BACK TO THE BALLONA (1961): SALVAGE ARCHAEOLOGY AT THE ADMIRALTY SITE (CA-LAN-47), MARINA DEL REY, CALIFORNIA

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The prehistory of the Admiralty Site is known from reports by Brian Dillon et al. (1988) and Jeffrey Altschul et al. (1992). This paper adds additional information based on salvage excavations at CA-LAn-47 in 1961. New insights are offered on site chronology, fishing practices, ritual beliefs, and social status.

The Admiralty Site (CA-LAn-47) is a single component, Middle (Intermediate) Period into Late Period shell midden by the shore of Santa Monica Bay near the City of Los Angeles in Southern California. When first settled by Native Americans over a thousand years ago, the site was on the edge of a marshy area just north of Ballona Creek where it (and sometimes the Los Angeles River) flowed into the nearby Pacific Ocean (Altschul et al. 2005:284). LAn-47 is best known from contract excavations directed by Brian Dillon (Dillon et al. 1988) and Jeffrey Altschul (Altschul et al. 1992). The present paper is based on salvage investigations carried out by University of California, Los Angeles (UCLA) archaeologists in 1961 – more than half a century ago. Its purpose is to provide new insights into site chronology, fishing practices, and the ritual beliefs and status differences of the prehistoric Native Americans who lived at the Admiralty Site.

SITE DESCRIPTION

Today, the Admiralty Site is largely destroyed as a result of the construction of the Marina del Rey small craft harbor along with the buildings and roads that sprang up around it (Figures 1 and 2). Before the construction destruction in the 1960s, LAn-47 stood 10 feet above sea level and had sustained decades of damage from agricultural activities. Many of the prehistoric ground stone tools from the site show plow marks and the discovery of decaying modern corn cobs in the midden suggests that corn may have been one of the last crops grown on the site.

Although the Admiralty Site’s geographic boundaries are not completely known, its black sandy midden deposit extends at least 270 yards north-south by 340 yards east-west (Figure 1; Altschul et al. 1992:97). Midden depth varies slightly, but is characteristically between 12 and 14 inches. The dark cultural deposit rests upon a light gray to yellowish hard clay soil.

The excavations by Dillon in 1988 and Altschul in 1989 were located at the northern edge of LAn-47 along the Southern Pacific (Pacific Electric) Railroad right-of-way. Our work in 1961 focused on the southwestern portion of the site near and including part of Basin F.

EXCAVATION

On January 14, 1961, archaeologists from the UCLA Archaeological Survey were summoned to the construction zone (Figure 3) of the Marina del Rey boat harbor to investigate the spot where human bones (Burial 1) had been disturbed and broken by the excavation of a sewer trench on the Admiralty Site. Later that day, more broken human remains (Burials 2 and 3 plus a dog) were located by the archaeologists along the same sewer trench. At that point, it was decided to initiate emergency salvage excavations at LAn-47 in order to save as much of the site’s endangered archaeological materials and information as possible. For 16 days on the weekends of January through April, archaeologists excavated thirty 5 ft x 5 ft pits into the shell midden of the Admiralty Site. Initially, a small grid system of three parallel trenches (A, B, C) was established along the north edge of the existing sewer trench. Excavation began in a checkerboard
pattern (Figure 4). A similar grid system of parallel trenches (D, E, F) was set up 101 feet north of the sewer line. An additional nine 5 ft x 5 ft test units were scattered in more or less undisturbed areas of the site. Two column samples for subsequent midden analysis were taken from adjacent walls of Test Pit 9.

Trowels were used in the excavation of the Admiralty Site. No screens were employed with the exception of unit D5 where some of the deposit was sifted through a ¼ inch screen. In all, 750 cubic feet of midden was searched for materials pertaining to the historic and prehistoric peoples who occupied or used LAn-47 hundreds of years ago. Recovered specimens were given UCLA accession #301 and are curated at the Fowler Museum at UCLA.
Figure 2. 1995 view northwest of Marina del Rey.

