

White Point: A Landscape History

Introduction

In the year 2001, the 102 acres of White Point Nature Preserve appear to some people to be no more than an expanse of weeds, interrupted here and there by dilapidated buildings and strips of crumbling pavement. That same landscape, though, tells a story of war and peace, of colonization and community growth, and of a Native American presence going back thousands of years, perhaps as far as the end of the Ice Ages. At White Point as elsewhere, clues to the landscape's rich legacy still survive.

Why should we bother with local history? One reason is that present-day land uses are usually derived from, and related to, past land uses; any landscape presents both opportunities and limitations, which together shape the range of viable adaptations. A second reason is that a people's history is in some measure manifest in their impact on the landscape.

Geography and ecology of White Point and environs

White Point Nature Preserve occupies a sequence of uplifted marine terraces near the southeast corner of the Palos Verdes Peninsula, facing southward across the San Pedro Channel toward Santa Catalina Island. Geologically, the park is composed primarily of quaternary and tertiary shales at the surface, interspersed beneath the surface with miocene igneous intrusions. The shales formed over eons as calcium-rich sedimentary deposits accumulated on the sea floor; then, between roughly 17 and 12 million years ago, igneous material—magma—was squeezed in between layers of shale; the magma cooled to form the basaltic rock which is exposed in several formations along the coastline immediately below the nature preserve, as well as at other points along the southern and eastern sides of the peninsula. The heat and pressure associated with the igneous intrusions caused some of the marine sediments to metamorphose to chert and other rocks. The geological foundation underlying all of this is thought to consist of schists formed during the mesozoic, over 63 million years ago.

Diastrophic folding and faulting of the Earth's crust have raised the peninsula from the sea floor since the beginning of the Pleistocene epoch (from 2 million to 10,000 years ago), initially creating an island quite a few miles offshore from the mainland. The emerging island diverted the flow of longshore ocean currents, resulting in increased deposition of sediments in the shallow bay between the island and the mainland--and gradually filling it in to produce the Los Angeles basin.

This geological background produced a distinctive distribution of features. The peninsula is composed of igneous and metamorphic as well as sedimentary rocks, containing mineral deposits which have been mined and quarried in recent times—notably for basalt and diatomaceous earth. Other minerals, including chert and quartz, attracted attention in earlier times. Crystals were widely associated with supernatural powers, and were used in indigenous religious practices. Chert is durable and maintains a sharp edge fairly well, making it suitable for a variety of tools and implements; numerous chert artifacts were found during archaeological excavations in the region, such as the Malaga Cove site in Palos Verdes Estates. Because most of the Los Angeles basin is sedimentary fill, it has relatively little “tool-quality” stone. Obsidian and other superior materials were available through long distance trade, but chert from the Palos Verdes Peninsula was probably routinely used by Native Americans in the South Bay area.

The sulphur-rich mineral springs that flowed from fissures along the coast just below White Point were an attraction in prehistoric times, just as they were in historic times (until the 1933 Long Beach Earthquake severely reduced their flow); in 1925, seven Indian burials—two adults and five children—were discovered near the springs. The mineral vents offshore created a sort of chemical and thermal oasis, supporting a particularly rich community of marine organisms--another attraction for both historic and prehistoric humans.

Southern California's climate has also played a critical role in shaping living conditions in the region. During the Pleistocene epoch (the Ice Ages), Southern California was generally cooler and wetter year-round, supporting a more lush flora and an impressive array of megafauna—from imperial mammoths, giant sloths and titanotheres to

sabertooth cats and dire wolves. As the Pleistocene drew to its end, the climate became gradually warmer and drier--with sharply contrasting wet and dry seasons--and the vegetation began to change in response. Drought-tolerant, xerophytic plants from arid regions to the south colonized Southern California, while plants with a higher water requirement, or less tolerant of higher temperatures, retreated northward or perished; a few relict populations persist in the Channel Islands, on mainland mountain tops, and in foggy, wetter coastal refuges such as Torrey Pines State Park. As the vegetation--the food supply--changed, so did the variety of animals found in Southern California.

The post-Pleistocene warming trend peaked between 6000 and 4000 years ago. By the end of this alithermal extreme, a new regime of flora and fauna had become established in Southern California. Much of this post-Pleistocene ecosystem, established 5000 years ago, still survives, albeit much reduced in distribution because of modern development.

White Point lies at an intersection of several of Southern California's post-Pleistocene terrestrial habitats--coastal sage scrub, coastal bluff scrub, riparian (stream-side), and grassland--as well as several distinct littoral (intertidal) and marine habitats along the shoreline and offshore. To the east, what is now the Los Angeles Harbor--as well as much of Wilmington, Harbor City and north San Pedro--was largely estuarine, a tidal mudflat flooded daily by ocean tides and seasonally by the Winter and Spring outflow of the Los Angeles River and other streams. Marshes and vernal pools extended seasonally over thousands of acres to the north and east of the peninsula, creating a rich foundation for aquatic as well as terrestrial creatures. In former times, oak-dominated woodlands, grasslands and chaparral were established in areas less prone to flooding; further afield, in the mountain ranges along the northern and eastern horizons, and in the deserts beyond, lay still more diverse habitats and resources.

Off shore, conditions were even richer. Streams and rivers carried nutrient-rich sediments and minerals to the sea, and as a consequence coastal waters teemed with algae at the base of an exceptionally productive food web. Their remains settled to the sea floor, to be recycled thanks to the Northern Pacific gyre--the vast system of oceanic circulation whose local segment is referred to as the California Current. This circulation produces a phenomenon called Ekman transport, a variation on the coriolis effect, which pulls surface waters away from the California coast; and this in turn draws up nutrient-rich waters from the sea floor near the coastal margins. As a result of this upwelling of nutrients, California's coastal waters teem with life--from plankton to whales, from shellfish to sharks and seals. Indeed, the basic biological productivity of California's coastal kelp forests equals or exceeds that of any other type of habitat on Earth, including tropical rain forests!

