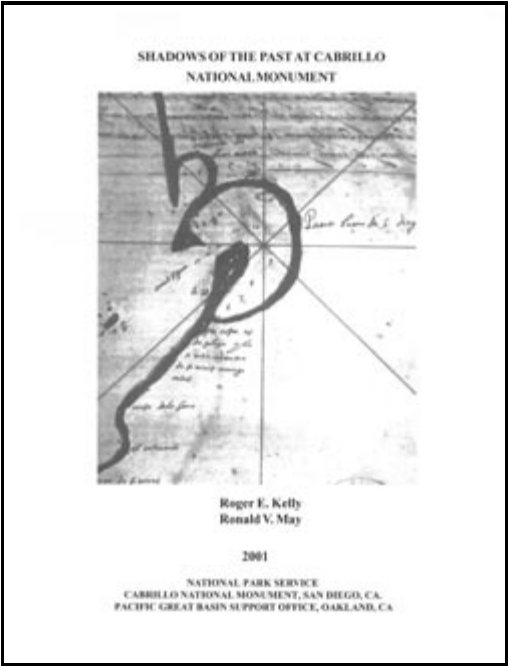


CABRILLO

Shadows of the Past



SHADOWS OF THE PAST at Cabrillo National Monument

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[TABLE OF CONTENTS](#)

CABRILLO

Shadows of the Past



TABLE OF CONTENTS

[Cover](#)

[Preface](#)

[Executive Summary](#)

[List of Illustrations](#)

[Chapter One: Shadows of the Past at Cabrillo National Monument](#)

- Introduction
- Legacy from the Geological Past
- Life on the Land
- Establishment of the Monument
- Native Peoples of Point Loma Peninsula
- Historic Land Uses
- Historical Archeology of Early Landscapes
- Archeological Materials in Park Collections
- Previous Archeological Research in the Point Loma Locality
- Terrain Assessment Surveys and Excavations
- Condition of Archeological Sites

[Chapter Two: Overview of Point Loma Prehistory](#)

- Introduction
- Laws and Regulations
- Academic Research Schools
- Paleogeography of the San Diego Coast
- Archeology Sites as Time Capsules
- Research Design
- Intra and Inter-Site Patterning Question
- The Inter-Site Settlement Research Question
- Specific Research Hypotheses for Point Loma Sites

[Chapter Three: Overview Spanish and Mexican History of San Diego & Point Loma](#)

- Introduction
- Early Spanish Explorations
- Spanish Colonization of California
- Spanish Response to Foreign Incursions
- Spanish Defenses on Point Loma
- The First Point Loma Light
- Spanish Instability and illegal Foreign Trade
- The Mexican Republic

The Mexican War of 1846
The Ethnic and Gender Mix

[Chapter Four: Overview of the Multi-Ethnic Ballast Point Community on Point Loma between 1846 and 1900](#)

Introduction
Economic and Ethnic Diversity
Historical Record
Archeological Background
Relationship of Ballast Point and La Playa to Other Communities
Educational Opportunities
Conclusion

[Chapter Five: Overview of Historical Military Architecture at Point Loma](#)

Introduction
Historic Architecture as Historical and Archeological Resources
Architecture and Infrastructure as Industrial Archeology
Vertical Sequential Layering of Historic and Architectural Features
Internal Historical Archeology in Architectural Properties
Industrial Archeological Cycles of Change
Point Loma Military Reservation
Cabrillo National Monument Historic District
Fort Rosecrans Historic District
Proposed Expansion of the Fort Rosecrans Historic District
Proposed Fort Rosecrans, Upper Cantonment Historic District
Proposed Fort Rosecrans Works Progress Administration District
Proposed Quarantine Station Historic District
Proposed Navy Supply Center and Fuel Depot Historic District
Proposed Navy Radio and Sound Historic District, 1906-1949
Proposed Naval Electronics Laboratory Historic District
Conclusion

[Chapter Six: Overview of Potential Underwater Archeology at Point Loma](#)

Introduction
Geological Transformational Processes
Underwater Archeology Survey South of Ballast Point
Beach Surveys
Underwater Wrecks
The Potential for Underwater Archeology
Strandings and Floundered Vessels in the Point Loma Area
Educational Interpretive Value of Underwater Archeology
Future Historic Research
Future Underwater Survey

LIST OF ILLUSTRATIONS

[Figure 1:](#) Native Tribal Languages and Spanish Colonial Settlements, ca. AD 1800.

[Figure 2:](#) Major Bache 1850's sketch of the Point Loma peninsula, northward from the

Lighthouse location.

[Figure 3](#): Major Bache 1850's sketch of the Point Loma Lighthouse and Ballast Point anchorage area, southwestward view.

[Figure 4](#): Point Loma Lighthouse used for military housing, *ca.* 1917.

[Figure 5](#): 1953 Vertical View of southern Point Loma peninsula.

[Figure 6](#): Oblique Aerial View of Cabrillo National Monument early 1960s, looking northeast.

[Figure 7](#): Identified Civilian Historic Resources on Point Loma peninsula.

[Figure 8](#): Jay Wegter watercolor painting *Fort Guijarros*, aerial view.

[Figure 9](#): Jay Wegter watercolor painting *Battle of San Diego Bay, 1803*.

[Figure 10](#): Jay Wegter watercolor painting *La Esplanada*-gun deck view.

[Figure 11](#): Jay Wegter watercolor painting *The Whaleboat*.

[Figure 12](#): Chinese Bamboo-style rice bowl.

[Figure 13](#): Chinese Double Happiness-style rice bowl.

[Figure 14](#): Chinese cut abalone shell.

[Figure 15](#): Whaler's detonated bomb lance harpoon.

[Figure 16](#): Whaler's clay smoking pipe "George Washington President".

[Figure 17](#): Spanish 'Majolica' ceramic fragment — Aranama Tradition 1790-1835.

[Figure 18](#): Point Loma Military Reservation showing known historic military structures and key to inventory numbering systems.

[Figure 19](#): Army 115th Company uniform collar insignia.

[Figure 20](#): 1890 View of Fort San Diego, constructed in 1873-74.

[Figure 21](#): 1923 Aerial view of Ballast Point Lighthouse, whaling station and company warehouse with 1917-1919 Army Cantonment buildings.

[Figure 22](#): 1950 Oblique Aerial Photograph of Fort Rosecrans, looking westward.

[Figure 23](#): 1942 Naval Radio Station and Sound Laboratory and fuel oil facilities.

[Figure 24](#): *Alice McDonald* floundered offshore Point Loma 1891 Lighthouse.

[<<< Previous](#)

[<<< Contents >>>](#)

[Next >>>](#)

CABRILLO

Shadows of the Past



PREFACE

For so many years, San Diegans and visitors from other countries have enjoyed the vistas, wonders of the seas, and the engaging human stories about Point Loma at Cabrillo National Monument, one of our Nation's earliest urban National Park System units. We are pleased to provide all visitors an opportunity to experience, enjoy, and reflect upon the dynamic natural and human landscapes of California's Pacific Coast and its importance to several nations — Spain, Portugal, Mexico and the United States. But visitors may only see and absorb a fraction of the historic human experience that has taken place here. This study makes available a more complete picture of the native Kumeyaay people who made Point Loma their home prior to European visits, of the subsequent Spanish Colonial presence, followed by citizens of the Republic of Mexico and American whalers, and finally by more than a century of United States military activity on these lands.

From historical and archeological research, Dr. Roger Kelly and Mr. Ronald May have compiled data into an overview study so that visitors and staff alike may become more knowledgeable and understand the factors that make the national monument at Point Loma quite a unique place, indeed! SHADOWS OF THE PAST AT CABRILLO NATIONAL MONUMENT fulfills National Park Service policy and practice to make available overview summaries concerning park archeology, with history and architecture, for public understanding and enjoyment as well as park management purposes.

Dr. Kelly has been Senior Archeologist for more than 25 years at the Park Service administrative office in Oakland, California and Mr. May, a native San Diegan, has been staff archeologist for the County of San Diego and United States Navy Submarine Base, Point Loma.

We hope all readers will be able to learn about the significant archeological resources, not easily seen by visitors, which tell about human experiences at Point Loma over many years and centuries. We also hope that visitors will help us to be good stewards of our collective heritage here at Cabrillo National Monument. Have a good experience at your National Monument!

Terry DiMattio
Superintendent

[<<< Previous](#)

[<<< Contents >>>](#)

[Next >>>](#)

CABRILLO

Shadows of the Past



EXECUTIVE SUMMARY

The Point Loma peninsula lands which compose Cabrillo National Monument as a portion of this striking landform have been the stage for human activities for at least three millennia. Native peoples resided in villages located along leeward shorelines of the peninsula and utilized environmental resources for gathering, hunting, and other purposes. Evidence of their use is still extant as documented archeological resources, sometimes covered but not obliterated by later construction and terrain alterations. Preservation and further research potential for these surviving Native American heritage resources is presented in detail.

Spanish Colonial presence on the peninsula included a fortification with accompanying military structures constructed in the 1790s to protect the entrance to San Diego harbor. Archeological evidence of this historically significant structure exist on Navy managed lands at Ballast Point. Civilian land uses of the Point during the early 19th century included whaling operations, residential camps of ships' crews and Chinese workers.

With the influx of military forces of the United States after the 1840s, Point Loma lands were dominated by strategic uses that continue into the 21st Century. A long chronological development of fortifications, support buildings, quarters, roadways, and buried infrastructure systems is preserved as sequences of military changes and adaptations to global events by three nations — Spain, Mexican Republic, and United States. Archeological resources including artifactual materials and the industrial values of now-obsolete construction methods exist in many places. American maritime history is represented by an 1850s lighthouse with supporting structures, now absent, as the first federally funded facility on the West Coast.

Civilian land uses returned in the 1930s with the development of Cabrillo National Monument which preserves the original 1850s lighthouse, later military components which link Monument lands to other localities of military land uses, and public visitor facilities.

This study includes inventory of archeological sites, potential locations for historic archeological resources relating to military land uses, potential underwater maritime archeological materials, and recommendations for additional research. The development of data about the archeology, history, architecture, and landscape characteristics of the peninsula and its monument are summarized, illustrations include historical views of Point Loma lands, maps plotting civilian and military historical resources, paintings of the Spanish-Mexican Era fortifications and 1803 naval engagement, and historical photographs of military establishments through time.

Six Chapters contain specific texts addressing chronological themes with separate lists of references for each section.

[<<< Previous](#)

[<<< Contents >>>](#)

[Next >>>](#)

[cabr/shadows/summary.htm](#)
Last Updated: 06-Apr-2005

CABRILLO

Shadows of the Past



CHAPTER ONE:

SHADOWS OF THE PAST AT CABRILLO NATIONAL MONUMENT

Introduction

An uplifted, ridged arm of land, the Point Loma Peninsula provides a weather shield for a large shallow bay and extensive low-lying terrain east of the landform. Similar to several other bays of California's coast protected by peninsular landforms, Point Loma's ridgetop provides a lookout point for Pacific Ocean views as well as contrasting vistas of urban cityscapes against a backdrop of magnificent mountains. Cabrillo National Monument, a unit in the Nation's National Park System, occupies a prominent position on the headland as a loyal sentry, watching the changes of history and seasonal environments.

Legacy from the Geological Past

The monument is composed of about 160 acres of land ranging from tidal zones to about 460 feet above sea level, with brush-covered, eroded slopes and modern developments for military and public uses. The coastline is irregular with only small sand 'pocket' beaches along the western tidepool zone and bedrock seacliffs around remaining shorelines. Three geological formations compose this major promontory which was formed from 300-foot uplift motion along a major faultline. A basal Point Loma Formation is superimposed by the Cabrillo Formation of sandstones and conglomerates, and the visible, younger Bay Point Formation that forms marine terraces and uplands.

Tilted and resistant, the Point Loma Formation was formed 70 to 80 million years ago from Cretaceous Period deep ocean deposits and extends from northern Baja California to about Carlsbad, California. Marine life fossils include mollusks, gastropods, and other invertebrates as well as shark, fish, and armored plant-eating reptiles (Abbott 1999: 46). There are even preserved marine worm trails, burrows, and trackways on the mudstones, indicating ancient terrestrial life! Fossil discoveries have been made along the exposed Point Loma Formation sea cliffs of the peninsula and a few specimens were found within the monument's tidepool areas. Of particular interest is the 'ammonite' fossils of the Cephalopod group (squid, octopus and nautilus) which show tooth marks from the plant-eating 'mosasaur' reptile (Bergen, Clifford and Spear 1997: 57).

The Cabrillo Formation has two characteristic beds: a thick layer of cobbles, gravels and boulder conglomerate and a sandstone layer. It does not contain as rich a fossil record as the Point Loma Formation but is of deep marine origin also (Abbott 1999: 40; Bergen, Clifford and Spear 1997: 55). Less resistant to the sea, the 66 to 70 million years old Cabrillo Formation is eroded into undercut seacliff caves and ledges.

Forming coastal terraces on both sides of the peninsula, the Bay Point Formation supports coastal sage scrub, cacti and marine succulents, chaparral, oak and Torrey pines observed in early historic periods, and introduced vegetation. This Formation is composed of marine and non-marine sandstone beds but is not very old. The peninsula was an island during an

interglacial period about 120,000 to 140,000 years ago but became connected to the mainland by westward growth of a delta and bay by the San Diego River less than 11,000 years ago (Abbott 1999: 213).

Life on the Land

Long ago, animals, birds, and sea life characteristic of the peninsula included land mammals, amphibians, fish and shellfish in the intertidal zone, and kelp-dwelling smaller fish. Invertebrates such as clams, oysters, scallops, and abalone still are visible. Except for lacking resources of fresh water springs, seeps, or open-flowing streams, the peninsula contains most elements for long term human occupation. Pedestrian access within this narrow landform would have been possible by routes along the higher ridgetops and down drier, south-facing slopes with less dense native vegetation to the coastal zones. A major change to Point Loma's appearance was the cutting of vegetation during the 19th century, particularly along the more sheltered east side, which would have resulted in expansion of chaparral and sage scrub communities. Dense clusters of oaks and Torrey pines were observed by early European explorers, giving the peninsula a very different appearance than today. From the 1500 acres composing the southern portion of Point Loma, a 640 acre Ecological Reserve has been established by federal agencies to protect the six identified plant communities and habitats which exist as isolated areas among historic and recent developments.

Blessed with a mild climate, the peninsula is classified as a Mediterranean semi-arid steppe moderated by ocean influences such as fogs, winds, and rainfall during December to April, which averages 10.6 inches per year. Typical native plants are lemonade berry, madrone, toyon, cacti species, century plant, sage, supplemented by exotic plants such as ice plant, grasses, bottlebrush, and ivy.

Establishment of the Monument

This National Monument was established on October 14, 1913 by Presidential authorities in the 1906 'Antiquities Act' as a one-acre monument within military lands. Following a War Department reorganization, the parcel was transferred to Interior in 1933 and subsequently enlarged by Presidential proclamations (Knipper 1996, Lehmann 1987).

Originally established to commemorate the first presence of Europeans on the West Coast — Juan Rodriguez Cabrillo and his landing in 1542 — purposes of the monument now include preservation of the 1854 lighthouse, structures and facilities of WWI and WWII, viewsapes, whale-watching and natural resource habitats. Average annual public visitation is over a million persons! The lighthouse was the first of eight constructed for America's West Coast and is on the National Register of Historic Places as a National Historic Landmark.

Historic military structures and facilities within the monument are included within a listed National Register Historic District. Neighboring lands are Navy facilities, City of San Diego Wastewater Treatment Plant, and the Coast Guard Light Station built in 1891. Many Navy installations include former historic Army structures and land uses. A detailed administrative history discusses the unusual historical development of the monument as one of the first units in the National Park System to be established in proximity to an urban area (Lehmann 1987).

Various planning documents also contain specific information, planning options, and historic architectural descriptions for the Old Point Loma Lighthouse (Holland and Law 1981; National Park Service 1996).

Native Peoples of Point Loma Peninsula

Native peoples of the San Diego area are speakers of Yuman languages and are collectively

named 'Kumeyaay' today, although other names such as 'Diegueno', 'Kamia' or 'Ipai-Tipai' have been used also (Fig 1). Years ago, Kumeyaay territorial bands were groups of people living in specific areas related through patrilineal family lineages as well through mythical links. Among the 'Tipai' Kumeyaay — those south of the San Diego River toward the bay — two historic names for villages on the Point Loma peninsula are recorded. 'Totakamalan' was a settlement at Ballast Point while 'Pauipa' was located in the northeastern portion of the peninsula (Moriarty 1977: 130, Luomala 1978: 593; Pourade 1960: 10). Cabrillo's encounter in late September 1542, within the Bay he named 'San Miguel', was with people living nearby who interacted with the Spaniards in a defensive skirmish, with gestures describing other Spaniards fighting with native peoples toward the east. A few 'articles' were given to Tipai greeters but the encounter lasted only for short time periods over a three-day period (Cabrillo Monument Foundation 1999:64-65)

From ancient times, maritime resources from the bay and coast supported a reasonable population, perhaps 5 to 7 persons per square mile for the coastal Kumeyaay (Shipek 1987: 12). As hunters and gatherers but residing in villages, the people had semi-sedentary residence practices and interacted with their mountain and desert-dwelling relatives through trade, marriage and kin connections.

In modern times, Kumeyaay communities and their governments are located in twelve tribal reservations within San Diego County. Connections continue and many traditional practices, crafts, language and social relationships exist within the communities. Several Kumeyaay communities have very successful tribal casinos and other businesses.

Historic Land Uses

Point Loma Landscapes

This grand but narrow landform was part of native Kumeyaay peoples' cultural landscape for residence along its sheltered eastern shoreline and food gathering from its western tidepools and wooded elevations. At prehistoric villages marked by mounded deposits of discarded shell middens and at named native historic settlements now known as La Playa and Roseville, the Kumeyaay utilized peninsular landscapes in specific areas as illustrated by archeological evidence and historical archives. Small, sparse and eroded scatters of shell middens, a discovery of one human burial within Fort Rosecrans in the 1960s, and an occasional isolated stone artifact indicate that the southern area of the peninsula was not intensively used by these people or by earlier indigenous groups. Stands of oaks, toyon, manzanita and lemonade berry did exist until the mid-19th century but were reduced significantly for local leather tanning operations, firewood and construction, or by terrain fires. Cattle grazing on the open peninsula lands would have also altered ground cover and caused animal trails. It is likely, but not documented, that the Spanish Fort Guijarros battery would have necessitated a lookout post on the ridgetop to monitor ships' passage.

Richard Henry Dana describes the appearance of Point Loma in 1834 as follows:

At sunset on the second day [from San Pedro harbor], we had a large and well-wooded headland directly before us, behind which lay the little harbour of San Diego. We were becalmed off this point all night; but the next morning, which was Saturday, the 14th of March, having a good breeze, we stood the point, and, hauling our wind, brought the little harbour, which is rather the outlet of a small river, right before us. Everyone was desirous to get a view of the new place. A chain of hills, beginning at the point (which was on our larboard [left] hand coming in, protected the harbour on the north and west, and ran off into the interior, as far as the eye could reach. On the other sides the land was low and

green, but without trees.

Potential Historical Archeology of Early Landscapes

In the 1850s, the promontory was recognized for strategic values by the United States. The southern portion was made a military reservation by Presidential Executive Order in February 1852, followed by a smaller land reservation established for a lighthouse in September 1852. Probably following a previous trail from Ballast Point to the ridge top and southward, an 18-man crew hired by lighthouse construction contractors built an access road during April to May 1854. But it was a difficult road to use because of a series of steep switchbacks, crossing the ridges just west of Ballast Point toward the crest. This road is depicted in an 1855 drawing of Point Loma and its new lighthouse by Major Hartman Bache, Lighthouse Inspector for the West Coast (Fig. 2). At Bache's urging, the first road was replaced only two years later with straighter route, gradually rising from the La Playa settlement rather than Ballast Point, toward the narrow ridge top which it followed for 2 miles to the lighthouse. This new route cost \$1,500 to construct (Holland and Law 1981: 44). This road to La Playa settlement served as the major access route well into the 20th century but was a steep climb and took as long as two hours by buggy or wagon. About 1855, Major Bache made a sketch of the treeless land, with its precipitous western edge and slightly eastward sloping terrain, looking northward along the peninsula from the approximate lighthouse location (Fig. 3). Shown in his sketch is Ballast Point anchorage with shoreline buildings in the distance, a section of the ridgetop road, and a small hill where the visitor center now stands.

Early Specific Land Uses

From the 1850s, the magnificent vista observable from the lighthouse area was attractive to local people. For a short period, whale spotters used the vantage point to identify whale pods, alerting hunters at the Ballast Point whaling station. In 1855, four Utah men were granted a 15 year lease by the San Diego Board of Supervisors "to open and work a Coal Mine" on Point Loma (Lockwood 1964). During 1856-57, the 'San Diego Coal Company' attempted to develop the coal veins but without success and the company leaders returned to Salt Lake City in November 1857. Although included within federal lands, the shaft of the "Mormon Coal Mine" remained open until 1960 when the location was developed for Atlas missile testing facilities, now used by the San Diego City Waste Water Treatment Plant.

Excursions and visits to the lighthouse were made by San Diego citizens who drove buggies or wagons up the 1857 road for 'one of the most beautiful drives in the world, to those who enjoy the cool, bracing breezes' (see Law, Jackson and others 1993: 15). Some lighthouse families kept sheep, cattle and horses, and small garden plots near the buildings but by the 1870's, the vegetation along the ridge crest was '.... very meager, consisting of low, scrubby sagebrush', probably because of the impacts from livestock (see Law, Jackson and others 1993: 16).

With abandonment of the 1854 lighthouse replaced by the lower facility completed in 1891, informal visitation continued but vandalism and unauthorized removal of outbuilding materials increased. Unsightly refuse such as broken glass and other trash became a concern of military officers. In 1903, a brush fire ignited by visitors took soldiers from Fort Rosecrans two days to suppress. By 1906, vandalism was mitigated by an exterior and interior whitewash coat and military families were housed in the lighthouse. In 1910, the entrance road received a decomposed granite gravel surface to improve it for military and visitors. In 1913, a commanding officer proposed repairing the building for use as a military radio facility. In the same year, President Wilson signed a proclamation designating one-half acre as the Cabrillo National Monument but military use of the structure and its locality continued (Law, Jackson and others 1993: 19). At this time, only the concrete rain catchment basin and

cistern remained as related features (Fig.4).

Along the western ocean terraces of the peninsula, a road leading to the lower Point Loma lighthouse was in place and shown on a 1904 USGS map. This road, later known as Gatchell Road, was improved during World War I when Army coastal searchlights and a powerhouse were built. Thus, the western portion of the monument became more intensively utilized and altered for coastal defense and for lighthouse operation. The current descending Cabrillo Road connecting main ridge road (State Route 209) to the coastal terraces was constructed after 1936. This portion of the park is accessible by trails along the coastal terraces to the tidepools but there are no good footpaths toward the peninsular ridge top.

Along the eastern or bayside lands, to provide access to searchlight facilities, a bladed road — named Meyler Road, then Sylvester Road, and now Bayside Trail — was constructed in 1918-1919 by Army contractors. Originally, this road terminated at the 1920 Billy Goat Point base-end stations, but a trail connecting this location to Fort Rosecrans was widened later for vehicle use. Minor roadways from Sylvester Road to three 1920s coast artillery sighting points were visible during World War II when Battery Bluff was constructed. Aerial photographs from 1944 and 1953 show trails to Battery Bluff from Sylvester Road, and linking this road with the main crest paved road via secondary ridges where the visitor center now stands. Since the eastern portion of the monument is composed of steep ridges and deeply cut drainages, only one small beach, no tidepools, or watercraft landing spots, traversing this area prior to 1918 would have been difficult (Fig. 5).

By the 1920s, the lighthouse was a military radio station and later, a tourist destination. In 1931, the lighthouse was "completely renovated, painted and repaired", prompting the local Army commander to state "Naturally, the army takes pride in the appearance of this historic structure...." (Law, Jackson and others 1993: 21). Informal visitor use continued into the 1930s.

In 1933, a National Park Service official visited the location for the first time and recommended restoration of grounds and the structure. This official completed an inspection report in September 1934 which noted that the concrete watershed and two brick-lined cisterns had 'crumbled away' and the lighthouse was again in poor, unoccupied condition.

Between 1935 and 1937, National Park Service architects supervised lighthouse historic restoration, park landscaping of surrounding grounds which included existing State-built stone retaining walls, and construction of a new garage with detached restroom. A concessionaire operated a 'tea room' in the lighthouse and attempted to furnish its rooms with historic artifacts. Later, a larger parking area was constructed from a natural flat area to the southwest from the lighthouse to ease vehicle traffic (Law, Jackson and others 1993: 29). By the 1940s, the appearance and land uses had greatly changed around this small developed public park with its historic building, surrounded by military facilities and functions.

In 1941, wartime needs for security and strategic uses again changed the function of the lighthouse and its locality. A wooden observation tower and a two room concrete subterranean observation station were built a short distance south of the historic structure on the margins of the former parking area. Camouflage paint on the lighthouse substantially altered the appearance and character of the structure, then used as a Navy signal station. Construction of Battery Ashburn at this time resulted in piles of excavated earth and road paving materials on the entrance road (Law, Jackson and others 1993: 30).

Following WWII, the monument was increased in size, and public programs expanded. Custodian Donald Robinson was appointed Superintendent in 1956 and the unit began to develop its own management directions. By the 1960s, its neighbors included various Navy

program facilities and the City of San Diego's sewer treatment plant (Fig. 6). A one-story visitor center with administrative offices, auditorium, enclosed viewing and sales area and restrooms was dedicated in August 1966. By the 1980s, Park Service management plans, environmental analyses studies, an administrative history, historic structure report on the lighthouse, resources management plan, and specific cultural resources studies had been completed.

Land uses, when considered as cumulative, include the original ridge crest road route with late 19th —early 20th century secondary roads to coast artillery emplacements and a coastal terrace lighthouse. By 1920, Gatchell and Meyler roads connected on eastern and western sides of the peninsula to military installations to the north of the monument area. Foot-trails can be seen in historic photos connecting some roadways to artillery base-end triangulation stations and to the 1942 Point Loma Battery with its clustered gun emplacements and bunkers. Alignments of security fences are visible on historic military photographs. Exotic vegetation species have been planted since the 1920s.

Thus, sequences of large-scale ridgetop terrain alternations for major coastal batteries, roadways, parking lots and buried utility systems for military and civilian functions have resulted in discontinuous preserved areas of natural topography — slopes and coastal terraces — covered by native and introduced vegetation. Sparse historical artifactual resources around the lighthouse, at existing coast artillery emplacements of WWI and WWII, and isolated artifacts such metal or lumber relating to military activities remain today as historical archeological resources.

Archeological Materials in Park Collections

Archives, photographs, fine arts, historic objects and furnishings, natural history specimens, and archeological materials compose the monument's curatorial resources (See National Park Service 1999). Prehistoric artifacts are limited to three grinding rock slabs showing concave trough-like surfaces, worn by horizontal milling activities and five loaf-shaped handstones with convex worn surfaces. Regretfully, no provenience (place of origin) information is available for most objects. One handstone was found in 1964 near a documented prehistoric site along Gatchell Road by historian F. Ross Holland and archeologist Dr. Paul Ezell. One grinding slab and one handstone are on exhibit at the visitor center museum.

Historical artifacts found during archeological work are more numerous but are limited to building materials such as sun-dried adobe bricks, baked flooring tile fragments and industrially manufactured fired clay bricks. During the 1991 lighthouse restoration project, one common red brick and one light-colored 'firebrick' were found in earthen fill near exterior northeast and southeast corners of the structure. The firebrick was stamped EXCELSIOR which indicates a manufacture by Pacific Clay Products of Los Angeles, between 1921 —1942 (Gurke 1987; 232). A reddish-orange brick stamped USMP was found during the archeological project at Battery Point Loma in 1984 but has not been identified as to manufacturer. Adobe brick fragments and floor tile fragments in the collection are enigmatic. A few are clearly from the Fort Guijarros area but were collected and placed in the monument's collections before Fort excavation projects were begun.

One tile fragment is said to have been found during lighthouse tower restoration work in 1981. The use of square 'Spanish Tiles' in the lighthouse is strongly suggested by a comment from a Lighthouse Board inspector who was told in 1855 that the structure's basement floor was paved with '...tile from an old Mexican fort nearby'. This reuse of Fort Guijarros tiles was covered over by a concrete floor installed in 1880 (Holland and Law 1981: 116). The floor was lowered six inches during the 1930s restoration work, thus removing both the original 'tiles' and the 1880 concrete layer.

