



Fig. 1.

Shell Mound, Oakland, Cal.

The
Native Legacy
of Emeryville

THE JOURNAL OF THE EMERYVILLE HISTORICAL SOCIETY
VOLUME V, NUMBER 2
SUMMER 1994

THE JOURNAL OF THE EMERYVILLE HISTORICAL SOCIETY
VOLUME V, NUMBER 3
AUTUMN 1994

Reprinted with the express permission of the Emeryville Historical Society
and the Author, Sandra Sher.

This version of *The Native Legacy of Emeryville* is published electronically by:

URS

500 12th Street, Suite 200
Oakland, CA 94607-4014

For the City of Emeryville

All textual content of the original article is reproduced in its entirety. The graphic images other than the cover illustration have not been reproduced.

If you have any questions concerning this article, please contact the author, Sandra Sher, at:

P.O. Box 16141
Oakland, CA 94610

On the cover: An 1876 rendering of the Emeryville Shellmound, more artistic than realistic, made one year before the dance pavilion was built atop it (from May 1885 issue of the American Antiquarian and Oriental Journal).

The Native Legacy of Emeryville

by **Sandra Sher**

As our cars shoot along Interstate 80 where it nicks the southwest corner of Emeryville, it's hard to imagine that just 200 years ago this same area was a lush marsh teeming with wildlife. Try to picture a full creek running with salmon, the sky darkening from the sheer number of waterfowl overhead, a big willow thicket, and even a stretch of white beach. If the mind can grapple with that much, then imagine native people living here from roughly 2500 years ago until perhaps the 1700s.

This antiquity of local human settlement startles many of us who were originally educated to view our area's history in terms of a mere couple of centuries (and that was the "generous" version that took in the Spanish and Mexican periods). Until the last few decades, the aboriginal period was rarely presented as part of our region's past; many local histories from the 1850s onward gave little more (and often less) than token acknowledgment that anybody was here before the white man.

This glaring omission in print has been compounded by the almost total physical obliteration of the bayshore shellmounds, the imposing accumulations of shell, charcoal, bones, artifacts and other matter amassed during the many centuries of native occupation. Well over 400 shellmounds once dotted the San Francisco bay shores, each mound representing a permanent or seasonal occupation site.

What happened to all these shellmounds? Some mounds suffered the piecemeal ravages of encroaching tides or enterprising individuals, while most succumbed wholesale to municipal and industrial expansion in the

latter half of the 19th or beginning of the 20th century. Only a relatively small number had ever been extensively analyzed; most had disappeared before scientific interest caught up with them.

The Emeryville Shellmound was a rarity in having been scientifically investigated several times before (and during) its eventual removal in 1924. It was also one of the largest and best preserved mounds that had survived into the 20th century. Although archaeological and historical reports, comparative mound studies and ethnological research provide us with glimpses into native culture at this site, we will never have a complete picture of aboriginal life here--the prehistory of this area, if no longer the neglected stepchild of academic concern, nonetheless suffers from its many earlier years of neglect.

When a steam shovel clawed open and removed the Emeryville mound in the fall of 1924, the largest physical remnant of Emeryville's native legacy disappeared. Oddly enough, a popular dance pavilion had a great deal to do with preserving the mound up to that time, and Prohibition had something to do with its demise. More on the dance pavilion later.

Characteristics of the Mound

The Emeryville Shellmound, although referred to in the singular, was actually composed of one large main cone with several smaller cones around it. This large cone, originally standing between 32 and 40 feet high, with an irregular base diameter of approximately 310 feet, was designated "Cone A" by W. E. Schenck in his 1926 published report.¹ It was also numbered mound 309 by N. C. Nelson during his 1908 survey of San Francisco bay

region shell mounds.² It is this large cone that has been consistently known as the "Emeryville Shellmound."

If you look at a map of Emeryville and locate the intersection of Powell and Shellmound streets (where the Days Inn Hotel now stands), then draw a line southeastward until it meets the railroad tracks, you will get a rough idea of where the mound used to stand. This mound site was designated State Registered Landmark No. 335 in 1939, but it is unmarked due to its location on private property.³

The Artifacts of Daily Living

The Emeryville Shellmound, as an occupation site, contained the accumulated debris and artifacts of daily living such as shell, rock, charcoal, animal remains, household articles such as mortars and pestles, pipes, tools and ornaments, as well as human burials. Century after century, the accumulating material resulted in a mound that provided a dry living area above the marsh and eventually became a prominent feature of the landscape.

The Emeryville mound was situated in a very favorable location. Temescal Creek on the south side of the mound provided fresh water and fish, a nearby willow thicket furnished wood for house frames, tools, basketry, etc., and an extensive marsh contributed a remarkable variety of edibles--sea mammals, shellfish, fowl, eggs and certain plants--as well as tule reeds and other materials for house and boat construction, basket-making, etc. Acorns could be harvested from a large stand of coast live oaks (from which Oakland derived its name) within walking distance, although these were not the "preferred" type of acorns. A seasonal sojourn into the hills, and perhaps into the valley beyond, provided many other useful and

edible roots, leaves, bulbs, seeds, game animals to hunt and a chance to gather a preferable type of acorn.

Shell was the primary constituent of the Emeryville mound, and soil was the second (some of it being vegetal decay). Large animal remains found within the mound included those of sea otter, deer, elk, seal, sea lion, porpoise and even whale. Fragmentary remains of rabbit, gopher, raccoon, badger, skunk and other medium-sized animals also turned up. The relative paucity of small-boned quadrupeds and small birds and fish among the remains should not discount them as native food sources since their bones would have been more perishable.

It is quite apparent that the native people living at the Emeryville site were amazingly adept at exploiting both land and sea resources. For over 2,000 years,⁴ local resources (plus a few items procured through trade) provided the raw materials for food, shelter, transportation, dress, tools, ornaments and even entertainment. At the same time, the native people left a remarkably light imprint on the land. Not only were local resources fully exploited, but conscious measures were taken to preserve those plant and animal resources for future use. Can we say the same thing for our own "modern" culture?

Who Were the People of the Emeryville Shellmound? And Where Did They Come From?

It might seem extreme to go all the way back to the last Ice Age to answer this question, but that's where the story really takes off. Scientists generally agree that the first people arrived in North America from northeast Asia via the region of the Bering Strait, a 56-mile-wide channel that separates the two continents. The most likely scenario is that man, like many other animals,

walked over to North America when sea level was low enough (i.e., at the height of Pleistocene, or "Ice Age," glaciation) to expose the land beneath the strait. This land mass beneath the Strait, known as Beringia, provided a tundra-steppe environment capable of supporting the Pleistocene mammals hunted by man.⁵

Beringia was probably exposed many times during each of the glacial periods of the Pleistocene Epoch, but it is likely that man did not cross over it until the last time it was "open"--most of the period from 30,000 to 14,000 years ago.⁶ By this time, small nomadic bands of hunting peoples had finally begun to push up into the northeast corner of Siberia, the "staging area" for crossing Beringia onto the North American continent.

Dribblings over Millennia

Human movement into North America appears to have occurred in a series of crossings by many small groups over an extended period of time, certainly not in one mass migration. Anthropologist Ales Hrdlicka, more than 50 years ago, graphically if unflatteringly referred to this movement as "...relatively small and interrupted dribblings over, but dribblings that went on over several millenia."⁷ There is definite evidence of man's presence in North America by about 12,000 years ago and probable evidence of a somewhat earlier arrival.⁸

Bypassing the details of what must have been an arduous migration southward and eastward (remnants of the last ice sheet still hung around), it is thought likely that California was first inhabited, albeit sparsely, somewhere in the period of 15,000 to 10,000 years ago. Definite evidence places man in California 9,000-10,000 years ago.⁹

In the immediate San Francisco Bay area, the oldest evidence of human presence found thus far consists of a few isolated burials dated at about 5,000 years old: two male skeletons found near Stanford University, a female skeleton found near Sunnyvale, and a male skeleton unearthed during construction of BART's San Francisco Civic Center station.¹⁰ Other evidence of early human presence in this area probably remains undiscovered under alluvial deposits or water since the bay shoreline changed significantly in the period of 5,000-10,000 years ago.¹¹

How do these 5,000-year-old human remains fit into the general picture of early California settlement? Linguistic analysis is one area of research that attempts to trace the prehistoric migration of people into and through California. The great number and diversity of native languages in aboriginal California (perhaps as many as 80 or 90 mutually unintelligible languages, further differentiated into a large number of dialects)¹² lends credence to the theory that many different populations entered the state over time and that long periods of relative isolation ensued in many areas.¹³

At the time of European contact, six major language stocks or "superfamilies" existed in California, the Hokan stock possibly being the oldest.¹⁴ Then, sometime in the period 4000-2000 B.C.E., speakers of the Penutian language stock advanced into California from the northeast.¹⁵ Penutian speakers gradually spread throughout central California, and the stock eventually evolved and subdivided into four language families, one of which was Utian. Utian further subdivided into two language subfamilies: Miwokan and Costanoan. Even within the Costanoan subfamily, eight separate languages have been identified.¹⁶ ("Costanoan" is here

used as a linguistic identification only, according to current usage).