In sum, White Point today is the product of a fairly distinctive natural history, in a location remarkable for its proximity to a wide array of natural resources. Over thousands of years, this pattern has shaped human adaptations and land use practices in the area, while at the same being reshaped by its human occupants.

Prehistory

History is traditionally defined as the study of written records--which reach back over 5000 years in some parts of the world. Humankind has been around in most parts of the world for far longer than the written word, though, so the human past prior to the introduction of written records is referred to as prehistory. In California, prehistory extended from at least 12,000 years ago--during the final retreat of the Ice Age glaciers--until the arrival of Spanish explorers and settlers, beginning around 1540.

The evidence for prehistory comes primarily from the archaeological record--the material remains of past human activity. Thanks to advances in archaeological methods and theory, it has become progressively easier to extract information from the remaining relics of our predecessors. At least four distinct archaeological sites--all consisting primarily of sea shell fragments, along with some stone manuports--have been identified on the White Point Nature Preserve; several more have been identified close by, along the bluff tops and near the shoreline below, such as the previously mentioned burials. Unfortunately, to date none of these sites has been systematically examined--although preliminary surface collections and test excavations were carried out at one site, designated LAN 142, in 1912, 1974 and 1984. Since the site has not received a systematic archaeological analysis, reconstruction of the site's prehistory must rely largely on inference and extrapolation from other nearby sites which have been studied more fully. California prehistory can be roughly divided into three broad developmental phases, sometimes referred to as Paleo-Indian, Archaic, and Late.

The oldest confirmed archaeological sites in California are associated with a cultural pattern referred to as Paleo-Indian. This pioneer culture spread rapidly throughout the New World between approximately 14,000 and 11,000 B.P. (*Before the Present*), primarily by exploiting the large mammals--mammoth, mastodon, giant bison, and others--that flourished during the final stages of the Ice Ages. There is no evidence that Paleo-Indians made any use of acorns, salmon, or shellfish--which would eventually become dietary staples throughout much of California. Foraging in small groups of probably no more than a few dozen people, Paleo-Indians in California--and throughout North America in the same period--shared a fairly standard inventory of stone tools including scrapers, choppers, leaf-shaped points, and spears with side-fluted stone blade-points known as Clovis and Folsom points. There are a number of well-documented Paleo-Indian sites in Southern California, although the best sites are some distance away from the Palos Verdes Peninsula. Among the nearer sites is Ballona Creek, which yielded "Los Angeles Man"--whose remains were found in association with imperial mammoth remains. Similarly, some of the pleistocene megafauna remains recovered at the La Brea tar pits bear evidence of human butchering.

The Paleo-Indian population of all of California is estimated to have been in the range of one to two thousand people--or an average of about one person for every 100 square miles. In practice, this would mean that a group of 20 people could have foraged across an average of 2000 square miles of territory. There is scant evidence in the archaeological record for any significant immigrations to California for many thousands of years after the arrival of the Paleo-Indians, so it appears that population growth, and the advancement of culture, were internally driven as the descendants of the Paleo-Indians came to better understand and adapt to California's diverse environments.

The global warming trend that brought an end to the Ice Ages has had a particularly frustrating impact for archaeologists interested in studying early coastal adaptations: As the climate warmed, glaciers thawed and melted, raising sea levels by several hundred feet. The Pleistocene coastline for much of California was well below the present coastline, and it is unknown how many early archaeological sites lie beneath the waves, buried under accumulations of seafloor sediment.

Fortunately, the drier post-Pleistocene climate in Southern California has helped to preserve archaeological and paleontological remains on land. Thus, we know with considerable certainty that most of the large mammals that had thrived during the Ice Ages suffered gradual extirpation or extinction, presumably due to the combination of climate and vegetation changes, human predation, and perhaps other factors as well. As the big game animals disappeared, human settlers in different parts of California shifted their subsistence strategies away from the megafauna focus of the Paleo-Indian tradition to a set of increasingly diversified regional foraging adaptations--producing a stage generally referred to as the Archaic, which extended from roughly 11,000 to 4000 B.P. Southern California's best-known prehistoric human remains, the so-called "La Brea Woman"--the sole human remains recovered from the La Brea Tar Pits--lived during this period.

The Archaic tradition developed as an adaptation to changing climate conditions, coupled with the decline in big game animals. What emerged was a new adaptive strategy, exploiting a wider range of plant and animal species. As the Archaic progressed, people acquired a greater knowledge of distinctive local conditions, refined their technologies and foraging patterns to more efficiently exploit local resources, and, driven in part by population growth, began moving into new niches--notably including chaparral and littoral (coastal) habitats. By 9500 B.P., locally variable adaptations were already beginning to forge distinctive differences between groups based in different areas. Weaving--not only basketry but also sandals, matting, housing structures, and many other forms--became widely established. Seed collecting and small game hunting--targeting mule deer, pronghorn, and rabbits, among other prey--became increasingly important inland, while shellfish harvest began along the coast. In addition to stone tools and woven items, an inventory of wood, bone, and antler artifacts developed.

An increasingly distinctive coastal tradition known as San Dieguito emerged in Southern California during the early Archaic, eventually reaching even the Channel Islands (by 8000 B.P.). From the archaeological evidence of their encampments, it is inferred that Archaic Tradition people still lived primarily in extended family groups of 10 to 20, migrating seasonally between coastal areas, during the summer, and inland areas during the winter.