Figure 3. 1961 view southwest at LAn-47. The dredge in the background is digging out the harbor channel.
BURIAL DESCRIPTION

The skeletal remains of five Native Americans and one dog were encountered during our investigation of the Admiralty Site. In addition, fragmented human bones were frequently found scattered through a third of the excavation units underscoring the general disturbed nature of the deposit.

Burial 1

Workmen digging a trench for a sewer line near Basin F shattered a human burial. The Los Angeles County Sheriff was notified and the remains were sent to the morgue and later donated to the Department of Anthropology and Sociology, UCLA. Over 120 bone fragments representing Burial 1 were recovered but none complete enough to positively identify sex. It was determined, however, that the individual stood 5 ft 1 in. high and was a young to middle age adult with spina bifida occulta.

Burials 2, 3 plus a Dog

The sewer trench that yielded Burial 1 also impacted a second grave containing a triple burial, two people and a canine. The grave, located in excavation unit A1, was severely damaged by vandals with picks before archaeologists could complete the exposure and recording of its contents. The triple burial pit measured 31 inches north-south by 50 inches east-west and was dug 15 inches into the hard clay subsoil below the midden. The pit’s matrix was a hardened mixture of soft dark midden and gray clay subsoil.

Burial 2, represented by 209 bone fragments, was an adult female of middle to old age who had given birth to at least one child. She was lying in the grave in a loose flex on her right side. Her body was
oriented southwest and her head faced east. The top of her cranium was located 20 inches below the surface of the site.

Burial 3, comprised of only 140 broken bones, was approximately the same age as Burial 2, but sex and grave orientation could not be determined due to the fact that many of the bones were missing and the rest were badly fragmented. The skull of Burial 3 was a few inches from the feet of Burial 2. Both Burials 2 and 3 were about the same size, rather “small”.

The primary interment of a medium to large adult dog (92 bone fragments) was located several inches behind the pelvis and legs of Burial 2. The sex of the canine could not be determined, but its skull was lying on its right side facing the back of Burial 2. The body appeared to be extended and was oriented northwest. Its head faced southwest. A few of the dog’s bones (ulnas and a few vertebrae) may have been cut, although that has not been confirmed. A radiocarbon date of A.D. 600 was obtained from the remains of the dog. The burial of one other dog has been reported at LAn-47 (Dillon et al. 1988).

**Burial 4**

Burial 4, uncovered in Test Pit 3, was an adult male age 40+ years. He stood 6 ft 5 in. tall and suffered from extensive arthritis of the spine and hands. Represented by over 170 bones, Burial 4 was in a loose flex lying on his back 18 inches below the surface. His body was oriented northeast and his head faced up. Part of his cranium, his face, and some long bones were missing. A burned human cranial fragment and a few long bones of a second person were discovered mostly under the pelvis of Burial 4.

**Burial 5**

The last human skeleton, apparently disturbed by a plow, was discovered in Test Pit 7. Little information could be gleaned from the 120+ bones present. However, the individual was a small adult who suffered from degenerative joint disease and trauma (healed?) to the right lunate bone.

**FUNERARY OBJECTS**

Two of the four graves at LAn-47 yielded objects purposely placed with the deceased individuals. The toothy jaw of a Pacific barracuda was located on top of the sternum of Burial 4. While its placement there may have been fortuitous, the fact that so few (n=9) barracuda bones have been recovered at the Admiralty Site supports the interpretation of its special association with the human remains in the grave.

Burials 2, 3, and the dog were accompanied by 20 special items. Although not counted here as one of them, the dog itself may have served as a grave offering. Ten fish spear points (Figures 5 and 6b) made of sea mammal bone were the most common objects placed in the triple burial pit. Of these, 9 were single barbed and one lacked barbs. All had asphaltum adhering to their proximal ends indicating the use of black tar as glue for hafting. The bone fish spear points were placed in the grave in a haphazard fashion (like pick-up-sticks) mostly on the upper torso of Burial 2. Barbed bone fish spears have been found archaeologically in southern California, (see Bennyhoff 1950:295-309; Hudson and Blackburn 1982:193-198; Koerper et al. 1996) and the Great Basin (e.g., Martin and Janetski 1992:149-153), but are not common in either region. They are more common in central and northern California and multiple examples sometimes occur with human inhumations (Bennyhoff 1950:295, 297), just like at LAn-47.