Six examples of adobe bricks were collected from trenching operations in May 1982 southeast from the lighthouse. At a depth of 18 inches to 24 inches, about 15 adobe bricks were found with 'chicken wire' and unidentified bird feathers. Informal comparisons were made between these examples and others known from San Diego "Old Town" buildings and Fort Guijarros.

Although there are no paleontological specimens in the collections, fossils of Cephalopod 'ammonite' group are known by some researchers to be embedded within the outcroppings of Point Loma Formation. With the exception of stone grinding slabs and handstones, no other Native American archeological or ethnographic artifacts are present in the monument collections. There are no materials conforming to the definitions of human remains, sacred objects, patrimony or funerary objects in the Native American Graves Protection and Repatriation Act.

Previous Archeological Research in the Point Loma Locality

Between 1902 and 1920, three definite archeological resources on the Point Loma Peninsula were observed and recorded by pioneering University of California archeologists Nels C. Nelson and Howard O. Welty (see Kroeber 1925). One large shell 'midden' mound site (now labeled as SDi-48) was observed along the earlier northern shoreline of Ballast Point. Nelson described this 'refuse heap' as 400 feet long, at least 50 ft. wide and 5 ft. thick. Nelson noted that a battery of 'small guns' had been constructed on the mound as part of Fort Rosecrans' emplacements. Two prehistoric midden sites recorded by Nelson and Welty along the shoreline north of La Playa area were later investigated by Joan Jensen, then Chair of the History Department at California Western University, in the 1960s (Morairity 1977: 253-4).

During the 1930s and 1950s, geographer George Carter visited many localities in the San Diego area, including Point Loma (1957: 272-277). Along the peninsular ridge top where erosion and roadways revealed open soil, Carter noted scatters of felsite flakes, small hearths ringed with cobbles, small patches of chione, pecten and oyster shells, but only sparse artifacts such as grinding tools, pottery fragments, or arrowpoints. These few cultural materials were seen along the ridgetop from military grant boundary southward toward the historic lighthouse. Paleontological materials in the form of a fragment of camelopus jaw fossil was found in the early 1940s within Fort Rosecrans (Hertlein and Grant 1944: 40). In 1962, a flexed burial of Native American human remains was discovered during road grading in Fort Rosecrans (Moriarity 1977: 255). Some shell fragments, a modified hand stone, and fragments of a large slab grinding stone were found with the remains which appeared to date between 5000-6000 years ago. Apparently, the human remains were left in place (see Overton 1986:208-209).

In 1959, archeologist Claude Warren, then of the University of California at Los Angeles, conducted the first terrain survey of the Monument, at the request of F. Ross Holland, Park Service historian who had been stationed at the park from that year to 1964. Warren's one-day survey in December did not locate archeological resources and the field methodology was not described.

Discoveries of peninsula off-shore underwater archeological or historical objects included recovery of isolated historic objects, building materials and faunal remains as scattered items along Ballast Point, recorded as site SDi-8897 (Pettus 1982). A small sandstone stone bowl mortar and a spherical stone artifact were found in 50 feet of water, due west of Old Point Loma Lighthouse, recorded as site Sdi-8669 (Hudson 1976).

Terrain Assessment Surveys and Excavations

In early 1975, Park Service temporary archeologist David S. Johnson conducted an archeological survey of about 50 acres newly added to the eastern side of the monument. Johnson's survey coverage included hiking traverses in a criss-cross pattern over the steep slopes and narrow coastal terraces. This project was completed in less than two days but did not include observations on military structures or features located in this area. The project was described on an Archeological Clearance format, issued by the Service's Western Archeological Center at Tucson as Clearance O89-CABR on January 29, 1975.

In June 1975, Park Service Archeologist Roger Kelly conducted further terrain clearance surveys for proposed nature trails, including one using a former military road within eastern parcel, as an addendum to Clearance O89-CABR. Twelve debris 'dumps' to be removed were also visited which were separate, small piles of lumber and solid waste such as concrete building materials and metal objects. Further identification of these materials was not made.

At this time, Superintendent Tucker and Park Service Regional Office Historic Preservation staff proposed preparation of a summary report regarding the monument's historic and prehistoric archeological resources. The services of Dr. James Moriarity, University of San Diego, were obtained through a purchase order to conduct field work and historical research during 1975-76, resulting in the completion of "Cabrillo National Monument; A Physical and Cultural Overview" in 1977. His synthesis utilized personal knowledge and professional work over many years in the San Diego area as well as expertise from other leading archeologists, historians, and military experts. Report chapters included specific environmental characteristics of the Peninsula, prehistoric cultural occupation of the San Diego Bay and Point Loma area, historical land uses and military occupation, and an inventory of physical cultural and historical resources.

In 1976, Service Historical Architect Kenneth Keane visited the Monument to record historic military structures for the Service's 'List of Classified Structures', a nationwide initiative. He made field visits to most structures and produced architectural descriptions with photographs. Near some of the features in the eastern parcel, he photographed lumber and other materials possibly related to the WWII operations at this location which had been observed in 1975 by Kelly and Moriarity.

In 1977, archeological terrain inspection for expansion of the Monument's Maintenance facility was done, based on Johnson and Moriarity's negative reports.

In 1981, Archeological Clearance Number (072-81-CABR) was issued for ground-disturbing activities necessary for a Navy Erosion Control project along Gatchell Road, within the western portion of the Monument. Potential archeological resources visited and discussed by Moriarity for this area were field-checked by Archeologist Kelly.

Also in 1981, a contractor under Park Service supervision conducted an historic preservation project at the historic lighthouse. During this work, concrete trough-shaped rain catchments installed in the late 1930s were revealed during exposure of below-grade exterior surfaces of the stone walls. Archeologist Roger Kelly, using information gained from a former Park Service employee who had retired to Trinidad, California, accomplished an investigation and revealing of these troughs. Since moisture levels in the Lighthouse basement had been a problem since the 1930s, documentation of these unexpected troughs was necessary.

In early May, 1982, Navy contractors excavating a narrow utilities trench through the western edge of the Whale Overlook parking area, about 150 feet south of the lighthouse, revealed a row of about 15 adobe bricks at 18 to 24 inches depth below asphalt paving. This single course row was found with a deposit of white beach sand, only visible on one side of the machine-dug trench, and was monitored by Ranger Brett Jones. In addition, unexpected

finding of pieces of 'chicken wire mesh' and 'chicken feathers' near the bricks make this discovery a mystery. Further, an older buried pipeline was encountered at about the same depth. While this area south of the lighthouse was the location of a large wooden observation tower and two concrete command bunkers during World War II. Later, in the 1960s, large quantities of fill earth from construction of the City of San Diego's Water Treatment Plant construction were used to enlarge the parking lot (see Fig 6). The adobe bricks were included in the park's museum collections.

In 1983, Clearance Number 016-83-CABR was issued for installation of buried utilities by Navy contractors to supply Park Service maintenance facilities.

In 1984, Clearance Number 007-84-CABR was issued for uncovering WWII gun emplacement (Point Loma Battery) for preventative maintenance. This Battery was constructed quickly in January 1942 as a four 155mm-gun emplacement, with accompanying gun crew facilities. In June and August of 1984, Youth Conservation Corps crews exposed most of one poured concrete circular ring upon which the WWI field cannon were positioned. After removal of the field guns, the battery rings were filled with local dirt in 1968 but natural erosion revealed some of the structure in 1981. Removal of this material did reveal wooden camouflage net frame fragments, burlap pieces, and 1945 Los Angeles newspaper pieces (see Jones and Overton 1984).

In 1987, Clearance Number 070-CABR was performed to document 'no effect' upon cultural resources by a proposed widening project for Gatchell Road near the City of San Diego Waste Water facility.

In November 1989, Brian Smith and Associates, an archeological consulting firm, conducted a field survey for the City of San Diego along the Gatchell Road to the Waste Water facility. A 'record search' was done at San Diego Museum of Man and the Information Center at San Diego State University. An Federal Antiquities Permit was issued for this activity (Smith and Associates 1989). Several prehistoric midden sites noted by Moriarity were revisited.

In December 1990, Mooney and Associates also performed field survey along the Gatchell Road segment leading to the City Water facility. The following site numbers were assigned to ten historical and prehistoric archeological sites (SDi=San Diego County, number indicates unique site identification within the County):

- SDi 11,930 53x15m disturbed shell scatter, no visible artifacts
- SDi 11,931 21x9m disturbed shell scatter, no visible artifacts
- SDi 11,932H 27x16m WWII historic feature (searchlight)
- SDi 11,933 46x31m disturbed shell scatter, no visible artifacts
- SDi 11,934 30x25m disturbed shell scatter, no visible artifacts
- SDi 11,935 75x70m disturbed shell and lithic artifact scatter
- SDi 11,936H 118x28m WWII Point Loma Battery
- SDi 11,937 123x54m disturbed shell and lithic artifact scatter
- SDi 11,938 143x15m disturbed shell and lithic artifact scatter
- SDi 11,939 42x18m disturbed shell scatter

In 1999, Archeologist Kelly performed a series of test excavations near the lighthouse in attempt to locate physical evidence of historic outbuildings. The activity was in support of the historic landscape restoration proposal of the General Management Plan. Ten small hand-dug test pits were excavated as assumed locations for outbuildings such as assistant lighthouse keepers quarters, privy, and picket fence line. No direct evidence of these structures was found but nature of the 1930s landscaping and plant irrigation pipes were encountered, as was natural bedrock in one unit. Other than 1930s water pipes, no artifacts were found. Any

artifactual or structural evidence of former outbuildings seems to have been removed during the 1930s grade alternation and landscaping.

In 2000, ASM Affiliates, a cultural resources consulting firm, was contracted by the City of San Diego to perform site evaluation studies at three archeological resources in or near a proposed curve widening project along Gatchell Road (see Reddy and others, 2000). Updated site information sheets for SDi-11,935, 11,936H, and 11,937 were completed by ASM Affiliates who suggested that sites SDi-11,935 and 11,937 were likely not eligible to the National Register of Historic Places. Site integrity and potential for information was apparently lacking due to erosion and impacts from Gatchell Road. Site SDi-11,936H documentation was updated with the recommendation of eligibility to the National Register for historical archeological resource values.

The California State Historic Preservation Officer concurred with these recommendations on August 32, 2000. The Reddy report contains concise summaries of research design approach, field and analytical methods used, and detailed descriptions of three recorded sites, including the military structures and features at two locations. Formal "Primary Records" were completed for each site investigated and illustrated with photographs and site maps. A Federal Antiquities Permit was issued for this work.

In August 2001, Archeologist Kelly conducted a re-survey of the ca. 50-acre east-side parcel to bring older terrain inspections up to current Park Service standards of site condition evaluation. Only archeological materials associated with historic military land uses were observed. illegal entry into one of the paired Billy Goat Point base end stations (on both monument and Navy lands) has resulted in vandalism. In 1993, one structure had been cleaned and secured against entry by the San Diego Urban Corps but the same structure has suffered vandalism since that project. A second station remains secured against entry. The 1942 Battery Bluff was recorded as an historical archeological site as well as an architectural resource. While two poured concrete gun emplacements are in fair in partially buried condition, wooden elements and a frame box structure have deteriorated since first photographic documentation in 1976. A few surface artifacts and a dug-out feature are other archeological resources. An oral historical account documents the military activities at this location during WWII (Overton 1986).

Two 1920 base end stations were also visited by Kelly. Both may be entered through loose steel shutters. Their condition is good although 1995 graffiti is visible in one building. Fragments of window glass and milled lumber are scattered on slopes near these structures. These discarded materials seem to be post-WWII abandonment. About 150 feet southwest from the 'old Maintenance Building', a possible stone quarrying area was observed as an unnatural circular area in a south-facing slope, near the Park Service facility. Its nearness to the 1850s lighthouse may be coincidental, however. An earlier segment of the former 'Humpheys Road' was traced for several hundred feet paralleling the current roadway but at a lower contour line. Two poured concrete features were seen as features of this long-abandoned military roadway.

Condition of Archeological Sites

An intensive inventory and assessment of historical and archeological resources on Navy and Coast Guard lands at Point Loma indicated that about 25 prehistoric sites were visible in the early 1980s for professional documentation (see Rower and Roth 1982: Table 1). In addition, the eight recorded sites listed above within the monument and those prehistoric midden deposits located in recent years beneath modern military developments indicate a minimum number of places on the peninsula utilized by native peoples through time (see subsequent Chapters in this report). Researchers Rower and Roth noted that moderate to severe erosion

and construction impacts are characteristics of all sites documented during their inventory project. The eight known prehistoric sites within the monument have sustained impacts from ocean exposure, run-off and sheet wash as well as road construction of Gatchell Road and earlier routes. All of these sites are located on ocean-facing slopes and coastal terraces of the monument's western area, indicating past cultural activities along a tide-pool near shore zone. Intensive terrain survey throughout the monument has not revealed additional prehistoric archeological resources. Coverage by systematic archeological surveys may be said to cover 90% of current monument terrain.

Two sites originally recorded by Brian Smith and Associates (SDi-11,935 and 11,937) were investigated by ASM Associates but were determined as not eligible to the National Register of Historic Places due to loss of integrity and scientific values. The remaining 6 prehistoric sites are in fair condition, protected somewhat by vegetation. Ground cover and native shrubs should be encouraged to reduce weathering and pedestrian travel near the fragile site surfaces. Two historic architectural and historical archeological sites (SDi-11,936 and 11,932) are of military origin and are in good condition as buried features, which reduces weathering. Site SDi-11,936 (Battery Point Loma) is a contributing property to the Historic District for historical archeological values at local and national levels. The Battery Bluff site (no trinomial number) is in fair condition but elements of that emplacement are in poor condition as noted. All monument archeological resources are included in the Park Service Archeological Sites Management Inventory System (ASMIS), a park systemwide automated database which includes 'poor, fair, and good' site condition definitions for prehistoric and historical archeological resources.

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<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

CABRILLO

Shadows of the Past



CHAPTER TWO:

OVERVIEW OF THE POINT LOMA PENINSULA PREHISTORY

Introduction

This synthesis of relevant published and unpublished literature addresses the potential scientific value of prehistoric archaeological sites located on Point Loma, California. The synthesis includes several broad anthropological research questions that have received considerable attention already and to which future recovery data from Point Loma sites could contribute. By discussing progress to date and future research goals, integration of information recovered from Point Loma sites into these broad questions can demonstrate their potential eligibility to the National Register of Historic Places. Conversely, ineligibility to the National Register for certain resources will be discussed as well. Historical archaeological resource sites are also judged in a similar way, as noted in following sections.

Laws and Regulations

Use of this overview will have utility in assessing the potential eligibility of historic and prehistoric archaeology sites. Natural erosion, impacts by wild and domestic animals, and man made improvements detract from the matrix integrity. The focus of a land manager should be to assess degrees of integrity loss against the potential of the resource to support scientific questions and thus meet Criteria D of the National Site Preservation Act of 1966 (Title 36 Code of Federal Regulations, Section 60.6). Criteria A of the Act which identifies a site as an example of a significant theme or pattern of history, architecture, archaeology, engineering or culture for a locality, state or nation may also apply.

Two other National Site Preservation Act criterion not likely to apply to prehistoric sites as evaluations are Criteria B which addresses associations with historically prominent persons and Criteria C which requires identification as work of a master, has high engineering distinction or possesses high artistic values. Some historical archaeological sites may also meet these criteria, however. Site integrity is also important to the automated archaeological database for the Park Service called the Archaeological Sites Management Inventory System (ASMIS).

Academic Research Schools

There have been several distinct academic 'schools' of research in San Diego that have focused on important research questions of their times. For example, early research by the San Diego Museum of Man attempted to develop cultural sequences that correlated to geologic chronology. Malcolm Rogers published, critiqued, and republished cultural sequences for the earliest to the most recent prehistoric people in Southern California. Rogers later adopted linguistic models to explain chronological tool and pottery sequence changes. In the 1950s and 1960s, the University of California at Los Angeles directed advanced students to the San Diego area to study potential environmental change during geological and cultural sequences. Carl Hubbs, Scripps Institute of Oceanography, contributed substantially to

radioisotope and radiocarbon dating to study seawater temperature and marine species changes in those same chronological periods as ancient people occupied the region. San Diego State University, University of California at Riverside, and private contract archaeologists attempted to study cultural processes of change in the 1970s. Today, a wide variety of private, museum, and academic archaeologists are synthesizing these pioneering approaches to newly formed research questions.

Paleogeography of the San Diego Coast

Transformational effects such as rising sea levels, changing sea temperatures, world-wide sea and weather cycles and changes, and landform modification on populations of organisms are important to the understanding of the broader context of prehistory in the San Diego region. These transformational changes affected prehistoric people as they relocated occupation areas in response to changing shorelines and less reliable food sources. Population movements often brought groups of people together, where trade, exchange of ideas, marriage, and new political alliances further caused regional change. It is this broad context that provides the laboratory for scientific archaeological inquiry on Point Loma.

Since the peninsula is an exposed, prominent ridged landform separating San Diego Bay from the Pacific Ocean, this land has been steadily eroded by rising sea levels and landslides which have severely eroded the coastline over many thousands of years. The shoreline of today is not the same observed by the first prehistoric people, who arrived at least 9,000 years ago. Many of their original camping and occupation sites have fallen into the ocean. This dynamic environment is recorded in clues such as artifacts, pollen, marine shell, food bones, diatom, phytolith, and blood residue found on tools in the surviving prehistoric sites.

Archaeological Sites as Time Capsules

In essence, each archaeological site is like a time capsule, composed of materials and artifacts relevant to the time in which the objects were deposited. As noted, gradual or sudden changes in sea temperature, rising seawater, and coastal landslides affected creation of those time capsules. Orientation of scientific data recovery from Point Loma sites should be planned to recover evidence relevant to those issues. This orientation needs to incorporate lessons learned from previous researchers with new data to arrive at long-term cumulative solutions.

For example, since early radiocarbon dates were obtained on San Diego coastal sites, new radioisotope information has become available to indicate certain marine shellfish species populations substantially died-off during fluctuations in marine sea temperatures. Greater or lesser abundance of *Chione* clams, for example, would reflect such a change. If archaeologists only relied on *Chione* for radiocarbon dates they might misinterpret the occupation to fall within the time when the sea water temperature supported large populations of *Chione*. However, orienting a scientific investigation to obtain radiocarbon dates on *Chione*, *Mytilus*, animal bone, charcoal, and charred seeds would greatly improve the accuracy of dating the actual occupation of the site.

CABRILLO

Shadows of the Past



CHAPTER THREE:

OVERVIEW OF SPANISH AND MEXICAN HISTORY OF SAN DIEGO AND POINT LOMA

Introduction

This summary of historic and archaeological research on Spanish Colonial and Mexican Republic Period occupation of San Diego will explain the heritage context for Point Loma historic sites. The goal is to explain the local importance of historical events and places within the context of Spanish and Mexican government philosophies on exploring, claiming, colonizing, developing community and industry, foreign visitation, and events that led up to the Mexican War of 1846. Finally, this overview will address the diverse ethnic and gender groups in the greater San Diego and how they related to the smaller communities of Ballast Point and La Playa, the first non-native settlements of Point Loma (see Fig. 7).

Early Spanish Exploration

Fifty years after Spain conquered the region of today's Republic of Mexico, Spanish military expeditions penetrated the Pacific Coast in search of exploitable resources and routes of commercial transit to the East Indies. Under orders from the Viceroy of Mexico, Pedro de Alvarado, armadas were sent north to explore the coast of California and beyond. In 1540, One of Alvarado's officers, Hernando de Alarcon, sailed a Spanish ship up the Gulf of California, into the Lower Colorado River and returned to Mexico with tales of a large inland freshwater lake, hot deserts, and rich marine resources (Kelsey 1986:83). Two years later, Juan Rodriquez Cabrillo commanded a Spanish expedition and landed to claim Upper California. Their discoveries led to colonization of 'Alta' and "Baja" California in the 18th century.

Cabrillo may have arrived in the New World around 1510 with Panafilo de Narvaez. He served in Mexico as a corporal of crossbowmen during battles in Cuba, Valley of Mexico, and Guatemala (Kelsey 1986:9). Confusion exists among some scholars as to Cabrillo's status as a Portuguese or Spanish citizen, but modern historian Harry Kelsey inferred that Cabrillo was born in Spain from the fact that Narvaez preferred to serve with men of Cuellar, a province of Spain (Kelsey 1986:11). It is said that Cabrillo distinguished himself during the battle for the Aztec capital by waterproofing Cortez' s brigantines with tallow melted from the bodies of killed Aztec warriors (Kelsey 1986:33-36), which enabled the Spanish to sail across Lake Texcoco and conquer the Aztecs in 1521.

Cabrillo rose in the ranks in the service of Pedro de Alvarado during the bloody conquest of Guatemala. He became a rich and powerful landholder, residing with his large family in the town of Santiago, Guatemala. Between 1510 and 1536, he signed and recorded his name as Juan Rodriguez. There were many soldiers with the same name serving Spain during that period.

Researchers have found no record of the name Cabrillo prior to 1536 (Kelsey 1986:62), but

he may have assumed the additional name as a political identity as he rose in power in Guatemala. Under orders from Alvarado, Cabrillo had a fleet of 6 ships constructed in Guatemala to join Alvarado's 1541 Pacific Coast 13 vessel 'armada' for an exploratory expedition. Cabrillo himself commanded the galleon *San Salvador*.

Just prior to setting sail, Alvarado responded to an uprising at Penol de Nochistlan, where he died (Kelsey 1986:84). Legal complexities caused by Alvarado's premature death placed Cabrillo in charge of the armada. The Probate Judge assigned Alvarado's wife as Governor pro tem to administer Santiago in Cabrillo's absence. However, she died a few days later in a devastating Guatemalan earthquake. To recoup Alvarado's investments, Cabrillo buried his patron's wife and set sail under orders from the Viceroy, Don Antonio de Mendoza. But only his galleon and two other ships composed a smaller convey (Kelsey 1986:99, 113).

Cabrillo's expedition arrived at present day San Diego on September 28, 1542, on the eve of Saint Michael's feast day, prompting Cabrillo to name the bay 'San Miguel' (Kelsey 1986:143). The actual landing probably occurred at beach zone of the bay, rather than on steep slopes of Point Loma. Later in the voyage, Cabrillo fell on Capitana Island, now believed to be San Miguel Island, broke his leg, and died of untreated gangrene infections on January 3, 1543 (Kelsey 1986:139). His officers returned to New Spain with maps, ships' logs, and other records to be used later by cartographers to plot courses for 'Manila Galleons' crossing the Pacific to Asia.

Spain did not send later expeditions to explore California until Sebastian Vizcaino arrived in 1602 (Thompson 1991:3). During the early 17th century, Spain commissioned a number of military expeditions in search of mythical islands of silver reputed to be somewhere off the Pacific Coast. Legends held that a galleon sailing from the Philippines made emergency repairs on an island and replaced dirt in the vessel's iron stove box with soil from the island, which later flowed with silver when heated. Many Spanish explorations searched vainly for the mythological 'Islas de Plata' through the 16th and 17th century. For example, the Spanish explorer Sebastian Rodriquez Cermano landed today's Drakes Bay in Point Reyes National Seashore, Marin County, in 1595. Cermano was enroute to New Spain from Manila with trade goods but lost his galleon *San Agustin* during a November storm. Vizcaino also briefly landed on the shores of the bay marked by cartographers 'San Miguel' which he renamed 'San Diego' (Horton 1900:16). Newer records were used by Spanish admiralty to chart revised courses for 'Manila galleons' which by-passed California coasts north of Point Conception, sailing westward in open waters for the next 150 years.

Spanish Colonization of California

In the 18th century, world politics fueled by news of exploration and discoveries made by other nations concerning the East Indies, South Pacific, and Northwest Pacific alarmed the Spanish Viceroy. Spanish ships were dispatched from San Blas, New Spain in efforts to establish a military presence in today's British Columbia. Following successful 17th century colonization of Baja California by Jesuit Missionaries, the Crown colonized the northern half of Baja California with Dominican Order missionaries and assigned Franciscan priests to upper or 'Alta California'.

King Carlos III of Spain ordered Jose de Galvez, Visitor General of New Spain, to establish those California missions and presidios on the Pacific Coast to prevent Russian and English occupation (Thompson 1991:4). The first settlement in today's California was the 1769 colony at San Diego Bay. Captain Gaspar de Portola led a land expedition late 1769, preceded by a galleon reaching the bay shore in April 1769. Many of the sailors died of scurvy and were buried on the shore of San Diego Bay, several miles east of Point Loma.

Captain Portola selected a hill northeast of Point Loma, about five miles from Ballast Point and San Diego Bay for the first presidio (Black 19 13:47). The first community consisted of 130 Spaniards and an unknown number of Native Kumeyaay from the village of Cosoy. The Spanish ships *San Antonio* and *San Carlos* anchored in San Diego Bay, about one mile north of Ballast Point and created an *embarcadero* on the beach known as *La Playa*. A trail from La Playa to the Royal Presidio de San Diego de Cosoy became one of the first European graded and improved *camino* in San Diego built by Royal Engineers in 1805 (Black 1913: 50).

The Royal Presidio de San Diego de Cosoy changed rapidly over the years from a wooden stockade to a walled town with tall adobe walls, artillery bastions, and merchant centers. Spanish civilians, Native American laborers and traders, and soldiers conducted European-style business within the presidio walls. Once or twice a year, supply ships from San Blas, New Spain, would bring metals, cloth, ceramics, oil and liquor, paint, clothing and munitions. Agricultural products from the mission's fields and gardens provided food commodities for the small community.. Occasionally, foreign sailing ships visited the bay to obtain fresh water, medical attention, vessel maintenance and for trade.

The Kumeyaay village of *Totakamalam* on Point Loma is not documented in either Spanish or later Mexican records as being occupied, but Kroeber (1976:Plate 57) reports its remembered existence. This village may have been located close to the San Diego River, but no archaeological evidence exists. Delphina Cuero, a Kumeyaay from the Jamacha village (25 miles inland) recalls gathering plants on Point Loma (Shipek 1991:27). Cuero noted that the Kumeyaay word for Point Loma is *Mat kun 'yil 'y'* which means black earth in the distance (how it appeared from miles away). Neither Cabrillo nor Viscaino reported native settlements or camps during their early visits. Kumeyaay use of Point Loma during the 18th century probably was limited to hunting and gathering expeditions to supply more distant villages, such as Cosoy.

Conversion of Kumeyaay people really only reached those who were disenfranchised by higher standing families at Cosoy and other villages around San Diego Bay and up the San Diego River to the east. A brush ramada chapel built in 1773 on Presidio Hill served both soldiers and Kumeyaay converts (Neuerberg 1990). Conflicts between presidio soldiers, Kumeyaay, and Catholic clergy led to relocation from the brush chapel on Presidio Hill to a hill above the Kumeyaay village of *nipaguay*, six miles east (Black 1913).

In the 1770s, Kumeyaay people began scavenging cloth, broken glass, and ceramic sherds from the refuse pits for trade to their eastern villages and settlements. When cloth scraps were no longer available, Kumeyaay stole clothing and conflicts broke out with Spanish authorities (Smith 19 13:48). On August 15, 1774, leading Kumeyaay family leaders retaliated against punishments with an armed insurrection at the mission compound. A priest was killed and a blacksmith died from injuries. Following a second uprising in 1775, the entire mission compound was burned. The Kumeyaay were resisting the Spanish policy of *encomienda* (re-settlement and forced work by native peoples) which caused annihilation of many indigenous people elsewhere in New Spain, Central, and South America. In 1778, Spanish architects designed a fortified mission compound and between 1778 to 1813, the mission church was replaced or rebuilt due to earthquake damage (Neuerberg 1990).

Spanish Responses to Foreign Incursions

Rumor and fear of Russian exploration in the Northwest in the 1740s alarmed the Spanish crown, which sent Spanish warships equipped to construct a small cannon battery at Nootka to ward off the foreigners. In 1790, the Spanish artillerists defeated a British warship in a spectacular ship-to-shore battle. The 1790 Treaty of Nootka resulted in a clear dividing line

between Spanish and British interests. Even though concessions allowed shared authority in the Northwest Coast, Spain ordered a military build up in the California presidios.