When the West Berkeley Shellmound site was first occupied (about 3700 years ago, more than a thousand years earlier than Emeryville), the inhabitants may have been part of the older Hokan population or some of the early Costanoan-speaking people arriving from inland areas. The Emeryville site, more certainly settled by Costanoan-speaking people, was one among many bayshore sites first occupied around 2500-2000 years ago. This blossoming of settlements may have indicated that the bay's estuarine environment had matured to the point that larger human populations could be sustained.¹⁷ (The most widespread oyster beds had accumulated by 2300 to 2500 years ago.¹⁸)

Contact Era: Explorers, Missionaries and Visitors

The California aboriginal peoples employed no writing system and thus we are completely dependent on oral histories, comparative mound studies, archaeological reports, diaries, official records and other sources from the "historic" (=post-contact) period to shed light on how the shellmound people lived. This is not to deny elements in contemporary Native American culture that, loosely or strictly, derive from aboriginal times; however, it is incontrovertible that the aboriginal way of life (and collective memory of it) as a whole functioning system has long since vanished.

We remain especially ignorant about certain aspects of local aboriginal life, particularly language, spirituality, and the arts, such as basket-making. The aboriginal societies of the central San Francisco Bay region were among the early victims of missionization--people separated from their land, their cultures largely

suppressed and populations drastically reduced. It is estimated that all of Alameda and Contra Costa counties, except for the extreme eastern border in the San Joaquin Valley, were completely Christianized by 1810.¹⁹

What we have come to know about the indigenous people of the bay area begins chronologically with the reports and letters from the Spanish explorers, missionaries and soldiers who had the first extensive contact with the east bay native population. Such reports were really mere footnotes to their main business-at-hand (i.e. colonizing the territory and "civilizing the heathen") and do contain some misrepresentations. Nonetheless, the Spanish were fairly good record keepers who sent detailed reports to higher authorities in Mexico.

The earliest Spanish forays into the central east bay region (1770, 1772, 1775, 1776) made no mention of a village or native people encountered in the Emeryville area (although the northernmost point reached in 1770 is not certain). At the time of the 1772 expedition, Pedro Fages, military commander of Upper California, attributed the scarcity of natives in the Oakland-Berkeley area to the great number of bears seen there.²⁰ On the other hand, villages were encountered on both sides of the Carquinez Straits, around Pinole, near San Lorenzo Creek and near Wildcat Canyon. (During the 1775 water survey of San Francisco Bay commanded by Juan Baptista de Ayala, a map drawn by Jose Canizares records such details as the redwood groves in the hills above Oakland, as well as native villages in other areas, but no native villages are indicated in the central east bay area.²¹) It would appear that the Emeryville mound site had been abandoned previous to these earliest explorations.

On October 9, 1776, the mission at San Francisco (Mission Dolores) was formally founded--arguably, the

most critical event in the millennia of native occupation. Native peoples were lured and rounded up as potential converts ("neophytes") from all directions. Later, in 1797, Mission San Jose was established, again sweeping the area in all directions for natives to convert. Why wouldn't east bay native people simply flee further north or east? Traditionally, each native group had a carefully defined territory; trespass was no light matter and would not have been tolerated for long by adjoining native populations.

Many detailed accounts of the activities, living conditions and mortality associated with mission life have been written and cannot be included here. Suffice it to say that the overall effect of the missions on native peoples and their cultures was devastating. The Spanish were no longer occasional travelers through native territory but permanent, invasive and determined recruiters.

Secularization of the missions (transferring of authority from church to government) in 1833 only brought further misery to the mission natives as most of their promised land was stolen and incorporated into large Mexican land grants. Without land, food and other necessities previously provided within the mission system,²² the majority of native people (those who had survived) were left grievously destitute. Little more than a century had passed since these native groups had lived ordered, secure lives free from want and major incursions.

Surveys and Spying

Some of the early foreign (=non-Hispanic) visitors to the missions also provided information on aboriginal culture. These occasional visitors arrived on the California coast for scientific exploration, replenishment

of provisions, surveys for future commercial ventures, or simply to spy on Spanish activity.

One early visitor to California was the French count, Jean Francois Galaup de La Perouse, who arrived at Monterey with a scientific expedition in 1786. La Perouse did not go beyond the Carmel-Monterey area in his 10-day stay but carefully observed the religious community and left a detailed account of daily life at the mission. The physician of the expedition detailed the physical appearance of the Mission Carmel neophytes (comparing them not altogether favorably to the natives of Chile) and described prevalent diseases, usual remedies, conditions of childbirth, etc.²³

In November of 1792, the Englishman, Captain George Vancouver, made a stop in San Francisco Bay as part of a round-the-world exploring voyage, returning in 1793 and 1794. Vancouver visited Mission Santa Clara and Mission Carmel, as well as Mission Dolores. Vancouver observed that the natives seemed not to have benefited from the best efforts of the "truly worthy" mission fathers (... "they still remained in the most abject state of uncivilization"²⁴) and concluded that civilizing the natives wasn't likely to proceed unless "foreign commercial intercourse" were to be introduced, by which to "stimulate the Indians to industry."²⁵ Trade, of course, was precisely what Vancouver had to offer.

In 1806, Nikolai Rezanov, a high official of the Russian Imperial Court, arrived in California to reconnoiter the coast for future outposts and to secure supplies for Russia's North Pacific possessions. Dr. Georg von Langsdorff went along as naturalist and physician; he was also a skilled artist who left some pictures and descriptions of native customs observed at both Mission San Jose and Mission Dolores.

Otto von Kotzebue of the Russian Imperial Navy commanded an exploratory voyage which anchored in San Francisco Bay to obtain provisions in October, 1816. Among those on board were Adelbert von Chamisso, a linguist and naturalist, and Ludovik Choris, the official artist of the expedition. Among Choris' remarks are the often quoted lines about the mission Indians: "I have never seen one laugh. I have never seen one look one in the face. They look as though they were interested in nothing."²⁶

In 1824, Kotzebue made a second visit to California during which he was able to visit Mission Santa Clara and Mission San Jose, make a trip to the Delta region, etc. He noted that the missions had so extensively procured converts that the area once heavily populated by the "Korekines" (probably the people in the vicinity of the Carquinez Straits) no longer had any inhabitants.²⁷

Back at the Rancho...

Meanwhile, in 1820, Luis Maria Peralta, a retired soldier in the Spanish army, was granted an enormous east bay estate by the King of Spain. This land grant, over 43,000 acres, encompassed all of present-day Oakland, Berkeley, Emeryville, Piedmont, Albany, Alameda and part of San Leandro. In 1842 Luis Peralta formally divided the estate (used almost exclusively for cattle raising) among his four sons, with Vicente Peralta receiving what is today a good chunk of Oakland, all of Emeryville and Piedmont, and part of Berkeley.

Vicente Peralta built corrals and a slaughter house for his cattle in the area around the Emeryville Shellmound. The hides could be transported across the bay to the little village of Yerba Buena (later to become San Francisco) directly from an "embarcadero" slightly north of Temescal

Creek. (His house was further upstream on Temescal Creek, in what became the "Temescal" region of Oakland.)

The rancho era of these enormous Spanish and Mexican estates was relatively short-lived. The 1848 Gold Rush ushered in severe financial distress for Vicente Peralta, as for many other rancheros. Squatters stole land, cattle, horses, corral wood, etc. By mid-1853, largely to pay legal costs (to defend his land title!), Vicente Peralta had been forced to sell the greater portion of his estate. Two groups of San Francisco investors bought the land for a total of \$110,000.²⁸ These investors then sold off surveyed, numbered plots within the estate. The site of the Emeryville Shellmound was within the 95.48-acre Plot No. 7 which was sold to Louis Brugierre in late 1853.²⁹

In early 1855, Brugierre sold the land to John McHenry, a judge in San Francisco. McHenry had a new house erected on one of the smaller, lower shellmounds to the southeast of the large mound.³⁰ As workmen were grading and excavating land for McHenry's house, several aboriginal skeletons were unearthed and then carelessly reburied.

McHenry's widow, Ellen J. McHenry, gave an interview years later in 1896 in which she recalled how she used to wish that the high mound could be examined for she was sure that it contained the "tombs and treasures of Indian royalty."³¹ A relative, Emma Metcalfe Hay, who had lived at the McHenry house for two years, later recalled that the "high mound was an object of curiosity to local people and visitors used to ask permission to dig in the mound for Indian relics."³²

John McHenry sold the Emeryville property to William Y. Patch, then San Francisco's Tax Collector, in 1858.³³ A little over a year later, Patch turned around and sold the

property to Edward Wiard ³⁴ who proceeded to develop both an "amusement resort" named "Shell Mound Park" and a race track called the "Oakland Trotting Park." Shell Mound Park (the shellmound being a prominent feature within the park) was located on the bay side of the property, while the race track lay on the inland (east) side. (Please see Journal of the EHS, Vol. V, No. 1, Spring 1994 for a detailed history of the race track by Donald Hausler.)

