials excavated by three other groups in previous years (Cameron 2000). Seven sherds were recovered in total, together with 1,109 other artifacts. The ceramic percentage is 0.6 per cent, compared to 21 per cent at the Tenaja Village Site approximately ten miles to the south in Luiseño territory. Six tiny shell fragments and two ceramic pipes were also recovered at the Los Piños Site.

Coastal Orange County - Juaneño Territory

A number of archaeological investigations have taken place in the City of San Juan Capistrano. Because of the mission and the many adobes that were built nearby, numerous sites contain Brown Ware sherds as a result of the historic use of the area. When no other Indian artifacts occur with the sherds, the sites are considered historic and not addressed in this paper.

Five sites along Aliso Creek (**CA-ORA-19**, **-126**, **-396**, **-403**, and **-582**) were tested by SRS (Kearns 1979). All were dated to the Late Prehistoric Period, from A.D. 250 to A.D. 1650, through radiocarbon testing. No sherds were found, although pipe fragments were recovered from ORA-19. The Niguel Site (**CA-ORA-18**), located 5 miles from the ocean on Sulphur Creek, was a collector's haven for years. A UCLA excavation conducted by Lytton (1963) dug twenty-five 5x5 feet units and recovered 194 artifacts, including 10 Brown Ware sherds or 5 per cent of the inventory. All of the sherds were found in two adjacent units.

CA-ORA-855 is located one mile north of the San Juan Capistrano Mission and is about four miles inland. This Late Prehistoric site has been the subject of an ongoing excavation since

1980, with 448 meter square units dug by 1988 (Koerper et al. 1988). During that time, 1,686 artifacts were recovered including 45 sherds and one glass bead. The ceramics equal less than 3 per cent.

CA-ORA-1121 is located on the north side of San Juan Creek and Ortega Highway about seven miles from the ocean (Demcak and Del Chario 1989). One sherd of Brown Ware equaled less than 1 per cent of the collection of 86 chipped stone tools and one mano.

CA-ORA-1103 lies southwest of Ortega Highway. Testing resulted in the recovery of 17 artifacts including 3 sherds, equaling 18 per cent of this small inventory (Wlodarski et al 1989).

CA-ORA-504 is a major site with a Late Prehistoric component along the Segunda Deschecha in Rancho San Clemente, approximately four miles north of the San Diego County line and 1½ miles from the ocean. It was scraped with heavy equipment prior to the archaeological investigations and dirt piles contained many of the diagnostic artifacts found (Cameron 1989). Twenty-four 1x1.5 meter units were excavated in addition to screening some of the dirt piles. Among other items, this site yielded 25 potsherds - 7 Brown Ware (32.7 grams) and 18 Buff Ware (32.3 grams). When factored in with the more than 1,600 shaped artifacts recovered, the ceramics are 1.6 per cent of the total.

A second site in the same complex, **CA-ORA-635A**, less than one kilometer north of ORA-504, along the Segunda Deschecha and also at a 150 foot elevation, was tested with a complete surface collection and sixteen 1.5 meter square units being excavated (Cameron 1989). One hundred seventy-nine shaped artifacts were recovered including one tiny ceramic sherd and one small ceramic pipe fragment. Further inland, another 1½ miles along the Segunda Deschecha, test excavations at **CA-ORA-910A** (Mooney 1988) yielded 178 artifacts. This collection includes 11 sherds, or 6 per cent of the total inventory.

San Diego County - Juaneño Territory

The U.S. Marine Corps base at Camp Pendleton, with a total area in excess of 115,000 acres, lies completely within San Diego County. Its northwestern boundary is contiguous with the Orange County boundary line. In the years between 1948 and 1997, forty-seven surveys on the base have produced recordings for more than 400 archaeological sites. As of February 1997, 83 of these sites have been tested and these studies have revealed a long sequence of occupation spanning thousands of years. Twenty-nine sites appear to be shell middens or shell scatters lacking artifacts and three are historic (Reddy 1997b, 1998). The remainder are listed by presence of artifacts, milling stations, and shell in various combinations. Reddy (1998:238) also recognizes a "sampling bias toward shell middens" that "directly affected the data base."