The School of Naval Engineers and the Hydrographic Depot began to scientifically explore and chart the Northwest from 1754 through 1787 (Higueras 1991:12). To protect the region from Russian, British, French, American, or other interests, the Royal Naval Department of San Blas sent ships to patrol the area (Higueras 1991:9-10). To further establish Spain's claim, Charles II ordered scientific explorations of Peru and Chile (1777-1787) and Charles IV ordered additional expeditions to the Philippines, New Spain, Cuba and the Northwest Coast. The Alessandro Malaspina Expedition of 1789-1794 led to intensification and reorganization of maritime trade with America and the Philippines (Higueras 1991:11). Malaspina and Jose Bustamante y Guerra spent 62 months exploring Buenos Aires, Argentina, Philippines, Mariana Islands, Vavu Archipelago, New Zealand, Australia, and Alaska. They explored the Northwest Coast in 1791. Scientific information collected by Galvez in 1769 and officers at the Presidio de San Diego de Cosoy were continuously dispatched to San Blas, Mexico and contributed to this research. Packet boats from San Blas brought news of the expeditions, as well as Asian goods from the 'Manila galleon' trade. The latter supply shipments were reduced between 1800 and 1810 due to war in Europe and internal strife in Mexico, which reduced Spanish supplies throughout California.

The Royal Presidio expanded greatly in the first thirty years. Relocation of Catholic priests and Mission San Diego five miles east up Mission Valley to the Kumeyaay rancheria of *Nipaguay* enabled the Spanish Army to assume control of San Diego. The wooden stockade deteriorated and new plans for adobe walls were initiated in the 1770s. The *Regalamentos de 1782* issued to the governor of California resulted in a total redesign of the Presidio de San Diego to expand in size with an exterior vertical wall and two bastions on opposite corners (Thompson 1991). Construction accelerated with the arrival of a well-armed and equipped Spanish Army of Catalanian Volunteers at Monterey, half of which were assigned to San Diego. Those soldiers set to erecting adobe quarters and completing the walls.

At the same time, Spanish authorities established crystallized control over California with a chain of missions and presidios as far north as Sonoma, California. The Viceroy of New Spain, Conde de Revillagigedo, ordered a policy of defensive possession in California to enforce the articles of the Nootka Convention (Chapman 1921: 515-516). California Governor Jose' Joaquin de Arrillaga carried out that policy in 1792 by ordering studies and selection of sites for military fortifications at the harbors of San Francisco, Monterey, Santa Barbara, and San Diego. Juan Francisco de la Bodega indicated one potential fortification site on the map of San Diego Bay and surrounding landforms that same year, but the selection of Ballast Point occurred several years later.

The following year, British Captain George Vancouver arrived in San Diego Bay on November 27, 1793 on a scientific mission. Spanish authorities treated Vancouver with proper respect, but the dining facilities and quarters did not impress Vancouver, who submitted a critical report to English authorities. He reported the presidio to be in a very bad state of repair, but noted the harbor could be considerably strengthened by building a small fort at the mouth of San Diego Bay.

Spanish Defenses on Point Loma

Spanish authorities had already considered Punta de los Guijarros (Ballast Point) in 1792 for the location of a 10-gun cannon battery (see Fig. 7). The Spanish frigate *Princessa* shipped wood from Monterey to San Diego in 1793 for the eventual construction of a barracks and battery at the Presidio de San Diego (Colston 1982:62). Punta de los Guijarros appears to have been selected by 1794 based on directions given Miguel Constansó by Governor

Arrillaga (Ibid.). Following the change of command from Arrillaga to Governor Diego Borica in that same year, the Spanish government shipped 1410 planks, 50 beams for the esplanade, 6 beams for the barracks, 100 boards and 300 stones to San Diego. A work force of native Kumeyaay Indians and Catalanian Volunteers drafted from a construction project at the Royal Presidio were shipped by flat boat five miles south to construct a 10-gun battery at Punta de los Guijarros. During construction, a temporary wickerwork battery filled with sand defended the bay, which Spanish authorities demolished upon completion of Fort Guijarros in 1796.

Although records or pictures do not exist for the Ballast Point fort, plans do exist for a battery at San Francisco which provide important details. At the time Fort Guijarros had been completed, a roughly rectangular cannon battery with fourteen cannon ports had been documented in an as-built map by Engineer Alberto de Cordoba (Colston 1982:66). This design showed that the walls were comprised of a 40-foot wide elevated mound with an esplanade elevated 20-feet above the natural ground that ran around the interior. The front half of the esplanade was topped by 8-foot high and 20-foot wide architectural elements between, or *merlons*, between each gun port. Destroyed by an earthquake in 1815, the original San Francisco battery had been replaced in 1816 by a horseshoe-shaped battery (Bancroft 1884:651).

Analysis of instructions provided by Don Pedro de Lucuze for coastal cannon batteries constructed in Campeche, Yucatan, provide further evidence for the appearance of California Spanish cannon batteries (May 1995:7). Joaquin Antonio Calderon Quijano published the designs of 18th century Spanish engineer Rafael Llobet to defend Campeche from English and privateer assaults. The plans of Bateria de San Lucas closely resemble a mark on a federal 1851 Coast Survey map of Ballast Point (May 1995:9). Llobet followed instructions detailed in 1772 by Lucuze, but extended the esplanade to 40 feet long. Elevated 28 feet above the natural ground, Bateria San Lucas protected a barracks about 20 feet behind the interior of the walls.

The building material available for most Spanish fortification construction in New Spain consisted of quarried hard stone, such as granite or chalkone. Both the interior and exterior faces of Bateria de San Lucas are vertical in the 1792 plans. Lucuze illustrated a hard stone vertical exterior battery face, but both vertical and ramped interior faces (Quillin and Quillin 1988:3-7; May 1995:6). Quarry stone is not available in the San Diego region of California and Spanish architects were forced to adapt to marine sandstone, mud and cobble stones on Ballast Point. The lowest layer of architecture includes crudely shaped marine sandstone blocks. A single sandstone block shaped to form a shallow basin to inset in a 30-degree corner may have been a religious font.

Known today as Fort Guijarros, this cannon battery served as a first line of defense against pirates, privateers, and smugglers (see Fig.8). The only Spanish and American, ship-to-shore battle in the history of Spanish California occurred on March 22, 1803 (Colston 1982: see Fig.9). Under orders from the civilian merchant owners of the *Lelia Byrd*, sailors attempted to conduct illegal trade in sea otter furs with local merchants and were captured by Spanish soldiers (Bancroft 1886:103). Emboldened by the value of \$40 American dollars for each otter skin, the sailors tried to bribe the soldiers to release a load confiscated a month earlier. An armed force from the ship forced the Spanish soldiers to release the sailors, but the chase was on. Spanish artillerists fired 9-pound cannon balls and canister shot, while the ship fired smaller deck and swivel guns at the fort. The Americans also lashed Spanish captives to the railings of the *Lelia Byrd* in an attempt to discourage the Spanish artillerists from firing on the ship. Despite the vulnerability of the hostages, the guns of Fort Guijarros fired into the rigging and at the waterline to disable the ship. A slack wind virtually stalled ship and a 45-minute exchange of cannon fire between the combatants ensued. With hull and rigging

damage, the *Lelia Byrd* escaped San Diego and departed California.

The First Point Loma Light

Two years after the battle of San Diego Bay, Spanish authorities built a small light beacon on the tip of Ballast Point. Soldiers from Fort Guijarros maintained this light for a number of years. The first beacon on Point Loma lasted until about 1810, but lack of maintenance caused it to crumble into the sand and the pieces scattered by storm wash. By 1820, the light beacon disappeared.

Spanish Instability with Foreign Illegal Trade

War in Europe after 1810 and internal economic downswings in New Spain severely reduced supplies and financing of the California frontier. Soldiers assumed part-time work for pay at Mission San Diego. Many soldiers, public servants, and Catholic clergy conducted illegal trade with visiting American, British, and French ships. The 18th century trade blockade became a sham. Smuggling and open illegal trade became more and more common by the time of the Mexican War of Independence in 1821 (Flower, Ike and Roth 1982). The arrival of a Mexican Republic governor to San Diego in 1822 put an end to the Spanish Royal in San Diego. Soldiers either changed uniforms or departed California for Spain. Since most of the soldiers were native born, they swore allegiance to the new Mexican Republic.

The Mexican Republic

Mexico opened international trade in 1822 with sweeping changes in world commerce. Licenses issued to foreign businesses resulted in an almost overnight building boom at La Playa (Colson 1982). Hundreds of wooden huts and warehouses were erected by companies and their followers. Several large hide houses were erected to store dried cattle hides intended for shoe industries in Boston and London. People from all over the world moved to La Playa and socialized with the California residents. These included Polynesians from Hawaii, Aleut seal and otter hunters from Alaska and the Bering Sea, Black African whale hunters from Portuguese islands of the Azores, New England Native American whale hunters, freed slaves from all over the world, Asian sailors from the Philippines, Maori seal hunters from the South Pacific, and a varied mix of European American immigrants. These mariners welcomed shore duty, as described by Richard Henry Dana in *Two Years Before The Mast* (Dana 1964). La Playa teemed with exotic visitors, most of whom traded in markets at the Presidio and visited Mission San Diego for Catholic Mass.

Mexican authorities attempted to repair and maintain Fort Guijarros, by then known as *La Esplanada* (Flower, Ike and Roth 1982:155; see Fig. 10). The Mexican Army assigned an artillery squad of 22 Mexican soldiers to La Esplanada, whose families lived in quarters behind the walls. They saw combat in July of 1828, when Captain John Bradshaw of the merchant ship *Franklin* sailed into San Diego to conduct trade without a license, in defiance of Mexican Law. Ordered arrested for illegal trade, Bradshaw and his crew retreated to his ship and firing cannon shot at the Mexican customs officials at La Playa. Horsemen rode the mile south to alert the soldiers at La Esplanada. Artillery batteries returned fire with cannon ball, chain and canister shot, injuring Bradshaw. The *Franklin* limped out of San Diego with hull and rigging damage from 40 cannon shots.

Dana, a sailor working in the leather trade in the 1830s, lived for several months at La Playa and described life ashore. He later returned to America to publish his experiences in California (Dana 1964). He reported seeing a large brick oven built by Russian scientists in 1825 which later housed Hawaiian sailors as apartments. Dana's jobs included washing cattle hides in the shallow bay waters, soaked them in tanning vats, rubbed them with salt and stretched the product to dry. The hide houses were reported to 'stink like death' and jump with

'millions of fleas and cattle ticks'.

Although Dana did not report seeing Fort Guijarros, it clearly existed as a militia post. But the same year Dana arrived at La Playa, Mexico demilitarized California and mustered out the soldiers. Residents of Ballast Point either moved north to La Playa or Presidio Hill. They also could have joined an exodus of retired military families to a place closer to the San Diego River and San Diego Bay, which is now called Old Town. Abandoned, Fort Guijarros deteriorated quickly. Civilians scavenged the ruins of Fort Guijarros and the presidio for roof tiles, wall tiles, lumber, metal, and adobe blocks for building new homes in Old Town. Commandant Francisco Ruiz sold official salvage rights to retired soldier Juan Machado on June 17, 1840 (Thompson 1991: 12).

There is no record of what Machado removed from Ballast Point, but Mexican militia continued to fire salutes to incoming merchant ships as late as 1843, as recorded in a 1843 sketch by G.M. Waseurtz af Sandels (Sandels 1945). A French Legate reported crumbling walls and six to eight cannon buried in the sand 1842 (Flower, Ike and Roth 1982).

The Mexican War of 1846

Word of economic and political change spread with arrival of each merchant ship, newspaper, or visitor in the late 1830s in California. The Pico and Alvarado families feuded openly for control of Los Angeles which flowed back and forth between the families. Sailors from the whale ship *Stonington* stormed the silent ruins of Fort Guijarros in 1843 to hammer spikes in the cannon breeches to prevent their use in fighting rumored U.S. military forces offshore (Roth 1982:157).

Congressional fears of British plans for Mexico triggered American covert military movements to foment internal revolution in California in 1845 (Bancroft 1886). Marine Lieutenant Archibald Gillespie arrived in San Francisco in the guise of a sick civilian and traveled north toward the Oregon Trail to meet Army Topographic Engineers. There, he secured a rag-tag militia of mountain men led by John C. Fremont to move south to fight Mexican forces in California.

At Monterey, Navy Commodore Sloat awarded a brevet rank of Major to Fremont who formed the California Mounted Rifles to fight Mexican authorities in Sonoma and Los Angeles. Major Fremont briefly joined the Bear Flag Revolt in Sonoma and then turned south to Los Angeles. Meanwhile, the American Army arrived in Southern California under the command of brevet General Stephen Watts Kearney and marched across the Peninsular Mountains toward Mexican forces staging at San Pasqual.

The Battle of San Pasqual is undoubtedly the worst military defeat suffered by the American Army in California. Poor discipline, rain-soaked rifles, and road weary soldiers led to an unplanned cavalry ordered by Army officers, unfortunately into the waiting Mexican Army positioned in a narrow canyon. Mexican leader Andres Pico wheeled a secondary force of piked cavalry out a canyon to spring a classic military trap. By then several Army officers were dead and others dying from pike slashes, sword stabs and shot. Pico also captured the only piece of field artillery to arrive on the scene. Most of Kearney's soldiers were a mile to the east unaware of the defeat.

Kearney retreated to a defensible position and soldiers skirmished throughout the rest of the engagement. Eventually, Pico pulled back to regroup and General Kearney ordered his supplies burned to prevent them from falling into enemy hands. Pico elected to withdraw several miles away to Francisco Maria Alvarado's adobe to treat the wounded and then departed for Los Angeles. Meanwhile, Navy and volunteer forces arrived to rescue Kearney

and escort them to San Diego. Later accounts by American Army officers confused the order of battle in an attempt to cover up the failure.

American forces could not immediately relieve General Kearney because they too suffered heavy resistance from Mexican militia along the shore of San Diego Bay (May 1854). At least 16 Marines died on those beaches and were buried out on North Island. Mexican sharpshooters picked them off as they landed skiffs on the beach. Mexican soldiers also removed a cannon from Fort Guijarros and hitched it to a long rope. They could fire the cannon at the Marines on board the *U.S.S. Cyanne* or merchant *Stonington* and then draw the cannon back out of range of the muskets firing from the ships.

Once the Mexican forces withdrew to join Pico at San Pasqual, Marines secured two cannons from Fort Guijarros and marched to capture Old Town to establish an occupation force. This entire siege took several weeks. Similar to the propaganda reports generated at San Pasqual, California schoolbooks do not correctly describe the success of Mexican troops to pin down American forces in San Diego during the Mexican War.

Confusion reigned during the late 1840s in San Diego. British and French merchants dealt with the Army Quartermaster for renewed permits to operate at La Playa. Civilians returning to San Diego had to realign their thinking or become arrested under Martial Law. After the American Army defeated the Mexican militia at the Battle of San Gabriel in Los Angeles, American forces continued to fight in Texas and Mexico. California came under Army control while new State of California and federal Government settled on a California Constitution, creating counties and major cities. Ultimately, with ratification of the 1852 Treaty of Guadalupe Hidalgo, the Mexican War came to an end.

The Ethnic and Gender Mix

The civilian population of San Diego is documented in 1774 as thousands of Kumeyaay in surrounding villages and the 750 European Americans at the Presidio. By 1846, no more than 150 European or Mexican born persons lived at San Diego (Heizer 1978:121). Ethnic consciousness among Spaniards during that time period does not directly correlate to 21st century American concepts. Many of the Spanish soldiers were themselves descended from Moors, native populations in New Spain and some Asians and Africans. Asian sailors and servants arrived on the 'Manila galleon' to trade blend into Spanish society throughout the entire period of trade between the Philippines and New Spain. These small and relatively isolated Spanish military communities placed greater value on descent from Spanish-born ancestors than on physical traits.

Shortly after arrival in 1769, Spanish soldiers and artisans married native Kumeyaay women to establish households with them. Converted Kumeyaay lived at the missions but eventually chose between ancestral families or living near Spanish settlements. Disenfranchised from their coastal villages and prevented from seasonal group movements to harvest shellfish and hunt marine mammals, native non-Catholic Kumeyaay withdrew further east to the Laguna Mountains or into Baja California to maintain their native lifeways. Statistical records taken from Catholic Mission Baptismal and Death Books demonstrate a massive death rate of Kumeyaay and their native neighbors between 1769 and 1834 (Heizer 1978:121-125). Inadequate healthful diet, diseases, and injuries contributed to the increasing death rate that reduced practice of Kumeyaay religious faith and opened channels for conversions.

Most of the people who converted to Catholicism in those early days were on the lower side of the Kumeyaay social and political structure thus had more to gain by joining with the Spanish authorities. Spanish authorities and artisans and families living in the Presidio de San Diego probably did not recognize the native cultural distinction between nobility and

commoners. This total lack of understanding or acceptance of the Kumeyaay culture or society ultimately led to the 1774 and 1775 uprisings and murder of a priest. Spaniards held strong ethnocentric belief that Spain had the only relevant culture, religion and society.

In effect, Spanish Colonial life offered some Kumeyaay an opportunity to rise in social status that did not exist in Kumeyaay society. Further, since many Spanish military were themselves of mixed ethnic descent, a perception of inevitable change to Spanish lifestyle and Catholicism pervaded their thinking. Spanish colonists continued a 200-year-old tradition of tribute, conscripted labor and relocation aspects of the *encomienda* when they arrived to colonize San Diego. This process reduced the native American identity through conversion to Catholicism, forced relocation in Spanish towns, mandatory hygiene and clothing changes and conversion to dependence on Spanish economics (Heizer 1978:130-135). In fact, some Catholic clergy even debated if native people even had souls. This program did convert several hundred Kumeyaay, but thousands died from European diseases. The Mission San Diego Baptismal and Death records indicate approximately 4,000 native people were buried in the mission cemetery between the 1770s to 1840s.

Few Spaniards of 18th century California were born in Spain. Many of them were 4th or 5th generation citizens of New Spain and themselves descended from native people. Colonists long held the practice of marrying native people as new communities were established. A complicated ethnic reckoning system existed at the time Spain colonized San Diego. Sr. Don Pedro Alonso O'Crouley published *A Description of The Kingdom of New Spain* in 1774, which clearly describes those distinctions (Galvin 1972:19). He defined a child of a Spaniard and a native as a *Mestizo*, a Spaniard and a Mestizo as a *Castizo*, a Spaniard and a Castizo as a Spaniard, a Spaniard and an African as a *Mulatto*, a Spaniard and a Mulatto as a *Morisco*, a Spaniard and a Morisco as a *Albino* a Spaniard and an Albino as a *Tornatras*, a Spaniard and a Tornatras as a *Tente en el aire*, a native and a Chinese (*Chino*) as a *Albarazado*, a native and an African as a *Sambia go*, a native and a Mulatto as a Lobo, a native and a Lobo as a Cambujo, a native and a Mestizo as a Coyote, and a native and a coyote as a native. People living at the Presidio de San Diego or in out posts like Fort Guijarros did not think of themselves as Kumeyaay Spaniards or African Spaniards, but used the terms O'Crouley listed in relation to how far back a person was descended from a European Spanish family. The closer a person could claim to be descended to a European Spaniard, the higher their natural social status.

In the complicated social and class system of New Spain, soldiers and their families of San Diego could elevate above ethnic classes by rising in military rank. Good service and high achievement meant more pay and promotions in rank. Elevation to an officer of any rank guaranteed high standing and unlimited economic possibilities. Retired soldiers often wore their uniforms to formal events or in public to mark that social status. In this system, distant ethnic claims to European Spaniards could be balanced by these rank elevations. European Spanish officers always commanded the highest social standing in Spanish California, no matter what their economic status. Such was the social status of the Spanish-born Catalan Volunteers, who arrived in California in the 1790s (Colston 1982). The Catalan Volunteers supervised much of the renovation of the Royal Presidios in Monterey and San Diego, including work on Fort Guijarros.

Other ethnic groups also existed in 18th and early 19th Spanish society in New Spain. Asian sailors and servants arrived from the Philippines on the Manila galleons as early as the 16th century. African slaves and servants arrived with the soldiers of Spain during the conquest of Aztec and other native states of Guatemala, Peru and other places (Galvin 1972). In fact, numerous communities of escaped African slaves developed in the mountains of Spanish Mexico during the 16th century, only to integrate into cities and towns in the 17th and 18th centuries. Intermarriage and ethnic assimilation resulted in very different people who arrived

to colonize California.

The Spanish Census of 1790 described the Andres and Pio Pico's grandmother as 'mulata' (Carlton 1975:11). Pio Pico later became Governor of California during the Mexican War period. Significant to this discussion, Andres Pico served as Delegate to the California Constitutional Convention in 1849 and is not recorded as objecting to the anti-African provisions in the Constitution. The Pico family and others of mixed ethnicity held public office for decades without the kind of prejudice found among Anglo-Americans of the time.

There is no record of ethnic *Chinos* or *Albarazados* in San Diego during the Spanish or Mexican period. The earliest documented record of Chinese in California is associated with labor moving in the Gold Rush camps in the 1850s (McPhail 1977:8). The earliest documented Chinese in San Diego were recorded living in three houses at a fishing camp on Ballast Point in 1863, but none are recorded for the Mexican era (May 1998).

Other than the Pico grandmother, absent are accounts of Mexican Period African Californios. Joseph Cross and Miguel Assisisera are listed in the 1860 national Census as South American Africans who might have lived in Mexican San Diego (Carlton 1975:11). They may also have arrived from South America to work in the local gold mines in the 1850s. Rare accounts of Mexican Africans exist for Spanish or Mexican California. Spanish Californios simply accepted Spanish-speaking Africans as Californios. One of the few accounts of such a group is documented by the 1852 Grand Jury of San Diego Grand Jury investigating reports of a lawless group of Africans, who may have come from Mexico (Carlton 1975:10). At least two African Americans lived in Mexican California prior to 1847, but they were perceived locally as Americans.

American military and civilian occupation and immigration to San Diego following the Mexican War also resulted in philosophical conflict with the Mexican Californios who occupied Old Town in 1846. Descended from generations of Spanish and Native populations, these Californios had little identity with Spain. These Californios were as alien in belief and culture to the Americans as the Kumeyaay had been to the early Spanish. One commonality shared by some of the European Americans was membership in the Catholic Church. Another was the use of American currency in business transactions. The Californios continued to expand their cattle trade with American merchants and the Army through the Mexican War and into the following decades. The social bonds from church and economics smoothed transition from Mexican to American California.

By 1850, the urban population of San Diego is recorded in the national Census as 650 (Garcia 1975:55). Many of these people found new jobs with the Army and the rising number of shops and stores. Many of the Californios were land rich but money poor and lost both to horse racing and extravagant living. The new immigration of Americans of English descent swiftly overwhelmed the Californios. By 1860, the new immigrants were a majority and thousands of Americans introduced new architectural, clothing, and fashion styles. English replaced Spanish as the primary language and the cattle industry declined with severe reduction in the hide industry. The final blow to the Californio identity occurred with intermarriage to Americans of English and other European descents.

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<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

cabr/shadows/chap3.htm
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CABRILLO

Shadows of the Past



CHAPTER FOUR:

OVERVIEW OF THE MULTI-ETHNIC BALLAST POINT COMMUNITY ON POINT LOMA BETWEEN 1846 AND 1900

Introduction

Twenty years after the Mexican War of 1846, whaling companies bound on schooners and ships from San Francisco to Baja California stopped in San Diego for food and water (see Fig. 11). Some of those vessels visited San Diego in the 1830s and 1840s, observing California Gray Whales in the harbor and out on the offshore kelp beds. Although based in San Francisco, most of the mariners on those ships hailed from maritime centers in New England and the South Pacific. Multi-ethnic crews on those vessels comprised the whaling companies. Bonded by kinship and mariner camaraderie, those men carried on a 400-year old tradition of building houses, kitchens, warehouses, oil-rendering or 'tryworks' ovens, boat houses, carpentry, and blacksmith shops to carry out a seven-month season's work.

Unlike the ethnically segregated communities of Old Town and New San Diego, the Ballast Point Whaling Station of the 1860s and 1870s was distinctively multiethnic with dark complexioned Portuguese-Americans, Chinese, Irish-Americans, and European-American sailors and their families. At least one Native American woman from Santo Tomas, Baja California, lived in this community. Three Chinese individuals worked for the whalers and sold fish in Old Town and New San Diego. This unique community bought supplies and sold gallons of oil in Old Town and New San Diego, but kept their business affairs to themselves. They lasted for twenty years, and then simply melted into the maritime neighborhoods of La Playa and North Island, or slipped away unnoticed to Baja California. The people of the Ballast Point Whaling Station are important because their maritime history enabled an early multi-ethnic group to work together in an otherwise segregated and racially biased and intolerant Victorian California.

The primary residential communities on Point Loma between the Mexican War of 1846 and 1900 were located at Ballast Point and La Playa on the bay side of Point Loma. Ballast Point is a small cobblestone spit that extends east of Point Loma into the mouth of San Diego Bay. Extreme high tides and storm waves often covered most of Ballast Point, except for a slightly elevated rise at the eastern tip that formed an island during high tides. A Chinese fishing camp and American merchant whaling community resided at that eastern island, which was connected to Point Loma by a narrower spit of cobblestones and sand at a slightly lower elevation. Several whalers' shanties and a blacksmith shop were built on top of the crumbled ruins of the 18th to 19th century Spanish and Mexican Army cannon battery, Fort Guijarros (see Fig. 8 and 10).

One mile to the north, a half-mile wide point of land projected one-eighth of a mile into the bay to form La Playa. At this location, the Spanish built an 'embarcadero' or landing for merchant ships and later, the Republic of Mexico constructed an adobe customs house. Under license with Mexico, British hide industry firms built wooden cowhide warehouses and Russian scientists built a brick oven. A shantytown of scrap and driftwood homes,

boathouses, craft shops, and auxiliary buildings surrounded the old Spanish embarcadero and Mexican customs house. Through the 1870s, La Playa became a diverse community of mixed ethnicity. Chinese fishermen and boat builders arrived in the 1880s, to be replaced by Portuguese and Italian fisher folk in the 1890s. By 1900, most of people at Ballast Point and La Playa vacated Point Loma to live across San Diego Bay in New Town.

Economic and Ethnic Diversity

The first permanent community recorded for Ballast Point following the Mexican War was a loose confederation of American merchant whaling companies residing there during the 1857-1858 winter season. These squatters simply moved in and built the community on Ballast Point (May 1986:73). Each family-owned company involved comingled investments of funds and equipment. Whaling crews recruited from San Francisco may have included ethnic African and Chinese, who served on South Pacific whale ships in the 1840s and ended up in California during the Gold Rush (Nichols 1983:75; Henderson 1975:51; May 1986). At least one of the whaling companies on Ballast Point included Portuguese-American whalers from New England. These ethnically diverse mariners moved north to La Playa in 1873 and then across the bay to North Island and New Town in the 1880s.

Research on the economic status and ethnic diversity of the mariners at the 19th century Ballast Point Whaling Station began in 1981 with the discovery of an historic kitchen midden covering the ruins of Fort Guijarros (May 1982). An 1896 Map produced by the Army Corps of Engineers showed a rectangular building located on top of the old Spanish fort. The building was identified as the Blacksmith Shop, adjacent to a square marked Whaler's Shanty (Ibid.). Historical evidence placed the Packard and Johnson Companies on Ballast Point through the 1860s, along with smaller outfits owned by Levi Tilton, Dan Flanders, William (Billy) Price, and Thomas J. Higgins (May 1986:73-91). A local San Diego citizen recollected that...

I have always thought a wonderful story could be made of it . . . The whalers were all New Bedford men and came from West Tisbury, Cape Cod. There were two companies. Two brothers Packard and others named Johnson, on Ballast Point. The Packards had a little shack about the middle of Ballast Point and lived in it; but the Johnsons had a much larger establishment, a big building on the shore near Fort Rosecrans. This was used as dormitories for the whalers (Davidson 1930:10).

Within the context of a global whale fishery which began in the late 16th century and continues today on a limited scale, the 28-year industry on Ballast Point in San Diego, California is a good example of the continuity of pre-mechanized maritime traditions which lasted for more than four centuries. Ballast Point is more significant as the sole known example of a well-documented shore whaling station in the United States (May 1987; 1988:2).

The social history of the families and their community on Ballast Point can be used as a model of similar industries known as early as the 17th century in New England and as late as the 20th century at Monterey, California. The unique aspect of Ballast Point lies in the survival of architectural features and archaeological deposits that have either been destroyed elsewhere in maritime sites or not yet discovered or reported in the archaeological record (May 1987).