By the middle Archaic--around 7000 B.P.--local populations had established a pattern of seasonal use of a range of coastal resources, including shellfish and hard-shelled seeds in particular. Inland, Southern California had become predominantly desert and semi-desert, with relatively low biological productivity and diversity except in wetter marshland and riparian areas. Indeed, the trend toward climate warming and reduced rainfall continued and peaked

between 6000 and 4000 B.P.--leading to depopulation of much of the interior, in favor of the comparatively wetter and therefore more productive coastal zones.

Along Southern California's coast, a number of middle Archaic archaeological sites included extensive shell middens, reflecting systematic and intensive harvesting. The introduction and spread of stone mullers or millstones suggests the increasing importance of hard seeds. Marine mammal remains have also been found at several Archaic sites. Water craft, ancestral to the wooden plank boats encountered by early Spanish explorers, were used to colonize the Channel Islands and carry on seasonal trade between the islands and the mainland. A steadily expanding variety of marine resources was being utilized, including many species of fish and marine mammals.

There are at least two sites on the Palos Verdes Peninsula that fall within the general San Dieguito pattern, and which have been dated back to the middle Archaic period--at Malaga Cove, roughly 8 miles west of White Point, and at Friendship Park, only about a mile northwest of White Point. The lowest and oldest level at the Malaga Cove site, excavated over 50 years ago--before the area was fully developed--yielded a trove of artifacts stylistically linked to the San Dieguito tradition, including small chert knife blades, projectile points, and scrapers; hammer stones, scored and incised stones; points, harpoon barbs and spatulas made of bone; and disks, beads, and other artifacts made of olive (*olivella*), clam (*tivela*), and abalone (*haliotis*) shells. One anomaly of Malaga Cove level I, compared to other San Dieguito sites, is the apparent absence of the seed grinding mullers found elsewhere in coastal Southern California at that time. This has been construed as reflecting reliance on the rich shellfish resources nearby.

Given the historic richness of the shellfish beds and kelp forests off White Point, and the likelihood that there was at least a seasonal flow of fresh water down the canyon that Western Avenue now descends, alongside the White Point Nature Reserve, it would be very surprising if Archaic people did not regularly visit the area.

By the late Archaic, 6000 to 4000 B.P., adaptation to coastal resources had become increasingly sophisticated, and local groups had become somewhat larger--in the range of 20 to 50 people. The larger groups are presumed to have allowed harvest of a wider array of resources, and development of more systematic and specialized technologies. The fact that burials were relatively undifferentiated--no individuals were buried with elaborate grave goods or other special treatment--suggests that society were more or less egalitarian. Communities subsisted by exploiting a wide range of resources in the course of seasonal movements between different resource areas. There is little evidence of surplus production and storage; instead, production was geared to short-term consumption.

By the later stages of the Archaic, California Indians had made a number of important adaptive innovations to more efficiently exploit resources. Techniques were developed for leaching acorns to remove noxious tannins, making acorns more palatable and paving the way for acorn gruel to become the staple of the diet for inland communities. Milling slabs and bedrock mortars for grinding acorns appeared in the late Archaic. Basket-weaving techniques became more complex and were applied in new forms such as fish traps. "Boiling stones" found at a number of sites suggest that the technique of cooking by stirring fire-heated stones in basketry "pots" was established by the late Archaic. Mule deer and other game animals were hunted with pronged spears, whose range and force were augmented by the introduction of the *atlatl* or spear-thrower. Salmon, which in the past ran seasonally as far south as the Santa Ana River in today's Orange County, were added to the diet by fishermen employing a growing array of weirs, fish traps, nets, hooks, and fishing spears. Abalone (*Haliotis* spp.) and olive (*Olivella*) shells were collected and widely traded, and transformed into decorative beads, disks, and pendants. California's distinctive rock art tradition is also traced back to the late Archaic.

Coastal areas like White Point provided access to littoral resources, fishing, and trade along the coast and out to the Channel Islands; steatite (soapstone) from quarries on Santa Catalina Island was transformed into utilitarian objects like bowls, as well as sculptural renderings of orcas, pelicans, and other figures, which may have had ritual significance.

The estuaries and marshes extending inland from the harbor area provided a different set of plant and animal resources, including migratory waterfowl; riparian habitat along the Los Angeles River and other perennial streams provided passerine fowl, amphibians, and--at least in comparison to drier expanses further inland--a rich variety of plants and animals; many useful plants, and common game animals such as deer, rabbit, and pronghorn, were widely

distributed. Oak trees, whose acorns provided the dietary staple for most California Indians, were probably available in the area; mature oaks produce up to 500 pounds of acorns a year, so they were a very important resource. Seed-producing grasses and other edible or useful plants were widespread.

At the Malaga Cove archaeological site, Level II—counting up from the bottom— reflects the ongoing diversification of adaptive strategies, in comparison to the earlier Level I. Level II included numerous milling stones or mullers, as well as mortars and pestles, for grinding hard seeds and acorns. Tools of antler and bone, as well as stone, were found in Level II, as were asphaltum and tools for spreading it to waterproof baskets and watercraft. Bone and shell ornaments, beads, steatite and discoidal stone objects were common among Level II finds. Among the differences of Level II, in comparison to Level I, was that no projectile points or knife blades were found.

Over the course of the Archaic period, the population of California is estimated to have increased tenfold. Nonetheless, at the end of the Archaic the general Palos Verdes/South Bay area probably had at most a few hundred residents, organized into a handful of extended kin bands that rotated periodically among several resource areas.