It is most unfortunate for archaeological knowledge that such a large, multi-component, complex site as **CA-ORA-22/CA-SDI-13,071** (hereinafter referred to ORA-22) was historically divided by the Orange County/San Diego County boundary line (roughly north/south) and the Pacific Coast Highway (roughly east/west). Additionally, the Marine Corps Base, which was established in 1942, wreaked its own havoc.

ORA-22, beginning one-half mile from the ocean, has been probed, tested, and pot-hunted since the 1930s. It was probably a multi-component site, covering an area now issued several different site numbers, that has been severely compromised during historic times. From the first Europeans in 1769, treading what would become known as El Camino Real, through the various transformations of the Pacific Coast Highway; and the dramatic impact of the Marine Corps base, this site has been endlessly damaged. Cook and White (1977) list three separate reconstructions of the highway; farming activities; land leveling for, construction of, and then leveling of barracks; construction and removal of a private race track; removal of all rock from one area for a horse pasture; construction of a U.S. Coast Guard facility; various paved and dirt roads; private homes; a bicycle path; sewer, water, gas, power, and telephone lines both buried and above ground; a tile field for the camp sewage; drainage ditches and storm drains; and landscaping, fences, and walls.

Five separate archaeological tests have been performed at **ORA-22**, three mention finding pot sherds and two found none. Nearly twenty-five years ago, when this site was tested for the California Department of Transportation (Cook and White 1977), it was already divided into "East 22" and "West 22." A total of thirty-eight, 1 meter square test units were excavated together with fourteen backhoe trenches. Nearly 90 per cent of the site was found to be affected by intrusive historic material; however, 1,864 prehistoric artifacts were recovered together with 120 Brown Ware sherds, making pottery 6 per cent of the shaped artifact inventory. (Artifacts from an investigation by ARI in 1973 were included in the Cook and White report.)

A recent study of the San Mateo Archaeological National Register District by ASM Affiliates Inc. (Byrd 1998), re-evaluates registered sites along the southern Orange County boundary near the Pacific Coast Highway. This report covers previous investigations of four archaeological sites in the northwest corner of the Camp Pendleton Marine Corps Base. Sites **ORA-22**, **CA-SDI-4535**, **-4282**, and **-8435**, all along Christianitos Creek, were reviewed and synthesized. Byrd (1998:48) mentions that Romani and White surveyed the area after it was graded in 1980, observed a contiguous scatter of artifacts and recommended that **SDI-4282** and **-4534** be considered part of **ORA-22**, along with **CA-SDI-11,703**. A report by Strudwick and Gallegos in 1994 also recommends that adjacent sites be included with **ORA-22** (Byrd 1998:50). As far as is known, no action has been taken on these recommendations.

Other Juaneño Sites Near the Orange County/San Diego County Line

The two loci of **CA-SDI-13,325** (south of ORA-22) were tested with a total of thirty shovel test pits (STP), six units, and three mechanical trenches (Byrd et al. 1995). This site is located just south of San Mateo Creek and directly north of Interstate Highway 5 (the Pacific Coast Highway, also known as PCH and I-5). Only 59 shaped artifacts were recovered including one sherd for a 1.7 per cent total.

Before the mid 1970s, a test by Dewey Buck at **CA-SDI-1074** (south of the previous site) involved digging forty-two 2x2 meter units prior to the widening of I-5, which now bisects the site (Byrd et al. 1995:36). Buck recovered 568 artifacts including 39 potsherds equaling 6.9 per cent of the assemblage. An additional excavation by Singer and Associates, Inc in 1993 salvaged 54 artifacts, 7 kilos of shell, and 7,230 animal bones in two test units and three shovel test pits (STP), but no more ceramic sherds were found (Reddy 1997b). Two additional sites in the same area, **CA-SDI-4411** and **CA-SDI-13,324/H** date to the Late Prehistoric but contain no ceramic artifacts.

The Case Springs area is on the north edge of Camp Pendleton; however, it is unclear on which side of Kroeber's tribal boundary it falls. Eleven of the twelve sites recorded there were placed into the Late Prehistoric time span by radiocarbon dating (Reddy 1997a), but only one contained sherds. **CA-SDI-5139**, located at a 2440 foot elevation, was tested by 17 STPs and three 1x0.5 meter units. The total artifact yield is 55 items including 2 potsherds, or 3.6 per cent. Six 1x1 meter square units and twenty-six STPs were excavated at **CA-SDI-5145**. This site was radiocarbon dated to the Late Prehistoric and while 670 artifacts were recovered, no pottery was found.