Ballast Point has survived the ravages of modern construction only because of the unique history of the Point Loma Military Reservation as originally 'pueblo lands' of the City of San Diego. As the site of a former Spanish and Mexican artillery battery, Ballast Point and the

ruins formed a natural landing and base of operations for visiting sailors following the Mexican War in 1846. After the Army Corps of Engineers evicted the whaling companies in 1873 to begin military construction, earth fill eventually covered the Spanish barracks and kitchen.

The top of the artillery battery was leveled to ensure a clear field of fire for the American batteries. When Congress cut the funding in 1874, the whaling companies moved back to occupy Ballast Point and reuse the old tryworks ovens to render oil from California Gray Whales. By 1886, the whale herds were nearly extinct from over fishing. When the Light House Service arrived in 1890 to construct the Ballast Point Light House, the former whaling company buildings were vacant. The Army returned in 1898 and reused the old whaling company buildings for housing and storage until the area was eventually covered with soil in the 1930s.

By the time author Winifred Davidson wrote the 'Loma Lore' column for the *San Diego Union* in 1930, all that remained were the remnants of two old trywork foundations and blacked, grease-saturated soil. That same year, Assistant Light House Keeper Radford Franke hauled-in tons of yellow sand from road construction on Point Loma to cover the whalers' debris (Franke, Personal Communication).

Historical Record

The written record of the Ballast Point Whaling industry has been traced to 1857, when brothers Prince William and Alphaeus Packard arrived in San Diego (May 1986:75). The twins were born in Massachusetts in 1815 to a Portuguese father and English mother. No record is known of the brother's prior 42 years (Wentworth n.d.; Scammon 1874:23). The 1860 Census of Industry recorded that they had \$3,000 worth of equipment and a crew of ten men. Alphaeus and his Native American (Baja California) wife, Magdalena, lived on Ballast Point. The smaller companies, such as those operated by Tilton or Price, joined forces with each other between October and May during the peak whale runs. From season to season, the composition of this community changed. Almost no record exists of the names, ethnicity, or economic status of the whaling company crewmembers.

When the Packard brothers arrived at Ballast Point in 1857, it was vacant and La Playa was a ghost town (Dana 1964; Davis 1969:16-17; Smythe 1907:103, 202). The hide houses described by Richard Henry Dana in *Two Years Before The Mast* were in ruin and the Mexican Custom House and Army Quartermaster warehouse lay abandoned (Ruhlen 1967:10). The Blecker General Store sat out over the shallow water on stilts, near the Tidal Gage (Smythe 1907:2). Mired in the shallows of mud, the dismantled wreck of the *Clarissa Andrews* served San Diego as a coal depot (Ibid.). Captain J.C. Bogardt operated an office for the Pacific Mail Steamship Line in a cabin on the wreck.

It was at the tumbled ruins of La Playa that the Packards met George P. Tebbets, who on February 16, 1856 killed a Right Whale off San Luis Rey and tried-out 600 barrels for trade in San Diego (*San Diego Union*, February 16, 1856). Tebbets encouraged the Packards to develop an operation on Point Loma. To be closer to the kelp beds off the western shore, the Packards moved one mile south to Ballast Point to establish their whale blubber-melting tryworks oven on the beach. There they built boat yards, warehouses, a carpentry shop, at least one blacksmith shop, a kitchen, and driftwood shanties for their families. By February 5, 1858, the Packard Whaling Company had killed twelve and recovered five California Gray Whales for a harvest of 150 barrels of oil worth \$2,000 (*San Diego Herald*, February 5, 1858).

Soon the Packards were joined by other whaling families. Captain Miles A. Johnson and his

cousin, Henry James, hailed from the traditional whaling town of New Bedford, Massachusetts. Another cousin, James Johnson, came from New York (Wentworth m.d.) The Johnson family operated whaling stations at Cape Colonet and San Martin Island in Baja California. They also brought five employees and \$3,000 worth of materials. Henry James Johnson lived on Ballast Point with his common-law wife, Saturinia Carravaya, and their children John, Sara, and Filbury. Captain Miles A. Johnson was a former sea captain and leader of the Johnson Company. These family operations enabled co-investment of money and equipment, which made these mobile operations quite workable.

Research into tax and voter records revealed that approximately thirty men lived and worked at the Ballast Point Whaling Station with the Johnson and Packard Companies. While all worked at one time or another as hands on the primary companies, Daniel Flanders, John Jenkins, Thomas Lambert, William C. Price, Levi Tilton, and Enos Wall operated their own ventures. With the exception of Price, who was born in Ireland, all the others came from New England. Lambert and the Packards were Portuguese descent.

Judge Benjamin Hayes visited La Playa and Ballast Point on January 20, 1861, while traveling with friends to the Point Loma Lighthouse (Hayes 1929:557). Hayes reported both shore and ship whaling on that particular day. Captain W.W. Clark's whaleship, *Ocean*, operated just offshore:

The ship's men cut up the whale from a staging alongside, of which they stand with their spades--- the fish being afloat. In which there is a great saving of time and labor, as compared with the process of those on land, who bring the fish ashore at the flood; cut, turn it over. And there it remains, an annoyance to them, until some tide may happen to carry it off to another point. I must confess the smell on shore. . . was anything but pleasant (Hayes 1929:557).

Hayes also described the Packard Whaling Company operation. They reported having recovered 450 barrels with a projected yield of 1300 (Ibid). The previous year, in 1860, they produced 900 barrels. Each barrel contained 31 and 1/2 gallons of oil. The 1860 Products of Industry Census also listed the Johnson Whaling Company and Tilton Company.

The beach operations and layout at Ballast Point remain a mystery, only partially solved by archaeological investigations (May 1986; 1987). An article in the 1986 *Journal of San Diego History* drew from analogies from New Zealand and Australia (May 1986). Other known stations include elaborate communities in Red Bay, New Foundland in the 16th century and the Northwest Coast in the 19th century. The Portuguese-American whaling stations at Monterey and Carmel were small communities of whitewashed cabins adjacent to garden patches of corn and pumpkins, where the families kept pigs, sheep, goats, and cattle in corrals (Scammon 1874:250). Presumably, the residential areas on Ballast Point were similar. Typical of Portuguese whaling operations, the smelly tryworks and warehouses were somewhat distant from the homes, though small overnight shanties were often located adjacent to the tryworks (Clarke 1954:325, 338).

Of the 23 known whalers who operated on Ballast Point between 1858 and 1886, ten came from New England, two from New York, one from Ireland. The rest did not register their birthplace (Great Register of Voters 1877; Wentworth n.d.). Hammett and Martin Comacho could have been Portuguese, but their birthplace is not known. Their names leave no clue as to the other whaler's ethnic origins. Indeed, names are not positive indicators of ethnicity.

Interestingly, John Jenkins (Pennsylvania), William C. Price (Ireland), and Enos A. Wall (Maine) all worked as assistant lighthouse keepers on Point Loma. Additionally, the 1863 Tax Collector reported a Chinese family in 1863 and Lucy Wentworth documented Juk and Ah

Sing as fishing on Ballast Point in 1868 (May 1986). The 1870 Census lists Ah Low as the Chinese cook for the Packard Company.

Although no records have been found for these operations, legal records of lawsuits document something of the property. District Court Case #108, May 29, 1865, memorialized the Packard Whaling Company's failure to pay a \$743.22 meat bill. The case lists 43 casks of oil, worth \$12,470.00 in San Francisco, as seized by Sheriff James McCoy (May 1986; Robotti 1962:84). Other property included the whaling sloop, *New Hope*, whale boats, harpoons, tubs of rope, empty barrels, and cases of food (Wentworth n.d.: 3; Hensley 1952: 610). McCoy seized the following:

Three bomb lances, one swivel gun in a box, eight harpoons, one tub of towline, one coil of cable rope, one coil of towline, three coil secondhand rope, one hundred gallon cask, two whaleboats, six oil tubs, one grinding stone, two mincing machines, thirteen oars for whaleboats, two boat masts, five harpoons with poles, and one box of harpoons nailed up (McCoy 1869).

Perhaps the most revealing information from this litigation is the fact that the Packard Company operated a second station in Baja California:

The sloop *New Hope* arrived with passengers and oil from the island of San Martin, and soon the party will commence their whaling operations in this place. Their summer's whaling has not amounted to much, but they have more than cleared their expenses (*San Francisco Bulletin*, October 22, 1867).

Close proximity in this small community led to intermarriage, further cementing family ties:

The great event of the week, and in fact the month here, has been the marriage of Captain William C. Price, commonly known as Billy Price, and Mrs. M. R. Wall, daughter of one of the first Americans in San Diego (Enos A. Wall)...Everyone and his wife and family attended the ball which was given on the night of the 5th, and dancing was kept up til sunrise (*San Francisco Bulletin*: May 27, 1867; November 30, 1867).

Captain Price was Point Loma lighthouse keeper at the time of the wedding. He left the Packard Whaling Company in 1869 to join with Captain Eli Saddler on the whaling schooner *Emma Hayne* to establish a satellite station at Punta Banda in Baja California. This station also included a Packard Whaling Company satellite, which the *New Hope* visited regularly to replenish supplies and transfer whale oil to Ballast Point. All the while, the Packard Company continued its operations on Ballast Point and shipped oil to San Francisco.

The Captains Packard appeared to be doing a 'boiling' business. A gentleman, whose name we forget, is the cooper for the whalers, and seems to have a busy time of it. The season has proven to be better than any known for years. We enjoyed the explanation given us by the 'old salts' of the use of bomb guns, pivot lances, and other deadly machinery for the capture of whales, and relished muchly everything except the intolerable stench arising from the decomposing carcasses of whales and boiling oil (*San Diego Union*, January 1, 1869).

Individuals working at the whaling station invested their earnings in the San Diego economy (County Recorder, Land Transfer Books 4, 5, 6). Unfortunately, they were not able to acquire Ballast Point and had to pay rent to Ephraim W. Morse, who managed the land for former U.S. Army soldiers who had purchased it in 1850.

Isadore Matthias invested in both the Johnson and Packard Whaling Companies in 1869 (*San*

Diego Union, May 5, 1869). His infusion of capital brought two whaleboats, officers, and eighteen mariners to Punta Banda. The officers for the reorganized company included Captain Alphaeus Packard, George A. Wentworth, A Saddler, Enos A. Wall, and Fred Sisson. There was also a compliment of ten mariners and three whaleboats at Santo Tomas. The other crew of Captain Prince William Packard, George Johnson, William Tomas, Hammett and Martin Comacho took eighteen men on two whaleboats to Punta Banda. Captain Miles A. Johnson and his cousins remained at Ballast Point to manage the warehouse and Point Loma operations. Under Matthias' s supervision, this newly reorganized company transshipped supplies, men, and oil on the schooners *Summer Cloud*, *Toccoa*, and *Emma Hayne*, and the sloop *New Hope*. They recovered 21,888 gallons (recorded in gallons by Matthias) in 1870-1871 (*San Diego Union*, January 9, and November 16, 1871) and they added twenty-one mariners and four new whaleboats in December of 1871 and chartered the schooners *Lark* and *Dolphin* to join the fleet. The company employed a total of 75 men by 1872.

The Matthias Company received 1,190 barrels of whale oil from the Baja California stations and shipped 1,555 barrels to San Francisco in the 1871-1872 season. This dropped dramatically to 362 barrels from Baja and 192 barrels to San Francisco in the 1872-1873 season (*San Diego Union*, Shipping Reports). The success of the whaling meant severe destruction of the whale herd and change in migratory paths of the survivors.

The *coup de grace* to the whaling operations on Ballast Point came not from the endangered whale population, but from the Department of War. The Army Corps of Engineers was negotiating with the civilian owners of Ballast Point to build a coastal artillery fort (May 1985a). With little warning, the whalers were evicted in 1873. They moved either to La Playa or North Island. From North Island, the Packard Whaling Company continued its satellite operations at Santo Tomas, where they shipped 2,038 barrels of oil in 1876 (*San Diego Union*, March 20, January 25, 1876). The Packard Company diversified to include California Gray Whale baleen, salted fish, and seal skins. The last recorded shipment of 3,953 gallons of whale oil in 1878 seems to hallmark the end of that company, for the final records indicate Captain Alphaeus Packard turned to farming in Bernardo, California.

Suffering from mental illness, Captain Miles A. Johnson signed Power of Attorney over his property to James Johnson and shipped on a schooner to Baja California. Captain Henry James Johnson sold his New Town and Middletown properties and changed to a career as an officer with the Pacific Mail Steamship Line (May 1986).

Ironically, Congress terminated funding for construction of a 15-gun artillery battery on Ballast Point in 1874 (May 1985). A single caretaker remained to prevent the whaling companies from permanently returning, but archaeological evidence substantiates renewed use of Ballast Point for whale oil rendering as late as the 1880s. Most of the whaling operations in that time period operated from North Island, where Captain Enos A. Wall joined with Captain Plummer at Whaler's Bight until he died on December 31, 1884 at age 66 (*San Diego Union*, November 11, 22, 1883; January 3, 5, 1884; May 1986). The last whaling company to operate out of San Diego was owned by Thomas J. Higgins, who in 1884 formed Higgins & Scranton to carry on with the Plummer and Wall Company (*San Diego Union*, January 17, 1884).

After the Army left Ballast Point in 1874, the historical record reveals little information about the return of whaling companies to Ballast Point. An 1886 sketch of Ballast Point by Edward H. Davis depicts two warehouses that were mapped on 1890 Light House plot plans also. Archaeological investigation of the east end of Ballast Point near the former warehouses in 1991 and 1992 demonstrated that the whaling companies did resume their operations in the 1880s. An 1890 Lighthouse photograph taken from San Diego Bay looking west to Ballast Point shows no whaling operations at that time. Excavations documented only a scatter of

whaling company pottery and glass on the beach at that time period.

Archaeological Record

Whaling period archaeology has been found at two sites on Ballast Point, both of which offer educational opportunities for the national monument. The kitchen midden on top of the ruins of Fort Guijarros is included within CA-SDi-12,000. The east end of Ballast Point near the former warehouses and tryworks ovens is recorded as CA-SDi-12,953. Artifacts, field notes and maps, photographs of artifacts, and historical photographs remain available at the Fort Guijarros Museum Foundation at Building 127, Fort Rosecrans Historic District, Naval Base Point Loma. Loan of artifacts must be made by arrangement with the Navy.

CA-SDI-12,000. Whaling deposits exposed on top of the Fort Guijarros ruins were excavated in eight large block areas subdivided by grid units. Archaeological investigations between 1981 and 1995 revealed one large shell midden feature with 19th century whaling material which lay directly on top of the ruins of the 1796 cannon battery (see Fig. 8). Apparently, the whaling companies took advantage of the man-made mound of rubble to build a blacksmith shop and residential shanty elevated above the storm surf, high tide, and well drained from coastal rains.

The following is a summary of those relevant block excavations at CA-SDI-12,000 (see Figs. 12,13,16,17). These are taken from the field notes that are now housed at Building 127, Fort Rosecrans Historic District, Naval Base Point Loma:

Field I. **Whaler's Kitchen Midden.** The 1981 investigation revealed a shell and food bone-rich midden that ranged from 5 to 35 centimeters deep. Within that deposit of greasy dark brown sand, thousands of fish bones, saw-cut livestock and marine mammal bones, marine shell, and coral cobbles were associated with whale vertebrae, dark green wine/ale/cider bottle glass, white ware ceramics, clay smoking pipes, cut turtle shell, strap and sheet iron, iron square nails, and brass ship nails. Return excavations in 1985 and 1987 confirmed this information.

Field II. **Isolated artifacts.** The 1982 excavation directly west of Field I produced only a few isolated artifacts. This portion of the site had been bladed by Army Quartermaster construction crews during the construction of a beach road in the 1930s.

Field III. **Whaler's Kitchen Midden.** The 1982 field block extended the dig of the beach in front of the Fort Guijarros ruins to expose more of the whaling kitchen midden. The shell midden appeared to be a single feature that continued in the sidewalls to the north and east.

Field IV. **Whaler's Trash Scatter.** The 1983 excavation 120 feet west of Field I was dug into the 1898 Army Battery Wilkeson earth embankment. This excavation revealed an 1860s schnapps bottle on top of a gravel base. The gravel lay below an 1874 Army drain and on top of a pre-1835 Spanish/Mexican trash pit.

Field V. **Chinese Trash Scatter.** The 1983 excavation 100 feet north of Field I exposed the old beach eight feet below current surface. Asian brown-glaze ceramics date from the Chinese fishing camp adjacent to the whaling period (see Figs. 12,13).

Field VI. **Whaler's Trash Scatter.** The 1986 investigation 200 feet north of Field I exposed original beach at six to eight feet below the existing parking lot. Saw-

cut food bone on the beach dates from the whaling period.

Field VII. The 1984 excavation was located 1.5 meters west of Field IV. No whaling period artifacts or features were encountered.

Field VIII. The 1989-1995 investigation revealed two significant whaling period features:

Whaler's Kitchen Midden. On top of the fort rubble and sloping at a 60-degree angle down to the beach (near Field III), excavation exposed a five to 30 centimeter thick layer of marine shell midden. The material was similar to that found in Field I, except the quantities was different and no clay smoking pipes were recovered.

Blacksmith Shop. Separated by 6.5 meters of Spanish architecture, the south end of a feature marked on the 1896 Army Corps of Engineers' Map as Blacksmith Shop extended into Field VIII. More of the structure, as well as the Whaler's Shanty, lay under existing Building 539. Although reused by the Army, pockets in the floor yielded a pistol ball, white clay smoking pipe fragments, white earthen ware, and square brass ship nails.

CA-SDi-12,953. The eastern end of Ballast Point formed an island at least four times wider than the cobble spit that connected this area to Point Loma. Archaeological investigations in 1988-1989 concentrated on the west half at the Ballast Point Search & Rescue Station operated by the Coast Guard. Fieldwork in 1991 - 1992 examined the central area where the 1890-1957 Light House formerly existed. Both investigations uncovered portions of the Ballast Point Whaling Station and an adjacent Chinese fishing camp (see Figs. 14,15).

Coast Guard, Ballast Point Search & Rescue Area. Test excavations in the parking lot and lawn of the Coast Guard Search and Rescue Station at the eastern end of Ballast Point revealed a 20 centimeter thick charcoal layer with greasy sand associated with five distinct cultural features. The field strategy involved gridding the entire area into 220 possible excavation units and a sample dug to sterile cobblestones. A sample of 27 square meters were excavated. As features were encountered, more test units exposed the total features:

1. Burned Tile Feature. A 20-30 centimeter thick burned feature yielded a .45-70 bullet casing, brass pins, a horseshoe, and other objects from the 1860-1880 whaling station. The burn may have been either a fat-lean pot used to render whale meat oil or a tarring pot used to waterproof sailing lines.

2. Tile Platform. A platform of reused broken Spanish tiles set two meters apart on a side formed a crude floor. A plume or wedge-shaped ash deposit extended away from the platform edge, as if refuse had been thrown from an opening. Clay smoking pipe fragments, white earthenware, and brass ship nails tie this feature to the whaling era and suggest that the structure was probably a shanty.

3. Tryworks Oven. The foundation of a double firebox oven feature and surrounding charcoal/ash deposit was described by Winifred Davidson in 1930 in the *San Diego Union*. Large and small brass ship nails, 1850-1880 ceramics, and clay smoking pipe fragments were found around this feature. In 1989, the Navy commissioned Ogden Environmental Services to relocate this entire feature to the lawn east of Building 601 to save the tryworks oven for educational interpretation.

4. Whaler's Shanty Refuse. The plume or wedge-shaped ash feature north of

the edge of the Tile Platform is debris from short-duration residential occupation of a whaler's shanty. Among the recoveries were saw-cut food bone, white porcelain Proesser shirt buttons, white clay smoking pipe fragments, .45-70 bullet casings, and brass boat nails.

5. Ballast Point Whaling Station and Chinese Fishing Camp. Backhoe trenching 50 to 100 feet east of the Ballast Point Search & Rescue area of CA-SDi-12,953 revealed large trash deposits near the mapped location of the pre-1886 warehouses. Also recovered were trash features associated with Asian kitchen and barbering activities. The following archaeological tests revealed relevant features:

Trench 1. Chinese Fishing Camp. Backhoe dirt yielded Asian brown-glaze vegetable and soy sauce jar sherds, two opium pipe fragments, and clay smoking pipe fragments.

Trench 2. Chinese Fishing Camp. The backhoe cut through the 1890 Assistant Keeper's House foundation to reveal a rich trash pit below:

Chinese Kitchen Trash Pit. Embedded under the 1890 Assistant Keeper's House foundation mortar were Asian Celadon rice bowl sherds and dark green liquor bottle sherds. The following sequence of soil layers were recorded below from the mortar down:

Locus 3. Lighthouse Building Crawlspace. A 10-20 centimeter thick sand layer marked Locus 3, which was inside the crawl space of the 1890 Assistant Lighthouse Keeper's House foundation.

Locus 3A. Lighthouse Garden. Located outside the foundation, Locus 3A was sandy loam mixed with tan garden dirt.

Locus 3B. Pre-1890 Beach. Located directly under foundation, Locus 3B storm deposition smeared Celadon bowl sherds, pismo clam shells, and rusted metal over the surface of Ballast Point prior to the 1890 construction of the foundations.

Locus 4. Chinese Trash Pit. Measuring 30-50 centimeters thick and over a meter wide, this thick dark gray to black greasy charcoal deposit contained Asian brown-glaze vegetable jars, Bamboo and Celadon rice and sauce bowls, Double Happiness bowl sherds, one Asian Fu plate, English Blue Shell Edge plate sherds, an iron fork, iron ladle, iron strap, bundled copper wire loops, cut Caucasian gray hair (identified by the County of San Diego Sheriff Crime lab), English mustard bottles, case gin and schnapps bottle glass, dark green wine/cider/ale bottle glass, and clay smoking pipes. The Shell Edge plate sherds, Double Happiness bowl sherds, and Asian Fu plate date this deposit to the early 1860s.

Locus 4, 4A/5. Old Beach Level. Beach sand below Locus 3A received the label Loci 4/4A, but relabeled Locus 5. This included more Asian ceramics, including a Celadon spoon.

Trench 3. Chinese Trash Pit. Just five meters southwest of the Kitchen Pit, backhoe Trench 3 exposed a pocket of Asian and European artifacts. Recovered from the sandy feature were dark

green wine/ale/cider bottle glass, English mustard bottle glass, an unusual gray Bamboo bowl, Asian brown-glazed vegetable jar sherds, a brass pin, fish bones, and splintered food bone (see Fig. 14).

Trench 4. Old Beach. No significant archaeological materials were recovered in Trench 4.

Trench 5. Old Kitchen. Near the 1890 Light House Service map designation of "Old Kitchen," a burned ash lens yielded an oar lock, a clear glass bottle flask, a ceramic ale bottle neck, and other objects from around 1885.

Trench 6. European Whaler's Trash Pit. Located very close to the north wall of a warehouse marked on an 1886 sketch and present in an 1890 photograph, Trench 6 hit a large marine shell midden feature complete with harpoon parts, whale bones, and 1231 white ceramics. The Trench 6 units included a deep trash pit in Units 5 and 6 which showed no stratigraphic break as it extended over the area marked by the other Trench 6 units. The trash pit in Units 5 and 6 measured 210 centimeters north-south by 185 centimeters east-west and 92 centimeters deep. A total of 194 ceramic sherds were recovered. These included plate, platter, mug sherds, dark green wine/ale/cider bottle glass, English mustard bottle glass, splintered food bone, fish bone, clay smoking pipes, porcelain doll fragments, ceramic marbles, and many kilos of marine shell (see Fig. 15). These artifacts date from 1862 to 1886.

The historical and archaeological evidence recovered concerning Ballast Point provides facts evidence for interpreting economic and ethnic behaviors in this dynamic community. The monument could develop educational displays and programs to explain these behaviors as elements in the greater Point Loma area at the time the lighthouses operated on Point Loma. The personal, domestic, and industrial artifacts can illustrate those behaviors.

The following are summarized conclusions:

- 1. Domestic Kitchen Behavior.** Kitchen refuse in the form of white ceramics, annular mixing and serving bowls, forks and ladles, beverage bottle glass, mustard and other sauce bottles, weapon ammunition debris, and clay smoking pipe fragments from the Whaler's Shanty probably was deposited on the downhill side of the former Fort Guijarros ruins, which extend west of Building 539.
- 2. Blacksmith Behavior.** Blacksmith refuse in the form of coal, coal clinkers, metal slag, cut bar stock, discarded metals, broken tools, and dark charcoal-rich soil probably was deposited on the downhill side of the former Fort Guijarros ruins, which extend west of Building 539.
- 3. Boat Yard Behavior.** Boat yard repair and maintenance debris in the form of brass ship nails, copper sheet, red and green paint drops, lead weights, chain link, and fisheries gear probably were dropped among the kitchen and blacksmith refuse west of the former Fort Guijarros ruins.
- 4. Personal and Domestic Behaviors.** Trash pits and privy holes were back-filled with kitchen, domestic, and personal trash from the whalers. Artifacts include buttons, buckles, pocket change, jack knives, shoe parts, undergarment hooks, and toy marbles.

5. Personal Behavior in Domestic Settings. Married families lived with some of the whalers and would have deposited female artifacts (blouse buttons, shoe buttons and hooks, under garment hooks, ornaments, cologne bottle glass, and ornamental ceramics) and children's recreational items (marbles, doll parts, dice, dominoes, wheeled and cast iron toys).

Relationship of Ballast Point and La Playa to Other Communities

The relationship of the 1858 to 1886 European-American whaling and Chinese fishing camp on Ballast Point to the greater Point Loma and San Diego Bay communities is deeply integrated. Ancient maritime traditions enabled Portuguese, English, Chinese, African and other ethnic groups to live and work together in close quarters on ships (May 1985a; 1985b; 1986; 1987). Those same traditions played out on Ballast Point, which enabled a diverse group of men and their families to live and work whaling and fishing trades in close proximity. Interaction manifest in Asian ceramics in the European whaler's trash pit and European items and Caucasian cut hair in the Chinese refuse pit support this level of interaction. Differences in economics and selection of goods are also manifest in the refuse pits.

When the Army arrived in 1873 to evict the whaling and fishing community on Ballast Point, those mariners simply moved north to La Playa or east across San Diego Bay to North Island (May 1986). A booming Chinese ship building boat yard at La Playa would create numerous large redwood junks to be used in the emerging abalone industry. Later, some Chinese moved to New Town to form residential and commercial operations. The European mariners turned from whaling to farming, freight hauling, and other activities in New Town.

As the Anti-Asian sentiment grew elsewhere in California, those early Chinese fishermen simply moved south to Baja California and shifted to collecting abalone to be sold in San Francisco by syndicates (McPhail 1977; May 1986). New Chinese families moved to New Town to provide labor for railroad construction and agriculture. The Anti-Chinese Exclusion Act of 1882 drove Asians from fishing and the abalone industry to low paying jobs in the laundry and house servant industries. The Chinese of New Town became insular and withdrawn. There is no record of the Ballast Point Chinese by 1882.

Alphaeus and Prince William Packard took to the Baja California seas to continue hunting whales well into the 1890s, but also purchased land in Temecula and San Pasqual to farm during the summers (May 1986). Prince William vanished from the historical record after 1897, but Alphaeus continued farming and accepting mail at the Bernardo post office until about 1900. The Johnson family simply vanished from the historical record.

Ballast Point became Army and Light House Service property in the 1890s. Other than wave-washed sherds of Chinese Celadon bowls, Pismo clams and the black-smeared sand of the whaler's tryworks ovens, no evidence of the mid 19th century community survived. When the Chinese boat yard closed, La Playa became a ghost town of vacant buildings and piles of discarded goods. Italian and Portuguese fisher folk moved into La Playa in 1886 and bought homes in the Roseville subdivision created by Louis Rose (May 1985b; 1986). This community would slowly grow to become the largest tuna fishing community in California by the mid 20th century. The multi-ethnic communities of Ballast Point and La Playa served as springboards for early maritime industries in San Diego.

Educational Opportunities

The historical and archaeological materials associated with Ballast Point and La Playa offer numerous educational opportunities for Cabrillo National Monument. The U.S. Light House on Point Loma served as a lookout position for spotting whales and William Price doubled duty as a lighthouse keeper and whaler. He integrated his operation with many of the other

small companies on Ballast Point. The whaling operation involved an ethnically diverse community of old mariners with roots in New England and the South Pacific and carried on 400-year-old traditions.