Around 4000 years ago a new cultural trend began to emerge as the climate gradually became wetter. During the course of this Late period, human adaptations in California shifted from highly diffuse subsistence patterns, exploiting hundreds of plant and animal food sources, to a progressively more focused, intensive exploitation of a small number of key resources. Among the significant developments in coastal areas of Southern California was the intensification of offshore fishing, particularly in and around kelp beds, using distinctive circular fish hooks made from sea shells. Albacore, bluefin, bonito, jack mackerel, skipjack, and yellowfin bones have been recovered from archaeological sites. Kelp, as well, was probably harvested for food and as a source of salt. Although marine mammals were less important, nonetheless coastal communities harvested sea otters, seals, sea lions, dolphins, porpoises, and whales. Collecting of shellfish—especially clams and mussels—continued, although declining in importance at most sites, and acorns and seeds remained important. Both fish and shellfish were typically dried after collection, both to lighten them for transport, and for preservation. Some of the archaeological sites in and around the White Point Nature Preserve may have been seasonal camps for just such activities, along with trading for steatite and processing shells into tools, ornaments and “money” beads.

The productivity of hunting was boosted by the introduction of the bow and arrow around 1500 B.P. Although coastal Southern California Indians did not systematically domesticate plants or practice agriculture, they nonetheless developed a sophisticated system of land management, incorporating controlled burns. Southern California’s coastal woodland and grassland environments were periodically fired in order to improve forage for game animals; to stimulate plants to increase seed production and germination rates, for the benefit of human collection and consumption; to flush game during seasonal hunts; and sometimes even to reduce many troublesome pests and parasites. The benefit of these burns in terms of game management has been demonstrated by modern experiments in a dense, long-unburned chaparral zone. Prior to a prescribed burn, the density of deer in the research area was 30 per square mile. After a prescribed burn, growth of new vegetation led to increases in the deer population to 98 per square mile in the first year after the burn, and 131 per square mile in the second year—a 437% increase over the “unburned” population density. As the vegetation stabilized and the production of new foliage waned, the deer population gradually declined, averaging 84 per square mile during the fifth and sixth years after the burn. Small wonder, then, that the native peoples learned to exploit burns to increase their food supply.

The basic diet of the people of the White Point area prior to Spanish dominion may have been similar to that of the Coastal Luiseno of Northern San Diego County (about whom we know more because some Luiseno communities persisted as relatively autonomous sociocultural entities into the 20th century); their typical dietary intake consisted of 30% vegetable products (acorns, seeds, and greens), 20% animal (both terrestrial game and marine mammals), and 50% fish and shellfish.

Levels III and IV of the Malaga Cove archaeological site reflect these Late developments: Level III contained comparatively few artifacts, but was generally similar to the subsequent Level IV except for the absence of arrow points, painted pebbles, basket-hopper mortars, and flexed-position burials. Artifacts found in both levels included mortars and pestles for grinding acorns and seeds; stone drills, knife blades, and scrapers of chert, chalcedony, and—less commonly— obsidian; bone artifacts; steatite vessels; shell fish hooks; asphalt used as a sealant and fixative; and beads of shell and bone. Glass trade beads, introduced by Spanish explorers, were found atop Level IV.

The ongoing intensification of resource exploitation was coupled with expanded trade between different resource areas, eventually facilitated by the development of a form of cash economy using certain varieties of sea shells as currency. For littoral and estuarine areas like San Pedro and the coast of the Palos Verdes Peninsula, the increasing use of shell currency created additional demand for local resources. By the time the Spanish arrived, shells processed into discoid or tubular forms were used intensively as decor, status markers, and currency; most widely used were abalone (*haliotis*), clam (*tivela*), mussel (*mytilis*), olive (*olivella*), and whelk (*kelletia*).

Thanks to the more productive climate regime during most of the Late period, human populations increased substantially throughout California—from an estimated 25 to 30,000 at the end of the Archaic to over 100,000 by 800 B.P., then peaking at approximately 350,000, three hundred years ago. Local communities grew relatively larger—eventually reaching up to 200 or even 300 members—and became more permanent, in order to carry out the more intensive exploitation of focal resources. The increased size of local communities led to increased organizational complexity, reflected in the emergence of positions of civil and religious leadership. Increased sedentism and more intensive and specialized resource use also led to increased territoriality, and the establishment of property claims over important resource sites. The emergence of stratification—inequalities in wealth, status, and power—is reflected in the archaeological record in variations in the size of dwellings and the quantity and quality of grave goods.

One significant development beginning fairly early in the Late period was the arrival of new settlers in the Los Angeles Basin. It is generally believed that the inhabitants of the Basin were originally Hokan-speaking people, members of the same language family as the historic Yokuts and Chumash, north and west of Los Angeles, and the Ipai/Tipai/Kumeyaay to the southeast. Around 3,500 B.P., Shoshonean-speaking people began infiltrating the Los Angeles basin, adopting the subsistence strategies of the already-established population—and eventually becoming predominant, as they were when the Spanish arrived on the scene. These were the people whom the Spanish called Gabrielinos, from Mission San Gabriel, and whose descendants refer to themselves as *Tongva*.

The Late period was an era of population growth and intensification. By the time of Spanish coastal settlement in the late 1700s, a mix of permanent villages and seasonal campsites were scattered on and around the Palos Verdes Peninsula, occupied by perhaps more than a thousand inhabitants. The main concentration of permanent villages, reportedly unified under a single chief, was centered in the vicinity of Ken Malloy-Harbor Park and stretching from there both up the Los Angeles River and southward toward the San Pedro waterfront. Both archaeological and early historical evidence indicate that there was a village site, called *Tovemungna*, in the near vicinity of White Point.