The race track was operating by the early 1870s, and Shell Mound Park was largely a rifle range in early 1876. In late 1876, Wiard began to make extensive improvements to the park. Plans were made for an octagonal dance pavilion on the summit of the shellmound, and work was underway in early 1877. Completed at the end of February, the pavilion was 90 feet in diameter with a floor-to-ceiling height of 40 feet.³⁵ No less than 35 group picnics were scheduled for that year's picnic season.³⁶

Travel to the park was facilitated by trains that began running in March 1877 from the end of Oakland's Long Wharf direct to Shell Mound Park.³⁷ In 1876 when work had begun on the Berkeley Branch Railroad (running from a point near Shell Mound Park to the town of Berkeley), the tracks sliced into the eastern foot of the Emeryville mound. Not surprisingly, an aboriginal skeleton was encountered. Mr. John J. Rivers of Oakland (who became a curator of the State University Museum at Berkeley a few years later) was already there conducting some mound explorations at his own expense, and he took charge of the skeleton.³⁸

Scientific Speculation

Meanwhile, by 1873, the Emeryville Shellmound and others around the bay had caught the attention of the California Academy of Science in San Francisco. This "attention" was largely limited to tentative digging for artifacts and round table speculations about the aboriginal way of life. In 1874, member A. S. Hudson, M.D. read a paper on the Emeryville Shellmound to the Academy.³⁹ The large mound was said to be standing within a "few yards of the bay," with an estimated base diameter of 240 feet and a (truncated) summit diameter of 150 feet. The whole mound, Hudson reported, was 35-40 feet tall.⁴⁰ (This was before the dance pavilion was built on top of it.) The north slope extended out into a 270-foot-long arm of midden material, about five to six feet high. Apparently, Hudson said, when Wiard had plowed off the upper two feet of this "pan handle" to fill in a nearby "pond hole," some human bones, mortars and pestles had been found.⁴¹ No mention was made about what Wiard had done with the finds.

While the lower mound with the house on it seemed to Hudson to be nothing more than an accumulation of debris, he believed that the large mound showed purposeful design. Perhaps, he speculated, it was used "for an oratory, for sacrificial customs, or feasts for the tribal chiefs."⁴²

In 1885, an article in The American Antiquarian and Oriental Journal, probably written by G. E. Laidlaw, somewhat fancifully described the Emeryville mound as "...a lonely monument of primeval art, by laboring muscles heaved upon an inviting strand, in the long unrecorded years of the past."⁴³ Similar to Hudson's thesis, Laidlaw speculated that the mound had been erected for the

purpose of moon worship, for oratory, as a religious and sacrificial place, or for sepulchre.⁴⁴

Back at Shell Mound Park, Wiard leased the park to Captain Ludwig Siebe in 1879. Siebe proceeded to make further improvements to the park, including a second dance pavilion (at ground level), a bowling alley, etc.⁴⁵ Because of the easy train connection on Oakland's long wharf, many of the park's patrons came from San Francisco. Capt. Siebe even established a branch office in San Francisco so that the various organizations and societies there could easily book their annual picnic dates.

Edward Wiard died in 1885 at the age of 77 shortly after losing ownership of the park and race track due to financial problems. Both properties were sold under decree of foreclosure to James Mee of San Francisco for \$84,611.76.⁴⁶ The sale became final in 1887. Siebe continued to lease Shell Mound Park, although, at least by 1912, his son William A. Siebe had taken over some of the management duties.

In mid-1896, work began on completely rebuilding the race track at the Oakland Trotting Park. At the beginning of the project, it was estimated that 150,000 of dirt would be moved; when completed in October, it was reported that 350,000 cubic yards had been moved.⁴⁷ With all of this earth-moving, it isn't surprising that seven or eight skeletons were found in a low mound on the west side of the race track--this was the shellmound upon which the McHenry-Wiard house had stood and where new stables were subsequently built.

When the first skull had been discovered in August of that year, Professor John Merriam, paleontologist at the State University at Berkeley, had been summoned. Merriam did his own careful digging and reportedly took

the remains back to the University Museum in South Hall.

The Berkeley Daily Advocate editorial of August 25th voiced the then-current thinking (espoused by Dr. Merriam, as well) that these finds, by virtue of the skull formation, verified the low-grade intelligence of the native peoples.⁴⁸ (As well documented in Stephen Jay Gould's The Mismeasure of Man, the belief that "Primitive races had not been sufficiently challenged, while European brains grew steadily with the march of civilization" had become a popular notion in the latter half of the 19th century. It was, Gould writes, "the best case of hope dictating conclusion that I have ever encountered."⁴⁹).

No Pottery, No Progress

The Oakland Tribune ran a similar editorial, writing that "From an antiquarian point of view the discoveries had very little value. These natives had made no progress in the arts. They had no pottery which marks an elementary advancement towards civilization..."⁵⁰ The Berkeley Gazette, possibly scooped on the story, simply grouched that skeletons "are getting to be as thick as flies around the Oakland Race Track..."⁵¹

The San Francisco Call, on the other hand, played up the discoveries with daily coverage. The digging in this smaller mound continued through August and into mid-September, attracting large crowds on weekends as spectators waited for each skeleton or artifact to be removed. The majority of the finds seem to have been sent to the State University at Berkeley; some of the artifacts may have gone to the California Academy of Sciences in San Francisco.⁵² Mrs. Ellen J. McHenry, the surviving widow of Judge McHenry, suggested that those first bones and skulls encountered in a jumbled up

condition were probably those carelessly dug, scattered and then reburied by workmen digging the cellar for their house.⁵³

This low mound was eventually leveled in the course of rebuilding the race track.⁵⁴ Although efforts had been made to remove the skeletons and artifacts intact, such digging was not "scientific" in the sense of carefully measuring and locating each item found so as to preserve its contextual placement. No real site analysis could be achieved. Within a few short years, however, steps were taken to put California archaeology on a more scientific footing.

Emeryville Shellmound and Birth of Bay Area Archaeology

Phoebe Apperson Hearst could easily be cited as the person most responsible for the initial development of the Museum and Department of Anthropology within the University of California at Berkeley. Beginning in 1899 and continuing for several years, Mrs. Hearst financed several expeditions to far-flung places (Egypt, Peru, the Mediterranean), as well as within California, to collect tangible artifacts for a great University Museum. After a couple of transitional moves--all with Mrs. Hearst's financial backing--the artifacts collected on the expeditions were finally housed in a three-story building in San Francisco. This, the University's first Museum of Anthropology, formally opened to the public in October, 1911.⁵⁵

Meanwhile, the Department of Anthropology, co-organized with the Museum in September, 1901, also benefited from Mrs. Hearst's largess. In February, 1902, Professors John C. Merriam and Max Uhle undertook the first scientific investigation of the Emeryville Shellmound

with Mrs. Hearst's financial backing. (The first scientific mound excavation in California appears to have been performed by Dr. Philip Mills Jones in the period 1899-1902 in the Stockton area, one of the many early expeditions commissioned by Mrs. Hearst⁵⁶).

Uhle made a tunnel near the base of the mound on the western slope, as well as a wide cut downward from the western flank to the top of the tunnel. The main constituent of the mound was found to be shell, much of it broken and slightly mixed with soil.⁵⁷ The shells most commonly found were oysters (*Ostrea lurida*), mussels (*Mytilus edulis* and *M. californianus*) and clams (*Macoma edulis* and *M. nasuta*).⁵⁸

Bones of land and sea mammals, birds and fishes were also found in abundance and more or less evenly distributed throughout the mound. Among the animal remains found by Uhle were those of deer, elk, sea otter, whale, rabbit, wildcat, etc. Uhle concluded that the Emeryville mound occupants were both hunters and fishermen, as distinct from the occupants at West Berkeley who appeared to have been much more dependent on fishing than on hunting.⁵⁹

Mortars were also found throughout the area excavated, indicating that acorn processing had been carried on continuously during the human occupation of the site. The largest mortar Uhle encountered was 12" long, 9" wide and 7 1/2" high.⁶⁰ Other items unearthed by Uhle included pestle fragments and one perfect pestle, about 18 "sinker-like stones" that Uhle thought might have been used for fishing, a few fragments of flat grinding stones, five stone tobacco pipes, bone awls for making baskets, bone needles, and various other bone, stone, shell and antler artifacts.

In his limited excavations, Uhle also found 10 burials. (In the upper level, he believed that he had found evidence of cremation, as well, but this claim was later contested by other anthropologists.) Uhle described the burials: the body was laid on its side with knees drawn up, together with the individual's clothing, personal implements and occasionally adornments, too.⁶¹ In the bottom of the grave, a layer of charcoal was followed by a layer of iron oxide, followed by the body itself. More iron oxide--a reddish substance found adhering to many exhumed native burials in several parts of California--was then placed over the body.

Uhle reported that he had found defined strata within the mound and that some cultural differences could be discerned between the earlier (lower) levels and the later (upper) levels of the mound.⁶² As he found no layers of earth or sand between the shell layers, he concluded that the mound had never been abandoned long enough to allow earth or sand to build up.⁶³ Uhle made a very tentative estimate about the age of the Emeryville Shellmound, stating that, in general, the shellmounds of the bay region were probably first settled "more than a thousand years into the past."⁶⁴

Archaeologists or "Pot" Hunters

It should be mentioned that anthropologists working in the early 20th century, though sincere in their zeal and commitment to record cultural elements from pre-contact California (literally or from memory), were also, at times, eminently insensitive to surviving native descendants. From a native standpoint, it may have been difficult, for example, to differentiate between "pot hunters" who robbed and desecrated grave sites and the archaeologists

who launched excavations in which skeletons and artifacts were also carted away.