Although Reddy (1998:21) states: "There appears to be spatial delineation between the Juaneño and Luiseño, despite their similarities," they were treated as one group in the ethnohistoric section of her report. Perhaps when additional excavations are carried out at Camp Pendleton the boundary will become more definitive.

San Diego County - Coastal Luiseño Territory

The boundary between the Juaneño and Luiseño peoples, as presented by Kroeber (1925:636), bisects Camp Pendleton from the Pacific Ocean on the southwest between San Onofre and Las Pulgas Canyons, to Riverside County on the northeast, south of Lake Elsinore.

At the mouth of Las Pulgas Canyon, **CA-SDI-811** lies at a 24 foot elevation west of the I-5. Four units and 53 STPs were excavated with the resultant recovery of 15 artifacts and 26 sherds (33.9 grams) or 63 per cent (Byrd 1996). **CA-SDI-10,726** is directly south of SDI-811 at an elevation of 35 feet. Seven units and 28 STPs were excavated with 98 artifacts and 217 sherds (377.8 grams) being recovered, or 69 per cent (Schaefer 1996:197).

CA-SDI-10,728, just east of SDI-10,726 and the I-5, is one-half mile from the ocean. Seven 1 meter square units and forty-two STPs were excavated and yielded a total of 131 artifacts. This number includes 13 sherds, equaling a 10 per cent ceramic rate (Byrd 1997).

The Santa Margarita River is near the south edge of Camp Pendleton. Inland along the River, about seven miles from the coast and southwest of O'Neill Lake, several sites are registered which note ceramic in varying amounts. Apparently, none of these sites have yet been excavated (Reddy 1997b).

CA-SDI-10,156 (Topamai) is located on a floodplain south of the Santa Margarita River in Camp Pendleton. It is northeast of Oceanside, about 6 miles from the ocean. This site contained 432 artifacts including 326 sherds (Strudwick 1996) and equals 75 per cent potsherds. Several sites in Oceanside along the north side of the San Luis Rey River, about four miles from the ocean, were tested (Moratto et al. 1994). A total of 1,455 artifacts were recovered from **CA-SDI-5130 Locus A** including 251 sherds or 17 per cent.

The Buena Vista Watershed covers an area about 7 miles long and 2 1/2 miles wide, 7 miles inland from Oceanside and near the town of Vista (Wallace 1960). A surface survey of the Watershed resulted in the registration of 37 archaeological sites, five of which were tested. Two 5x5 feet square units were excavated in four of the sites and one in the fifth site. All had milling features and "quantities of shell." Three of the five sites contained potsherds **CA-SDI-655** had 79 total artifacts including 24 sherds (30 per cent); **CA-SDI-649** contained 325 artifacts with 275 being sherds (85 per cent); and **CA-SDI-639** had 53 total artifacts including 19 sherds (36 per cent).

Outside of Camp Pendleton, near Lake Rancho Viejo above the San Luis Rey River, **CA-SDI-684** was tested by Cottrell (1984). Four one-meter square units were excavated and 18 shaped artifacts were recovered together with 177 sherds or 91 per cent.

CA-SDI-5213 C&D (Rising Glen) is south of Carlsbad, about 1 1/2 miles from the ocean at an elevation of 200 feet. It was the first coastal Luiseño village to be scientifically studied (Cardenas and Robbins-Wade 1985). Twenty 1x2 meter units were excavated and a total of 336 shaped artifacts, including 139 sherds, were recovered. It was noted that four types of pottery might be present Tizon Brown Ware (134 sherds), red ware (2 sherds), tan-orange ware (2 sherds), and buff ware (1 sherd). The last three types were all termed "possible." Robbins-Wade (1986) compared Rising Glen to the Luiseño "type" site of Molpa (CA-SDI-308). She estimated ceramic sherds at 44.12 per cent at Rising Glen, near the coast, and at 77.33 per cent at the inland site of Molpa.