In among the fish spear points accompanying Burials 2, 3, and the dog was a long bone hair ornament, spatula-shaped at one end and pointed at the other (Figure 6a). Similar objects are identified ethnographically as hairpins or headband pins (Hudson and Blackburn 1985: 76-85; McCawley 1996:11). The example from LAn-47 does not resemble any of those illustrated by Hudson and Blackburn.

Two quartz crystals and a carved piece of green soapstone (Figure 7a, 7b, 7c) were found under the pelvis of either Burial 2 or Burial 3. It is not quite clear to whom the pelvis belonged, although the field catalog assigns the three objects to Burial 2. One of the quartz crystals (Figure 7b) displays a scratched-in design of radiating lines from a central point on its flat side.
Figure 5. Bone fish spear points from Burials 2, 3, and the dog. The longest spear point measures 16¾ inches (42.5 cm); rest to scale.

Figure 6. Sea mammal bone objects from Burials 2, 3, and the dog grave: (a) hairpin; (b) fish spear point. The hairpin is 13¾ inches (35 cm) long; fish spear point is to scale.
Figure 7. Funerary items from Burials 2, 3, and the dog: (a) soapstone carved object; (b) quartz crystal; (c) quartz crystal; (d) drill; (e) projectile point; (f) incomplete shell ornament; (g) tarring pebble.

The shell ornament (now broken; Figure 7f) found next to the pelvis of Burial 2 surely represents an offering to, or the personal property of, the interred individual. However, the direct association of other objects in the triple burial grave with the interred humans or the dog could not be clearly confirmed. These items include a stone drill fragment (Figure 7d), a projectile point fragment (Figure 7e), a tarring pebble (Figure 7g), one broken shell bead, and a decomposing granite rock found next to the dog’s cranium.

MATERIAL CULTURE

The artifacts excavated from the Admiralty Site in 1961 reveal the culture of a group or groups of hunters and gatherers who successfully exploited available near-shore and terrestrial resources. They lived at the site seasonally, if not year-round, for hundreds of years.

Below is a tally of the identifiable prehistoric objects recovered from LAn-47 in 1961. The funerary objects, just discussed, are not included.

Chipped Stone

Projectile points total 46 (Figure 8). Sixteen are Cottonwood Triangular and 30 belong to the Canaliño type. These are typical Southern California Middle Period and Late Period points. Other chipped stone tools include bifaces (3), choppers (19), flake scrapers (70), cores (23) (Figure 9), and hammerstones (14).
Ground Stone

There were no whole bowls found at LAn-47. Only 16 granite and sandstone bowl fragments were recovered and of these 10 came from the surface of the site. Four pestle fragments are in the collection and two of them (Figure 10b, c) appear too small to have been used to grind acorns and other seeds. A small piece of a broken, little used millingstone and a bifacial mano (Figure 10a) complete the 1961 collection of ground stone tools from the Admiralty Site. The few grinding implements in this assemblage support the inference of Altschul and his colleagues (1992:253) that the Native Americans at LAn-47 had a minor need for lithic plant processing tools. Instead, economic emphasis was placed on hunting game, near-shore fishing and collecting shellfish.

Bone

Objects made from animal bones are few in number at the Admiralty Site. The tips of five broken bone awls are the most common tools in the collection. One modified bone has been cut on one end (Figure 11a) and another is identified as a hairpin (Figure 11b) (see Hudson and Blackburn 1985:82-85).

Beads

Eight beads were found during the 1961 excavations. They include one bone tubular bead, two fish vertebrae beads, two stone beads, and three shell beads. The fact that screens were not used at LAn-47 may account in large part for the paucity of this artifact type in the collection.
Figure 9. Microlith cores from LAn-47.

