

"A Well Looking, Affable People...": The Ohlone of Aulintak/Santa Cruz

By MaryEllen Ryan

Introduction

For thousands of years until a mere one hundred fifty years ago, Santa Cruz and its surrounding lands were the undisputed home of a people now popularly known as Ohlone. Their homelands reached from the tip of the San Francisco peninsula, around the eastern shores of San Francisco Bay, along the coast and throughout the Santa Cruz Mountains, beyond Monterey to Point Sur, and throughout the Santa Clara Valley eastward to the Mount Hamilton Range. Throughout these lands their imprint remains. Huge mounds of ancient village midden now blend with the gently rolling, oak studded foothill landscape. Traces of fishing camps are found where salmon and steelhead were netted as they raced up countless streams in staggering numbers each winter. Outcroppings of bedrock used for grinding the abundant harvest of acorns are now hidden beneath grasses and brush where extensive groves of tanoak once grew. The people themselves lie in carefully planned cemeteries beneath today's urban landscape, placed there with reverence and ceremony over the millennia.

The life the people led was very different from that of their descendants today, and seems even more unfamiliar to the people whose lives and work now order changes upon the ancient landscape. The Ohlone people, who once numbered 10,000 or more over their entire land and at least 600 in several villages in and around Santa Cruz, were nearly annihilated under the impact of the expanding European population of the eighteenth and nineteenth centuries. Decimated by non-native diseases, parted from their extended families during mission residence, often hunted for sport or vengeance, the survivors dispersed to the hinterlands of their country. Many quietly accepted invisibility under the shield of a borrowed culture, while the elders became the caretakers of the languages and traditional ways of their people.

What is known of the Ohlone has been extracted from the historical records of their observers and from information shared by the Ohlone themselves. Hand-bound books of births, deaths, marriages and baptisms kept by the Spanish era missions provide village place names and kinship records. The diaries and sketches of botanists, artists, explorers and tradesmen of the late eighteenth and early nineteenth centuries provide descriptions of native and mission activities. The field notes of nineteenth and twentieth century ethnographers record remnants of languages and lifeways collected for study in the new American

anthropological and ethnological institutions. Ohlone descendants today share knowledge inherited from their grandmothers, providing insight to the harmonious interchange of natural, spiritual and human worlds.

Archaeologists have prepared reports from surveys and excavations of prehistoric Ohlone sites and those of surrounding culture areas. The studies analyze and compare artifactual material, and plot the distribution of related archaeological sites across the landscape. Their work seeks answers to questions concerning the migratory origins of the people, the time depths of their village occupations, strategies the people used to compensate for stresses of overpopulation, and their long term adaptation to climate changes that profoundly affected their social and economic organization. A history compiled from all these sources is summarized here, in order that the people of Santa Cruz today might obtain a clearer view of the ancient lifeways that left their mark in the form of archaeological deposits. These archaeological sites have become our inheritance from a people whose voices have been for the most part stilled.

Before the Ohlone Came

The earliest Californians are believed to have entered through mountain passes some thirty thousand years ago. As bands of hunters followed migratory game close to the end of the last ice age, they traversed a now submerged land bridge connecting the northernmost portion of the Asian and North American continents. Their route carried them east and south through plains and mountain passages over a period of several thousand years. Their camps were placed in close proximity to the lakes and marshlands that formed important habitat for the large game they sought. These early hunters entered California through the Owens Valley, reaching the southern California coast approximately 20,000 years ago. Coastal archaeological sites left by the earliest arrivals are believed to lie beyond the present shoreline, where they were inundated as the great continental ice sheets receded under the warming climate.

Archaeological sites dating from eight to twelve thousand years before the present date (B.P.) have been found with more frequency, positively dated by carbon-14 and other laboratory methods. The stone and bone tools and food remains contained in those deposits speak of a people whose survival depended on the ability to disband and follow migratory large game and waterfowl They processed local seed-bearing plants by grinding the hard seeds with handstones against a flat stone metate. These ground stone implements and distinctively shaped spear points and knife blades now identify their campsites. A recently excavated archaeological site in Scotts Valley produced material with a carbon-14 date of about 10,000 B.P., indicating that these early hunter/gatherers preceded the better known Ohlone in the Santa Cruz area.