Uhle, as most of his peers, regarded the aboriginal way of life as a "low grade of civilization."⁶⁵ We may challenge this thinking today, but we must also recognize that without the efforts of those early anthropologists and archaeologists who did as good a scientific examination or recording as they had tools, expertise and sensitivity for, our knowledge about the aboriginal way of life would be much the poorer, especially here in the Bay Area.

Uhle's work at Emeryville was just the beginning. A little over four years later, in the summer of 1906, a second limited excavation was made by a University of California team of graduate students, supervised by S. A. Barrett and Professor John C. Merriam. The intent of this work was to supplement and verify Uhle's findings.⁶⁶

This time, a six-foot square shaft was dug on the eastern side of the mound (opposite side from Uhle's tunnel), not reaching the center of the mound but situated about 12 feet below the truncated top.⁶⁷ While Uhle had found 10 strata, this 1906 excavation found 11. In the 774 cubic feet of mound material examined--a small percentage of the total mound mass--this team found over 2,000 animal bones, 75 artifacts, 20 possible artifacts, and four graves. The bodies were in the knees-to-chest ("knees drawn up") position, with heads facing in different directions.⁶⁸ From the truncated mound summit to the bottom of mound material, height of the mound was calculated to be an average of 33 feet.⁶⁹ (Bottom of mound material was not necessarily level.)

For those readers even vaguely aware of the exorbitant cost of mounting archaeological excavations today, it might be of interest to know that the total expenses for the first three and a half weeks of this 1906 expedition,

including lumber, wages, film, incidentals, etc., came to a whopping \$142.40.⁷⁰

Only Three Mounds Examined

Two years later in 1908 graduate student N. C. Nelson set out on a three-month trek around the shores of San Francisco, San Pablo and Suisun bays to record and number all remaining shellmounds and to indicate, where possible, the location of shellmounds already destroyed. At the time of Nelson's survey, only three of the 425 shellmounds he identified had been carefully (if partially) examined--those at Emeryville (#309), Ellis Landing (#295 in Richmond) and West Berkeley (#307).⁷¹

Moreover, Nelson reported that "not a single mound of any size is left in its absolutely pristine condition."⁷² Mound material had been used (in situ) as fertile garden patches, or carried off as fertilizer, ballast for roads and sidewalks, and even used as chicken feed. Nelson had also heard that mound material, mixed with rock salt, produced tennis courts unexcelled for "combined firmness and elasticity."⁷³

Nelson pointed out some of the difficulties in trying to pinpoint the age of the shellmounds: not knowing whether people had shifted from one mound site to another, or whether they had even lived on the bay shores at all seasons of the year. Insofar as he felt that the immediate surrounding hills were not that favorable as "summer retreats," Nelson speculated that the shellmound occupants remained more or less stationary, taking varying amounts of molluscs from the bay all year round.⁷⁴ Furthermore, taking into consideration a significant number of mounds already gone, he suggested that approximately 400 shellmounds may have been occupied

at any one time, and that the aboriginal population in the San Francisco Bay region was roughly 12,000 people.⁷⁵

From 1900 to 1912, limited excavations performed at bayshore mounds appeared to indicate that aboriginal culture had remained static for 3500 to 4000 years. This idea led the U. C. Anthropology department to conclude that local archaeology promised "so little of positive value that the resources of the department were diverted to rescue ethnographic information from the survivors of the last aboriginal generation of California Indian groups."⁷⁶ Mound fieldwork was set on the back burner for the next 20 years with the exception of the Emeryville Shellmound for which the final excavation was dictated by outside circumstances.

Destruction of the Emeryville Shellmound

Throughout the early 1900s, the 16-acre Shell Mound Park had continued to be a popular public resort. Groups as diverse as the Swedish-American Political Club, Knights of the Red Branch Rifles, the Brotherhood of Boiler-makers and Iron Shipbuilders of America, the United Portuguese Societies of California, etc. held their annual picnics at the park, most of them utilizing the wooden dance pavilion atop the shellmound along with other park attractions.

However, the closing of the adjoining race track in 1911, coupled with competition from other, newer public amusements, must have begun to take their toll on park revenues. According to Ludwig Siebe, the enactment of Prohibition which took effect on January 16, 1920 was the one factor which caused the park to lose money.⁷⁷ In mid-October of 1924, the park closed permanently. That same month, a steam shovel began leveling the shellmound to make room for expanding industry.

University of California anthropologist W. Egbert Schenck investigated the Emeryville mound one step ahead of--or, rather, one step behind--the steam shovel. From October 17 to November 30, 1924, Schenck watched as a series of 22-foot-high cross sections were exposed by cuts of the steam shovel.⁷⁸ As several days might pass between cuts, Schenck had a chance to view entire cross sections in detail. The material cut away from the mound was placed in trucks, hauled a short distance and then spread out on the ground for another inspection. Large objects, including adult burials, were most likely to be recovered, while small artifacts (and infant burials) were most likely to be missed.⁷⁹

Even at that time, this method of investigation was considered far from "ideal." More scientifically, this was followed up by trench work performed by Schenck from January 19 to March 11, 1925. Schenck dug three trenches near the center of the mound, two running parallel and one running perpendicular between them. Each 6-foot-wide trench was examined at one-foot-depth intervals until the bottom of the mound material was reached.⁸⁰ The recovery rate of smaller artifacts was, of course, much higher during this phase of the work.

Schenck did not find the "strata" that Uhle had reported but found "lenses" of material varying from small pockets to layers several feet thick and 30-40 feet long. He found no "strata" that extended consistently from one side of the mound to the other.⁸¹ In fact, Schenck was reluctant to give exact percentages of mound constituents precisely because of these "lenses"--here a pocket of ash, there a pocket of clam shell, for example--but he agreed with Uhle's finding that the mound was principally composed of shell, with clams, mussels and oysters predominating.⁸²

A Bear Tooth in a Pendant

Among non-human animal remains, Schenck found sea otter, deer and elk bones to be the most abundant. Interestingly, Schenck found no evidence of bear remains although they were known to exist in the area. (Uhle's only evidence of bear was one tooth that had been worked into a pendant and might have been obtained through trade.) Seal, sea lion and porpoise remains were reasonably frequent, and whale bone was found in the trenches and in some areas of the cone.⁸³ Gopher, rabbit, badger, raccoon and other small animal remains were also discovered, and fish bones were common. There was a great diversity of waterfowl represented: ducks, geese, cormorants, pelicans, waders, etc. The waterfowl remains implied to Schenck that the native people had lived on the mound at least during the winter when those birds frequented the bay.⁸⁴

Schenck noted 651 human bodies in the mound's cone and an additional 41 bodies were recovered from the trenches. While the bodies appeared to be prepared for burial with care, the graves were fairly shallow and, in the trenches at least, were possibly located near the family hearths.⁸⁵ Schenck was unconvinced by Uhle's specific evidence for cremation, but Schenck himself found the partially burned bones of seven bodies near the base of the mound. He suggested that at least one group visiting the site in its early years had practiced cremation, but he viewed burial as the characteristic method of disposal.⁸⁶

(Another anthropologist, Richard K. Beardsley, writing in 1954, accepted neither Uhle's nor Schenck's reports of cremation and instead proposed burial as the sole method of disposal throughout the mound's history.⁸⁷)

Nearly all the bodies were flexed in the knees-to-chest position, and red paint was frequently used in preparing the body for burial. Some bodies were heavily adorned with finery such as abalone ornaments, olivella beads and mica discs and flakes. Shell discs were sometimes placed over the eyes, nose, mouth and other openings of the body.⁸⁸ Schenck noted a considerable number of inverted mortars placed over bodies in the cone and two such cases in the trenches. In two areas of the cone, he found a number of "killed" (i.e., intentionally broken) basalt mortars associated with burials.⁸⁹

Hematite and Cinnabar

Schenck found three lots of yellow ferric hydroxide which he felt was the raw material from which red paint (ferric oxide) was made by a heating and cooling process.⁹⁰ However, it seems just as likely that the red paint was prepared from a native hematite (ferric oxide) since a hematite quarry exists in the Oakland hills. The presence of mortar holes in the vicinity of the quarry indicate that the ore was not only mined but ground into powder there, as well.⁹¹ Cinnabar, a red ore mined near San Jose at the New Almaden mine, may also have been obtained through trade. (In historic times, hematite was used more for face and body painting and less so for burials.⁹²)

Implements, tools and ornaments were made from many materials: various kinds of stone, shell, bone, antler, horn, crystals, plant materials, etc. Asphaltum, an adhesive material used like glue, naturally occurred on the east side of the bay and was found throughout the mound.⁹³

Chipped stone artifacts included arrowheads, spearheads and knives. Schenck found few stone points

used as arrowheads and concluded that the bow and stone-tipped arrows were not that popular.⁹⁴ Rather, he proposed, deer and waterfowl were more likely caught with snares, traps and wooden weapons.⁹⁵ (Not all arrows were made with stone points; the wooden foreshaft alone may have been used.⁹⁶ It is thought, too, that the bow and arrow was not introduced in the area until 1500 to 2000 years ago.⁹⁷)

Ground stone artifacts included mortars, pestles, pipes, net sinkers and plummet-like stones/"charmstones." Schenck recovered 51 mortars from the mound but noted that additional mortars were acquired by others at the site. He estimated that the total number was around 80, or one mortar for every seven bodies.⁹⁸ Most mortars were made of basalt or fine sandstone, the smallest being 90mm (about 3 1/2 inches) in outside diameter, and the largest being 500mm (almost 20 inches) in outside diameter. A small mortar had red paint marks on it, indicating use for grinding pigment. 62 pestles in all were recovered, as well as six stone pipes.