Because of the lack of dating and other analyses, it is at present impossible to determine whether any of the archaeological deposits lying within the White Point Nature Preserve represent Paleo-Indian, Archaic, Late, or perhaps historic occupations—or some combination.. Whatever the age of any surviving artifacts, it is undoubtedly safe to infer that the coastal resources of the White Point area have been systematically exploited for thousands of years; and that the White Point area was occupied at least seasonally, and integrated into a network of trade, both inland and seaward, along the coast and out to the Channel Islands.

History Arrives

The gradual pattern of adaptation and development that characterized California's indigenous prehistory was rapidly altered by the arrival of alien explorers and settlers.

History arrived along California's coast in the form of a pair of small sailing vessels under the command of Juan Rodriguez Cabrillo. Sailing northward from western Mexico in 1542, the expedition searched for a mythical island of California—concocted around 1510 in the mind of fabulist Spanish author Garci Ordonez de Montalvo—fancifully inhabited by Amazons, and rich with pearls and other treasures! Cabrillo and many of his crew perished in the quest, and their failure to find any source of quick wealth quenched Spanish interest in the northwestern frontiers of Mexico for several decades.

Cabrillo's expedition did not land in the South Bay area—its nearest landing was on what is now Santa Catalina Island—but it passed through San Pedro Bay and was undoubtedly the subject of much conversation and speculation among the coastal inhabitants.

Rather ironically, the establishment of the Acapulco-Manila trade route in 1565 had a more lasting

influence than did Cabrillo's quest to discover California. Because of the pattern of winds and currents in the North Pacific, sailing vessels leaving Acapulco could sail directly westward to Manila; but on their return voyage to Acapulco, they were compelled to circle to the north in order to catch favorable winds and currents to travel eastward. This northern loop meant that the Manila Galleons frequently first reached North America along the coast of California--by which time they were frequently in need of fresh water, provisions, and repairs. European, Mexican and Asian artifacts acquired through trade for provisions, or salvaged from wrecked galleons, have turned up in archaeological sites up and down the state, including Malaga Cove and Santa Catalina Island.

Further complicating matters for the Spanish, English and Dutch pirates including Francis Drake, Thomas Cavendish, and Oliver van Noort found their way into the Pacific and began plundering Spanish trade ships and ports; Drake visited California in 1579, and Cavendish captured a Manila galleon off Baja California in 1587; two of the survivors of the 1587 piracy, Sebastian Cermenho and Sebastian Vizcaino, both subsequently played significant roles in Spain's efforts to explore California.

Colonial authorities in Mexico decided it was necessary to accurately map the California coast and identify suitable ports for provisioning, repairs, shelter from storms--and for military garrisons to ward off pirates. The 1595 Acapulco-Manila expedition, under the command of Sebastian Cermenho, received special orders to explore California's coast for suitable harbors--but was wrecked by a storm in Drake's Bay north of San Francisco! The rich cargo was lost, but survivors were able to salvage a launch and make their way southward back to Mexico. The 1602 Acapulco-Manila expedition, under Sebastian Vizcaino, was ordered to fulfill Cermenho's failed charge of mapping promising harbors, and although the map it produced was not very accurate, many of the place names it applied to islands and coastal features survive today, from San Diego to Monterey.

Manila galleons periodically appeared along California's coast over the next two centuries, occasionally landing and trading with local inhabitants. Meanwhile, beginning in the late 1600s, colonial outposts spread northward from Mexico to southern Arizona, and along the Baja California peninsula. The next significant new developments along the coast of California began in the mid 1700s, after Vitus von Bering, a Dane in the employ of Russia, pioneered the northeast passage from Europe, north of Siberia, and through the Bering Straits into the Pacific.

Although the Russians initially concentrated their activities in Eastern Siberia and Alaska, Spanish interests became concerned at the potential challenge to their territorial claims in California and the valuable trade routes in the Pacific. The Spanish crown ordered the establishment of a permanent Spanish presence in California, beginning with military *presidios*, and missions to convert and control the natives.

The first *presidios* and missions in California were founded in San Diego, in 1769, and Monterey, in 1770. Over the course of the next several decades, a total of twenty-three missions, four *presidios*, and three *pueblos*--civil settlements--were established in Alta California. Mission San Gabriel Arcangel, the fourth California mission and the basis for the Spanish name *Gabrielino* for local Indians, was founded in 1771. Within a few years, missionaries and their military escorts began rounding up coastal Indian communities and relocating them to the mission compound for easier control and religious conversion. A decade later, in 1781, the "town" of Los Angeles--or, more formally, *El Pueblo de Nuestra Senora la Reina de Los Angeles del Rio de Porciuncula*--was established by a few dozen common soldiers and peasants at the site of the Indian village of Yangna. The Spanish settlers brought with them their own ways of living, based on livestock herding and farming, in centrally controlled, hierarchic groups.

The establishment of the mission and the town led to abrupt changes in settlement and land use patterns along California's coast. Native peoples were increasingly subject to forced removal, and were gradually replaced by Spanish *ranchos*. The first land grant in California, granted to veteran soldier Juan Jose Dominguez in 1784, was the Rancho San Pedro, which encompassed the Palos Verdes Peninsula and much of the adjoining South Bay region. Headquartered in what are now known as the Dominguez Hills, Rancho San Pedro gradually grew as a livestock ranching enterprise with Indian laborers serving as *vaqueros* (cowboys) and in assorted other roles.