CA-SDI-5353 lies inland from Agua Hedionda Lagoon, 10 to 20 feet above Agua Hedionda Creek. A total of 66 meter square units were excavated and 936 artifacts were recovered (Koerper et al. 1992). This collection includes 238 sherds or 25 per cent of the total.

Inland Luiseño Sites

CA-RIV-333 is situated east of Lake Elsinore on the Walker Ranch, at an elevation of 1450 feet (Freeman and Van Horn 1990). This site contains cupules, pictographs, and bedrock milling features. Years of collecting in the past and two test excavations may have skewed the artifact totals; however, this is true of many archaeological sites. About 93 square meters were excavated and 861 artifacts were recovered including 373 sherds (18 are lower Colorado Buff Ware), or 43 per cent sherds.

Along the northwest border of the Juaneño-Luiseño groups, the Cole Canyon Site, **CA-RIV-1139**, is located 1240 feet above sea level between Elsinore and Temecula (Keller & McCarthy 1989). Not counting the bedrock mortars, 346 shaped stone artifacts were noted, along with 53 shell beads and ornaments, 6 glass beads, 122 bone tools, 35 ceramic artifacts other than sherds (including 15 pipe fragments), and 454 ceramic sherds. A grand total of 894 artifacts makes sherds 51 per cent of the artifact inventory.

The Wildomar Site (**CA-RIV-2769**), two miles southeast of Lake Elsinore, lies at an elevation of 1350 feet (McCarthy 1987). Twenty-eight 1x1.5 meter units were excavated and artifact recovery included 265 sherds and 87 shaped artifacts. Sherds thus make up 75 per cent of the artifact total. **CA-RIV-1864** (west of Lake Skinner) is located at an elevation of 1360 feet. A total of 50.5 1 meter square units were excavated and 63 shaped artifacts were recovered along with 412 small potsherds, making sherds 87 per cent of the total artifact inventory (Cameron 1995).

The Santa Ana Mountain site of Tenaja Village (**CA-RIV-271**), at an elevation of 1980 feet, contains bedrock mortars and small triangular projectile points, both criteria for Late Prehistoric sites. Excavations included thirteen 1 meter square units, eighteen shovel test units, and two trenches (Gallegos 1992). Approximately 200 shaped lithic artifacts were recovered along with 52 Tizon Brown Ware sherds (529.7 grams) making up 21 per cent of the inventory. Three hundred ninety-two pieces of unmodified shell (*Protetheca*, *Chiton*, *Tegula*, *Haliotis*) were also recovered, a definite difference from the Los Piños Site (ORA-35) with its six tiny shell fragments.

Fallbrook Site 7 is two miles northeast of Fallbrook (McCown 1964). Fifty-seven stone artifacts were collected and 247 potsherds for an 81 per cent total. At 1390 feet, **CA-RIV-722** is northwest of Temecula near Clinton Keith Road (Demcak 1994). This site yielded a total of 480 artifacts including 4 clay figurines, 8 pipe fragments, and 265 sherds (214 Brown Ware and 51 Buff Ware), or 55 per cent. Interestingly, there were 261 ocean shell fragments, or 57.5 grams. **CA-RIV-2229**, on the *Murrieta* USGS Quad at a 1340 foot elevation, is bounded on the west by the Cleveland National Forest. Two 1x1 meter square units and three 1x2 meter units yielded 510 total artifacts including 3 Buff Ware and 33 Brown Ware sherds, 2 pipe fragments, and 10 daub pieces (Demcak 1994). The sherd percentage equals 7 per cent.

Temeku, **CA-RIV-50**, south of the present town of Temecula, dates from about A.D. 1000 into historic time with both Indian and Spanish building foundations uncovered (McCown 1955). It lies at an elevation of 1070 feet. Included in the vast amount of recovered data are 6,726 potsherds and over 1,000 other artifacts. The ceramic equals approximately 87 per cent of the total; however, all of these sherds are not prehistoric. In addition, four small pieces of glazed pottery were categorized as “imports by the Spanish from Mexico” (McCown 1955:19).