Exhibits using black and white line drawings created for publications on the Ballast Point whaling industry could be reproduced for large stand up exhibits at Cabrillo National Monument. Photographs of similar whaling stations could be used to show typical operations. Sample artifacts could be borrowed from the U.S. Navy for exhibits depicting both Chinese and European personal and domestic activities on Ballast Point. These could include Asian Celadon and Double Happiness bowls, Asian cut shell scraps, British and American white ironstone ceramics, clay smoking pipes and English wine/ale/cider bottles.

Photographs of the Chinese junk building operation at La Playa could be used to depict the majesty of this important early fishing industry in San Diego. An artist could be retained who would depict hypothetical scenes, such as had been done by fine artist Jay Wegter for the Ballast Point Chinese fishing camp. The interactive relationship of those early Chinese with the Packard and Johnson whaling companies could be presented to break stereotypes of segregation that really did not exist until the end of the 19th century. Questions could be posed to challenge why segregation occurred and what can be learned from these early communities.

Conclusion

In conclusion, Ballast Point and La Playa offer important historical and archaeological evidence for the multi-ethnic communities that existed on Point Loma between 1846 and 1900 (May 1987). The artifact and field note collections are housed in Building 257, on Naval Base Point Loma. Cooperative arrangements could be negotiated with the Navy to use these materials in educational operations on the bay side of Point Loma.

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<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

CABRILLO

Shadows of the Past



CHAPTER FIVE:

OVERVIEW OF HISTORICAL MILITARY ARCHITECTURE AT POINT LOMA

Introduction

All Euro-American powers who occupied San Diego recognized the strategic importance of Point Loma for seacoast defense against hostile naval forces. Spanish and Mexican armies assigned garrisons to Fort Guijarros through the 18th and 19th centuries. Invading American forces seized Point Loma during the Mexican War of 1846 to lay siege to San Diego. From the 1852 Treaty of Guadalupe Hidalgo to present, American military planners used Point Loma as a natural fortification. As naval weapons evolved in the American Civil War, Army Corps of Engineers designed increasingly complex defense schemes in the hills, canyons, and ridge tops. Today, Point Loma remains as one of the most important military installations of the American armed services on the Pacific Coast.

Historic Architecture as Historical and Archeological Resources

Point Loma is a geographical feature integral to obscuring important military structures and buildings by embedding them into the natural terrain. Above ground features are linked by underground constructions, timber-lined or sandbagged trenches and bunkers, and brick or concrete lined utility lines which can be considered as technological resources studied through archeological methods. Layers of fill cover earlier historic deposits — now archeological resources — left by 18th, 19th and early 20th century Spanish, Mexican, and American armies, governmental agencies, a Chinese fishing community, Euro-American whaling and maritime interests, and federal Lighthouse Service and Army Corps of Engineers occupants. This is quite a remarkable sequence of land users, each leaving physical evidence!

The historic archaeological deposits associated with this sequence of buildings and structures are increasingly important because little research has been conducted in the Pacific Coast region regarding pre-20th century military post archeological resources. Comparisons are available, however, from recent research at San Diego, Monterey and San Francisco presidios and Fort Mason in San Francisco. Remote military outposts such as Fort Rosecrans or earlier Fort Guijarros provide opportunities to study consumer behaviors of officers, enlisted personnel and their dependent families. While artifactual studies of some 'frontier forts' are available, almost nothing is known of these behaviors from World Wars I and II, when American troops were assigned to isolated posts for long periods of time. Operating on limited incomes, their dependent families acquired materials and decorated homes following ethnic and economic patterns learned from sources outside military life. Discarded materials associated with residential areas of military posts yield unique historic archaeological data as recently recovered from the Presidio and Crissy Field projects in San Francisco.

Architecture and Infrastructure as Industrial Archeology

This overview of Department of War buildings and structures on Point Loma analyzes the

industrial archaeology values to the network of artillery batteries, base end sighting stations, communication systems, searchlight and utility networks, pioneering naval radar, fuel and armament supply, weapons magazines and delivery facilities. Supporting infrastructure of quarters, barracks, medical facilities, shops, recreational features, and water diversion systems are also included. All these military features represent periods of evolution of military engineering, architecture, and construction now obsolete.

The internal technology of these features has industrial archaeology values as well as external architectural values. Archeological information developed from these historic architectural and infrastructure resources is rarely recorded on engineering design plans. For example, when excavation results are compared with the 1898 plans for Battery Wilkeson at Ballast Point, undocumented machinery, doorways, and signs were revealed. Archeological research can provide information on evolving technologies associated with important historical periods that can not be obtained by archival research alone.

Vertical Sequential Layering of Historic and Architectural Features

Many locations on Point Loma represent vertical layering of historic and industrial archaeology. An example would be CA-SDi-12,000 on Ballast Point. The lowest and oldest component is the 1796-1835 Spanish and Mexican artillery battery, which extends west of the battery walls as trash deposits, barracks ruins and a kitchen, and to the northeast as more refuse deposits and architectural rubble. These ruins formed the platform for 1858-1886 European American whalers and Chinese fishermen to build a blacksmith shop, residential shanties, boat yards, and deposit trash. The Army Corps of Engineers covered the entire area with soil in 1873 to level the area for emplacement of a large artillery battery with masonry drain features embedded into the older mariners' camp. The Corps returned in 1898 to construct a cast concrete battery for disappearing guns, install roads, and elevate the beach. The Army Coast Artillery Corps assumed control from the Corps of Engineers and added tons of additional fill, trash deposits, and underground utility lines. Overall, as much as three meters of depth or vertical archaeological deposit covers the earliest historic surface.

Another example of 'buried' archaeology is 500 feet northwest of CA-SDi-12,000. A prehistoric shell midden recorded as CA-SDi-48 once covered as much as five acres of terraces and canyons north of Ballast Point. Chinese fishing camps, boat yards, net repair work areas and an Euroamerican whaling company barracks, kitchens, boat sheds, and other structures lay on top of the shell midden. Photographic records show these buildings directly on top of a meter thick shell midden in this area. The Army graded upper hills to deposit up to two meters of soil on top of portions of CA-SDi-12,000 to create building pads, streets, walkways, and install subterranean utility lines for coal sheds, shops, warehouses, barracks, medical facilities, a fire house and quartermaster housing. Recent construction and renovation of five of these buildings between 1992 and 1998 exposed portions of historic and prehistoric archaeology layers at site CA-SDi-48.

Internal Historical Archeology in Architectural Properties

The buildings themselves contain significant internal technology, personal and cultural features for archaeological documentation. For example, the basement of the 1904 Army Post Hospital still has the porcelain tile surgery room floors directly under the 1940 heating boilers and pipes. Behind the 1940 basement office walls are cut stone masonry blocks set into the earth during the 1904 foundation construction.

Perhaps the most intriguing historic archaeological features are deliberate masonry cavities built into the barracks fireplaces to secrete worn-out soldier's boots, a Welsh spiritual practice for keeping out evil ghosts that dates back a thousand years (May 2000). Behind the walls

and under floorboards, personal letters and items left by Army soldiers may be recorded and documented to preserve glimpses into early 20th century social history. On the boards inside the walls are inscriptions, dates and information marked by the builders and restorers between 1904 and 1940. All these archaeological features and items were recorded at Buildings 138 and 139, that are located on top of site CA-SDi-48 in the Fort Rosecrans Historic District.

Industrial Archeological Cycles of Change

Many of the World War I artillery batteries, base end sighting stations and command posts were reused by the Army in World War II. These features provide industrial archaeology values by showing cycles of expansion and reduction, modifications, reinforcement of concrete armor, addition of landscape camouflage, erection of new features and excavation of new or additional sandbagged communication trenches and wiring of security lines. The remnants of those technological changes can be archaeologically exposed, documented and studied for a better understanding of the offensive and defensive functions in the greater Military Reservation context.

In many instances, the urgency of war and needs for construction resulted in buildings and structures to be created with few engineering or architectural records. Some records and plans were lost or destroyed during the transfer of Army Fort Rosecrans to the General Services Administration and subsequent land holders. These landholders include Veterans' Administration, Navy, National Park Service, City of San Diego and Coast Guard. In one notable instance, Navy Public Works Center supervisor Fred Buchanan found a five-foot high mound of hundreds of engineering plans and saved them from destruction. Those valuable records were microfilmed at Naval Station North Island and originals sent to the National Archives. For many underground trenches, bunkers, utility systems and other features, there is no known record. These unrecorded features have industrial archaeology values that can be recaptured by future field research. Surviving old plans and drawings for modified structures have industrial archaeology values for identifying furnishings, obsolete equipment, wall markings and other information.

Of particular interest are numerous underground cast concrete structures that were simply locked up after World War II and not revisited during the Cold War. Several such structures were visited by Flower, Ike and Roth in 1982 and found to have original tables, chairs, bookshelves, old papers, drafting equipment, lighting, and graffiti on the walls. Recent examination of Battery White (Building 100, Naval Base Point Loma) on the former Naval Submarine Base revealed chalked dates and initials on the shot room walls that span 1942 to 1944. Just south of Battery White, Building 554 has no known records and has recently been examined to reveal original chemical warfare equipment, electrical equipment and doors from the same period. These old technologies are poorly known but possess industrial archaeology significance.

Point Loma Military Reservation

This overview presents a synthesis of salient facts about Point Loma Military Reservation that documents an entire evolutionary development sequence of 20th century American military defense strategies up to the present. Given the relatively intact nature of this complex of Army and Navy sites, the Cabrillo National Monument Historic District should be considered a contributing sub-element to a potential Point Loma Military Reservation District. Only within this broad historic context can the full importance of the military structures achieve meaning.

The secretive nature of American military society has prevented the public from enjoying this important historical resource. However, as the National Park Service has learned regarding

other military lands, Point Loma may one day be declared obsolete. At that time, property surplus would be disposed by the General Services Administration. In the late 1950s, Fort Rosecrans was decommissioned and subdivided into numerous Navy, Army, and Air Force commands and National Park Service ownership.

The Secretary of War and Congress learned from the War of 1812 that America must develop a seacoast defense of all her shorelines to effectively protect against foreign naval invasion. One of the strategic military goals of the Mexican War was to secure the Pacific Coast and protect America's back door. Armed with libraries of plans and brigades of professionally trained officers, the Army Corps of Engineers arrived in San Francisco in 1847 with the clear goal of making California's ports secure. Defense schemes for the Pacific Coast throughout the 20th century can be likened to technological pulses through time. In a context of artillery evolution, development of shore defenses responded to ordnance improvements accelerated by the Spanish American War of 1898, World War I, and World War II. All underground concrete bunkers, artillery batteries, electrical and water utility lines, communication, and lighting facilities on the Army's Fort Rosecrans directly relate to one or more of those technological pulses. Equally important are the Navy facilities, which are often forgotten when discussing the importance of Fort Rosecrans.

As a result of rapid evolution of artillery technology following the American Civil War, Congress funded one of the largest military undertakings in American history in the late 19th century. The Army Corps of Engineers had built masonry fortifications around San Francisco Bay in the 1850s, which ultimately proved vulnerable to naval artillery during the American Civil War. Similar fortification design of the 1870s also fell to evolving artillery in European wars. This changing technology caused Congress and the Secretary of War to terminate work on Fort San Diego at Ballast Point in 1874.

President Theodore Roosevelt is directly responsible for the historical importance of the Point Loma Military Reservation. In the late 1890s, he directed the Secretary of War to implement the earlier Endicott Board recommendations to the Army Coast Artillery Corps to take full advantage of evolving electrical and communication systems to operate a complex of artillery batteries capable of sinking offshore battleships and cruisers. In 1898, the Army Corps of Engineers designed and erected Battery Wilkeson, an immense disappearing rifle artillery battery, as well as several smaller batteries at the entrance to San Diego Bay. While the Army erected artillery batteries, the Navy built a coal yard capable of fueling a fleet of ships to patrol the Pacific Coast.

War in Europe triggered the second technological pulse. All of the Point Loma Military Reservation became involved in complex plan to detect hostile offshore naval intrusion and triangulate artillery in a far greater arc of trajectory than ever before. To accomplish this, the Army Corps of Engineers installed mortar batteries and sighting stations at strategic locations all over Point Loma. During the relatively quiet period following the Washington Naval Treaty of 1922, the Navy developed the Naval Radio Station, Naval Fuel Depot, and expanded naval patrol facilities on the bayside. This silently evolving defense scheme kicked into full swing during World War II.

The third technological pulse followed the beginning of war in Europe during 1939. Congress funded the Army Corps of Engineers to build a complex of small and large artillery batteries capable of sinking entire naval fleets, but protected with massive concrete and steel overheads from aerial bombing. All of Point Loma, including private land in the civilian community of Azure Vista, became tightly linked to an interconnected web of artillery base end stations, command stations, anti-aircraft artillery batteries, Naval radar stations, patrol boats, and offshore sonar buoys. This complicated interconnected web became the focal point of the Point Loma Military Reservation.

Following World War II, the Army closed Fort Rosecrans and the Point Loma Military Reservation evolved again to include an Air Force Nike Missile research facility and Navy research center. Nearly eighty percent of the Point Loma Military Reservation lands evolved into the Naval Electronic Laboratory, then Naval Ocean Systems Center, and most recently, the Space and Naval Warfare Systems Center. The entire web of former Army Fort Rosecrans artillery properties had evolved into this new American defense scheme.

The Point Loma Military Reservation represents the ongoing flow of military technological pulses and political contexts that spanned the entire 20th century. With the Fort Rosecrans National Cemetery, abandoned artillery bunkers, Navy facilities, and national park interpretive facilities, each of these locations serve to vividly remind us why the Cabrillo National Monument Historic District fits squarely into this broad historic context.

Cabrillo National Monument Historic District

The Cabrillo National Monument Historic District includes sixteen historic features that are sub-elements of the greater Point Loma Military Reservation. This overview includes eligible National Register properties outside Cabrillo National Monument that are linked to the Military Reservation. Congress created this reservation in 1852, following the Mexican War conquest of California (Gerould 1966; Calaghan 1980 Flower, Ike and Roth 1982; Floyd 1995). From 1899 to 1957, most of Point Loma fell within the Point Loma Military Reservation (Gerould 1966; Calaghan 1980; May 1985, 1995; Joyce 1996). This included Army, Navy, Air Force and various "black operations" government units (May 1999a). The latter primarily operated on Point Loma during World War II and departed or were disbanded between 1946 and 1949. This overview provides a detailed description of the setting for the Cabrillo National Monument Historic District.

Fort Rosecrans Historic District

Twelve buildings fronting on Sylvester Road, White Road, and Ashburn Road are listed as eligible for inclusion on the National Register of Historic Properties (Widdel 1995; Triem 1995). The Navy has yet to forward the signed National Register Nomination form to the Naval Historic Preservation Officer or the Keeper of the Register (May 1996; Donaldson 1997). This action has been deferred by Navy/ Southwest Division officials to nominate the balance of Fort Rosecrans buildings, structures, and features on Point Loma as a more comprehensive district. This action could incorporate the Cabrillo National Monument Historic District.

The existing Fort Rosecrans Historic District is based on Criteria A and C, which focus on 1897-1940 military history and architectural style. These twelve buildings meet Criteria A for the historical role they played in the development of San Diego as a strategic and major center of military activity on the Pacific Coast. Fort Rosecrans marks the beginning of America's transformation to influencing the economic, social and physical character of this region. The buildings qualify under Criteria C because they embody distinctive characteristics of the 1903-1908 Colonial Revival architecture selected by the U.S. Army Quartermaster Corps to mark the national and patriotic strength of America. Additionally, a 1919 Craftsman-style social hall, a 1911 hospital morgue, and several rock construction features are contributing elements to the existing district.

San Buenaventura Research Associates nominated the twelve buildings as an historic district with the knowledge that other contributing elements and potential historic districts could be added later (Triem 1995). At that time, Navy/Southwest Division contracted with Hardlines Design (Durst and Chang 1996), Keniston Engineering (Keniston 1998), and KEA (Apple, Van Wormer and Cleland 1995; Apple and Van Wormer 1995) to conduct surveys and

National Register eligibility assessments. These studies developed additional historic contexts and themes for expanding the Fort Rosecrans Historic District, adding new districts and individual properties to the inventory.

Colonial Revival Post Buildings Period, 1902-1904

Architectural elements which define the Colonial Revival style are symmetrically balanced windows and doors, porch columns in 'classic' form, fanlight windows, gabled dormers and roof ends, corbeled chimneys, pressed 'tin' ceilings, inset cupboards and ornate staircases. Contracted craftsmen installed stock quatrefoil window elements, interior door trim, and casement windows.

The existing Fort Rosecrans Historic District is focused on the Colonial Revival architectural buildings constructed between 1902 and 1904 (Triem 1995). The United States Department of War responded to national sentiments following the 1876 Philadelphia Exposition and 1893 Chicago Columbian Exposition. They adopted military architectural styles that evoked a sense of patriotism and tradition to the soldiers and surrounding communities. From 1885 through the early 20th century, the Army Quartermaster Corps directed their architects to incorporate classic design elements in military barracks, officer's quarters, hospitals, and support structures.

The Quartermaster Corps selected Colonial Revival style as a marked change from the earlier Queen Anne style because they wanted to make a statement about America's role as a rising world power. They created standard designs for contracting architects to select to ensure military standardization. The Quartermaster Corps selected Design 142 for the Senior Officer's Quarters and Designs 120A, 120E for the Officer's Quarters. Other designs were selected for the Non-commissioned Officer's Quarters, Post Hospital, Bakery, and Quartermaster Corps buildings and structures. Support structures and infrastructure were custom designed as needed.

Today very few of those American military Colonial Revival buildings exist. Known surviving examples on the West Coast are in Fort Stevens, Oregon and Fort Lawson, Washington. The declining numbers of these buildings and districts are factored into the National Register status. Additionally, the State of California listed all of Fort Rosecrans as California Historic Landmark #62, on December 6, 1932 (Flower, Ike and Roth 1982). At that time, Colonel Douglas MacArthur accepted the status on behalf of his command.

The Fort Rosecrans Historic District buildings are significant for their variety. These buildings were constructed with heart redwood to ensure long-term survival against wood rot, insects, and fire (May 1999a). Craftsmen working for Charles Engebretson and Solon Bryan shaped the redwood to create four officer's duplexes, two enlisted barracks, one post hospital, one bakery, one quartermaster's storehouse and commissary, four non commissioned officer's houses, one administration building, and one commanding officer's house. Four years later, the Post Exchange was constructed in brick (May 1999a).

When completed in 1905, all the original buildings were painted olive drab with dark green trim (May 1999a). This color scheme changed in 1918 to khaki tan with white trim. However, the 1919 YMCA Service Club was olive drab with white trim and warehouses were not painted at all. Khaki remained the primary color throughout World War II.

Building 122: Army Quartermaster & Commissary Storehouse, 1904. Wood frame stucco, Colonial Revival. Naval Base Point Loma. Certified by the California State Historic Preservation Officer (SHPO) to be a contributing element to the Fort Rosecrans Historic District. Restored in 1998. The asphalt parking lot and Ashburn Road cover original landform that may contain portions of prehistoric archaeology site CA-SDi-48.

Building 123: Army Bakery, 1904. Wood frame, Colonial Revival. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. The lawn, asphalt parking lot and surrounding grounds may contain historic archaeology remains associated with this early industry.

Building 128, Hospital Morgue, 1911. Cast concrete. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the National Register. This structure has no known plans or records, other than base map identification. The concrete deck east of the structure could cover undocumented historic archaeology. The cobblestone and concrete culvert passing by the entrance has been determined eligible as a part of the Fort Rosecrans Historic District.

Building 137: Army Enlisted Barracks, 28th Company Coast Artillery, 1903. Wood frame. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Restored in 1989. The fireplace chimney reconstruction in 1988 revealed a masonry cavity with soldier's boots, which have important cultural value. Inside the walls, names of Army Quartermaster Corps workers are sealed behind modern drywall. The lawn, sidewalks and back alley cover portions of prehistoric site CA-SDi-48 and historic archaeological resources.

Building 138: YMCA Service Club 1919. Wood frame. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Restored in 1994. Inscriptions in the walls identify Army Quartermaster Corps workers from 1919 and 1938-1940 Works Progress Administration laborers who restored the structure during the Great Depression. The lawns, walkways and back alley cover portions of prehistoric site CA-SDi-48 and historic archaeological resources.

Building 139: Army Enlisted Barracks, 115th Company Coast Artillery, 1903-1904. Wood frame. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Restored in 1998, the interior walls were found to exhibit names of Army Quartermaster Corps workers. Renovation of the chimneys revealed a masonry cavity with a soldier's boot and a campaign hat that have cultural value. The lawns, walkways and alley behind cover portions of prehistoric site CA-SDi-48, historic archaeology associated with the 1904 Fire House and the 115th Company, Coast Artillery kitchen.

Building 140: Army Post Hospital, 1904. Wood frame. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the National Register of Historic Properties by the State Historic Preservation Office. Restored in 1992. Renovation in 1992 revealed the original hospital surgery in the 1940 heating boiler room in the basement. Fiber optic cable trenching in the back alley in 1998 revealed historic archaeology from the 1917-1919 hospital and portions of prehistoric site CA-SDi-48.

Building 140: Hospital Addition, 1940-1941. Wood frame. Naval Base Point Loma. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District (May 1998; 1999b). Restored in 1992. The lawns and back alley contain portions of prehistoric site CA-SDi-48, the 1904 Fire House and historic hospital deposits.

Building 146: Army Officer's Duplex, Lieutenant's Quarters, 1904. Wood frame. Naval Base Point Loma. Colonial Revival. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Lawns and 'Anne's Alley' cover portions of prehistoric site CA-SDi-48 and historic archaeological resources.

Building 149: Army Officer's Quarters, 1903. Wood frame, Plan #120E, dated May 1903.

Naval Base Point Loma. Certified by the State Historic Preservation Office to be a contributing element to the Fort Rosecrans Historic District. Lawns and 'Anne's Alley' cover portions of prehistoric site CA-SDi-48 and historic archaeology.

Building 151: Army Officer's Quarters, 1903. Wood frame, Plan #120A, dated March 1898. Naval Base Point Loma. Certified by the State Historic Preservation Officer to be a contributing element to the Fort Rosecrans Historic District. Lawns and 'Anne's Alley' cover portions of prehistoric site CA-SDi-48 and historic archaeology.

Building 154: Army Executive Officer's Quarters 1903. Wood frame, Captain's Duplex, Plan #142 Revised, March 1901. Naval Base Point Loma. Certified by the State Historic Preservation Officer to be a contributing element to the Fort Rosecrans Historic District. Lawns and 'Anne's Alley' cover portions of prehistoric site CA-SDi-48 and historic archaeology.

Building 158, Post Exchange and Gymnasium, 1908. Brick, Naval Base Point Loma. Certified by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Renovation work in 1998 exposed inscriptions and graffiti documenting the 1989 explosion of Space Shuttle Challenger on wall studs. Construction of Jones Hall in 1990 revealed numerous rock-packed fire hearth features, stratified layers of soil, *Pseudochama* and *Astraea undosa* marine shell, and Early Milling Archaic stone tools. Trenching in 1998 revealed three-meter deep portions of prehistoric site CA-SDi-48 and historic archaeology. A report by Dennis Gallegos and Carolyn Kyle date CA-SDi-48 to 5,000 radiocarbon years and the SHPO determined the site to be eligible for inclusion on the National Register (Gallegos and Kyle 1988).

During the year 2000, the Navy undertook a \$3.2 million project to completely restore Army Buildings 146, 149, 151, and 154 which was completed in March 2001 (May 2000). This work reinforced the basement foundations to resist destructive forces of an underground landslide that cracked foundations. Renovations upstairs will include shear-wall reinforcement, restoration of defining architectural elements, and return of the quarters to military housing functions.

CABRILLO

Shadows of the Past



CHAPTER SIX:

OVERVIEW OF POTENTIAL UNDERWATER ARCHEOLOGY OF POINT LOMA

Introduction

The potential for underwater archaeological resources on submerged lands surrounding Point Loma has not been thoroughly assessed. There are at least three sources of potential cultural material offshore. First, prehistoric artifacts from terrestrial Native American sites could have eroded into the sea with rising ocean levels. Second, vessels sailing along the coast could have wrecked on rocky shores or floundered immediately offshore. Third, military activities could have deposited equipment and other debris off shore. These human activities are possible sources of artifacts or historic materials resting in sandstone and shale reef trenches, in tidal recesses and in the ever-sifting sands and gravels of submerged lands.

The underwater archaeology on the eastern side of Point Loma is directly related to the 'safe harbor' characteristics of this location. Perhaps for thousands of years, mariners navigated in the inner harbor, away from crushing surf, churning cobblestones, and treacherous reefs on the western side of the peninsula. Strong surges at the southern tip can break anchor chains and force vessels northward toward Ballast Point or Zuniga Point and shoals. Relatively calm waters inside Ballast Point make it the first safe anchorage inside the harbor. About a mile northward, La Playa provided fresh water springs and more level ground for residence. Fresh water could be found at Whaler's Bight spring at North Island, eastward from Ballast Point, and the San Diego River, five miles north. Prehistoric Native American camps surround these springs, but only three historic Kumeyaay villages are known to have been occupied when Spanish colonists arrived in 1769. One of these Kumeyaay villages - "Pauripa" - existed at the north end of Point Loma.

From the earliest Spanish colonization of San Diego, the rim of San Diego Bay served as the embarkation point for mariners and their passengers. Their camps are evidenced by accumulated historic discards and some refuse deposits in the bay itself. Underwater archaeologist Roy Pettus has documented nine locations of underwater cultural material south of Ballast Point, which he recorded with a magnetometer as CA-SDi-8897 (Pettus 1982:28). He also documented two wreck sites (Pettus 1982:31).

Architect Milford Wayne Donaldson, FAIA, researched historic maps of San Diego Bay and concluded that the sea level has risen to erode the original shoreline back a number of meters (Donaldson 1996). He proposed that the southern half of Fort Guijarros (CA-SDi-12,000) has crumbled into the sea south of Ballast Point. This correlates to Pettus' discovery of Spanish wall tiles offshore in the underwater artifact debris field (CA-SDi-8897).

Geological Transformation Processes

The underwater archaeology of Point Loma is directly tied to geological transformational processes. Oceanographic research has demonstrated a sea level rise of 30 meters over the

past 10,000 years that has caused the San Diego coastline to retreat over a half mile in the vicinity of Point Loma (Masters 1988). Since Juan Rodriguez Cabrillo visited San Diego Bay in 1542, the sea level has risen at least one meter and the land sloughed away considerably. Man-made structures, campsites, and landmarks on those former landforms fell into the water as the water rose and land eroded.

Massive landslides have been recorded on Point Loma over the past century. In recent years, the Navy observed a huge slide on the bayside of Point Loma that took out an historic Army artillery base end station (Rieger 1998). Known roads, trees, and former refuse dumps also fell away into the sea over the past fifty years. Debris from those slides can be observed at low tide and among the shale cobblestones on the beaches as discussed below.

Military construction over the first fifty years of the 20th century did not often take into consideration vital engineering geology. The Army Quartermaster Corps and Army Corps of Engineers simply excavated into the soft, sandy soils of Point Loma to construct roads, install cast concrete bunkers, lay utility lines, and erect communication tunnels. The man-made slope gradient of McClelland Road, for example is so steep that massive landslides have occurred repeatedly in recent years (May 1999). These constructions disrupted and loosened the soils, removed protective groundcover, and exposed the entire area to massive erosion. Loss of groundcover has accelerated rainwater velocity, causing sedimentation at lower levels, softening and saturating steep bluffs on the east side of Point Loma. Those bluffs have experienced numerous large landslides. High velocity underwater surge has been studied and mapped by the Navy since 1962. This surge scours the bottom, tearing anchors, buoy lines, and artifacts from their original deposition. Landslide soil hitting this tidal surge is caught in colloidal transport and carried miles out to sea.

Underwater Archaeology Survey South of Ballast Point

Pettus noted this tidal surge problem during his 1981 underwater survey of Ballast Point (Pettus 1982:32-34). The surge dragged 100-pound anchors many meters. This same surge could easily drag cannons, Spanish wall tiles, and more recent artifacts from CA-SDi-8897 south along the cobblestone shoreline near the eastern boundary of the monument.

Operating under a Navy permit and diving from a Navy Torpedo Retriever, Pettus designed 50-meter transects that were surveyed in 2-meter intervals by dive team members trained in underwater archaeology. They cored sample sediments which yielded one Galera (lead-glazed) (1790-k 835) ceramic sherd, two Mexican Majolica sherds, two unglazed Mexican wheel-thrown jar sherds, an Army Quartermaster Department (1902-1945) serving platter and a Spanish wall tile (Pettus 1982). Underwater surface recoveries included a California Gray Whale (*Euchrichtus gibbosus*) nasal plate and two saw-cut butchered domestic cattle (*Bos taurus*) cattle bones (Pettus 1982:41). The Mexican Majolica sherds were Aranama Tradition, a 1790-1835 style also found in the nearby land excavation of Fort Guijarros (CA-SDi-12,000) (May 1995). He also recorded two prehistoric milling slabs (metates) and recovered a Catholic medallion necklace.