In or around 1810 Manuel Gutierrez, executor of Dominguez's will and *de facto* owner of his rancho, granted permission to then-17-year-old Jose Dolores Sepulveda to herd livestock in the southwestern reaches of the Rancho San Pedro. This eventually became the basis for the Sepulveda family's contested claim to the Rancho de

los Palos Verdes, carved out of the older rancho's lands. Jose Dolores Sepulveda based his operations near the willow forests surrounding present day Lake Machado/Harbor Lake, from which the name Palos Verdes ("green branches/trees") was derived. The Sepulveda family remained de facto owners throughout the ownership dispute--despite Jose Dolores' death in 1824, at the age of 31--by virtue of their refusal to comply with repeated orders to vacate. The issue was snarled in the courts for years, but was at least temporarily resolved by Governor Figueroa in 1834, who legitimized the Sepulveda's claim to lands stretching from present day Sepulveda Blvd. in Torrance on the north and Figueroa St. on the east to the ocean on the south and west.

By 1836 the Rancho de los Palos Verdes had a resident population of 75, not counting Indian servants, laborers and *vaqueros*, but eight years later the non-Indian population had dropped to 28. Particularly after the secularization of the missions in 1836, Indians were treated as chattel without legal standing and became the primary pool of cheap, malleable labor throughout the region. Jose Diego Sepulveda (1820-1869), fourth son of Jose Dolores Sepulveda, eventually controlled the rancho and ran herds of cattle, horses and sheep. He built his own hacienda near the present day intersection of Gaffey and Channel Streets, where for many years his family hosted popular all-night *fandangos* on Saturdays. There were no other permanent residents elsewhere on the rancho, or along San Pedro Bay, until after the U.S. takeover of California.

California's coastal landscape was transformed by the Spanish settlements. Tongva residents were removed to mission settlements early on. San Pedro Bay became the main anchorage for the infrequent supply ships provisioning Mission San Gabriel and the pueblo of Los Angeles. Ships from other nations began arriving soon, including the French explorer La Perouse, the British delegate George Vancouver--who assigned the names of Point Vicente and Point Fermin to the southwest and southeast points of the Palos Verdes Peninsula-- in 1793, and soon enough Russians and others, including the pirate Hypolite Bouchard; the first two U.S. vessels to anchor in San Pedro Bay arrived in 1805. In short order, two key export industries became established: Cattle hides and tallow, on the one hand, and whaling, on the other.

Export-oriented cattle production expanded steadily, particularly after Mexican independence from Spain in 1821, with San Pedro Bay as the primary local trade terminus for the Los Angeles basin. Herds would be driven to the San Pedro environs, terms of sale would be negotiated between the herd owner and the trader, and the livestock would then be slaughtered by the hundreds, or even thousands, for bulk transport. It was impractical to try to transport live animals in bulk, and there was no efficient way to preserve the meat, so only the skins and tallow were taken--the carcasses were simply left to scavengers. By 1834, over 100,000 hides--"California banknotes"--along with 2500 quintals (roughly 125 tons) of tallow, were being exported from San Pedro Bay. *Californios* used their proceeds from these sales to buy manufactured goods from Mexico and abroad. Sepulveda's Landing near present day 14th and Beacon--later to become Timm's Landing--was the main site for trans-shipping cargo.

The expansion of livestock ranching led to the progressive displacement of competing grazing animals such as deer and pronghorn, and the reduction of predators such as bears and mountain lions. Forage preferred by livestock, such as the native bunch grasses, were steadily reduced, creating openings for less palatable native plants as well as introduced plant species like mustard and non-native grasses such as oats, which were spread in large part by the movements of livestock herds. As a result, the traditional niches of many creatures were transformed or eliminated.

Another significant impact of livestock ranching was the decimation of oak woodlands--resulting not only from the appetite of livestock for tender oak saplings, but also from the cutting of oaks for their tannin, used in tanning hides. The San Pedro area was probably particularly impacted, because of the herds of livestock that were brought here for sale and slaughter. Woodlands were also impacted by wood cutting--not only as a lumber source for construction and woodworking, but also for fuel for cooking and heating, and to render the fat from slaughtered livestock into tallow.

Systematic commercial hunting of sea otters and sea lions in California began with the arrival of Russian traders and Aleut sea hunters, around 1805, and ultimately led to the extirpation of sea otters throughout most of their former range, which had previously extended southward to the Baja California Peninsula. The systematic hunting of sea otters in Southern California began in 1815, when Vassili Tarakanoff arrived in San Pedro with 20 Aleut hunters.

Commercial whaling also began in the early 1800s, initially out in the open sea but eventually shifting to near shore operations after Mexican independence and the opening of trade. Capt. C. M. Scammon dominated near shore operations, establishing eleven coastal whaling stations along the coasts of Baja California and California, including the Portuguese Bend facility established around 1851. This activity not only ravaged whale populations, but also had significant impacts on land; a considerable quantity of firewood was appropriated over the years for rendering the behemoths' carcasses, resulting in the consumption of trees and woody shrubs throughout the area.

Technically, until Mexican independence it was illegal for non-Spanish parties to enter California, and for *Californios* to trade with them. Although these strictures did not prevent visitation or trade (i.e., smuggling), they did restrain it. After Mexican independence, however, the pace of change quickened appreciably. Immigration increased, trade increased, and the economy expanded rapidly. Los Angeles was the most populous community in California, with a population of about 1500 "whites" and 500 Indians in the late 1830s, and San Pedro was their primary port. A permanent warehouse structure was in place by 1823 on the waterfront near the present day Lower Fort McArthur; it belonged for a time to the Mission San Gabriel—which boasted the largest herds of livestock in the area until the secularization and expropriation of the mission's properties after 1836. The warehouse was subsequently acquired by Abel Stearns, one of the pre-eminent businessmen during the Mexican and early American period of Southern California history.