Information from other sources also support an early date for occupancy of the central coast. An Ohlone spokesman in the San Francisco Bay area has related an ancestral oral tradition describing the course of his people's settlement of that area. The tribal history recalls a cataclysmic inundation of San Francisco Bay, separating the Ohlone from their native home among the Miwok of the Sierra Nevada foothills, where they had planned to return with traded coastal goods. Linguistic analysis of the Ohlone language as it was recorded in the eighteenth and nineteenth centuries confirmed the close relationship between the geographically separated Ohlone and Miwok languages. The language of the neighboring Eselen people below Carmel was found to be not only unrelated to Ohlone, but far more ancient. Geologists have extracted core samples from the floor of San Francisco Bay, which have confirmed through analysis of layered deposits that the bay was once a wide, lush valley watered by flowing streams prior to the formation of the bay about 9000 to 12,000

years ago. These data all suggest the presence of an early hunter/gatherer culture in Santa Cruz County who were eventually displaced to the outskirts of their territory. They were forced away by the imposed barriers of geological changes combined with an influx of people from the central valley and Sierra foothills.

Archaeological sites from the following culture period, dated from 8000 to 4000 B.P., are found with even greater frequency throughout California. These sites were left by people who settled in to specialize in the processing and use of local plant and animal resources. Typically these sites are large, indicating a cohesive village structure and establishment of food gathering and trade resource territories where they occur along the coast, within inland valleys, and in mountain passes.

The ancestors of the Ohlone apparently co-existed alongside the earlier hunters of this area as they adapted to the use of abundant marine resources along the stabilized shoreline. One continuous complex of sites has been recorded along a stream just outside the Santa Cruz city limits which appears to date from this period, as do others in the Pajaro Valley. The locations and contents of the midden deposits indicate that the people moved from one established camp to another on a seasonal basis, taking advantage of both inland and coastal products. They traded outside their territory for traditionally used materials this area lacked. Their preference for campsite locations was repeated by later historic period settlers, who also selected the advantages of adequate water, warm southern exposures, and relatively flat terrain for their initial settlement ventures. Because of this selection process, it is probable that many archaeological sites of such antiquity were obliterated in the process of nineteenth and twentieth century settlement of the city of Santa Cruz. Some of the prehistoric middens remaining alongside no longer existing marshes and watercourses near downtown Santa Cruz might be expected to provide evidence of these early marine adapted people.

The period of settling in and adapting to coastal resources was followed by one of tremendous population increase throughout the state from 4000 to 1500 B.P. The population increase was apparently related to the rapid diffusion of techniques for processing and storing acorns, which provided a high quality protein in an easily stored form for a staple food. With the adaptation to efficient use and storage of acorns, permanent villages were established for wintering over in the areas close to desirable food and trade resources.

The large, more sedentary population required a more complex tribal social organization than was necessary for the earlier mobile bands, in order to deal with the increasing complexities of food distribution, marriage alliances, trade and warfare. Some indication of the importance of particular individuals or lineages over other villagers during this period is evidenced by the increase in decorative and useful grave goods accompanying certain burials. The accumulation of goods for burial implies individual wealth and status, possible only with the compliance of the larger group in the dedicated, time-consuming preparation of objects intended for burial with the deceased. The internal arrangements of some larger cemeteries from this period have also shown an emerging pattern of status differentiation. In these cemeteries, people of importance or power are buried with a profusion of exotic grave goods in the cemetery center, while those with fewer grave goods were placed in concentric circles or groupings outward from center.

People of the West

By 500 A.D., 1500 years before the present, the speakers of the eight Ohlone languages dominated throughout the Ohlone territory, while speakers of the older Hokan languages had been displaced to the north and south. The Ohlone rise to dominance and changing social organization may be reflected in the remaining

cemeteries that were partially destroyed in the process of construction of several Santa Cruz commercial and residential projects in recent years. At least one of the larger Santa Cruz village sites, near the mouth of the San Lorenzo River, is thought to have been established during this period of complicated political and economic change.