The Catholic necklace presented a puzzling mystery. Diver James Muche recovered the necklace on a reconnaissance transects east of Cabrillo National Monument (Pettus, Personal Communication). Pettus soaked it in distilled water, followed by baths of Carbowax to prevent metal corrosion or decomposition of the olive wood beads. The state of preservation of the latter presents the mystery, as wood normally deteriorates rapidly in local waters. No satisfactory explanation has been provided to explain the survival of the wood beads in the water. No one has determined if it has been submerged since 1830, or if a sailor lost it recently.

The oval brass medallion measures 2.0 centimeters long, 1.1 centimeters wide and is 0.08 centimeters thick. One side is embossed *Maria sipecado concebida rogapor nosotros 1830* and the other *M* on a crucifix over two small flaming hearts with twelve tiny stars surrounding. A smaller copper medallion linking the beads to the oval medallion is embossed with *O Marie concue sins peche*.

Since 1993 when Pettus placed the artifacts in the care of the Fort Guijarros Museum Foundation with the permission of the State of California, new information has come to light concerning the history of the Catholic necklace. A representative from the Smithsonian Institution reported similar Miracle of 1830 medals struck by the Catholic Church in the 1840s to commemorate a venerated miracle (May 1999b). This information rules out deposition of the Catholic necklace during the 1790-1835 occupation of Fort Guijarros and suggests it dates to late in the Mexican Period (1822-1846). This artifact is currently on display at the monument museum, with a replica Spanish flag, a photograph of an 1843 sketch of Fort Guijarros, and several Majolica sherds recovered in sediment core samples.

Pettus did not survey the two underwater wrecks noted in his survey report. His goal was to document potential locations of Mexican cannons reportedly dumped in San Diego Bay by the American Army in 1847 (Pettus 1982:47). He concluded seasonal sand deposition covers heavy metal objects, such as cannons, and the cost of recovery would be substantial. As much as twelve feet of sand covers the cobblestone and shale bedrock south of Ballast Point. The cost of subsand archaeology was deemed prohibitive in 1982 and no further work has been conducted since that year. An additional consideration is the high cost of conservation of cannons, should they be found and recovered. The Navy and Fort Guijarros Museum Foundation concluded that recovery was unlikely.

The prehistoric milling slabs remain where Pettus recorded them in 1981. One feldspathic quartzite specimen measured 29.8 centimeters by 26.2 centimeters and 15.6 centimeters thick. It is oval and in plan view and ground on one side, but has been covered by marine barnacles (*Balanus glandula*) and white bryozoans (*Tricellaria occidentalis*). The other is sandstone and measures 25.8 centimeters by 20.4 centimeters by 7.6 centimeters. This specimen is complete with a 2.5-centimeter deep grinding basin. These artifacts probably date from prehistoric occupation of the old landform before the sea level rose to cover and erode the old shoreline. Being heavy, these objects probably fell, rather than washed away to deeper water.

Beach Surveys

As early as 1980, sailors at the Naval Submarine Support Facility observed the barrel of a bronze cannon protruding in the shallow water south of Ballast Point. Commander John C. Hinkle, then Commanding Officer, Naval Submarine Support Facility, led archaeologists to the approximate location of the cannon in July of 1980 (Hinkle 1980). Although the cannon was not in sight, large ferrous metal machinery parts, light gauge rail wheels, broken white ironstone table ceramics, amethyst bottle glass, and concrete littered the beach. Rusted wire cable segments popped up between boulders and jagged cast iron promised a treacherous traverse for anyone searching for the cannon.

The archaeologists identified these artifacts as Army debris to between 1898 and 1914 (May 1980). This would place those artifacts in the earliest Army garrison period when the Army Coast Artillery developed a sea coast defense of the United States. Examination of the bluffs by binoculars revealed a concentration of refuse near a stand of eucalyptus trees high above the debris field on the beach. Commander Hinkle later arranged access to the area, where more Army table ceramics, amethyst bottle glass sherds (pre-1914), amber medicine bottle glass sherds, rusted ferrous metal and a few brass .30-40 caliber Krag rifle bullet shells

(1898-1903) were observed. These artifacts confirmed this historic archaeological deposit dates to the 1898 to 1914 time period. The relationship of these artifacts high up on the bluff and low on the beach below is apparently the result of a landslide.

In 1996, architect Milford Wayne Donaldson, FAIA, examined historical maps of San Diego Bay spanning 1792 to 1942 and concluded that Ballast Point also suffered sea level rise and erosion. Donaldson established that a significant portion of the 1796 Spanish cannon battery, known as Fort Guijarros, had eroded into the sea (Donaldson 1996). Observation of water-worn Spanish tiles on the beach in the 1950s by Fred Buchanan, Navy Public Works Center, confirmed this erosive effect. Discovery of a portion of the surviving walls of Fort Guijarros on land indicated that the walls extended directly toward the beach (May 1982; 1995; 1996). Underwater archaeological survey also confirmed the presence of Spanish tiles many yards off shore (Pettus 1982).

The riprap and cobblestones along the south side of Ballast Point contain heavily corroded steel sheet, broken mechanical parts, and dangerous ends of heavy wire cable. Large cast concrete chunks among the metal are all that remains of the Army's 1898 Battery Fetterman. The Army demolished this artillery battery in 1943, to make room for an Army Quartermaster warehouse. Road renovation in 1988 exposed the basal foundations of Battery Fetterman. Over the years, Army Quartermaster spoons, forks, and butter knives have been found on the beach in association with the twisted steel and concrete rubble. The storm surf and high tides eroded the old beach in the vicinity of Rosecrans Street, washing artifacts from all periods out to sea. Presumably, this would explain the Army Quartermaster Depot serving platter recovered by Pettus at CA-SDi-8897. The southern surge could easily transport small items like these to the beach east and offshore from the northeastern corner of the monument.

The 1980 beach survey led by Commander Hinkle did not reveal Spanish artifacts, bronze cannon tubes, whale bones, or Army artifacts on the beach below Cabrillo National Monument. However, no underwater survey has been conducted in that area to confirm this observation. Objects are more likely to be located offshore than on shore lands.

Underwater Shipwrecks

No archaeologist has conducted in depth historic research in the Spanish Archives of the Indies, National Archives in Mexico City, Bancroft Library at the University of California at Berkeley, or other archival sources for data of underwater wrecks or sites off Point Loma. This is beyond the scope of this study as well. Pettus did compile a Remote Sensing Survey Map with symbols for known wreck sites and ferromagnetic anomalies (Pettus 1982). One of the latter offshore sightings appears relatively close to the Navy and monument boundary, but the location has not been examined for identification. Neither of the known wrecks has been inventoried by underwater archaeologists.

Navy divers conducting training exercises south of Ballast Point often recovered bottles and donated them to the Fort Guijarros Museum Foundation over the years (May 1996). These include Scottish ale bottles (1870-1929), amethyst picnic flasks (1885-1920), dark green liquor bottles (1840-1870), butchered whale bone (1858-1886), and Spanish tiles (1796-1810). Those divers often described the underwater wrecks as decomposing wooden vessels, which are havens for lobster and fish. Additionally, several large diesel engines, propeller shafts, and mechanical metal exist between reefs from the end of Point Loma and Ballast Point. Presumably, these are additional uncharted wrecks.

Around 1990, the Navy reported a World War II PT boat sunk southeast of Point Loma (May 2000). The divers reported that the hulk contained undetonated ordnance. Navy SEAL teams

used the wreck for ordnance explosive training. Five years later, underwater remote camera surveys southwest of Point Loma revealed a debris field of World War II aircraft (Pettus 1995). Pettus directed that survey and concluded these were scrapped in the late 1940s and pushed off aircraft carriers. These random, uncharted occurrences of World War II air and watercraft support the potential for other wrecks to exist along the reefs and shoals east of Point Loma.

The Potential for Underwater Archaeology

There has been sufficient cultural activity surrounding Point Loma to believe sunken vessels, lost fishing boats, dumped aircraft, and military equipment lie offshore. During the early 1950s, Point Loma residents often reported derelict ships breaking up in the rocky surf off Hill Street or west of the Theosophical Society (now Point Loma Nazarene College), and further south (May 2000). Wooden ship hatches, sailing masts and spars, pieces of military aircraft, and rumors of World War II Japanese floating mines were often reported to Navy authorities and local news media in the 1950s.

For a period of time between 1955 and 1962, warped stainless steel sheet exhibiting acid etching and rivets washed up in the tide pools of what is now the Pacific side of the monument. This sheeting may have been remnants of World War II military aircraft (May 2000).

Nothing is documented for Navy or foreign shipping sinking off Point Loma during World War II. Yet, military reports such as the following quote do document actions that may have resulted in materials now potential underwater archaeology off Point Loma

All batteries eight inches and below were put on constant anti-submarine alert status. During the period of the war, there were sixty-one reports of enemy submarines, unidentified surface vessels, and underwater contacts off San Diego recorded by Harbor Defenses. During 1942 and 1943, local defense ships and planes went into action twenty-eight times on the basis of such reports, and during 1943, 115 depth charges were dropped by these forces. No friendly shipping was sunk and no enemy craft were ever identified within range of the Harbor Defense guns (Harbor Defenses of San Diego 1945: no author 1988: 19).

While none of those sightings were confirmed in World War II, there is evidence enemy spy messages were transmitted from Point Loma to offshore vessels (May 1999c). In 1975, Mac McReynolds cleaned out the basement crawlspace of his old two-story Spanish style home on top of Point Loma and found a German military radio transmitter. McReynolds pulled the transmitter from behind a mound of 1945 newspapers. When cleaned of a thick layer of dust, the gray cover displayed a gold decal of a Nazi eagle holding a swastika in its talons. Further examination of the house revealed an antennae wire strung through the attic crawl space and windows faced the Pacific Ocean. McReynolds later moved to Austin, Texas and took the transmitter out of San Diego.

Finally, if Donaldson is correct and most of the 1796 Spanish cannon battery eroded into San Diego Bay, then a huge debris field of 200 year old artifacts could be expected south of Ballast

Point. The tidal surge could have transported these materials along the bay side of Point Loma south for up to several miles. This same surge would include U.S. Army artifacts from the 1902-1945 dumpsite.

Strandings and Floundered Vessels

Popular maritime histories cite several strandings, sinkings or floundered vessels along the

southern shores of the peninsula, including Ballast Point and Zuniga shoals between 1851 and 1943. Detailed research at the Maritime Museum of San Diego and San Francisco National Historical Park's J. Porter Shaw Library has not been conducted to determine if remains of lost vessels may exist within the coastal zone of the monument. Typical of the stranded vessels was the three masted schooner *Alice McDonald* (built in 1888 at Bath, Maine) which was towed in December 1909 from a location immediately seaward of the 1891 lighthouse (Fig. 27). This wooden hulled merchant vessel was refloated and returned to service until 1918.

Educational Interpretive Value of Underwater Archaeology

Cabrillo National Monument could use the underwater archaeology information to enhance interpretive programs for visitor enjoyment. While viewing the sea at the entrance to San Diego Bay on the east side of the monument, visitors could read text concerning the ship wrecks, sea rise damage to the Spanish fort, landslide loss of Army bunkers, and potential for World War spy boats offshore. Information concerning the number of offshore enemy sightings and the German transmitter during World War II could provide a dramatic display near the whale watching area on the west side.

The underwater archaeological resources south of Ballast Point on the bay side provide important educational values. New exhibit plaques showing landslides could provide strong visual displays of the geological transformation of Point Loma over the past 15,000 years and the effects on prehistoric and historic sites. In oceanographer Patricia Masters 1988 publication concerning the geological reconstruction of the Point Loma and the surrounding landform, there are line drawings depicting a succession of ancient shorelines spanning the past 15,000 years. With Masters' permission, her exhibits of the sea level rise and coastal retreat could be used to show how San Diego Bay once looked like Mission Valley. She would also be an excellent guest speaker at a future Cabrillo Historical Association lecture series.

One or two maps printed on metal and installed adjacent to the stone masonry wall outside the Interpretive Center could explain the rising sea level and tidal surge, which spread artifacts all along the cobblestone shore below. Broad general circles drawn around the general locations of offshore Fort Guijarros, Ballast Point Whaling Station, and Army trash dumps would provide important learning experiences.

Underwater archaeology always holds a strong draw to park visitors. A new interpretive exhibit on the 1796 Spanish cannon battery on Ballast Point could use one or more of the Jay Wegter watercolor painting lithographs, through an agreement with the Fort Guijarros Museum Foundation. The exhibit could include continued loan of the Catholic necklace and Spanish Majolica ceramics that are currently on exhibit. The addition of a Spanish cannon ball, samples of Spanish tiles, and cross-sectional drawings would provide a better understanding of the 18th century lifestyle. The objects should be selected for visual connectivity to the Spanish occupation of Point Loma. For example, a water worn Spanish tile could draw attention to the rising sea level effects on the Spanish fort, which is an on-going process.

Interpretation of the Old Point Loma Lighthouse role in the Ballast Point Whaling Station operations could be interpreted using one of the Scottish ale bottles recovered by Navy divers just east of the monument. These artifacts still show coralline encrustations on the surface. The ale bottle probably represents transit of the whalers from Ballast Point to the kelp beds, where the California Gray Whales fed on plankton and squid. The exhibit could show how lighthouse keepers alerted the whalers at Ballast Point of spouting whales. Additionally, the exhibit could include representation of the Chinese fishing camp on Ballast Point. Another

Jay Wegter watercolor depicting the Ballast Point Chinese fishing camp could also be used to demonstrate the ethnic diversity on Point Loma during that period of time.

The underwater Army debris field east of the Navy and the monument boundary could be used to highlight Point Loma Military Reservation and Fort Rosecrans histories. Illustration of the underwater Army discarded debris field and potential for tidal surge redeposit east of the monument could be used to establish the fact that most of the monument was formerly Fort Rosecrans. Sample artifacts borrowed from the Fort Guijarros Museum Foundation by arrangement with the Navy could be used to illustrate public history values of the lifestyles of soldiers from the 1898 Spanish American War, World War I, and World War II.

Future Historical Research

The National Park Service should plan a future comprehensive archival survey to document potential underwater resources off Point Loma. In addition to California archival sources, historians skilled in Spanish orthography at the Spanish Naval Museum in Madrid, Spain and the Archives of the Indies should review records of the Royal Presidio de San Diego, Spanish and Mexican Customs, and reports of shipping losses.

Specific research tasks should include at least one month in the National Archives of Mexico City to review documents of the supply packet ships sent from San Blas, Mexico to San Diego, Alta California between 1769 and 1822. Copies of all supply lists, cannons and other military equipment, and other materials transshipped between Mexico and San Diego should be documented to illustrate Spanish and Mexican lifeways, with emphasis on the Point Loma communities at Ballast Point and La Playa. The study should also document any other shipments from Mexican sources after formation of the Mexican Republic.

In addition to Mexican archives, extensive research in federal National Archives concerning the Topographic Survey of San Diego Bay, the Tidal Gage data collection, Army Corps of Engineers surveys, Customs and Treasury records, and Maritime Court records should be researched to document all known offshore vessel wrecks in the Point Loma area. This includes all Navy records, such as sea charts archived at West Point and Annapolis. This should include the California State Archives, Government Land Office records, which contains the most comprehensive collection of maritime maps of California.

Finally, historic research should canvas the various private museums containing ship's logs, sea charts, and coastal art that might include San Diego. The various charts often marked vessel wrecks, equipment loss sites, and maritime hazards. Various maritime museums on the Eastern seaboard should be included. For example, the Kendall Whaling Museum in Sharon, Massachusetts contains ship logs, sea charts, photographs, sketches, and correspondence of whaling ships that visited San Diego. Specific searches should be made for the records of the Pacific Mail Steamship Line, which transshipped whale oil from Ballast Point and men and supplies to and from San Francisco.

Synthesis of all this archival work should be conducted to ascertain the potential for underwater archaeology off Point Loma. All potential wreck sites, refuse dumps, and other features need to be field surveyed in compliance with Section 110, National Historic Preservation Act requirements.

Future Underwater Survey

The lessons learned by Pettus in 1981 should form the basis for a future underwater survey of the coastal waters off Point Loma. At the very minimum, a thorough underwater survey of the area between the tip of Point Loma and Ballast Point would be needed to document the presence or absence of Spanish cannon battery debris and Army artifacts. The area surveyed

by Pettus should be reexamined in this new survey to document changes in the past twenty years. The goal of this future underwater survey would be to satisfy Section 110, National Historic Preservation Act inventory requirements by searching for all potential artifacts and wrecks.

The results of the future underwater survey would be used to develop a management program for those resources and further develop interpretive programs for the monument. There may even be a future time when underwater historic resources interpretation could be part of the mission.

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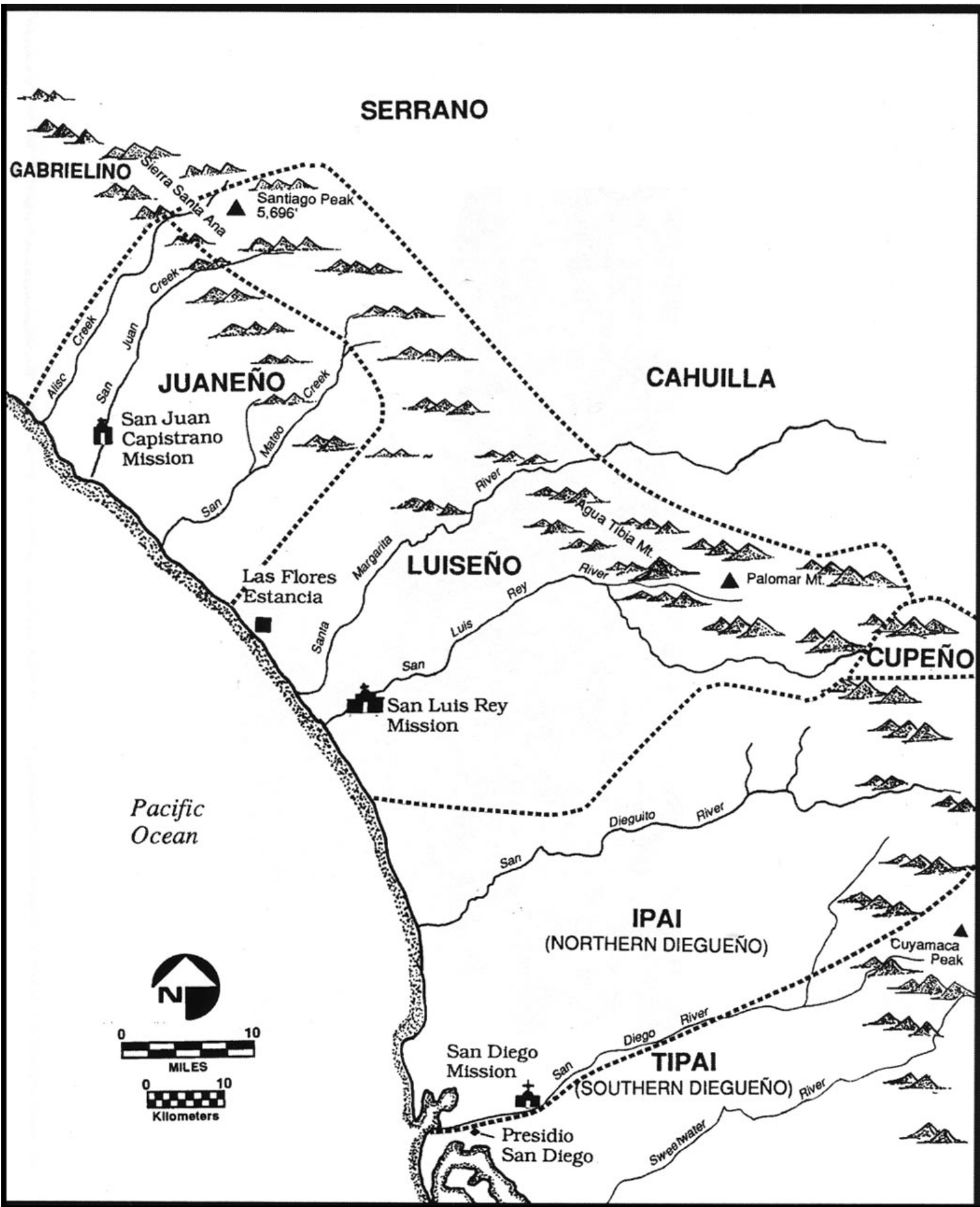
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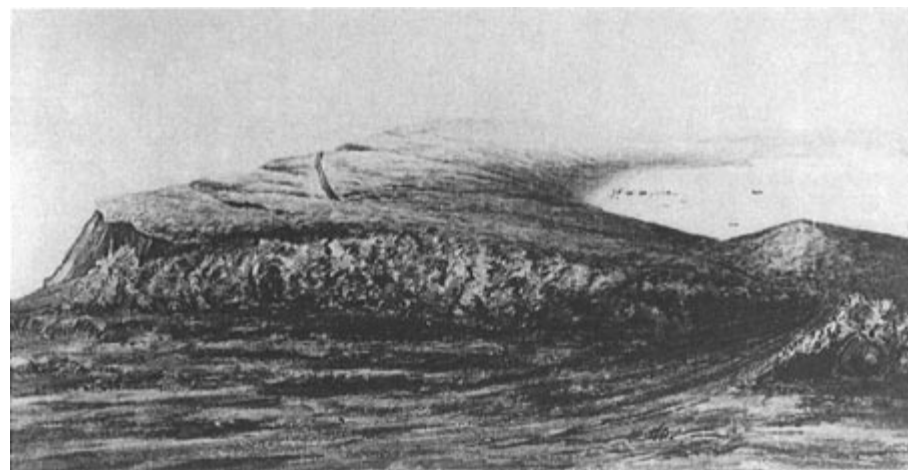
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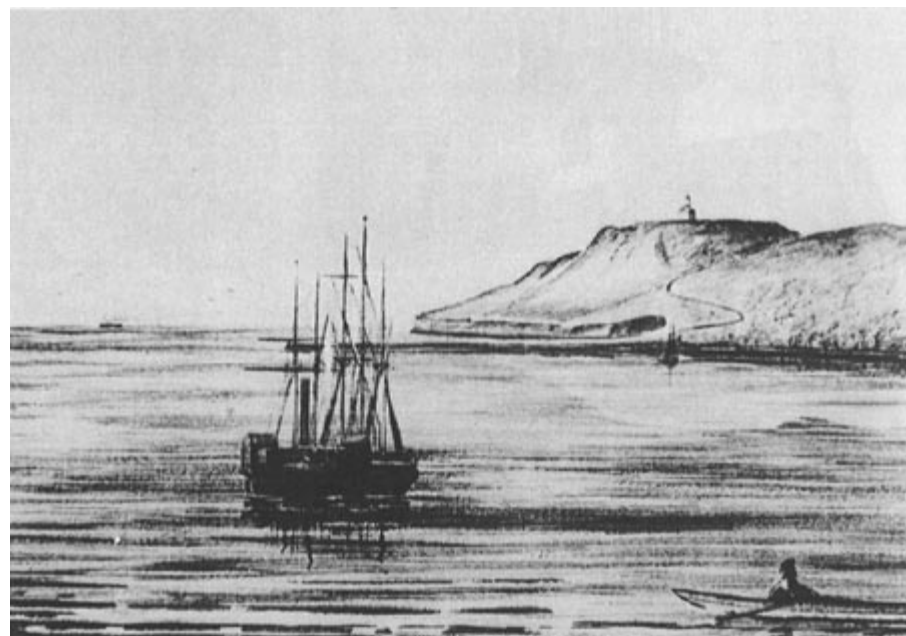
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<<< [Previous](#) <<< [Contents](#) >>> [Next](#) >>>

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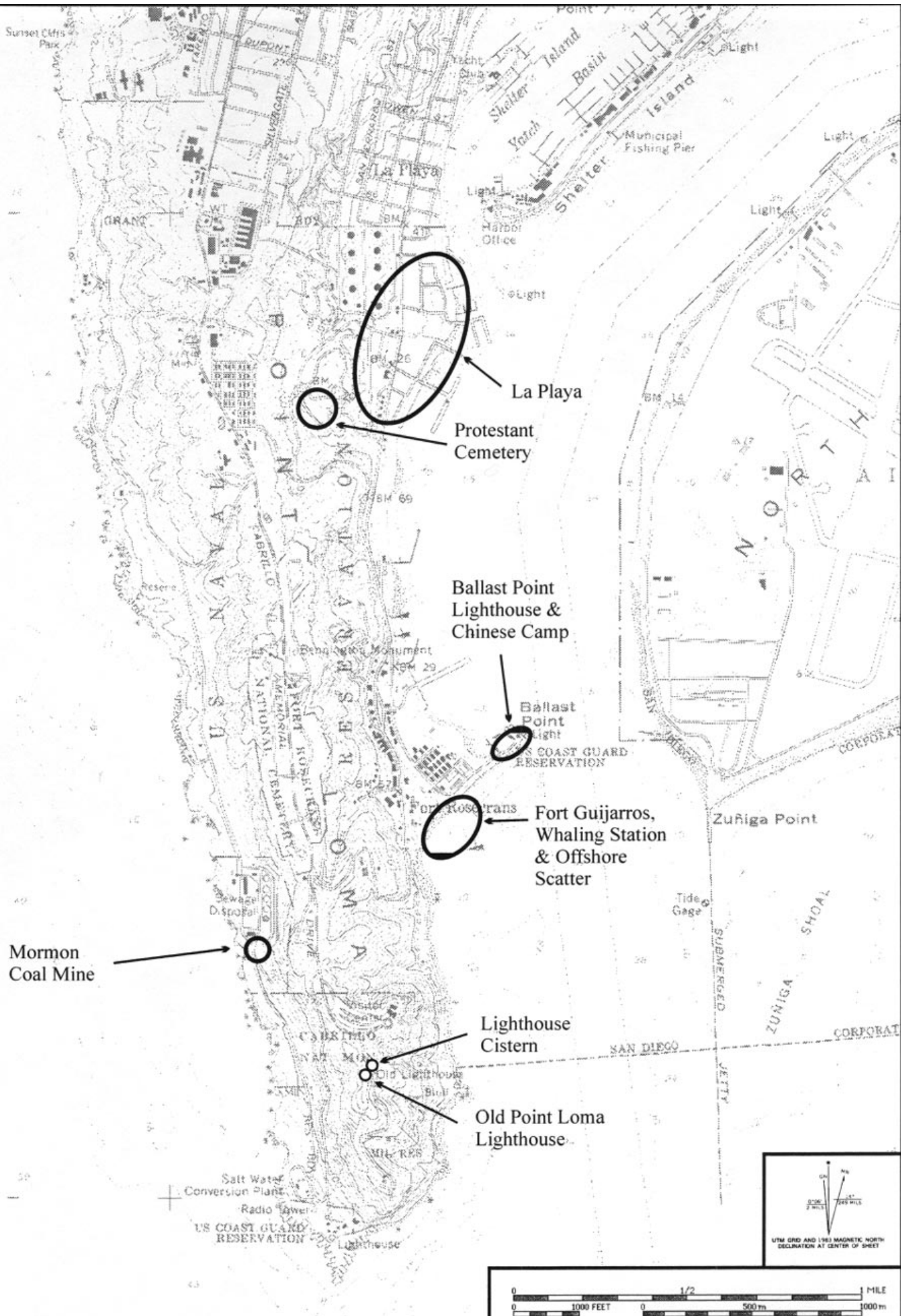