The conquest of California by the United States in 1846-47 further intensified change throughout California, including the Palos Verdes Peninsula. After San Pedro was formally designated a legal port of entry in 1850, its growth quickened, spurred by early entrepreneurs like Abel Stearns, Augustus Timms, and Phineas Banning, the latter of whom began the development of Wilmington in 1858. The port of San Pedro became a permanent community, linked to Los Angeles by regular stagecoach service during the 1850s. By the time of the 1880 census, the combined San Pedro-Wilmington-Rattlesnake Island (today's Terminal Island) population was 911. Livestock ranching continued on most of the peninsula, and in the 1870s the French immigrant Edouard Amar had begun sheep herding to the west of San Pedro—which at that point was a small settlement along the waterfront.

Squatters, creditors, and changing legal systems after the U.S. takeover of California led to a renewed series of challenges to the ownership of the Rancho de los Palos Verdes, which were not finally resolved until 1882, when the land was partitioned into 18 parcels distributed among 15 recipients. The Sepulveda family actually won clear title to the land in 1880, but the debts incurred in the course of the complex legal proceedings forced the breakup of the estate—a fate shared by the majority of California's 450 Mexican and Spanish land grants after the U.S. takeover of California. Jotham Bixby acquired the lion's share of the former Rancho de los Palos Verdes land, 17,000 acres encompassing present day Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates and Palos Verdes Estates, as well as most of the Harbor City area. The Sepulvedas retained over 4,400 acres, in three separate parcels, including most of present-day San Pedro minus the harbor frontage to the east of Pacific Avenue—which was occupied by the growing town of San Pedro—and 705 acres on the southeast side of the Hamilton Avenue transect, including Point Fermin and the military reservation that became Fort MacArthur. Legal squabbling among the heirs of Jose Diego Sepulveda continued for another decade before ownership of remaining lands was resolved in an 1892 legal settlement, with Roman Sepulveda emerging in control of the parcel that included today's White Point Nature Preserve.

In 1883, following the 1882 land partition, Roman Sepulveda had constructed a home near what is now 5th and Pacific in San Pedro, and also built a summer home above White Point; its remains are preserved as a flat-topped mound next to the line of palm trees in the southwest corner of White Point Nature Preserve, across from the upper parking area for Royal Palms. Over the next half century Roman Sepulveda was an active booster of San Pedro's growth, establishing San Pedro's first water company and various other developments.

With the arrival of the Southern Pacific and Santa Fe railroads, the Los Angeles basin experienced its most explosive development boom during the 1880s. As a result of harbor improvements and the completion of a rail link to the harbor, San Pedro also boomed in the 80s. Lumber for construction became a critical import, and overall tonnage at the port jumped from 50,000 tons shipped in 1871 to 450,000 tons in 1888. San Pedro's first school and first newspaper both opened during this boom, in 1883.

By 1913, San Pedro's population had climbed to 8,100 persons, compared to 1800 in Wilmington, and by 1930 the two towns counted 35,918 and 14,907, respectively. An appreciable share of this growth came from

immigrants from overseas, including Japanese as well as Europeans.

Beginning in the late 1890s, Japanese immigrants began arriving on the scene, soon to become a significant factor in San Pedro's growth. Eventually over 2000 Japanese settled in San Pedro, concentrated on the south edge of town and in East San Pedro, now Terminal Island. These immigrants were among the pioneers in San Pedro's fishing industry, and built a thriving community with over 60 businesses, including doctors, dentists, and a newspaper. Around 1897 Japanese began commercial shellfish harvesting, concentrating on abalone in the White Point area; the flesh of the abalone was dried and shipped to Japan for around \$300 per ton. During the same period, Japanese immigrants also began farming on the marine terraces at White Point, and elsewhere around the peninsula. Several Japanese settlers built homes and small businesses adjacent to Roman Sepulveda's summer home at White Point, as illustrated in surviving photographs and maps of the area. All the flatter areas of the White Point nature preserve were cleared and framed for decades, displacing native habitat and, as a consequence of plowing, destroying or displacing surface archaeological remains.

Like Harry Phillips, longtime manager of the Bixby lands to his west, Roman Sepulveda leased land to the immigrants, at a going rate of about \$10 an acre; Phillips also employed a score or so of *vaqueros* to oversee livestock operations. As San Pedro and the port grew, Sepulveda eventually began residential and recreational development of the area around White Point, often in partnerships with entrepreneurs who fronted the capital. The first White Point tract was developed in 1902, and others followed in short order. The White Point area was annexed by the city of Los Angeles in 1928 (Los Angeles had annexed San Pedro's core business and residential area in 1909), and White Point Elementary School opened its doors in 1951.

In the same period in which Sepulveda launched residential development around White Point, he also began landscape plantings and installed picnic facilities, barbecues, a terrazzo dance floor, an access road down from the bluff top, and sundry other improvements along the shoreline at Royal Palms. The project eventually became the membership-based "Royal Palms Family Club". In 1925 he collaborated with Tamiji Tagami to construct a spa, restaurant and hotel complex adjacent to the mineral springs at the base of White Point—variously referred to as White Point Hot Springs, Tagami Hit Springs, or Sepulveda Memorial Park Sulphur Springs. The adjoining swimming pool was largely destroyed by a tsunami in February of 1926, but the Royal Palms outdoor plaza/picnic area and the White Point hotel and restaurant both enjoyed a few more good years before the onset of the Great Depression deflated the economy in San Pedro as elsewhere. Sepulveda also leased several parcels to fishermen at the west end of Royal Palms. Six years after the ill fortune delivered by the tsunami came another misfortune, when the ferry boat Melrose was wrecked on the rocks at White Point.