Because the use of the "plummet-like stones" or "charmstones" was still under discussion, Schenck classified them according to form only. The two main categories were "perforated" and "non-perforated," with perforated stones predominating in the lower 10-12 feet of the mound and non-perforated stones predominating above. Schenck speculated that the mound had been inhabited by newcomers differing from the previous occupants at the stage of changeover in the stones.⁹⁹

Schenck, like Uhle, found only one net sinker stone, while such stones had been found in large numbers at the West Berkeley mound and Stege mound (Richmond), but were also rare at the Ellis Landing mound (Richmond).¹⁰⁰ Schenck thought that the same group may have occupied

more than one site--one location being good for fishing, the other for sea otter hunting and shellfish gathering.¹⁰¹ (It has also been suggested that the paucity of net sinker stones at Emeryville does not preclude net fishing there, since unworked stones could have been bound into nets as sinkers.¹⁰²)

Articles made from shell were almost always found associated with burials. Shell articles were classified into "beads" (less than 17mm diameter), "discs" (larger than 17 mm and not perforated) and "pendants" (larger than 17mm and perforated).¹⁰³ Of the beads, olivella beads--circular, rectangular or whole--were much more common than abalone beads. Shell discs and pendants, however, were all made of abalone, some of the pendants being notched or incised with concentric circular designs.

Bone artifacts included pins, needles, awls, punches, flakers, weapons, whistles and possibly game pieces, most often made from deer and elk bones and the wings and legs of birds. Horn or antler artifacts were fairly numerous, too, having been used for various types of fishhooks, flaking tools, pendants, etc.¹⁰⁴

Unfortunately, wooden artifacts, textiles and cordage are all perishable and none have survived intact. Evidence of post holes for houses provided the best indirect evidence for the use of wood. Of significance, too, was a single impression of basketry on a piece of clay at the very bottom of the mound, providing good evidence that even the earliest inhabitants of the mound were familiar with basketry. (A small and crumbly fragment of basketry was recovered from the West Berkeley shellmound, saved by having been charred and protectively coated with pitch and hematite.¹⁰⁵)

Schenck acknowledged that there had been "changes" over time in material culture, but he did not think there

was any "improvement" in the culture during the life of the mound.¹⁰⁶ From the evidence he was able to review, he felt that the first inhabitants of the mound site "were essentially the same as those who last used it," but noted that not all the groups who used the mound were identical.¹⁰⁷ He postulated that groups of people from the surrounding country periodically came to the mound at Emeryville to gather shellfish and to hunt sea otter in the bay, probably occupying the mound for six months of the year. In agreement with Nelson's earlier proposal, Schenck, too, suggested that maybe 100 people lived on the mound at any given time.¹⁰⁸ It was Schenck's guess that the mound was no older than 1000 years.

Another viewpoint about continuous vs. non-continuous residence on the mound appeared in Hildegarde Howard's 1929 report on the bird remains found in the Emeryville mound. Of the 6700 specimens of bird bones collected, 4155 were identifiable, although many were broken pieces.¹⁰⁹ The predominating species were water birds, and, of the land bird remains recovered, all could have been found close to the bay. Birds distinctive of the hill area were absent. Howard concluded that the hunting range of the Emeryville mound residents "was restricted to the vicinity of the Bay shore."¹¹⁰

Due to the preponderance of winter visitants (adult ducks and geese), Howard could report with certainty that the mound was occupied in winter. The remains of very young cormorants, procured from rookeries on the bay islands from mid-June through July, indicated summer residence, as well.¹¹¹ Based on the above analysis, and considering that an abundance of food was available on the bayshore in the spring and fall, as well, Howard proposed year-round occupancy of the Emeryville mound.¹¹²

It also seems possible, and likely, that some or all of the mound residents would leave the site for short sojourns in the hill areas to the east in spring (for grass, seed, and root gathering, as well as for hunting), and again in the fall to harvest acorns and to hunt. It is also likely that the habits and patterns of subsistence changed somewhat during the lengthy history of mound occupation.

Post-Mound History

Although the mound was removed in 1924, some limited trench work was performed in the spring of 1963 by a volunteer crew under Professor Robert F. Heizer of U.C./Berkeley's Anthropology Department. The crew made two trenches into subsurface mound material to the south of the Temescal Creek culvert but found that all of the material had been disturbed and redeposited.¹¹³ Bullet shells, rusty nails and broken glass were mixed throughout. They found no conclusive evidence that the original mound had extended south of the creek; the mound material encountered may have been dumped there during the steam shovel work in 1924.

Widely varying speculations about the ages of the bayshore shellmounds finally began to coalesce into a narrower range of dates as radiocarbon dating became possible in the second half of this century. A sample collected near the Emeryville mound base in 1959 tested out at 2310 years +/-220.¹¹⁴ A second sample from the mound base in 1974 resulted in a date of 2530 years +/-105.¹¹⁵ Thus, we can say that beginning around 550 B.C.E., people found their way to the Emeryville shoreline at the mouth of Temescal Creek, recognized a good spot when they saw one, and set up housekeeping.

It is not so clear when or why the native people at Emeryville abandoned the mound. As mentioned earlier, the historical record indicates that the site was already abandoned when the first Spanish exploring parties passed through in the 1770s. From the 1-2 inches of "natural vegetable soil" found over the surface of the mound in 1902, Max Uhle had concluded that the mound had been abandoned a relatively short time before the Spanish arrival.¹¹⁶ Schenck thought that the mound was occupied seasonally even after the Spanish arrived, i.e., at least as long as native people frequented the east shore of the bay.¹¹⁷

A third view has been presented by Richard A. Gould who proposed that the large shellmounds along the bay shores were starting to be abandoned well before the Spanish arrived, as part of a major population shift away from the coast/bay area and toward the inland area. Why? The most likely explanation, he suggests, is that the acorn economy of the inland areas proved, over time, to be more efficient than shellfish gathering on the bayshore/coast.¹¹⁸ It wasn't that nearby Oakland didn't have oaks (!), but the oak woodlands in the low hills and plains to the east covered much larger areas. Perhaps, he suggests, the seasonal movements from coast to inland encouraged a gradual reliance on acorns and an eventual shift of population inland. They might still have made occasional visits to the bayshore, of course, for gathering shellfish.¹¹⁹

Taken together, the ethnographic, archaeological and historical data offers us a broad, if incomplete, picture of aboriginal life. We know that the people from the Carquinez Straits south to Point Sur (not including Marin County except possibly a small portion of the peninsula¹²⁰) spoke a family of related languages and dialects and

shared many cultural traits. The Spanish referred to these coastal/bay native people as "Costenos" or "Costanos," meaning "people of the coast." It was later, presumably during the American statehood period, that this term became Anglicized to "Costanoan." Costanoan, then, was the name largely carried through the popular and anthropological literature until the 1960s when descendants of these native people made it clear that they refer to themselves as "Ohlone." Ohlone, a name possibly derived from a village in the vicinity of Mission San Jose,¹²¹ or perhaps derived from the Miwok word for "People of the West,"¹²² is the name we most often see and hear today. ("Costanoan" is often still used as a linguistic term¹²³ and perhaps also for continuity with previous literature.¹²⁴)

"Tribelets" and Their Territories

In aboriginal times, there would have been no comparable term encompassing this related language group of bay/coast native people since they did not manifest political organization or unity as a whole. The people lived in smaller, politically autonomous units referred to by anthropologists as "tribelets." In this part of California, the tribelet typically consisted of a principal village and a number of seasonal campsites within a carefully circumscribed territory.¹²⁵ Each tribelet was probably known by its own name or locale, or at least by a name bestowed upon it by neighboring tribelets.

Sherburne Cook, who worked with a variety of documents on the topic of aboriginal demographics, estimated that there were no less than 3,000 native inhabitants in the East Bay (including the western part of Contra Costa County).¹²⁶ Estimates of the total Costanoan (Ohlonean) population range around 10,000 people.¹²⁷ (In

the state as a whole, the pre-contact aboriginal population is thought to have been about 310,000 people, a figure which dropped over 90% to approximately 20,000 people by 1900.¹²⁸) There may have been 50 separate tribelets within Costanoan-speaking territory.¹²⁹

Fragments of the eight different Costanoan languages were recorded at various times--by the Spanish, by travelers, by early linguists, and by ethnologists working in the first half of this century--and certain songs and lore have been passed down through successive generations of Ohlone descendants. In June of 1971, the descendants incorporated themselves as the Ohlone Indian Tribe.¹³⁰ Shortly thereafter, the Ohlone Indian Tribe received the deed to the Ohlone Indian Cemetery in the City of Fremont. At that time, the descendants stated that the original native territory extended from Pleasanton to Monterey.¹³¹ Today, it is generally accepted that "Ohlone" territory coincides with the area once occupied by Costanoan-speaking people. There are no known descendants of aboriginal people who specifically lived in the Oakland/Emeryville area.