The period from 500 A.D. to contact with European cultures in the eighteenth century is one for which there are many records and inferences. During this period, the people who greeted the Spanish land expeditions and were given the Spanish name "Costaños" (Coast People) by them, became politically organized into the tribal units recognized and recorded by missionaries and later ethnographers. Early in this period, the people living in and around Santa Cruz established themselves as a significant link in an intricate chain of exchange that extended to Sonoma County, Santa Barbara County, and the eastern Sierra Nevada. The trade network distributed coastal shell to the Sierra Miwok and Mono people, where it was worked into beads used as markers of wealth and exchange value. Salt and dried abalone were valued by the inland Yokuts people, whose territory had to be traversed and traders dealt with on journeys to the east. In return, obsidian for tools and ceremonial objects, pinon nuts and other exotic foods, and highly valued magnesite and cinnabar ore were brought to the coast villages. The Chumash of Santa Barbara were contacted for steatite (soapstone), which was carved into bowls and ceremonial pieces. The Pomo of the interior coast ranges of Sonoma County provided an alternative source for obsidian. The extent of this trade network, stretching as it did across language boundaries and foreign territories, required a specialized trading language, a well developed clam shell disc bead economy, and above all critical marriage and kin alliances in strategically located villages along the trade routes.

The coastal people and their villages were described with interest by the Europeans who came into contact with them. "A well looking, affable people," recalled a geographer on Vizcaino's 1602 visit to Monterey Bay "and very ready to part with everything they have. They are also under some form of government..." More than a century and a half later, Pedro Fages described their good features, light skin, and long moustaches. "They are very clever at going out to fish in rafts of reeds," he added. A Franciscan priest observed their "... comely elegance of figure, quite faultless countenance ... (their) hair kept arranged or in a closely woven small net ... quick-witted, fond of trading, and tractable." They were sketched in skin capes and fiber skirts at their daily work, sketched on the bay in their tule reed boats, sketched at play in games of skill and chance, sketched partaking in their "peculiar habit" of daily bathing, and sketched in ceremonial dress of deeply contrasting body paint, feather headdressings, and abalone shell pendants. What changes their organized community lives and personal habits underwent as Europeans came to dominate their home places, their abundant local foods, and their order of family, government and belief. When encountered after 1770 they were sketched in woolen mission robes as they sat dispirited in small, quiet groups, appearing to their observers as sullen, disagreeable, dark and filthy.

The native villages visited by early explorers were described as clusters of dome-shaped reed-covered houses with an assortment of granary structures, work shelters, a large meeting house in the central tribal village, and the always present temescal or sweathouse for daily bathing. The people were settled in large, organized villages ranging from 50 to 500 in population, with a number of smaller, seasonally occupied special use sites in association with the permanent village. In Santa Cruz, the largest village housed about 200 people. Special use sites in Santa Cruz included quarries and workshops where the local stone tool resource, Monterey banded chert, was extracted and worked into a variety of knives, arrow points, skin and fiber scrapers, and drills for manufacturing beads. In the forests, hunting blinds of piled rock were placed near game trails, often

with pecked rock art nearby. Fishing camps were established along the streams, where nets and traps were constructed and installed. Shellfish processing sites were established above the rocky shores where abalone, mussels, clams and various tidepool resources were gathered.

Acorn processing was done within or near the groves of oak where well-located outcroppings of bedrock provided a place for grinding mortars to be formed. The women also made use of portable hopper mortars, which were shallow ground-stone bowls upon which an open bottom basket was cemented. Landmark shrines were visited for observing astronomical events and religious ceremonies. A multitude of other activities left few material traces: specially dedicated meadows where rabbits were driven and captured in the spring by the entire village populace; hunting trails following ridges and canyons; particular tracts of land saved for the gathering of special basketry materials; personal shrines and landmarks from which individual powers were renewed; and ceremonial caves and shelters whose uses were kept secret from prying anthropologists eager to interview the grown great-grandchildren of the 18th century Ohlone.

The Ohlone Landscape Today

It is difficult to observe the radically changed Santa Cruz landscape today and imagine the abundance of water, wildlife and plant life that formed the Ohlone landscape. Neary Lagoon was surrounded by campsites occupied by groups of families while useful plants and migratory waterfowl were gathered. Once captured with the hunter's trickery of cunningly made decoys and mimicked calls, the birds were used not only for food, but were transformed into feather capes and blankets, ceremonial costumes, bone whistles and flutes, and bone basketry awls. The air would be dense with the rising and settling of waterfowl, while the now extinct tule elk gathered in great herds around the shoreline. Thick stands of tule reed penetrated the lagoon, so abundant and strong they were gathered and woven into mats for protective house coverings and cushioned bedding, or were tied into long bundles for the construction of fishing and transport boats that plied Monterey Bay.