Above the bluffs, Sepulveda developed a membership-based golf course and country club in 1927—referred to as The San Pedro Golf and Country Club, or the Royal Palms Golf and Country Club—and planned further recreational improvements including a second 18 hole golf course, as well as tennis and handball courts. Like the hotel complex below, the country club foundered during the depression. By that time Sepulveda was in his late 70s and running out of steam; he passed away in 1940, at the age of 87.

As was the case with earlier Indian occupants, modern shellfish collectors and fishers have impacted the area's littoral and marine resources, most conspicuously by dramatically reducing the population of desired species. Some fishing techniques have also reduced numbers of non-desired species, and degraded benthic (seafloor) habitats. Extensive and ongoing farming operations on the marine terraces of White Point and elsewhere on the peninsula had an even greater impact, destroying habitat to clear land for farming. Residential development also displaced native habitat and introduced exotic (non-native) landscaping plants, many of which propagated and competed aggressively with surviving pockets of native plants. Farming and residential development both had a negative impact on archaeological remains, which were either plowed or bulldozed—significantly reducing their potential value in reconstructing the past.

World War II broke out while Roman Sepulveda's estate was in probate. Despite their voluntary submission of declarations of loyalty to the U.S., in 1942 all the ethnic Japanese in San Pedro—including U.S. citizens—were forcibly relocated, beginning with the fishermen, who were perceived to pose the greatest security risk. In July of 1942 the Department of Defense exercised eminent domain to acquire the undeveloped White Point parcel for coastal defense purposes. Two sixteen inch gun emplacements, capable of firing 2,700 pound shells with a range of 28 miles, were built in the Battery Paul D. Bunker, in what is now the upper/northern area of the White

Point Nature Preserve; emplacements included 4000 square feet of underground magazines and other facilities, sheltered under sixteen and a half feet of concrete and steel. The gun emplacements were completed in 1944—a year before the Department of Defense finally settled the dispute with Roman Sepulveda's heirs over the seizure. The big guns were stood down just weeks after the end of the war, in September of 1945, at least in part because they shattered windows across San Pedro whenever they were test fired.

Although the big guns were deactivated, the Department of Defense retained control of the land, and in 1953—as the Cold War was heating up—determined to construct a Nike Missile facility, consistent with its original intent to use the site for coastal defense. Construction of Nike site 43-L began in 1954, and the facility became operational the following year. The White Point Nike site was deactivated two decades later, in 1974.

The thirty-two years of military occupation left an impact on the land at White Point, just as did earlier occupations. Construction of the Paul D. Bunker emplacements, and the later Nike missile launch facilities, required large scale earth moving. Roads and buildings were built, with requisite infrastructure—electrical, water, and sewage connections—and non-native vegetation for landscaping was introduced in several areas. At least two areas on the site were used as waste dumps, and operation of a skeet and shooting range generated an accumulation of clay fragments, lead shot, and other debris.

With the deactivation of the Nike site, the Department of Defense declared the site surplus and began the process of transferring it to civilian control. The 30.8 acre bluff top area to the south of Paseo del Mar were transferred to Los Angeles County in 1974, to be administered in conjunction with the Royal Palms beach (which the state of California had acquired in 1960), while the 114.9 acres north of Paseo del Mar were ceded to the City of Los Angeles in 1976. The city permitted a community garden on the parcel on an interim basis, but failed to reach any decision on long term use—with the consequence that the Department of Defense exercised a reversionary clause in 1987 and reclaimed 12 acres of upslope land to expand Air Force housing accessed off 25th St. The city established a committee and held hearings to develop a use plan, but again nothing was resolved and the parcel fell into neglect. A third attempt to determine a use plan for the site culminated in 1999 with a decision to develop a passive nature preserve on the site. In 2000, the city reached a tentative agreement with the Palos Verdes Peninsula Land Conservancy to coordinate habitat restoration and site management.

Conclusions

There is direct physical evidence of a long human presence at White Point, and other sites nearby. Human burials, accumulations of food remains such as shells and bones, and artifacts of stone, bone, antler, and shell, all attest to thousands of years of Indian occupation in the area. The more than 200 years of history on and around the White Point have also left visible impacts on the land, whether from livestock ranching, farming, residential or military development. Although to a casual passer by in 2001 the park may have the appearance of an all but undisturbed natural area, in fact it has been transformed.

It is evident that the landscapes of Southern California played an integral role in shaping human adaptations. By virtue of its strategic location—in relation to the rich and varied natural resources nearby, in terms of its advantageous position for coastal and island commerce, and its strategic military position—White Point has helped shape the lives of generations of people over the course of many millennia.

At the same time, it is evident that human activities, over the millennia, have helped shape the landscape (and seascape, at least near shore). People have consumed resources, harvested assorted foods, medicines, and other materials, and in other ways have left their mark. Shellfish collecting, hunting, fishing, plant gathering, and other activities impacted populations of the species harvested, and opened niched for species less desirable to humans. In sum, just as the landscape has shaped human activities, so human activities have affected the landscape.

What does the future hold? In the short run, a steering committee is working with the City of Los Angeles and the Palos Verdes Peninsula Land Conservancy to develop a master plan to guide restoration of native habitat and interpretation of habitat and history for the public, particularly school children. In the long run, the fate of White Point depends on all of us, and our choices valuing and using the land.

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N.B.: The San Pedro Bay Historical Society has preserved a wide range of documents, photographs, maps, and publications relating to the history of San Pedro and environs.