Molpa (**CA-SDI-308**), the Luiseño “type site,” is located inland in San Diego County on Palomar Mountain at a 2500 foot elevation. This site was used to define the San Luis Rey I and II complexes through ceramic sherds, which appeared only with San Luis Rey II (Meighan 1954). There were 886 shaped artifacts analyzed and 2,728 sherds or 75 per cent.

Diegueño Territory

San Vicente Lake Site C lies southeast of Poway and is firmly in Diegueño territory (McCown 1964). Artifacts noted include 48 small triangular points, cobble manos, bedrock mortars, bone awls, 49 shell beads and 3,385 potsherds. A percentage cannot be calculated since a complete artifact count is not given; however, the total number of sherds indicates it would be great.

The 20,000 acres of Cuyamaca Rancho State Park in central San Diego County (south of Julian) range in elevation from 3600 feet to 6500 feet. Of the over 150 sites within the Park, True (1970) discusses twenty-seven that he considers Late Prehistoric. This distinction was made using the presence of pottery, midden, and bedrock mortars. These are “the basic preliminary criteria for the separation of the late prehistoric sites” from earlier components (True 1970:6). One of these sites, **CA-SDI-860**, is located at an elevation of 4800 feet. Commonly seen surface artifacts were noted as potsherds, chipping waste, millingstone fragments, and hammerstones. In 1961, a road-work crew found several complete ollas along the edge of the site. In that year and 1962, a total of thirty-one 5-foot square units were excavated under True’s direction. More than 35,500 artifacts were recovered including 32,700 potsherds, 61 clay pipes, 3 glass beads, 7 points made of willoware or glass, and 36 historic artifacts. The artifacts from this Diegueño site are 95 per cent sherds.

Discussions and Conclusions

It seems clear that Late Prehistoric archaeological sites at various elevations, whether inland or coastal, exhibit a difference in artifact assemblages in territories ascribed to the Juaneño and the Luiseño. Approximately 23 sites in Orange County, out of the more than 1,500 registered (spanning all time periods), contain Brown Ware pottery sherds. At least five of these collections are clearly attributable to the presence of historic adobes on or near the prehistoric site. In a pottery producing area, there are accidents which result in breakage and a general litter of sherds on the ground. No Gabrielino or Juaneño site could be described in this way.

The sherd grand total is about 800 in Orange County and, additionally, in at least four instances the ceramics seem to have originated in the Southwest, the Colorado Desert, or Mexico. The excavated Juaneño sites containing sherds number approximately 14 in both Orange and San Diego Counties. Table 1 notes the archaeological sites, moving from north to south, where ceramic sherds have been found. "SW" indicates sites with sherds from the Southwest or Mexico; "H" indicates the Brown Ware may be of historic origin, all or in part; and "B" indicates that some of the sherds are Buffware from the Lower Colorado Desert.

While unusual, the occurrence of Southwest pottery sherds in coastal Southern California archaeological sites is not singular. Four were mentioned in Los Angeles County by Ruby and Blackburn (1964:209) and also discussed by Ruby (1966: 111-112): the Big Tujunga Site (CA-LAN-167) contained 40 Sacaton Red-on-buff sherds (first identified as Arizona Hohokam red-on-brown, Walker 1951:116), one Cibola Black-on-white, one Colorado River Buffware (most likely Colorado Red-on-beige), and one polychrome sherd which is probably from the Jeddito Valley. The Century Ranch Site (CA-LAN-277) contained one Cibola Whiteware potsherd. (The latter two are found also in Arizona.)

Several sherds were collected in the Torrance-Redondo Beach area in 1954 and identified as Sacaton Red-on-buff. This same type was noted in 1932 from the Wilmington area and Watson Station and Ruby and Blackburn (1964:209) attribute these occurrences as trade items which came along the Mojave Trail. Three of these locations are near the ocean and one is inland; the latter being on a Mojave trade trail route proposed by Ruby and Blackburn. The three sites known in Orange County are ORA-572, with twelve potsherds identified as Sacaton-Red-on-Buff; ORA-469c with 45 Red-on-Red sherds from perhaps the Pima Indians; and ORA-281 with one sherd from a "Mojave type" or Cahuilla vessel. Buffware is noted in one site in Orange County and four in the selected Luiseño sites. This totals eight areas in Orange and Los Angeles Counties where sherds identified as originating in the Southwest, the Lower Colorado Desert, or northern Mexico have been found.