Native Life

Elements of aboriginal culture can only be touched upon in the limited space of this article, but interested readers are referred to Malcolm Margolin's The Ohlone Way for a composite picture of native life along the central California coast.¹³² Also, there is an earlier (now out-of-print) 1922 book titled American Indian Life which contains a story called "Wixi of the Shellmound People."¹³³ Written by anthropologist N. C. Nelson, who not only surveyed the bay area shellmounds but participated in several of the excavations, including that at Emeryville,

"Wixi" uses the fictional story form to present known details of local shellmound life.

In addition, of course, there are many specialized journal articles, books, and academic papers that pertain to aboriginal culture in California. Also, two places offer good visual introductions to local aboriginal culture. The Visitor Center at Coyote Hills Regional Park (southwest Fremont) has a number of good displays of native lifeways, and the park rangers periodically present a tour of a reconstructed Ohlone village and view of a partially excavated shellmound. Closer to home, the Alameda Historical Museum in the City of Alameda has a fine display of aboriginal artifacts removed from some of the mounds in that city--visible at close range.

We today are far removed, culturally, from the aboriginal way of life, and we have to consciously work not to apply our expectations, habits, values, etc. to this earlier culture. As P. Michael Galvan, an Ohlone descendant, wrote in 1968, the aboriginal people had developed "a way of life which was successful in satisfying their physical, moral, and spiritual needs."¹³⁴ The natural abundance of the environment was utilized to the utmost; starvation appears to have been unknown. Life in aboriginal times was not easy, but the people had leisure time for games, dancing, craft work, and other pursuits. Neither plants nor animals were gathered or hunted to extinction, and various practices--such as periodic burning of brush--showed planned, efficient management of the environment to assure important resources in the years to come. Can we say the same thing after less than 150 years of statehood?

Aboriginal life seems to have been well ordered, grounded in traditional practices and beliefs that enveloped everyday life. Hunting and health, the

utilization of shamans (healers with spiritual powers) and a comprehensive view that linked native people to their land and every living creature on it--all of this was part of the spiritual life that could not be separated from the acts of daily living. Malcolm Margolin phrased it this way: "The relationship between people and animals was not one of exploitation but of reciprocity."¹³⁵

Occasionally, skirmishes with neighbors did occur, primarily over the issue of trespass. Natural resources were strictly regarded as belonging to the people of any given territory. However, limited trade also existed between neighboring groups. Strings of shell beads (Olivella), clamshell discs or Olivella shell discs were used for "money."¹³⁶ Articles might also be directly bartered.¹³⁷

Houses were circular, domed (or conical) dwellings, perhaps six to seven feet in diameter at the base, with lashed tule reeds covering a willow framework.¹³⁸ Other sources indicate that the houses might have been 12-16 feet in diameter, with as many as 30 homes clustered in a village.¹³⁹ The "temescal" or "sweat house" would generally be dug partially into the ground, often on the bank of a stream.

Tule reeds were also bundled together and lashed to create a lightweight balsa that was sufficient for bay travel but was not adequate for ocean waters. These tule boats, as described by Archibald Menzies who accompanied the Vancouver expedition in 1792, were 14 feet long and propelled by double-bladed paddles.¹⁴⁰ Captain George Vancouver himself described the balsas as 10 feet long.¹⁴¹ These tule boats allowed the bayshore people to fish, to reach the bay islands for collecting bird eggs and catching nesting birds, and to hunt sea mammals such as otters for their meat, skin and blubber.

Occasionally, a whale might beach itself and be the cause of a large feast.¹⁴² However, hunting and gathering were the primary means of subsistence. Shellfish, fresh and saltwater fish, many kinds of animals, birds and insects, as well as seeds, nuts, roots, bulbs, greens, berries, etc. were all utilized for food.

Among the items seasonally gathered were, of course, acorns. The processing of acorns after gathering, drying, storing and cracking involved pounding them into meal using mortars and pestles, and then leaching the meal of its tannic acid with lots of water. The meal could then be cooked by dropping heated stones into tightly woven baskets that held the meal and water. The heated stones, replaced a few times as they cooled, were sufficient to bring the mixture to a boil in a relatively short time. The acorn mush would soon be cooked and ready to eat. Acorn meal might also be made into a kind of bread or into balls and cooked--just two variants on how the aboriginal people utilized acorns.¹⁴³

The acorns of the Coast Live Oak (*Quercus agrifolia*), most readily available to the people of the Emeryville site, were certainly edible but not a highly prized kind of acorn. The acorns of the Valley Oak, Blue Oak, Black Oak and Tan Oak, in order of ascending preference, were all more desirable than those of the Coast Live Oak in terms of taste, size or ease of preparation.¹⁴⁴ The acorns of the Coast Live Oak are rather small and the crops are variable, "with no more than one good crop occurring in two years."¹⁴⁵ The large seeds of the buckeye tree, although considered inferior in almost every way to acorns, could still be utilized as a backup when the acorn crop failed.¹⁴⁶

Ingenious Basketry

The acorn process naturally brings up the issue of basketry, for it was in baskets that the acorns were gathered, stored and cooked. In fact, basketry was used for a myriad of purposes: as seed-beaters, mats, cradles, cooking utensils, mortar hoppers, storage containers, winnowing trays, dippers, bowls, fish and bird traps, gathering baskets, water carriers, etc. The absence of pottery used to be frequently cited as a sign of the "low level" of aboriginal culture in much of California. These days, it is more common to view basketry, which filled all the needs for which pottery might otherwise have been used, as a tribute to the ingenuity, skill and artisanship of the aboriginal basket makers. For a people who probably made limited seasonal moves, basketry was by far the more practical article; pottery offered no advantages.

Unfortunately, basket materials in the shellmounds have long since decayed, and the bay area native people were among the earliest to come under Spanish influence--long before ethnologists had begun their collecting and salvaging of native items. The California Academy of Sciences was the only museum in California collecting local ethnographic items before 1900, and its collections were largely destroyed in the 1906 earthquake.¹⁴⁷

Ironically, there appear to be more Ohlone (Costanoan) baskets held in overseas museums, documented or undocumented, than in California itself. Foreign visitors to the missions often picked up basketry as curiosities to take back home. One Costanoan basket made during the Mission Era resides in the Santa Cruz City Museum and includes glass beads of post-contact times.¹⁴⁸

The Ohlone (Costanoan) people are thought to have used more twining than coiling techniques in their basketry,¹⁴⁹ but both twining and coiling were known and practiced.¹⁵⁰ Baskets would have been decorated with feathers, shell beads, woodpecker scalps, etc. and might have used variations in weave or material to achieve design. Adelbert von Chamisso, the naturalist on the Kotzebue expedition that visited Mission San Francisco in 1816, remarked that native industries like basket-weaving had been largely forgotten in the missions.¹⁵¹

Hunting weapons included sinew-backed bows, 3-3 1/2 feet long,¹⁵² self-bows, nets, slings, spears, traps and the atlatl (a wooden throwing board or throwing dart). Bow strings would be made from sinew or vegetable fiber. Fish might also be caught with hook and line, traps, nets, spears or by using soaproot as a poison.

Whole aspects of culture--social relations, dress, ethics, music, mythology, or what we know of them--have had to be omitted in this article, but we can say that local aboriginal society functioned successfully on its own terms. Clearly, the most cataclysmic disruptions occurred after initial contact with the Spanish and continued dismally and fatally on through the "American" period. We need not (and we could not) adopt aboriginal lifeways in order to grasp and appreciate the aboriginal view and practices of life. This appreciation, in turn, could well expand our own perspectives and is perhaps the most important legacy of the Emeryville Shellmound.

The Native Legacy of Emeryville

End Notes

¹ Schenck, W. Egbert, "The Emeryville Shellmound," in University of California Publications in American Archaeology and Ethnology (UCPAAE), University of California at Berkeley, Vol. 23, No. 3, 1926, p. 155.

² Nelson, N. C., "Shellmounds of the San Francisco Bay Region," in UCPAAE, Univ. of Calif. at Berkeley, Vol. 7, No. 4, Dec. 1909, map opposite p. 348.

³ California Department of Natural Resources, "Landmarks," Reports No. 1-27. August 8, 1939.

⁴ Bickel, Polly McW., "Changing Sea Levels Along the California Coast: Anthropological Implications," in Journal of California Anthropology, Vol. 5, No. 1, Summer 1978, p. 20 (Appendix).

⁵ Fiedel, Stuart J., Prehistory of the Americas, Cambridge University Press, Cambridge, 1987, p. 46.

⁶ Hopkins, David M., "Aspects of the Paleogeography of Beringia During the Late Pleistocene, in Paleoecology of Beringia, Hopkins et al, editors, Academic Press, 1982, p. 26.