A large village, probably the one called "Aulintak" in mission records and later ethnographies, commanded a view of the lagoon, the bay, the San Lorenzo River, and several other villages to the north, east, and west from its vantage point on Beach Hill. This village was fully occupied when Mission Santa Cruz was established nearby in 1791, one mile upstream on the San Lorenzo River. The type of shell bead found in the archaeological deposits of Aulintak may indicate that its antiquity reaches back 2000 years. The Westlake area, with its abundant rushing streams and springs, was the site of an exceptionally large, activity zoned village, possibly the one called "Chalumu" in later records. The people of Aulintak and Chalumu spoke one of the eight Ohlone languages called Awaswas, in which they communicated with their neighbors at Hotochtak, believed to be north of the present city, and at Sokel, Aptos, Sayant, Achistaca and Uypen. The names of today's villages of Soquel, Aptos and Zayante communicate a far more ancient history than is evidenced by their landmark wooden buildings dating to a century ago.

The Ohlone beyond Davenport spoke an entirely different language called Ramaytush. It was in Ramaytush territory that the village of Olxon was located. The name "Ohlone" was taken from this place, which has now come to be the preferred designation used to refer to all the groups that spoke the eight "Costanoan" languages. The central valley Yokuts and the Sierra Miwok apparently referred to all the coastal traders as Ohlone, which has been translated from Miwok as "people of the west".

Beyond the Awaswas speakers below Aptos, the Ohlone spoke another language called Mutsun. The Mutsun speakers had their own name for the villages of Santa Cruz, calling them Hardeon. The Mutsun were living in a central village at Kalenta-ruk on the Pajaro River in 1769, when they were given an unexplained, enormous fright by the appearance of mounted Spanish soldiers of the Portola expedition. The people of Kalenta-ruk left an extremely large stuffed bird totem at the site of their village when they fled, so impressing the Spanish that they gave their own name for "bird" to the river at Kalenta-ruk. Below the Mutsun, the Rumsen of Monterey spoke a dialect much more closely related to Awaswas than to their immediate Mutsun neighbors. This puzzling bit of information may hint of recently active displacement of the coastal people in the Pajaro Valley/Elkhorn Slough area.

The people of Aulintak and Chalumu followed a seasonal rhythm as they collected the bounty of their land. The spring brought tender shoots of edible plants, along with a proliferation of young animals and edible insects. The summer brought harvests of grasses for basketry and fiber, bulbs, roots, seeds, fruits and berries from hundreds of edible and useful plants. Deer were hunted with sinew-backed bow and arrow in the tall grass meadows, where the hunter brought the curious animals into breathtakingly close range by mimicry of the deer's movements in deerskin decoys worn draped over the hunter's body. Autumn brought the acorn harvest, which occupied the intense concentration of all the villagers in the gathering, preparation of pits for leaching and baking, and for the ceremony that accompanied the yearly harvest. Wild geese and ducks were captured in the lagoons, fish were harpooned or netted in the rivers, lagoons and bay, and sea mammals were captured on and off shore. Shellfish were a staple as important as the acorn, and were regularly gathered.

Preparations for winter included the burning of great expanses of meadow and forest, to encourage the new plant growth preferred by the Ohlone and the browsing animals they hunted. Winter rains brought the influx of salmon and steelhead, and movement from the hills to more favorably located winter villages. Throughout the winter the women worked on their exquisite basketry, which is now world renown for its beauty and intricacy of design. Stores of acorns, dried fish and meat, seeds and nuts were tapped through the winter to supplement the leaner diet. Within the communal houses, elders repeated tribal oral traditions, passing on the accumulated wisdom of several thousand years of their world history. Ceremony, song, dance and fable constantly reinforced the people's sense of their part in the rhythm of the universe, weaving them into the fabric of sun, moon, stars, earth, water, and the earth's other living creatures. That rhythm was irreparably broken with the onset of European cultural dominance over their lands.