Approximately eleven Juaneño sites in Orange County and three in San Diego County have been recorded thus far as having been tested and as containing Brown Ware sherds. These percentages range from a fraction of 1 per cent to 50 per cent (in the site which yielded 5 sherds and 5 other artifacts). Removing the largest and smallest percentages from the equation, the remaining twelve sites average 16 per cent. On the other hand, the average percentage of the 21 selected Luiseño sites surrounding the border of the Juaneño is 53.67 per cent. Removing the largest and smallest figures gives a 54 per cent average, nearly 3½ times that of the sites ascribed to the Juaneño.

The question of *when* the Luiseño began producing pottery is still a subject for discussion and it has been suggested that they were the recipients of pottery rather than the manufacturers. True et al. (1974:64) believed pottery was introduced into Luiseño territory from the Diegueño and the sherds became less and less frequent the further away one goes from that

Table 1. Ceramic Sherds by Site.

Site	Number of Sherds	Per cent	*
Gabrielino			
Los Altos LAn-270	45	1.7	
ORA-572	12	4	SW
Harper Site ORA-302	1	0.5	
ORA-76	1	1	
ORA-287	1	3	
ORA-196	116	37	H
ORA-197 II	26	25	H
ORA-111 lcs. 2	2	0.6	
ORA-119a	>200	9	
Rockshelter ORA-681	7	100	
ORA-281	2	1	SW/B
ORA-309	7	30	
ORA-13B	61	33	H
ORA-414 A	1	+	
ORA-414 B	19	3	
Juaneno			
Plano ORA-469c	86	9	SW/H
ORA-862	52	9	H
Los Pinos ORA-35	7	0.6	
Niguel Site ORA-18	10	5	
ORA-855	45	<3	
ORA-1121	1	1	
ORA-1103	3	18	
ORA-504	25	1.6	B
ORA-635A	1	0.5	
ORA-910A	11	6	
ORA-22	120	6	
SDI-13,325	1	1.7	
SDI-1074	39	7	
SDI-5139	2	3.6	

Table 1, cont. Ceramic Sherds by Site.

Site	Number of Sherds	Per cent	*
Luiseno			
SDI-811	26	63	
SDI-10,726	217	69	
SDI-10,728	13	10	
Topomai SDI-10,156	326	75	
SDI-5130A	251	17	
SDI-655	24	30	
SDI-639	19	36	
SDI-649	275	85	
SDI-684	177	91	
Rising Glen SD-5213	139	44	B
SDI-5353	238	25	
RIV-333	373	43	B
Cole Cyn. RIV-1139	454	51	
Wildomar RIV-2769	265	75	
RIV-1864	412	87	
Tenaja Village RIV-271	52	21	
Fallbrook 7	247	81	
RIV-722	265	55	B
RIV-2229	36	7	B
Temeku RIV-50	6726	87	H/SW
Molpa SDI-308	2728	75	
Diegueno			
San Vicente Lake	3,385	N/A	
Cuyumaca SDI-860	32,700	95	H

* SW=Southwest, Mexico ceramics (all or in part), H=Historic Brown Ware (all or in part), B=Buff Ware/Desert (all or in part)

boundary. There still remains, however, a distinct line separating the Luiseño and Juaneño. If they were indeed one group, the occurrence of pottery should be much higher in the latter sites. It follows therefore, that the sherd count in the Luiseño sites mentioned in this report would continue to diminish as the border with the next group appeared. This does not happen. Another interesting phenomenon, which is not addressed substantively in this paper, is the occurrence of marine shell in inland Luiseño sites, compared to its near absence in inland Juaneño sites.

Even using imperfect data, it is apparent that the proto-historic sites of the Juaneño do not exhibit those characteristics listed by Meighan (1954), True (1970), and Oxendine (1983) for San Luis Rey II sites, particularly that of pottery being a dominant feature. Unless further excavations on Camp Pendleton, in the San Onofre-Las Pulgas area, or the few remaining inland Orange County sites uncover variant evidence, a Juaneño/Luiseño boundary based on cultural remains seems tenable. This boundary appears to be along Kroeber's original line.

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