⁷ Hrdlicka, Ales, "The Coming of Man From Asia in the Light of Recent Discoveries," in Annual Report of the Smithsonian Institution for the Year 1935, Government Printing Office, Washington, D.C., 1936, p. 466.

⁸ Moratto, Michael J., California Archaeology, Academic Press, Inc., Orlando, Florida, 1984, pp. 30, 33. See also Fiedel, op. cit., p. 51, 56.

⁹ Heizer, Robert F. and Elsasser, Albert B., The Natural World of the California Indians, University of California Press, Berkeley, 1980, p. 1. See also Fiedel, op. cit., p. 44 and Moratto, op. cit., p. 71.

¹⁰ Henn, Winfield G. and Schenk, Robert E., "An Archaeological Analysis of Skeletal Material Excavated From the Civic Center Station of BART," in Robert E. Schenk Archives of California Archaeology, Paper No. 11, January 1970, Appendix 3.

¹¹ Atwater, Brian F., "Ancient Processes at the Site of Southern San Francisco Bay: Movement of the Crust and Changes in Sea Level," in San Francisco Bay: The Urbanized Estuary, T. J. Conomos, editor, American Association for the Advancement of Science, San Francisco, 1979, pp. 39-40.

¹² Shipley, William F., "Native Languages of California," in Handbook of North American Indians, Vol. 8, Smithsonian Institution, Washington, D.C., 1978, p. 80. See also Moratto, op. cit., p. 530 (He says 90).

¹³ Heizer and Elsasser, op. cit., p. 25.

¹⁴ Moratto, op. cit., p. 536. See also Shipley, op. cit., p. 81.

¹⁵ Moratto, ibid., p. 550 (map).

¹⁶ Shipley, op. cit., p. 84.

¹⁷ Bickel, op. cit., p. 15.

¹⁸ Howard, Arthur D., Geologic History of Middle California, University of California Press, Berkeley and Los Angeles, 1979, (Calif. Natural History Guides No. 43) p. 94.

¹⁹ Cook, Sherburne F., "The Aboriginal Population of Alameda and Contra Costa Counties, California," in Anthropological Records, Vol. 16, No. 4, University of California Press, 1957, p. 148.

²⁰ Stanger, Frank M. and Brown, Alan K., Who Discovered the Golden Gate? San Mateo County Historical Association, San Mateo, CA, 1969, p. 123.

²¹ Treutlein, Theodore E., San Francisco Bay, Discovery and Colonization, 1769-1776, California Historical Society, San Francisco, 1968, pp. 135-136 (map).

²² Chartkoff, Joseph L. and Kerry Kona, The Archaeology of California, Stanford University Press, Stanford, 1984, p. 275.

²³ Rudkin, Charles N., translator, The First French Expedition to California, Glen Dawson: Los Angeles, 1959, pp. 98-119.

²⁴ Wilbur, Marguerite Eyer, Vancouver in California 1792-1794, Glen Dawson: Los Angeles, 1953, Vol. I, p. 26.

²⁵ Ibid., Vol. II, pp. 236-7.

²⁶ Choris, Louis, San Francisco One Hundred Years Ago, translated by Porter Garnet, A.M. Robertson Co., San Francisco, 1913, pp. 11-12.

²⁷ Kotzebue, Otto von, A New Voyage Round the World, in the Years 1823, 24, 25, and 26, Henry Colburn and Richard Bentley: London, 1830, Vol. II, p. 141.

²⁸ Alameda County Record of Deeds, Book A, Page 202, August 1, 1853. (This shows the sale, for \$100,000 of the largest piece of the estate; On March 3, 1852--a year before the separate County of Alameda was created--

Peralta sold what is now the greater downtown section of Oakland to John Clar and associates for \$10,000.)

²⁹ Alameda County Record of Deeds, Book B, p. 569, Nov. 19, 1853.

³⁰ Pond, John E., letter to Museum of Anthropology, University of California, San Francisco, Calif., March 15, 1931. In: Manuscript No. 348, Anthropological Research Facility, Phoebe A. Hearst Museum, University of California at Berkeley.

³¹ Berkeley Daily Advocate, Aug. 27, 1896, p. 3, "Those Ancient Shell Mounds."

³² Pond, op. cit.

³³ Alameda County Record of Deeds, Book G, p. 700. (Total acreage rose to 115 acres with the addition of two small pieces.)

³⁴ Alameda County Record of Deeds, Book I, p. 326.

³⁵ Oakland Daily Evening Tribune, Feb. 24, 1877, p. 3, col. 2, "Oakland Brevities."

³⁶ Ibid.

³⁷ Oakland Daily Evening Tribune, March 26, 1877, p. 3, col. 3, "Oakland Brevities."

³⁸ Oakland Daily News, Oct. 17, 1876, page 3, col. 1 (Also see Oakland Directory, 1879-1880 for listing of John J. Rivers)

³⁹ Hudson, A. S., M.D., "On Shell Mounds in Oakland, California," in Proceedings of the California Academy of Sciences, Vol. 5, San Francisco, 1875, pp. 302-303.

⁴⁰ Ibid. p. 302.

⁴¹ Ibid. p. 303

⁴² Ibid. "

43 Laidlaw, G. E. (probable author), "Shell Mound in California," in: The American Antiquarian and Oriental Journal, Vol. 7, No. 3, Chicago, May 1885, p. 159.

44 Ibid., p. 161.

45 Oakland Daily Evening Tribune, Special Edition, January 20, 1887, "Shell Mound Park," p. 27, col. 3.

46 Alameda County Record of Deeds, Book 322, p. 337. May 26, 1887.

47 Oakland Tribune, Oct. 24, 1896, p. 1, "They're Off at Oakland!"

48 Berkeley Daily Advocate, Aug. 25, 1896, p. 2, col. 2, "Shell Mounds" (editorial).

49 Gould, Stephen Jay, The Mismeasure of Man, W.W. Norton & Co., New York and London, 1981, p. 95.

50 Oakland Tribune, August 25, 1896, p. 4, col. 4 (editorial) "The Exploitation of Skulls."

51 Berkeley Gazette, August 29, 1896, p. 1, col. 5.

52 Oakland Enquirer, "Skeletons Exhumed", August 29, 1896, p. 5 col. 2; "Berkeley," August 29, 1896, p. 2; Berkeley Daily Advocate, "Most Interesting Find," Aug. 28, 1896, p. 1, col. 7; San Francisco Call, "Perfect Skeleton Found," Aug. 29, 1896, p. 13, col. 1.

53 Berkeley Daily Advocate, August 27, 1896, p. 3, col. 1-2, "Those Ancient Shell Mounds"

54 Pond, loc. cit. (see footnote 30)

55 Kroeber, Alfred, ed., "Historical Introduction," UCPAAE, Vol. 20, p. xi.

56 Ibid., p. ix, xv.

57 Uhle, Max, "The Emeryville Shellmound," UCPAAE, Vol. 7, No. 1, University of California at Berkeley, June 1907, p. 14.

58 Ibid., p. 16.

59 Ibid., p. 18.

60 Ibid., p. 43 (indicates outside dimensions)

61 Ibid., p. 24

62 Ibid., p. 40

63 Ibid., p. 15

64 Ibid., p. 36

65 Ibid., p. 21

66 Nelson, N. C., "Excavation of the Emeryville Shellmound being a Partial Report of the Exploration for the Dept. of Anthropology During the Year 1906," one report among several in Manuscript No. 348, Archaeological Research Facility, Univ. of Calif. at Berkeley, (Phoebe Hearst Museum), unpublished, handwritten.

67 Ibid.

68 Ibid.

69 Ibid.

70 Barrett, S. A., letter to Dr. Merriam, June 19, 1906, in Manuscript No. 348, ARF (see above for full citation).

71 Since Nelson's 1908 survey, many new sites have been added. See: Greengo, Robert E., "Molluscan species in California Shell Middens," Report No. 13 of Reports of the California Archaeological Survey, University of California, Berkeley, Dec. 10, 1951, p. 7.