Figure 10. Ground stone tools from LAn-47: (a) bifacial mano; (b, c) pestles.
Fauna

Thomas Wake at UCLA analyzed the invertebrate and vertebrate faunal remains recovered from the two column samples in Test Pit 9. He identified 8 kinds of mollusks, the California oyster (*Ostrea lurida*) and Pacific littleneck (*Protothaca staminea*) being the most numerous out of a total of 42 specimens. The vertebrate collection has an NISP of 775. Fish, both cartilaginous and bony, comprise 59% of the total followed by terrestrial mammals at 38%, reptiles 3%, and one bird bone. Analysis of a much larger sample of faunal remains (NISP=19,620) from the 1989 excavations at LAn-47 identified significantly more mammal bones than fish bones (Altschul et al. 1992:302-314).

In addition to those from the two column samples, a few more faunal specimens were recovered from the various excavated units in 1961. They were identified by Frank Bayham at California State University, Chico. Among them, only one new species, pronghorn antelope (*Antilocapra americana*), can be added to the 1992 vertebrate list for LAn-47 (Altschul et al. 1992:304, 305).

NEW INSIGHTS

New information on the Admiralty Site is presented here as a result of the salvage excavations in 1961. The discussion focuses on four areas of interest: site chronology, fishing practices, ritual beliefs, and status differences.

Site Chronology

Table 1 lists the radiocarbon dates obtained for the Admiralty Site. Altschul et al. (1992:194-196) report six uncorrected $^{14}$C dates from shell samples. These cluster around A.D. 1100 and led Altschul and
Table 1. Radiocarbon dates from LAN-47.

<table>
<thead>
<tr>
<th>LAB NO.</th>
<th>MATERIAL</th>
<th>B.P. (1950)</th>
<th>A.D.</th>
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<td>TX-6971</td>
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<td>1100±70</td>
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<tr>
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</tr>
<tr>
<td>Beta-85585</td>
<td>Bone</td>
<td>1350±60</td>
<td>600 (429-663)</td>
</tr>
</tbody>
</table>

his colleagues to conclude that LAN-47 was occupied seasonally for maybe 50 to 100 years between A.D. 1050 and A.D. 1150 (1992:196,413). However, bone collagen from the 1961 dog burial provides a new AMS date of cal A.D. 600 (429-663, 2 sigma) for the earliest Native American occupation of the site. It appears now that the Admiralty Site was inhabited, off and on, for 500 years, not 50 or 100. The new date places the site in the Middle to Late Periods of southern California prehistory or in the Late Intermediate Period according to a recent chronology for the Ballona region (Stanton et al. 2016: 7). Taken together the radiocarbon dates indicate that over the centuries of human occupation, LAN-47 was never completely inhabited at any given time, but rather one or a few families lived on just a portion of the site whenever they stayed in the Ballona wetlands. It is tempting to suggest that the earliest occupation of the site occurred in its southern section in the vicinity of Basin F and 500 years later people were living on the north edge of the site near the railroad right-of-way where Dillon and Altschul did their excavations.

Fishing Practices

Exploiting the near-shore sea life was an important economic endeavor of the prehistoric groups who lived at the Admiralty Site. They enjoyed 64 different species of bony fishes, sharks, and rays (Altschul et al. 1992: 305-313). Some of their favorites were several species of perch, halibut, rays, and grunion. Our 1961 excavations added five more fish species to the list of 64. The new species include:

- Skate (Raja spp.),
- Pacific anchovy (Engraulis mordax),
- Sea smelt (Atherinidae),
- Longjaw mudsucker (Gillichthys mirabilis), and
- Gobies (Gobiidae).

In addition, two new native species of freshwater fish were identified for the Admiralty Site in 1961. They are the arroyo chub (Gila orcutti) and the exotic looking three-spined stickleback (Gasterosteus aculeatus). Although not surprising, their presence significantly extends the fishing activities of the site’s inhabitants to include coastal streams.