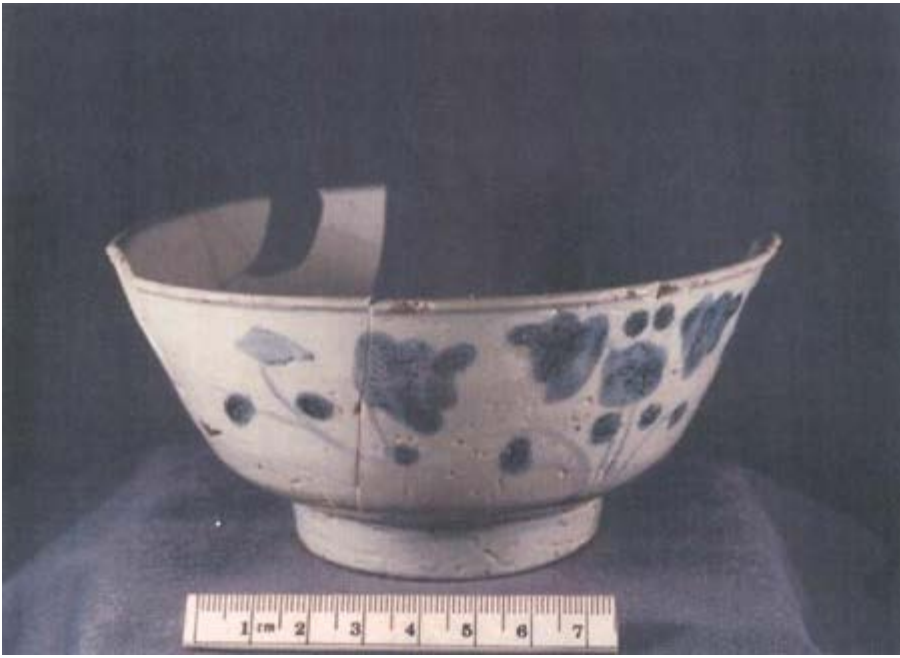










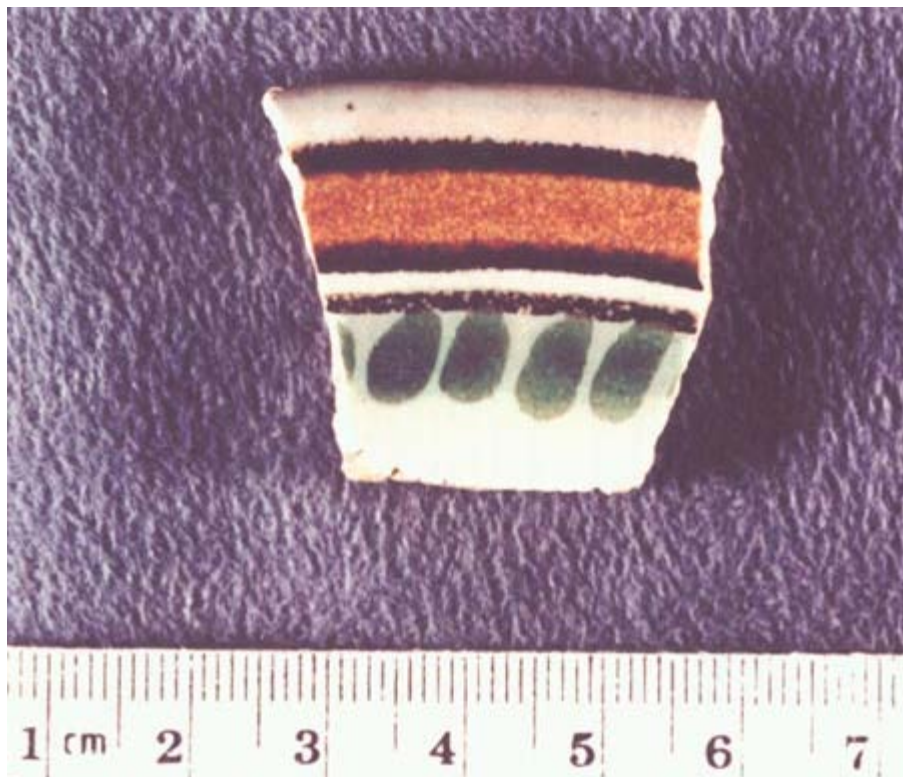


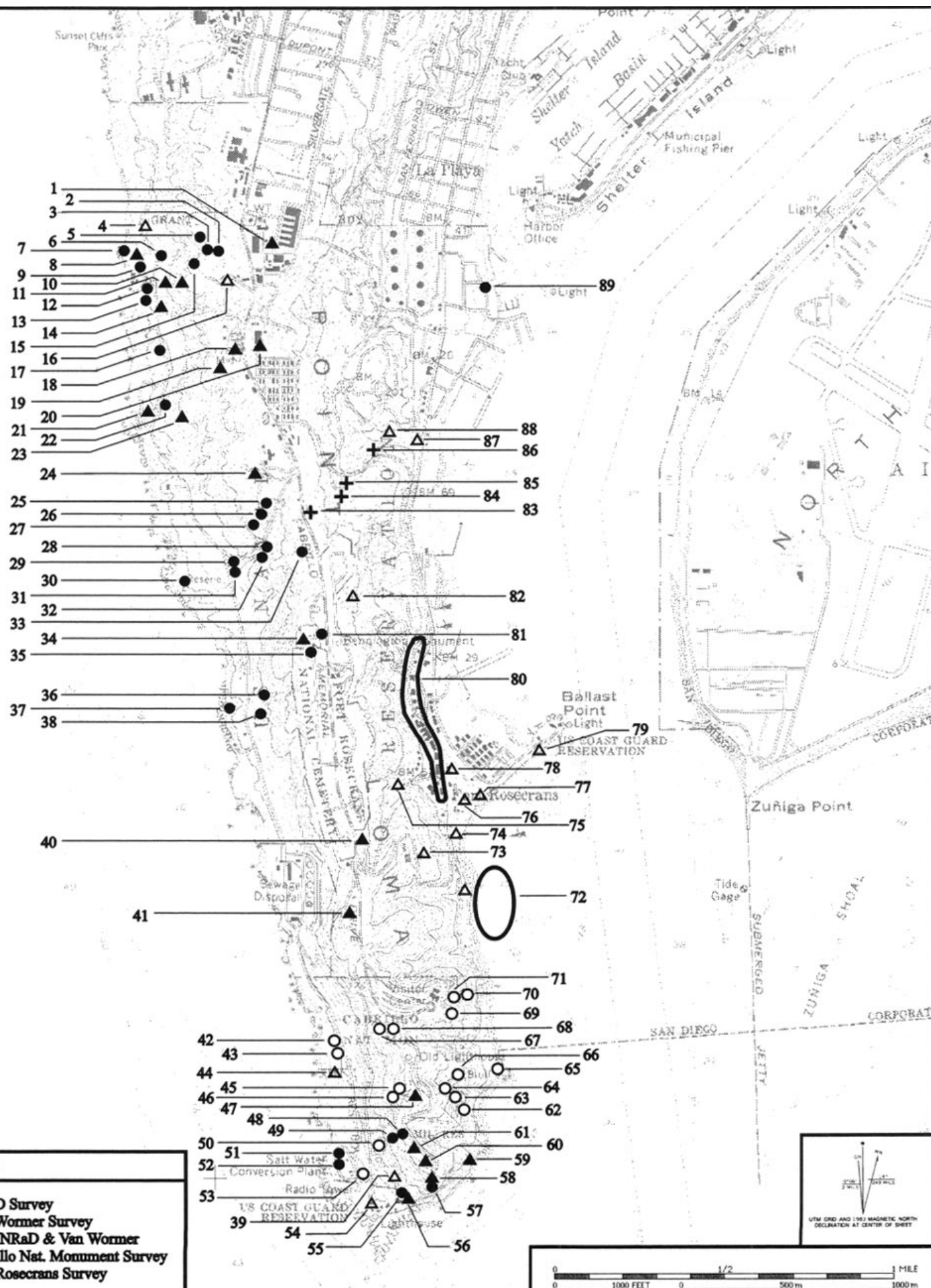






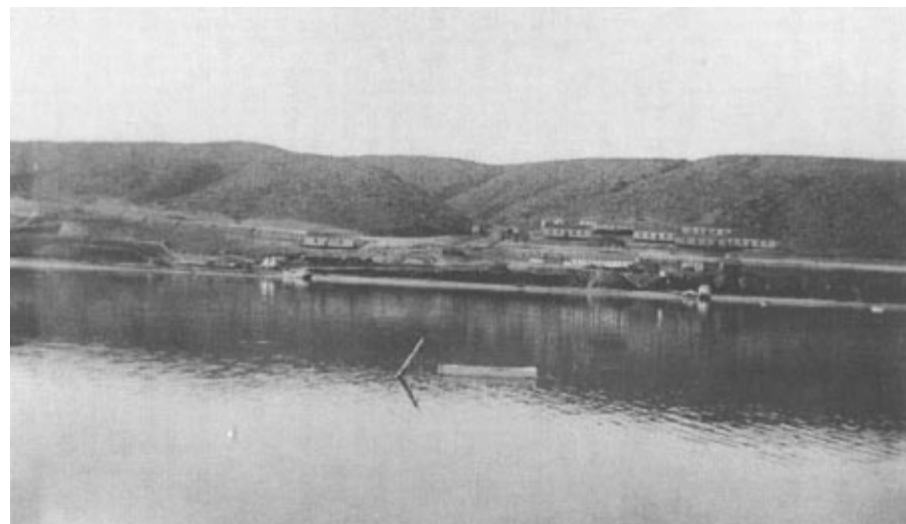




















CABRILLO

Shadows of the Past



CHAPTER ONE:

SHADOWS OF THE PAST AT CABRILLO NATIONAL MONUMENT

(continued)

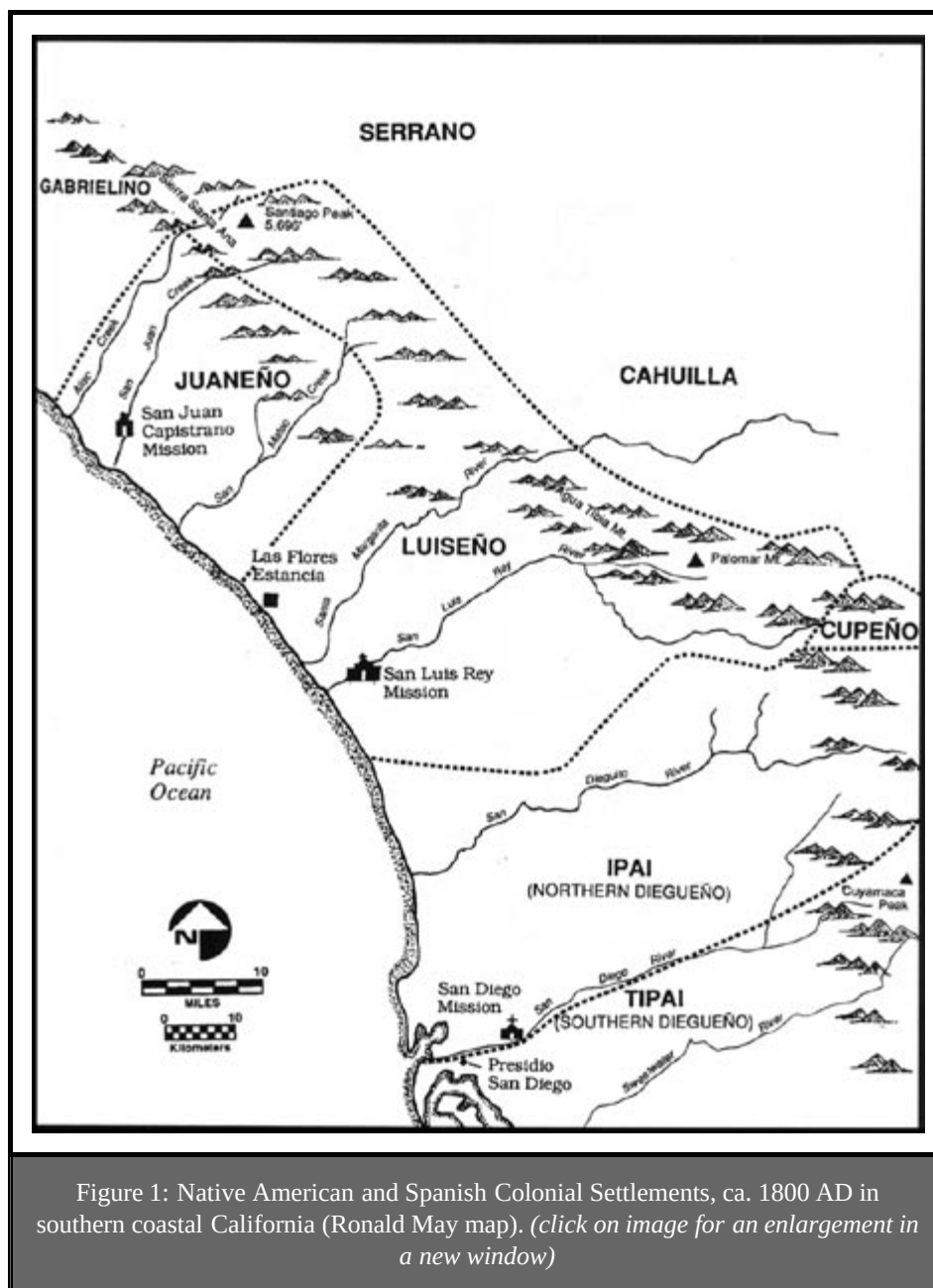


Figure 1: Native American and Spanish Colonial Settlements, ca. 1800 AD in southern coastal California (Ronald May map). *(click on image for an enlargement in a new window)*

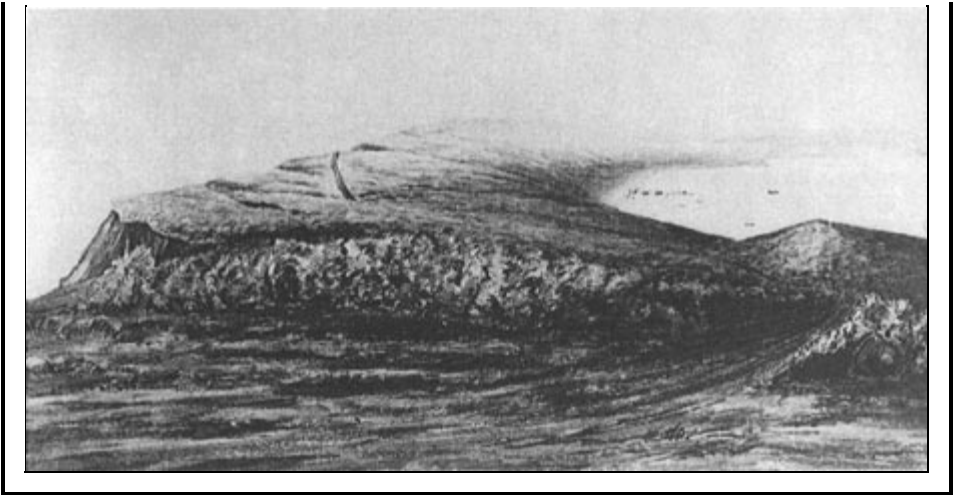


Figure 2: Major Hartman Bache's late 1850s sketch of Point Loma peninsula, looking northward from the Lighthouse location. Ridgetop roadway and settlement at Ballast Point are visible (National Park Service photograph from National Archives).

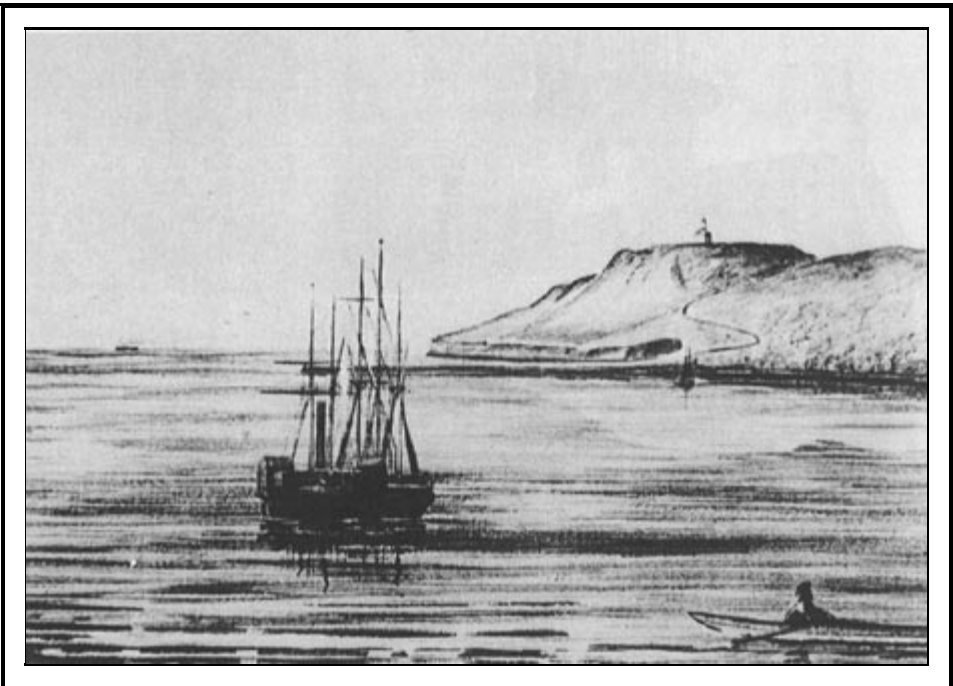


Figure 3: Major Hartman Bache's late 1850s sketch of the Point Loma Lighthouse as seen from Ballast Point anchorage. Curving roadway to ridgetop from Ballast Point is clearly visible (National Park Service photograph from National Archives).



Figure 4: Point Loma Lighthouse used for military housing, ca. 1917. Rainshed pavement and cistern exist but lens and illumination systems are missing (National Park Service photograph from historical collection of Title Insurance and Trust Company, San Diego).

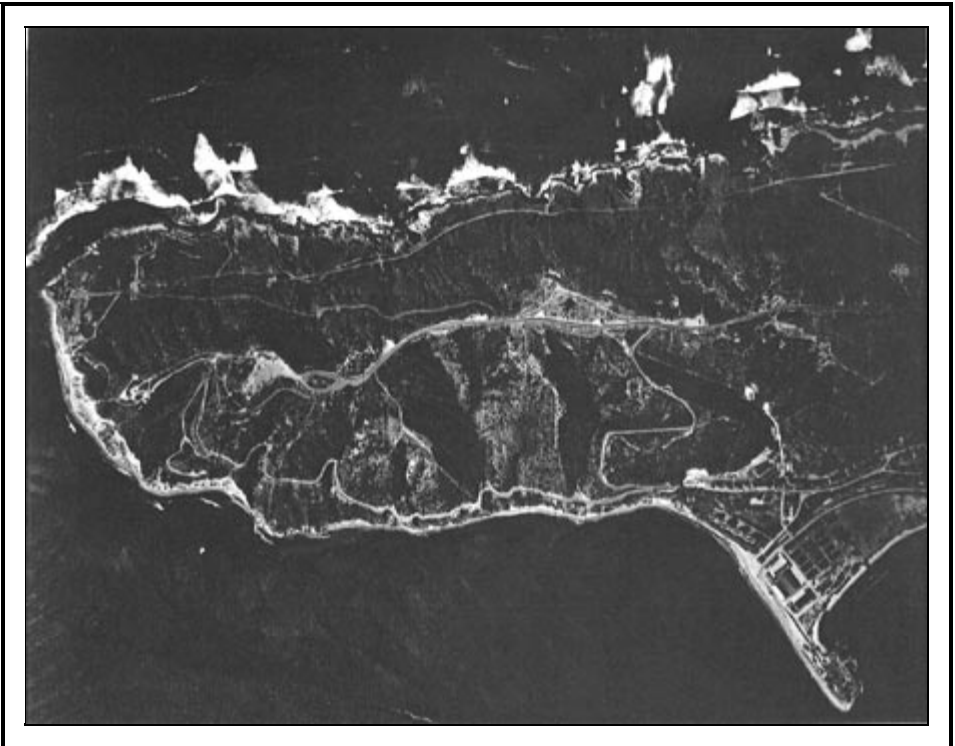


Figure 5: Vertical aerial view of Point Loma peninsula southern section illustrating main road (State Route 209), historic Lighthouse at roadway loop with parking lot, western ocean terraces with 1891 Lighthouse at peninsula tip and Gatchell Road connecting seaward Fort Rosecrans facilities. The rugged eastern terrace is accessed by Sylvester Road linking bayside installations with Fort Rosecrans and Ballast Point developments. Topographic differences between east and west peninsula slopes are evident in roadway configurations as switchbacks or linear cut-fill constructions

(National Park Service photograph from National Archives).

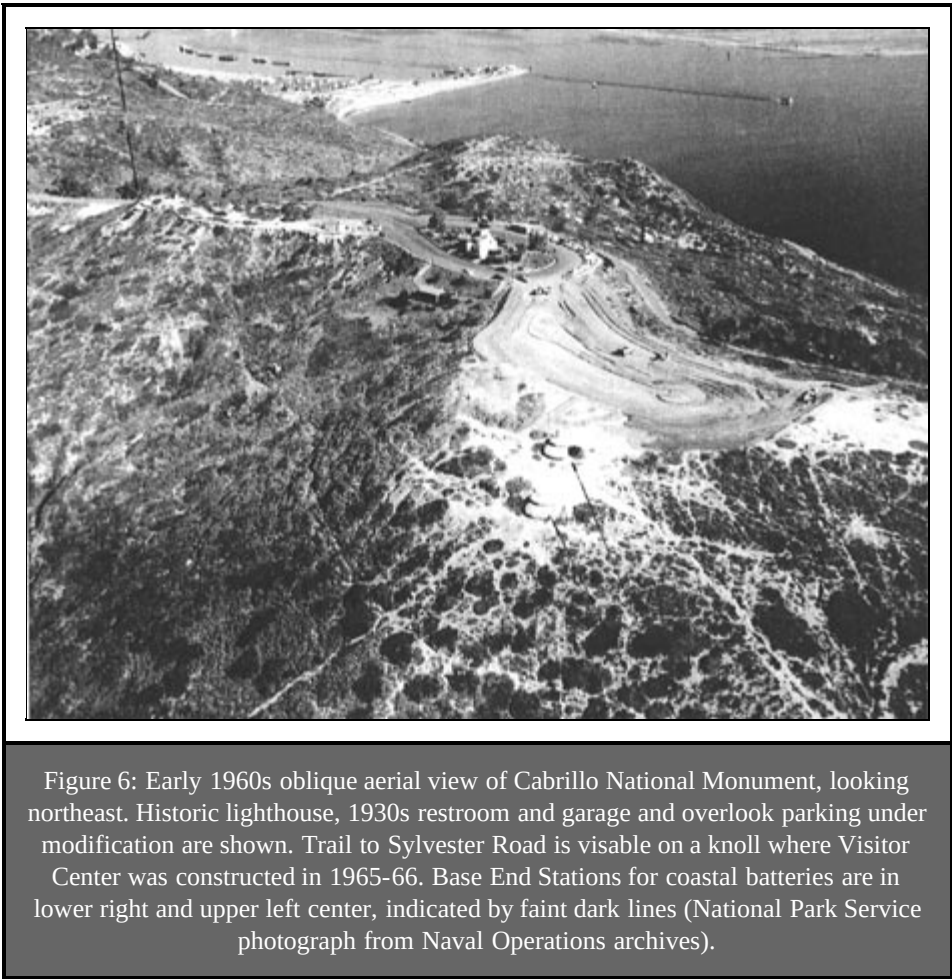


Figure 6: Early 1960s oblique aerial view of Cabrillo National Monument, looking northeast. Historic lighthouse, 1930s restroom and garage and overlook parking under modification are shown. Trail to Sylvester Road is visible on a knoll where Visitor Center was constructed in 1965-66. Base End Stations for coastal batteries are in lower right and upper left center, indicated by faint dark lines (National Park Service photograph from Naval Operations archives).

[<<< Previous](#)

[<<< Contents >>>](#)

[Next >>>](#)

CABRILLO

Shadows of the Past



CHAPTER TWO:

OVERVIEW OF THE POINT LOMA PENINSULA PREHISTORY (continued)

RESEARCH DESIGN

One purpose of this overview is to provide meaningful ways to evaluate the scientific data potential of the archaeology sites at Cabrillo National Monument within the broader research contexts under study by other researchers in the region. This includes a review of past research and current criticism. Each site — known or to be discovered — will need to be evaluated for the spatial and vertical site complexity with a method proposed for qualitative artifact or sample volumetric comparisons. Finally, there needs to be a definition of the physical and cultural parameters required to design an archaeological mitigation program or treatment plan to achieve conservation and to avoid impairment of archaeological resources. A research design supports positive resource management as expressed in park-wide documents such as a general management plan and implemented through required compliance steps for approval of management plans.

The following research domains are divided by primary research issues, each with testable questions and potential archaeological data required to support sound scientific answers;

I. THE INTRA AND INTER SITE PATTERNING QUESTION

The first question posed to a field archaeologist after finding an archaeological site involves site size, integrity, and importance. These questions relate to how archaeologists link that site to broader patterns of prehistoric activities within a geographical region. A basic question is whether or not the site has patterns of artifact features that relate to behavioral activities. Is the site big enough and complex enough to contain kitchen, sleeping, tool repair or manufacture, or religious activities and are those features large enough to be linked to other sites in the Point Loma area?

This theoretical overview will introduce interrelated problems of "inter-site" and "intra-site" patterning which form a physical basis for measuring quantity and quality of archaeological sites on the peninsula. From this physical basis, substantive research problems involving site composition can be addressed. Ethnographic analogy will be reviewed as potential evidence for site function interpretation. Research issues such as lithic technology, exchange and trade, subsistence and techno-economics, and ecological change with adaptation will then be presented on the physical basis of site structure.

The primary assumption of intra-site pattern research is that prehistoric people's activities resulted in predictable patterns on the land. Those behaviors resulted in refuse that can be distinguished by sets of artifacts and features. James N. Hill demonstrated residential behaviors as distinct from non-residential behaviors in rooms within Broken K Pueblo (a prehistoric Arizona village site) which led Michael A. Schiffer to attribute functional tasks to refuse disposal patterns (Hill 1968; Schiffer 1976). Schiffer's concept of artifact type sets for functions led to important debate on the theoretical approach to intra- and inter-site pattern

research.

Michael A. Jochim proposed inter-site patterning within regional catchment systems (1976) that required field definition of base camps and activity areas. John Yellen observed a confusion of behaviors within site types, which he proposed as too many for useful prediction (1977). Perhaps influenced by Jochim, Lewis R. Binford refuted Yellen with ethnographic evidence of Eskimo hunting that correlated artifacts and features to base camps, seasonal, and special activity areas (1978:330-361; 1980:4-20; 1982:5-31).

The result of this energetic debate in the late 1970s and early 1980s was to crystallize theoretical approaches to investigating spatial patterns of settlement within regional, as well as behavior correlated artifact patterns within individual sites.

Geographic Site Typology

Within San Diego County, regional studies of site types over large tracts of land have investigated a variety of correlated site types. Ronald V. May surveyed the Table Mountain area of the Peninsular Mountains, east of Point Loma, and quantified plant and geologic units with types of sites to test cognitive land use patterns among Late Prehistoric people (1980). Pat Welch re-examined the Table Mountain data to correlate data sets with base camps, lithic scatters, and quarry sites (1980). More recently, Brian K. Glenn and Richard L. Carrico have correlated sets of features and artifacts from coastal prehistoric sites, such as diverse densities of bone and shell in greasy middens, to base camps (1995). Bryan F. Byrd and Carol Serr have demonstrated specific artifact groups for resource procurement, processing, transport, and consumption found within inland sites between the Peninsular Mountains and Point Loma (1995).

Artifactual Data Sets and Site Types

Perhaps an even more stimulating research approach from the debates began with Robert Whallon's attempt to reconstruct tool kits within individual sites by functions (1973:16-34). James C. Bard and Colin I. Busby tested discrete living areas within sites by defining house floor features and testing within sites in the Hotchkiss Archaeological District in Contra Costa County (1978). John Craib empirically mapped flaked stone, ground stone, bone artifacts, beads, and pottery with SYMAP, a computer software program that diagrams high and low artifact concentrations on a flat field, and then used data to infer primary activity areas such as residence behaviors based on fire-altered rocks (FAR), religious, and ornamental objects (1982). Earlier, Ronald V. May, Stanley R. Berryman, and M. Jay Hatley correlated FAR ovens with residential camps near the coast of Del Mar (1976). The evidence mounted over time to suggest that intra-site artifact/feature functions within site structure defined inter-site behavioral function within a settlement system.

Recently, researchers using large scale testing at Mill Creek in the Prado Basin of Riverside County have attempted to detect kitchen and residential areas by the presence or absence of FAR rock ovens (Grenda 1995). Donn R. Grenda has used magnetometers to detect underground fire hearths in an attempt to examine "male" versus "female" activity areas.