72 Nelson (1909--see footnote 2), op. cit., p. 326.

- 73 Ibid
- 74 Ibid, p. 345.
- 75 Ibid, p. 348.
- 76 Beardsley, Richard K., "Temporal and Areal Relationships in Central California Archaeology--Part One," Report No. 24 in Reports of the California Archaeological Survey, Nov. 30, 1954, U.C./Berkeley, p. 4.
- 77 Oakland Tribune, July 2, 1967, Knave section, p. 20-CM. See also:
Oakland Tribune, Jan. 8, 1980, page C-1, "Mudflat evolves from burial ground to park and later a sculpture gallery."
- 78 Schenck, op. cit., p. 167.
- 79 Ibid, p. 166.
- 80 Ibid, p. 167-8.
- 81 Ibid, p. 169.
- 82 Ibid, p. 173.
- 83 Ibid, p. 180.
- 84 Ibid. " "
- 85 Ibid, p. 195-6.
- 86 Ibid, p. 184-5.
- 87 Beardsley, Richard K., "Temporal and Areal Relationships in Central California Archaeology--Part II," Report No. 25 of the California Archaeological Survey, Nov. 30, 1954, p. 89.
- 88 Schenck, op. cit., p. 198.
- 89 Ibid, p. 201.
- 90 Ibid, p. 267.
- 91 Wallace, William J., "An Aboriginal Hematite Quarry in Oakland, Calif.," in: American Antiquity, Vol. 12, No. 4, April 1947, p. 272.
- 92 Ibid, p. 273.
- 93 Schenck, op. cit., p. 212.
- 94 Ibid, p. 242.
- 95 Ibid, " "
- 96 Levy, Richard, "Costanoan," chapter in Handbook of North American Indians, Vol. 8, ed. by Robert Heizer, Smithsonian Institution, Washington, 1978, p. 492.
- 97 Elsasser, Albert B., "Development of Regional Prehistoric Cultures," Introd. article in Vol. 8 of Handbook of North American Indians, ed. by Robert Heizer, Smithsonian Institution, Washington, D.C., 1978, p. 57.
- 98 Schenck, op. cit., p. 245.
- 99 Ibid, p. 261.
- 100 Ibid, p. 264.
- 101 Ibid. " "
- 102 Follett, W. I., "Fish Remains From the West Berkeley Shellmound (Ca-Ala-307), Alameda County, Calif.," Report 29 of Contributions of the U.C. Archaeological Research Facility, Appendix B, November 1975, p. 82.
- 103 Schenck, op. cit., p. 233.
- 104 Ibid, pp. 226-230.
- 105 Wallace, William J. and Lathrap, Donald W., "West Berkeley (Ca-Ala-307): A Culturally Stratified Shellmound on the East Shore of San Francisco Bay," in Report No. 29 of Contributions of the U.C. Archaeological Research Facility, November 1975, p. 43.
- 106 Schenck, op. cit., p. 270.
- 107 Ibid, p. 275.

- 108 Ibid., p. 208.
- 109 Howard, Hildegard, "The Avifauna of Emeryville Shellmound," in University of California Publications in Zoology, Vol. 32, No. 32, 1929, p. 311.
- 110 Ibid., p. 379.
- 111 Ibid., p. 382.
- 112 Ibid., p. 383.
- 113 Gould, Richard, "Field Notes for weekend excavations at Ala-309 (Emeryville Shellmound) for Professor Heizer," in Manuscript 340, Archaeological Research Facility, University of California at Berkeley (Phoebe Hearst Museum), Feb.-May, 1963, unnumbered ms., last page.
- 114 Hubbs, Carl H., et. al., "La Jolla Natural Radiocarbon Measurements II." Radiocarbon, Vol. 4, 1962, p. 208.
- 115 Bickel, op. cit., (Appendix) p. 20.
- 116 Uhle, op. cit., p. 15, 36.
- 117 Schenck, op. cit., p. 278.
- 118 Gould, Richard A., "Exploitative Economics and Culture Change in Central California," Report 62, Reports of the University of California Archaeological Survey, May 15, 1964, p. 152.
- 119 Ibid., p. 157.
- 120 Beeler, M. S., "An Extension of S.F. Bay Costanoan?" in International Journal of American Linguistics, Vol. 38, No. 1, January 1972, p. 53. See also Galvan, P. Michael, "People of the West, The Ohlone Story," in The Indian Historian, San Francisco, Vol. I, No. 2, Spring 1969, p. 9.
- 121 Wildesen, Leslie E., "Ohlone Indian Pre-History," in The Indian Historian, San Francisco, Vol. 2, No. 1, Spring 1969, p. 25.
- 122 Galvan, loc. cit.
- and
- note: Distinct from "Ohlone" is the name "Olhone" which is derived from a village or tribelet in San Mateo County. According to Richard Levy (op. cit., p. 494), the English captain, Frederick William Beechey, who anchored in San Francisco Bay in November, 1826, first used "Olhone" in print.
- 123 Levy, op. cit., p. 485.
- 124 For example, see Blackburn and Hudson's Time's Flotsam, pp. 63, 98, etc. re: basket origins. (See footnote 147 for citation).
- 125 Levy, op. cit., p. 487.
- 126 Cook, loc. cit.
- 127 Galvan, op. cit., page 11. See also Levy, op. cit., p. 485, and Heizer, Robert F., The Costanoan Indians, California History Center (DeAnza College), Cupertino, Calif., 1974, p. 2.
- 128 Cook, Sherburne, "Historical Demography," Chapter in Vol. 8 of Handbook of North American Indians, ed. by Robt. Heizer, Smithsonian Institution, Washington, 1978, p. 91.
- 129 Levy, loc. cit.
- 130 The Indian Historian (editorial), Vol. 4, No. 2, Summer 1971, "The Ohlone Story."
- 131 Ibid.
132. Margolin, Malcolm, The Ohlone Way, Heyday Books, Berkeley, Calif., 1978.

- 133 Nelson, N. C., "Wixi of the Shellmound People," in American Indian Life, ed. by Elsie Clews Parsons, B.W. Huebsch: New York, 1922.
- 134 Galvan, op. cit., p. 10.
- 135 Margolin, Malcolm, The Way We Lived, Heyday Books, Berkeley, Calif., 1981, p. 84.
- 136 Harrington, John P., "Culture Element Distributions: XIX Central California Coast," in University of California Publications in Anthropological Records, Vol. 7, No. 1, 1942, p. 27.
- 137 Heizer, Robert F., "Trade and Trails," chapter in Vol. 8 of Handbook of North American Indians, ed. by Robert Heizer, Smithsonian Institution, Washington, 1978, p. 690.
- 138 Wilbur, op. cit., p. 11.
- 139 Nelson (1922), op. cit., p. 277.
- 140 "Archibald Menzies' Journal of the Vancouver Expedition," in California Historical Society Quarterly, Vol. II, No. 4, January 1924, Calif. Hist. Society, San Francisco, p. 271.
- 141 Wilbur, loc. cit.
- 142 Palou, Father Francisco, "The Founding of the Presidio and Mission of Our Father Saint Francis," in California Historical Society Quarterly, Vol. 14, No. 2, June 1935, p. 109.
- 143 Annual Report of the Board of Regents of the Smithsonian Institution for the year 1919; re: work of John P. Harrington, p. 45. See also Palou, op. cit., p. 9.
- 144 Baumhoff, M.A., "Environmental Background," in Vol. 8 of Handbook of North American Indians, Smithsonian Institution, Washington, 1978, p. 16. See also Peri, David W., "Plant of the Season: Oaks," in News From Native California, Vol.1, No. 5, Nov./Dec. 1987, p. 6.
- 145 Peri, Ibid., P. 8-9.
- 146 Heizer and Elsasser, (1980), op. cit., p. 100.
- 147 Blackburn, Thomas C. and Hudson, Travis, Time's Flotsam, Menlo Park, California, Ballena Press, (Anthropological Paper No. 35), 1990, p. 14.
- 148 Moser, Christopher L., Native American Basketry of Central California, Riverside, Calif., Riverside Museum Press, 1986, p. 86.
- 149 Levy, op. cit., p. 493.
- 150 Elsasser, Albert B., "Basketry," chapter in Vol. 8 of Handbook of North American Indians, Smithsonian Institution, 1978, p. 629.
- 151 Kotzebue, Otto von, A Voyage of Discovery into the South Sea and Beering's Strait, London: Longman, Hurst, Rees, Orme and Brown, 1821, H. E. Lloyd (translator), Vol. 3, p. 48.
- 152 Harrington, op. cit., pp. 14-15. See also Levy, op. cit., p. 492.

Acknowledgements

Thanks are due, first of all, to the core members of the E.H.S. for their unfailing patience, encouragement and assistance with historical materials and layout. Also, as any local history project invariably entails visits to the Oakland History Room at the Oakland Public Library, and to the Bancroft Library at U.C. Berkeley, sincere thanks are tended to William Sturm, Librarian at the former, and the entire reference library staff of the latter, all of whom helped immeasurably to make this article possible.

Last but not least, a special thanks to Larry Odoms of the Oakland Public Library, Periodical Room, who not only shared his vast knowledge of Alameda County newspapers, but who performed invaluable feats of mechanical magic to keep even the balkiest of microfilm viewers in working order.

— Sandra Sher

About the Emeryville Historical Society. . .

The Emeryville Historical Society was established in 1989 by a small group of people interested in historical research and preservation. Incorporated as a non-profit educational corporation, it is funded by memberships, subscriptions, and donations, including a Community Projects Grant from the City of Emeryville. The society produces a quarterly journal, back issues of which are available for \$2.50. Other society projects include exhibits and oral history interviews. Phone messages may be left at 652-8276

The Society welcomes new active members as well as subscribers. Subscribers will receive the quarterly newsletter as well as notices of other Historical Society activities. Dues are \$10.00 per year. Submissions of historical materials and information are also greatly appreciated.

Core members of the Society are: Donald Hausler, Nancy Smith, Tony Molatore, Vernon Sappers, Paul Herzoff, Ray Raineri, Arrol Gellner, Phil Stahlman, and Richard Ambro.

The Emeryville Historical Society
New Member Information

Name _____

Address _____

City _____

Phone(s) _____ Date _____

Number of Years in Emeryville _____ Special Interests _____

I am interested in: Active Membership Subscriber Membership

Please enclose a check for \$10.00 payable to The Emeryville Historical Society and mail to:

The Emeryville Historical Society
6389 Racine Street
Oakland, CA 94609