The arroyo chub and three-spined stickleback are rarely found in southern California archaeological sites but were recovered at LAN-63 located two miles southeast of the Admiralty Site (Douglass et al. 2005:10.5). Less than 4 in. (10 cm) long, these little freshwater fish were probably taken with dip nets and evidence suggests that some of the sticklebacks at LAN-47 were roasted and eaten.

Evidence of fishing gear is minimal at the Admiralty Site in part because nets, wood fish spears, and fishing line are not preserved. Bone and shell fishhooks were not encountered in 1961, but Altschul et al. (1992:272-276) report finding six bone tips that might be the pointed ends of fishhooks - or awls. Shell fishhooks are completely absent from the Admiralty Site collections.

However, the fortuitous discovery in 1961 of 10 bone fish spear points at LAN-47 increases our knowledge of prehistoric littoral fishing in the Ballona. At prehistoric sites along the mainland coast and...
the offshore islands of Southern California, simple barbed and unbarbed bone fish spears may have been used, in addition to various kinds of nets and hooks, to capture a variety of near-shore ocean fish, especially sharks and rays (e.g., Gusick et al. 2015:224; Rick and Glassow 1999:242, 243). As far as we know, however, bone fish spear points were not employed to catch any particular fish but simply added to the tool inventory available to the Native American fishermen. In the Ballona, only the Admiralty Site has yielded single barbed bone fish spears.

**Ritual Beliefs**

What little we know about religious ritual at LAn-47 is inferred from human and dog interments. Humans were buried with or without grave offerings and dogs were buried with or without humans. The body orientations and head facing directions for Burials 2, 4, and the dog were all different and provide no indication of ritual significance. Interments were scattered across the site and not confined to circumscribed cemetery areas.

The sea mammal bone barbed fish spear heads with Burials 2 and 3 indicate that ocean fishing was of high ritual and religious importance in spite of the fact that hunted terrestrial animals were numerically and economically superior to fish at the Admiralty Site (see Altschul et al. 1992:302, 312 and Reddy et al. 2015:Table 2 for percentage comparison of faunal remains). Based upon the high economic importance of hunting land animals, we would have expected Burials 2 and 3 to be interred with 10 stone tipped arrows, not 10 sea mammal bone fish spears – or perhaps even some combination of the two weapons! That a barracuda jaw was the sole object associated with Burial 4 further underscores the religious and ritual importance of fish. In fact, an ocean fish/fishing religion supported in part by mortuary rituals may have existed at the Admiralty Site.

The two quartz crystals and carved soapstone object placed with Burial 2 give evidence of the practice of shamanism and its accompanying beliefs in supernatural power (Bean 1992:28). Ethnographically, quartz crystals and rocks with carved abstract designs have commonly been associated with shamanism in southern California (e.g., McCawley 1996:97, 98) and archaeologists have traditionally equated excavated quartz crystals with shamans.

Two dogs were interred at the Admiralty Site. One was found with human Burials 2 and 3 and the other with no associated objects. Whether their burial was because they were beloved pets (Morey and Wiant 1992:228) or for broader religious reasons is difficult to determine. The southern California ethnographic literature is silent on this issue and it is quite probable that both explanations are correct. For example, Bartelle et al. (2010) demonstrate the care and attention given to a prehistoric dog on San Nicolas Island and Hale and Salls (2000) and Langenwalter (1986) among others describe ritual dog burials on the southern California mainland and Channel Islands.

The presence of communal mourning rituals as recently described by Hull et al. (2013) for coastal California is not archaeologically evident at LAn-47.