We Share an Inheritance

Today the villages of Aulintak and Chalumu lie beneath the houses, streets, schools and businesses of Santa Cruz. The descendants of the Ohlone care for their ancestral home in spirit, and more frequently now in anger when carefully interred remains are wrenched from their graves in the unrelenting face of modern development. Of the 230 Ohlone archaeological sites recorded in Santa Cruz County by mid-1980, fourteen were found within the Santa Cruz city limits. These covered the range from large villages to small special use sites. Of the fourteen recorded sites, five have been destroyed beyond nearly all scientific value, either by natural erosion or construction throughout the entire site without benefit of archaeological investigation. Eight have been disturbed in part by construction of houses or roads, or are partially eroded away, but appear to contain intact portions either beneath surface disturbance or in areas adjacent to modern construction. Portions of the Delaveaga area contain sites where chert tools were repaired and re-worked, leaving large

amounts of chipping waste in the midden soil. There also exist areas near UCSC that include small multiple use campsites, areas of Seabright where shellfish were processed for food and ornaments, and areas of Westlake associated with Chalumu where chert was worked from raw material into useful tools and projectile points. An area near Pogonip exists where tools were reworked, and where diarists of Portola's expedition described temescals, the sweathouses used for ritual and daily bathing. Areas around Neary Lagoon still contain portions of much larger sites where any number of the marsh associated activities would have taken place.

Only one site has been recorded that remains free from modern disturbance, defined as a hunting camp from its surface debris, where game was apparently butchered and distributed among the hunting party. Other sites are likely to exist unrecorded, perhaps concealed under silty layers of alluvial wash, perhaps covered by parking lots or suburban vegetation, or hidden in brushy canyons now made impenetrable by dense chaparral the Ohlone would have burned away each fall. This fragile, depleted archaeological wealth is our inheritance from the past. Preserved with care, and excavated with the integrity of explicitly scientific research, the sites can be expected to provide answers to our remaining questions about the Ohlone and their predecessors. These answers can arm us with knowledge for facing the future, when we can expect economic fluctuations, population stresses, and climatic changes to act upon those of us who now live in Santa Cruz. We are the new "people of the west", stewards of the past with the responsibility and power to preserve what remains for the future.

Recommended Additional Readings

A summarization such as the preceding cannot begin to describe in any detail the richness and variety of California Indian culture. The following are readily available sources for those wishing to further their understanding of the Ohlone and other California Indians. Asterisk (*) indicates exceptional sources. All were available in 1980, when the Archaeological Resources Protection Amendment was presented to the public.

Ballena Press, Box 1366, Socorro, New Mexico 87801

Publishers of scholarly writings on Calif., Southwest, and Great Basin ethnohistory. List available.

Bean, Lowell J. and Thomas Blackburn, authors

Native Californians: A Theoretical Retrospective. Ramona: Ballena Press. 1971. Collection of papers on California Indian social organization.

Bean, Lowell John and Thomas F. King, authors*

Antap: California Indian Political and Economic Organization. Ramona: Ballena Press. 1974. Anthropological descriptions of organizational systems employed by various tribal groups.

Coyote Press*, P.O. Box 3377, Salinas, CA 93912

Publishers of locally written manuscripts dealing with the archaeology and ethnohistory of the central coast.

Davis, J.T.

Trade Routes and Economic Exchange among the Indians of California. Berkeley: U.C. Archaeological Survey Reports. 1961. Details the incredible variety of exchange goods and extensive trade system of prehistoric California.

Deetz, James

Invitation to Archaeology. Garden City: The Natural History Press. 1967. Explanation of the reasons for, and results of, archaeological methods.

Fages, Pedro*

Expedition of Pedro Fages to the San Francisco Bay, 1770. H. E. Bolton, ed. San Francisco: Academy of Pacific Coast History. 1911. Translated diary of early land expedition.

Gamman, John K.

The Ohlone Indians-People of the West: Their use of natural resources. Unpublished Senior Thesis at Special Collections, UCSC McHenry Library. 1973. Study of seasonal food gathering by ecozones.

Gordon, Burton L.*

Monterey Bay Area: Natural History and Cultural Imprints. Pacific Grove: Boxwood Press. 1974. Evolution of the Monterey Bay area landscape, detailing man's manipulation of natural resources. More recent revised edition now available.

Heizer, Robert F. *

The Costanoan Indians. Local History Studies, Vol. 18. Cupertino: California History Center, De Anza College. 1974. Thorough survey of Costanoan/Ohlone culture.

Heizer, Robert F., editor

They Were Only Diggers. Newspaper accounts of persecution against the California Indians in the 19th century.