**Status Differences**

Information derived from the burials at the Admiralty Site enables us to infer the existence of social stratification among the hunter-gatherers living there. The individuals in the triple grave must represent the most important people in the settlement, if not the Ballona. At least one of them was a shaman, the highest supernaturally powerful rank of any person at the site. In addition to providing religious and ritual leadership, one or both individuals may have influenced or even made most political decisions affecting the community. The next status in descending order of rank at LAn-47 is exemplified by Burial 4. He was a special person, not only because of his height but because he was interred with a barracuda jaw symbolizing the religious importance of the ocean. Though not a shaman, he must have been a village leader, perhaps due largely to his impressive fishing ability. That prowess may have been bestowed on him and maintained by barracuda, his guardian spirit. Commoners at the Admiralty Site are represented by Burials 1 and 5. Neither was interred with grave goods, at least none that have survived time and the environment. As a
result, there is nothing tangible that would suggest for these two individuals a rank or status above (or below) that of a common person in the society.

Dogs at LAn-47 occupied status categories similar to those of their masters. The dog in the triple burial grave enjoyed the highest status of any canine in the village. He/she was associated with shamans and the objects of shamanism and may well have possessed supernatural power. That the animal was the only one buried with humans underscores its high status and value. The other dog buried at the site was all alone without accompanying grave goods (Dillon et al.1988). At the very least, it was someone’s beloved pet. The lowest ranking dogs at the Admiralty Site were probably eaten. Unburied, their disarticulated remains were found scattered in the general midden deposit. As evidence, one dog bone was excavated in 1961 in Test Pit 2 and Altschul et al. (1992:304) recovered 64 (MNI=29) unarticulated canine faunal specimens at the site in 1989.

**SUMMARY**

Based on the 1961 archaeological investigations at LAn-47, this paper increases our knowledge of the prehistoric inhabitants of the site and supplements the pioneering work of Brian Dillon, Jeffrey Altschul and their associates who excavated parts of the site in the late 1980s. Much of the new information presented here results from the analysis of four graves containing five adult humans and a dog.

A new radiocarbon date of the dog’s bones places the earliest occupation of the Admiralty Site at A.D. 600 (Intermediate Period), some 500 years earlier than previously determined. This date also extends the length of the Native American occupation of the site from 50 or 100 years to at least 500 years. Whether habitation was seasonal or year-round during all that time is unclear.

Five new species of near-shore ocean fish and two rare kinds of freshwater fish were added to the site inventory of 64 fish varieties. In addition, the recovery of 10 sea mammal bone fish spear points emphasizes the importance of fishing in the prehistoric community even though no other fishing gear is reported for the site.

Ritual burial of the dead was not restricted to a cemetery area. Two of the four graves encountered in 1961 were accompanied by grave offerings. At least one of the two individuals in the triple burial pit was a shaman as evidenced by the quartz crystals and other supernaturally powerful objects associated with the interred human remains. The 10 bone fish spear points from the triple burial grave of the shaman and the barracuda jaw found with Burial 4 indicate that ocean fish and fishing were of prime religious and ritual significance to the people at LAn-47, even though the hunting of terrestrial animals was more important economically.

Two dogs were purposely buried at the Admiralty Site. This practice is not uncommon in southern California prehistory and underscores the ritual importance of canines in this region and especially on the Channel Islands.

Some degree of social stratification in the Native American community at LAn-47 is recognizable largely from mortuary analysis. The one identifiable shaman with her supernatural abilities and power would be at the top of the social order. She would be the leader of the ocean fish/fishing religious ritual system and probably dominate most political discussions. Her influence likely extended far beyond the Admiralty Site. A leader of lesser importance is exemplified by the strikingly tall man associated with the barracuda jawbone. He may have been a lineage headman, but certainly was a man of some importance in the ocean fish/fishing religion. Commoners at LAn-47 are represented by the 2 people who were buried without grave offerings of any kind.

Like their masters, dogs assumed different ranks in the village. At the top is the dog from the triple burial pit. Associated with shamanism, this canine was the most respected and privileged of all its fellows. Dogs of lesser rank were interred unaccompanied by grave goods or important people. They were probably pets and during life had been cared for by their human owners. Finally, those dogs whose bones were
randomly scattered in the midden likely represent food remains and occupy the bottom of the canine hierarchy.

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