Heizer, R.F. and M.A. Whipple *

The California Indians: A Source Book. Berkeley, Los Angeles, London: University of California Press. 1971. Collection of papers on the material culture and social organization of all California tribes.

Jackson, Robert

An Introduction to the Historical Demography of Santa Cruz Mission and the Villa de Branciforte, 1791-1846. Unpublished Senior Thesis, Special Collections, UCSC McHenry Library. Includes reconstruction of population patterns of local Ohlone and effects of missionization.

Kessler, Christina *

Ohlone: Native Americans of the San Francisco and Monterey Bay Areas. Unpublished Honors Senior Thesis, Special Collections, UCSC McHenry Library. 1974. Carefully researched, well written paper exploring the lifeways of the Ohlone and European impact on their culture.

Kroeber, A.L.

Handbook of the Indians of California. Washington: Smithsonian Institution. 1925. Classic California Indians handbook, republished in paperback by Dover, New York, 1976.

Kroeber, Theodora

Ishi in Two Worlds. Berkeley: University of California Press. 1961. Detailed account of lifeways as explained to anthropologists by last surviving Yahi, 1911-1916.

Levy, Richard

'The Costanoan', pp. 485-495 in *Handbook of the North American Indians, Vol. 8, California*. Washington: Smithsonian Institution. 1978. Recent survey of Costanoan/Ohlone culture, synthesizing recent work with emphasis on linguistic origins.

Lewis, Henry T.

Patterns of Indian Burning in California: Ecology and Ethnohistory. Ramona: Ballena Press. 1973. References for burning as a method of agriculture.

Margolin, Malcolm *

The Ohlone Way. Indian Life in the San Francisco-Monterey Bay Area. Berkeley: Heyday Books. 1978. A sensitive, beautifully written description of the Ohlone way of life, with excellent bibliography.

Palou, Fray

Francisco Historical Memoirs of New California. H.E. Bolton, ed. Berkeley: University of California Press. 1926. Translated journals of travels in Alta California.

Santa Cruz Archaeological Society *, 1305 East Cliff Drive, Santa Cruz 95062.

Publishers of *SCAN, Santa Cruz Archaeological Notes*; present films, speakers, activities related to the preservation of archaeological sites in Santa Cruz County. Meetings third Thursday monthly, City Natural History Museum.

Santa Cruz City Museum *, 1305 East Cliff Drive, Santa Cruz CA 95062.

Natural History museum in Seabright, with excellent display on California Indians and good bookstore.

Santa Maria, Fray Vicente *

The First Spanish Entry into San Francisco Bay. John Galvin, ed. San Francisco: J. Howell, Publisher. Sensitive portrayal of Bay Area Ohlone before missionization.

Smith, Charles R. *

'In Harmony with the Earth: Heritage Significance among the Ohlone', in *Archaeological Evaluation of CA-SCR-158* by J. Bergthold, G.S. Breschini, and T. Haversat. Salinas: Coyote Press, 1980. Examination of attitudes held by Ohlone and other Native Americans towards the desecration of their sacred sites by development and archaeologists.

Sources Consulted in the Preparation of this Manuscript

Personal Communications

Baker, Suzanne

Archaeological Consultants, San Francisco, CA. Personal communication regarding recent excavations at CA-SCR-12, the "Beach Hill" site. July 1980.

Cartier, Robert

Archaeological Resource Management, San Jose, CA. Personal communication regarding recent excavations in Scotts Valley. July 1980.

Mathes, Eric

Consulting Artist, graphics and illustrations, Santa Cruz, CA. Personal communication regarding appearance of Ohlone landscape. July, 1980.

Orozco, Patrick

Ohlone Indian Cultural Association, Watsonville, CA. Personal notes and communications, 1975 - 1978; address to the Santa Cruz Archaeological Society, 1975.

Unpublished Papers and other collected manuscripts in public and private collections

Ball, Francine

"Mortuary Customs and Beliefs of the Costanoan Indians." Unpublished class paper, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1974.

Breschini, Gary S. and Trudy Haversat

"Archaeological Overview of the Central Coast Counties, Draft for Comment," in possession of Regional Office of the California Archaeological Site Survey, Aptos CA. 1979.

Edwards, Robert L. and MaryEllen [Ryan] Farley

"Assessment of the Cultural Resources of the Lower Pajaro River Basin, California, with selected field study." Contracted manuscript in possession of U.S. Army Corps of Engineers, San Francisco, CA. 1974.

Gamman, John K.

"The Ohlone Indians - People of the West: Their Use of Natural Resources." Student Paper no. ES 144 N, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1973.

Kessler, Christina

"Ohlone: Native Americans of the San Francisco and Monterey Bay Area." Honors Thesis, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1974.

Kessler, Christina Mary

"People of the West." Student paper, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1974.

Koster, George H.

"The San Lorenzo River, Yesterday, Today and Tomorrow." Thesis, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1975.

Krumbein, William J.

"Natural Bridges State Beach History." Undated typescript in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz.

Morris, Joseph and Allan Lonnberg

"Santa Cruz County Prehistoric Settlement Pattern Analysis: A Preliminary Report." Student paper in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1975.

Ryan Farley, MaryEllen

"California Indians of the Central Coast." Typescript for slide illustrated lecture program, in possession of Santa Cruz City Museum. 1973.

Simmons, Terry

"The Status and Future of Archaeology in the Santa Cruz Region." Thesis, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1978.

Spencer, Lois

"The Costanoan Indians: Bibliography." Typescript in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1971.

Swift, Carolyn

"A Sampler: Indians of Santa Cruz County." Student paper in possession of Library, Cabrillo College, Aptos CA. 1971.

Various authors and dates

Files and confidential records of the Regional Office of the Californian Archaeological Site Survey, Aptos, CA. Used in this manuscript:

Santa Cruz County Archaeological Site Records, 3 volumes, including CA-SCR-12, -24, -25, -80, -87, -89, -93, -94, -106, -114, -116, -142, -187, -189.

Santa Cruz County Archaeological Impact Evaluations: No. E-14, -21, -23, -32, -51, -64, -103, -159, -165, -174, -177, -178, -179, -200, -208, -211, -215, -218, -235, -243, -255, -275, -276, -298, -309, -313, -317, -331, -336, -342.

Weiner, Ann Lucy

"Mechanisms and Trends in the Decline of Costanoan Population." Thesis, in possession of Department of Special Collections, McHenry Library, University of California Santa Cruz. 1979.

Published Sources

Edwards, Rob

'5400 Years on the Santa Cruz Coast', article in Volume 3 Number 3, Santa Cruz Archaeological Notes. Santa Cruz: Santa Cruz Archaeological Society.

Gordon, Burton L.

Monterey Bay Area: Natural History and Cultural Imprints. Pacific Grove: Boxwood Press. 1974.

Heizer, Robert F.

The Costanoan Indians. Local History Studies, Vol. 18. Cupertino: California History Center. 1974.

Heizer, R.F. and M.A. Whipple

The California Indians: A Source Book. Berkeley: University of California Press. 1971.

Kroeber, A.L.

Handbook of the Indians of California. Washington D.C.: Smithsonian Institution. 1925.

Levy, Richard

'The Costanoan', pp. 485-495 in *Handbook of the North American Indians, Vol. 8, California*. Washington D.C.: Smithsonian Institution. 1978.

Margolin, Malcolm

The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area. Berkeley: Heyday Books. 1978.

Mathes, W. Michael

A Brief History of the Land of Calafia: The Californias 1533 - 1795. San Francisco: the author.

Nemeric, Jan

'Edible Plants of Santa Cruz used by Aborigines', article in *Loganberry: A Santa Cruz Magazine*, second edition. Santa Cruz: UCSC Environmental Studies Department. 1973.

Smith, Charles R.

In Harmony with the Earth: Heritage Significance among the Ohlone, in Archaeological Evaluation of CA-SCR-158 by J. Bergthold, G.S. Breschini, T. Haversat. Salinas: Coyote Press. 1980.

Source

Prepared as a narrative accompaniment to the *Archaeological Resources Protection Amendment, Historic Preservation Plan of the City of Santa Cruz*. For the City of Santa Cruz Planning Department under provision of P.O. No. 09894.

MaryEllen Ryan Historical Investigations July 28, 1980

© Copyright MaryEllen Ryan. Reproduced with the permission of MaryEllen Ryan and the City of Santa Cruz.

It is the library's intent to provide accurate information, however, it is not possible for the library to completely verify the accuracy of all information. If you believe that factual statements in a local history article are incorrect and can provide documentation, please contact the library.