A. Research Hypotheses

1. The archaeology sites on the Point Loma Peninsula exhibit artifact and feature correlations to landform, geological unit, and vegetation.
2. The artifact types and feature types at sites on the Point Loma Peninsula correlate to ethnographic or published hypothetical behaviors.

3. The individual sites contain definable data sets known to correlate to site types such as base camps, (also known as primary activity area) temporary camps, residential areas quarry sites, resource exploitation sites, and religious sites.
4. There is sufficient stratigraphic context in the sites to distinguish changes in intra site behavioral patterning.
5. The artifact types, quantities of artifacts, and features present in the sites are adequate to interpret variation in activity areas within individual sites.

B. Data Requirements

Testing of the archaeology sites on the Point Loma Peninsula should orient data recoveries to analyze spatial horizontal and vertical arrangements of artifact, ecofacts, and features against previously defined inter and intra-site patterns.

1. Inter-site Patterns. Analysis of the archaeological sites should examine the presence or absence of correlates to regional site types. Detection of inter-site functional types, the field survey, and test records should provide clues to prehistoric settlement systems on the Point Loma Peninsula.

Base camps and residential sites should be identifiable by multiple house floors or living surfaces, FAR rock hearth features, variations in marine shell features, variations in food bone distribution, variations in cooking and butchering of food bone and dark midden soil.

Seasonal camps, temporary camps, or small residential sites should be identified by single house floors or small living surfaces, one or two FAR rock hearths, shell and lithic reduction features, and midden soil with low frequencies of marine shell and food bone.

Single activity areas or special activity areas should be identified as one or two features of marine shell, flaked stone, milling features and/or FAR hearths in shallow deposits.

Assay, mine, or quarry areas should be identified as primary lithic reduction features with metavolcanic or quartzite cobbles assayed with less than ten cortex flakes removed. It would be anticipated that mine or quarry sites on the Point Loma Peninsula would exploit cobble beds in the reddish-orange Linda Vista Formation sandstone.

Sacred areas should be identified as stacks of rocks, rock alignments, or burial features exposed on eroded Linda Vista Formation sandstone. Stacks of rocks and rock alignments should conform to ethnographic descriptions of Kumeyaay Sun solstice geoglyphs.

2. Intra-site Patterns. Analysis of archaeological sites should examine presence or absence of feature correlates to behavioral patterning within individual site structure. Defined as functional areas, dispersed features within buried midden, strata, or alluvium-masked sites should be detected by shovel tests, hand-excavated units, and mechanical investigation.

Residential functions should manifest as house floors, FAR rock ovens, fire pits and ash lenses, artifact features, burials or religious features, clusters of ground bone or shell, clusters of flaked or ground stone, and clusters of marine shell or processed food bone in sufficient horizontal and vertical quantities to indicate multiple behaviors over time. Classic house pits have not been reported for the San Diego coastal sites, but post hole alignments and packed living surfaces coincident with high frequencies of flaked and FAR stone artifacts should reflect living areas.

Specialized functions should exhibit artifact or feature data sets that are known to correlate to

behaviors such as milling seeds, working wood or bone, cutting and shaping shell, cooking plant/shell/bone, mining, quarrying, assaying and limited stages of flaked stone working. Broken Tizon Brown Ware, Lower Colorado River Buff Ware, Salton Brown or Southwestern ceramic types should be anticipated in association with game trails and springs (Gross, Hildebrand and Schaefer 2000).

Religious functions should exhibit artifact or feature data sets that are known to correlate to behaviors such as shrine observance, funeral, devotions, shamanistic decoration, and destruction of the property of the deceased. Personal amulets, such as arrow points, should be anticipated at the perimeter of sleeping areas. Red and black painted ceramic vessels should be correlated with sacred activities, such as feeding hawks for eagle dancing ceremonies. Since shell ornaments are scarce, concentrations of spire-lopped side-wall olivella beads, soapstone beads, abalone pendants, carved stone pendants, ground graphite and hematite should correlate to personal adornment and possible sacred activity areas.

<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

cabr/shadows/chap2a.htm
Last Updated: 06-Apr-2005

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Shadows of the Past



CHAPTER TWO:

OVERVIEW OF THE POINT LOMA PENINSULA PREHISTORY (continued)

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CABRILLO

Shadows of the Past



CHAPTER THREE: OVERVIEW OF SPANISH AND MEXICAN HISTORY OF SAN DIEGO AND POINT LOMA (continued)

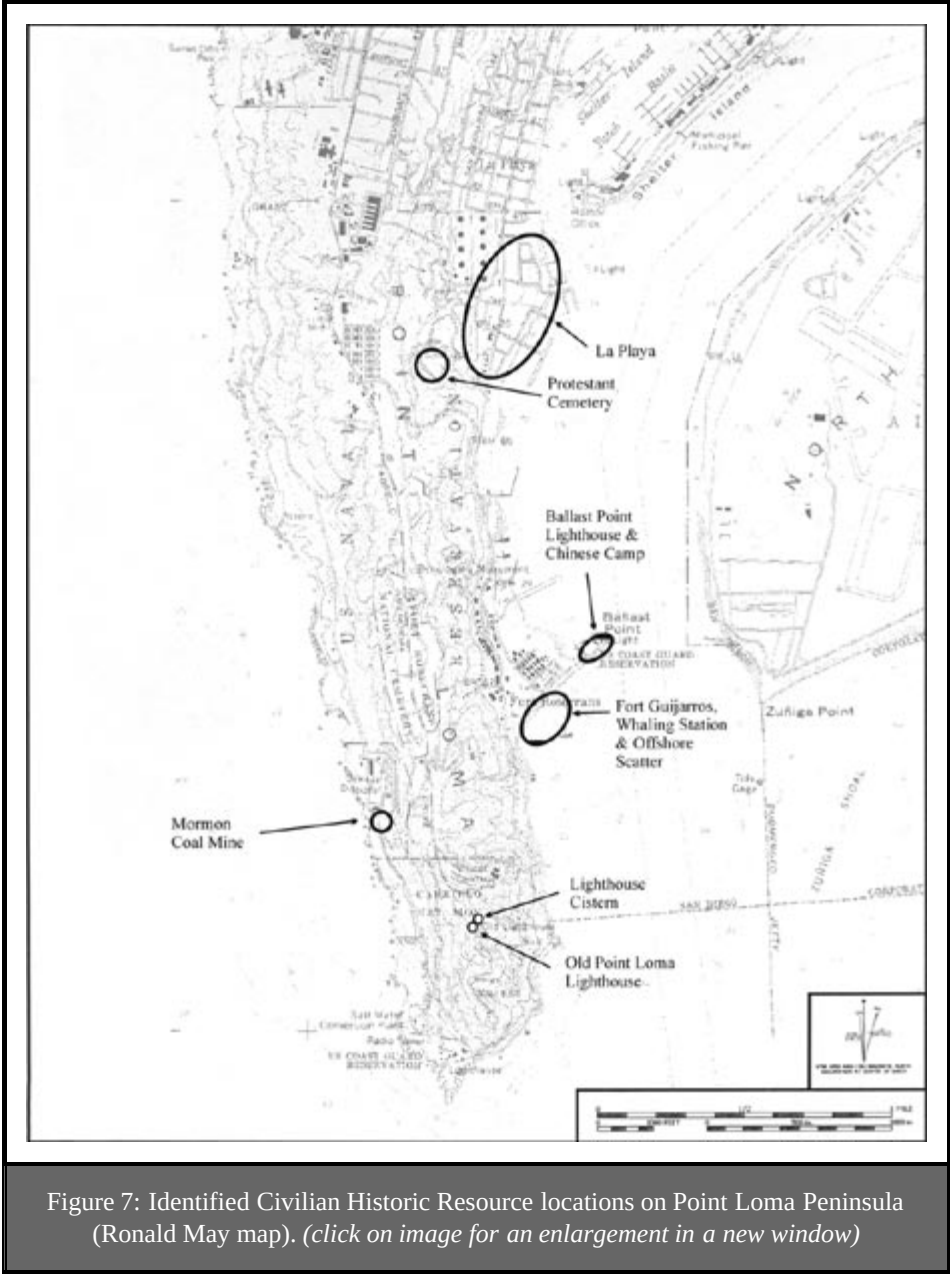




Figure 8: Jay Wegter watercolor painting "Fort Guijarros". Based on historical and archeological research, artist Wegter presents an aerial view of how Fort Guijarros may have appeared about 1803. The fortification walls were 35 feet thick, merlons 20 feet wide, and gun decks about 20 by 20 feet. Rising sea levels, shore erosion, and subsequent developments have removed much of the Spanish Colonial fort. Wegter has modelled the steep bluffs in the background from Point Loma landforms. Painting is property of Fort Guijarros Museum Foundation who holds a copyright for reproduction.



Figure 9: Jay Wegter watercolor painting Battle of San Diego Bay. Based on historical information regarding vessel type and configuration of Fort Guijarros revealed through archeological research, artist Wegter reconstructs the March 22, 1803 engagement between two-masted schooner *Lelia Byrd* and Spanish gunners in the Fort. A second engagement occurred in July 1828 between Mexican Army troops and an American merchant vessel, *Franklin*. Each vessel sustained damage but no casualties were reported. Painting is owned by the Fort Guijarros Museum Foundation

and is copyrighted.



Figure 10: Jay Wegter watercolor painting La Esplanada. The Mexican Republic period gun decks and protective *merlons* separating each emplacement is based on historical and archeological research but gun carriages, tools, munitions, and rifle positions are speculative. Painting is owned by Fort Guijarros Museum Foundation and is copyrighted.



Figure 11: Jay Wegter watercolor painting The Whaleboat. Based on historical research, Wegter shows a whaleboat crew at the critical moment in a whale hunt. The bow gunner uses a Greener's gun mounted on a deck swivel to fire a bomb lance with line into the diving whale. Painting is owned by Fort Guijarros Museum Foundation and is copyrighted.

<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

cabr/shadows/chap3a.htm
Last Updated: 06-Apr-2005

CABRILLO

Shadows of the Past



CHAPTER FOUR: OVERVIEW OF THE MULTI-ETHNIC BALLAST POINT COMMUNITY ON POINT LOMA BETWEEN 1846 AND 1900 (continued)

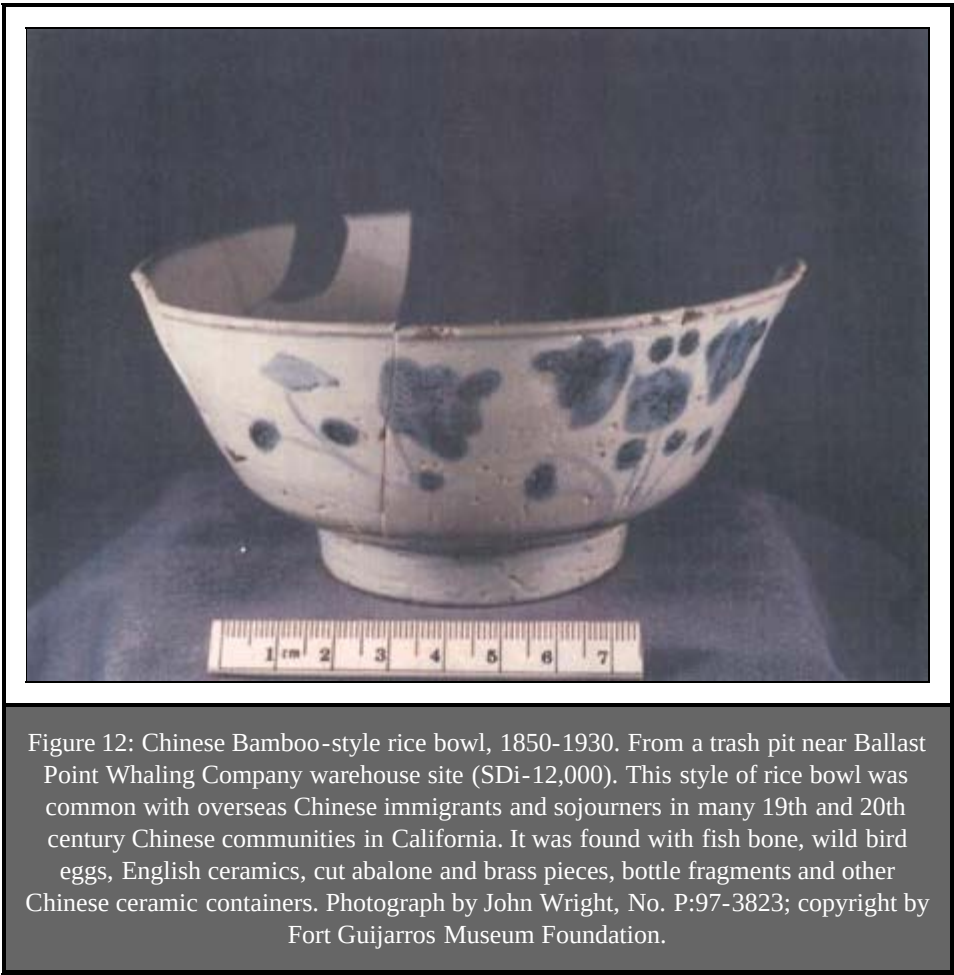


Figure 12: Chinese Bamboo-style rice bowl, 1850-1930. From a trash pit near Ballast Point Whaling Company warehouse site (SDi-12,000). This style of rice bowl was common with overseas Chinese immigrants and sojourners in many 19th and 20th century Chinese communities in California. It was found with fish bone, wild bird eggs, English ceramics, cut abalone and brass pieces, bottle fragments and other Chinese ceramic containers. Photograph by John Wright, No. P:97-3823; copyright by Fort Guijarros Museum Foundation.

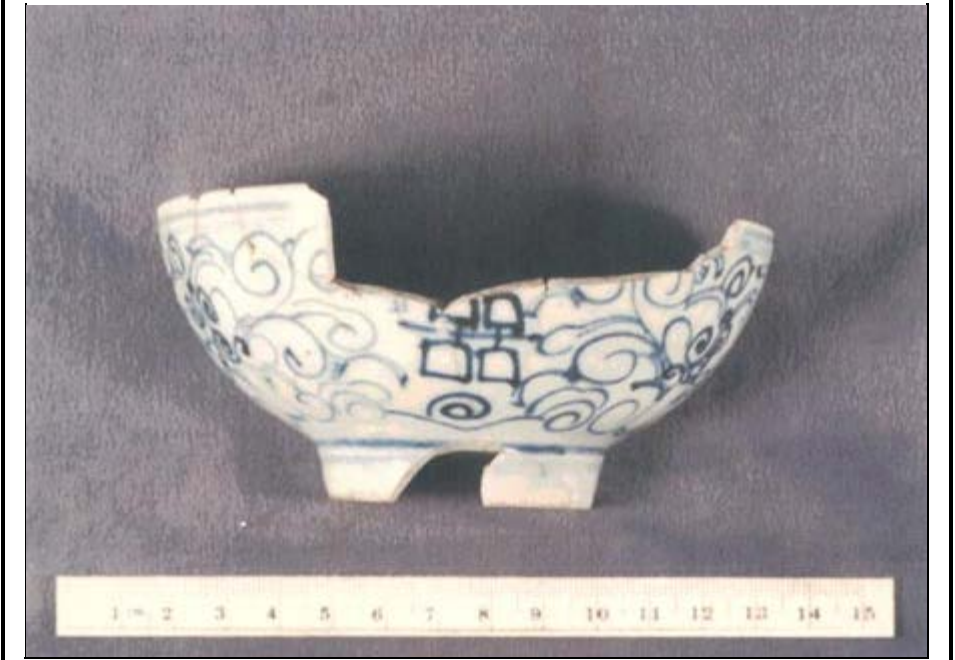


Figure 13: Chinese Double Happiness-style bowl, 1850-1870. Recovered in same trash pit as bowl in Figure 12. Photography by John Wright, No. P:96-3506; copyright by Fort Guijarros Museum Foundation.



Figure 14: Saw-cut Abalone shell from Chinese fishing campsite, SDi-12,953. Shell blanks were fashioned into jewelry, furniture inlay, and fishing lures. Although noted in historical literature, these specimens are the first recovered examples of Chinese cut-shell crafts on the Pacific Coast. Also associated with these rejected saw-cut pieces were clamshells, domesticated food animal bone, Asian and Chinese ceramics, and liquor bottle fragments. Photography by John Wright, No. P-98-5491. Copyright by Fort Guijarros Museum Foundation.



Figure 15: Detonated bomb lance harpoon recovered from trash pit near site SDi-12,593, the 1860-1870s Ballast Point Whaling Company warehouse. This artifact was associated with white table ceramics from England, glass mustard bottle fragments, wine and whiskey bottle pieces, and a few Chinese bowl pieces from 1850-1860s. Photography by John Wright, No. P:97-4101. Copyright by Fort Guijarros Museum Foundation.



Figure 16: Glazed, red clay smoking pipe George Washington, President style, 1850-1885. Recovered from site SDi-12,000, Ballast Point Whaling Station, which covered the previous ruins of Fort Guijarros. Photograph No. P:96-3383 by John Wright. Copyright by Fort Guijarros Museum Foundation.

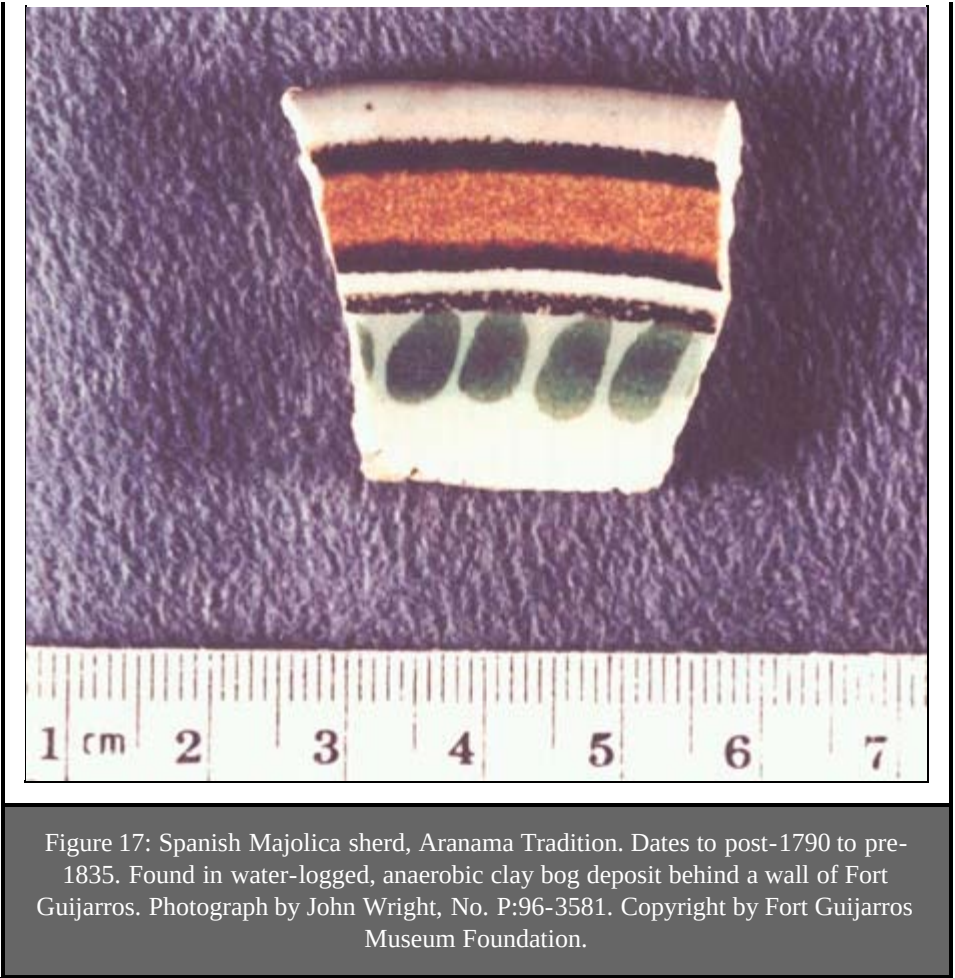


Figure 17: Spanish Majolica sherd, Aranama Tradition. Dates to post-1790 to pre-1835. Found in water-logged, anaerobic clay bog deposit behind a wall of Fort Guijarros. Photograph by John Wright, No. P:96-3581. Copyright by Fort Guijarros Museum Foundation.

[<<< Previous](#)

[<<< Contents >>>](#)

[Next >>>](#)

CABRILLO

Shadows of the Past



CHAPTER FIVE:

OVERVIEW OF HISTORICAL MILITARY ARCHITECTURE AT POINT LOMA (continued)

Proposed Expansion of the Fort Rosecrans Historic District

Fort Rosecrans developed as presidential administrations and Congress responded to political events in the world. President Grover Cleveland directed William C. Endicott, Secretary of War, to form a war board in 1885 to design a defense of America's rivers, harbors, and coasts (Triem 1995; Joyce 1996). The Endicott Board selected thirty sites for the Sea Coast Artillery, which included the Military Reservation on Point Loma and previous military structures (May 1985; 1995; 1996; 1998; 1999b). The Endicott Period fortifications included underground artillery and offshore torpedo mines. Soldiers were selected for 130 companies Sea Coast Artillery. The plan for San Diego called for four companies but only two were deployed. The Army Corps of Engineers began building Endicott Period artillery batteries in 1897 at the same location of a former Spanish fort and 1874 Army artillery battery (May 1985; 1996). Under General Order 134, the post was named Fort Rosecrans in honor of General William S. Rosecrans, a Civil War general and Member of Congress.

Endicott Period, 1885-1905.

Major Charles E.L.B. Davis, Army Corps of Engineers, designed the Endicott Period batteries and command centers on Ballast Point (May 1985; Joyce 1996). Major Davis supervised the civilian construction project between 1897 and 1902. Regular Army troops installed the first 10-inch rifle to be installed in Gunpit 1 and painted Davis' name on a wall in honor of his role in creating this battery. Major Davis completed his work and turned Batteries Wilkeson, McGrath, and Fetterman over to the Artillery Corps in 1902.

For the first three years, the Artillery Corps lived in white-painted wooden barracks constructed in 1873-1874 by the Army Corps of Engineers. Those temporary quarters were simply one-story rectangular wood buildings set on pier and post foundations. The barracks, mess hall and stables were situated on a hill above the batteries. As Fort Rosecrans increased in troops, tent communities served the overflow. In 1902, no electrical lighting or communication existed and the artillery batteries used signal flags and kerosene lanterns. The 115th Company of Sea Coast Artillery arrived on Ballast Point during the Spanish-American War. They camped in tents and in reconditioned 1860-1874 buildings (Ruhlen 1959, Gerould 1966). The Company manned only two Civil War 'Napoleon' cannons during the short war of 1898. The 115th Company manned Battery Wilkeson (May 1985). This Company installed gun carriages and 10-inch 'disappearing rifles' artillery for the Battery that had been officially transferred to Fort Rosecrans troops in 1902. The Company was quartered in Building 139.

In 1905, President Theodore Roosevelt directed Secretary of War William Taft to convene a board to bring the Nation's defenses into the electrical age (Lewis 1979: 89, 100; Joyce 1996). The unifying efforts of the Endicott and Taft Boards between 1885 and 1911 established America's efforts to expand the country's sphere of influence to far reaches of the

world. The resulting underground batteries and infrastructure constructed at Fort Rosecrans are witnesses to these important historic global contexts of America's development as a superpower.

Roosevelt and the Taft Board streamlined America with elaborate coal-fired steam electrical generating plants which powered communications, lighting, and mechanical systems. Among the many important achievements represented at Fort Rosecrans is the 1906 Naval Radio Station, which linked to a transcontinental network in 1917. To achieve this new age, the Taft Board directed the Secretary of the Navy to expand the Navy Coaling Yard to fuel the Pacific Coast fleet.

The following properties are recommended as eligible for inclusion on the National Register under Criteria A because they have the potential to contribute to our understanding of President Grover Cleveland's administration and the Endicott Board's role in the development of America's national defense policy:

Building 174: Army Battery Wilkeson, 1897-1898. Cast Concrete. H-27B. Naval Base Point Loma. Determined eligible by the SHPO and listed in the SUBASE HARP Plan for inclusion on the National Register. Portions lay on top of the 1796-1835 Spanish and Mexican Fort Guijarros artillery battery, barracks, kitchen, casemate and flagpole at CA SDI-12000. Vertical soil stratigraphy exposed in 1984 archaeology excavations showed European maritime whaling station residential deposits sandwiched between the lower Spanish and upper Battery Wilkeson. Testing of the top of a graded slope north of Battery Wilkeson in 1999 revealed an intact portion of prehistoric site CA-SDi-12,000. This property may also be eligible under Criteria B for its association with Major Charles E.L.B. Davis and Criteria C because Endicott Period batteries represent a significant and distinguishable entity whose components may lack individual distinction. It is the oldest standing military structure and the only Endicott Period 10-inch rifled gun battery in San Diego.

Building 256, Battery McGrath, 1899. Cast Concrete. H-27D. Naval Base Point Loma. Determined eligible by the SHPO for inclusion on the National Register and was included in the HARP Plan. Army Corps of Engineers Completion Reports from 1898 and 1899 reported Mexican Period adobe and concrete construction in the soil. The soils surrounding this battery contain portions of prehistoric site CA-SDi-48. This property may also be eligible under Criteria B for its association with Major Charles E.L.B. Davis, and Criteria C because Endicott Period batteries represent a significant and distinguishable entity whose components may lack individual distinction.

(gone) **Battery Fetterman, 1900.** Cast concrete. H-27C. Naval Base Point Loma. Recommended ineligible for inclusion on the National Register because it no longer exists above ground. This issue needs to be revisited because the foundations were observed during road construction in 1987 and the ruins may qualify under Criteria D for their potential to contribute to scientific research. Concrete street and asphalt paving cover European whaling evidence and Army portions of CA-SDi-12,000, as revealed in electrical and storm drain utility line excavation.

Searchlight #1, 1902. Cast Concrete. H-27E. Naval Base Point Loma. Recommended eligible for inclusion on the National Register of Historic Properties under Criteria A and the associated archaeological trash dump needs testing to determine eligibility under Criteria D. Soil surrounding the structure may contain historic archaeology features.

(gone) **Electrified Industrial Systems, 1904-1911.** Fire Control systems: expansion of the Mining Casemate, Torpedo Houses, Cable Tanks, Power House, Engineer's House. Construction of Jones Hall in 1990 destroyed most of these features, but a portion of the

1908 igloo vaulted access tunnel to the 1898 Mining Casemate remains buried. Portions of prehistoric site CA-SDi-12,000 survives.

Searchlight, Power House, and Radar, 1909. Cast concrete and brick. Space and Naval Warfare property. Recommended eligible for inclusion on the National Register. (See H 18 in the proposed expansion of the Fort Rosecrans Historic District). Soil surrounding the structure contains historic archaeology.

Electrical Connection Box, 09HS-4, 1909. Cast concrete with an aluminum box marked, "1909 Engineers Department, U.S. Army, Colin Electrical Company, New York." The Army modified this structure, as marked "U.S. Army 1941, U.S.A." This is located on the east side of Point Loma within Cabrillo National Monument.

Post Taft Board Period, 1912-1914

Following the Roosevelt Administration, the Progressive Party became the driving political force of the times. Civic leaders promoted nationalism through public projects, such as Cabrillo National Monument, the 1915 World Exposition in Balboa Park and designation of Cabrillo National Monument within Fort Rosecrans (May 1999a).

Building 170, Militia Building, 1911. Brick. Building 170, Naval Base Point Loma. This civilian structure needs an eligibility determination as sole representative structure from the Post Taft Board Peace Time. Steel hardware from windows, doors, and the roof structure litter the soil on the south and east sides. Asphalt covers portions of prehistoric site CA-SDi-48.

War in Europe and American Response

The outbreak of war in Europe in 1914 stimulated Congress to fund the Department of War for improvements to the Sea Coast Defense of America (Joyce 1996). The War Department ordered two mortar batteries, fire control stations, and searchlights to be built on Point Loma between 1915-1916 (Ruhlen 1959:64). The mortars were capable of firing over the spine of Point Loma to hit offshore naval shipping.

The following properties are recommended eligible for inclusion on the National Register under Criteria A because they contribute to our understanding of the processes of America's response to the war in Europe in the period following 1914 and Congressional declaration of war:

Building 100, Battery John White 1916. Cast concrete. Naval Base Point Loma. Recommended eligible for inclusion on the National Register under Criteria A. Soil and gullies surrounding Battery White contain deposits of historic archaeology associated with the structure. The original searchlights at the south battery were restored by the Navy in 1999. Battery White may also qualify under Criteria C because Endicott Period batteries embody the distinctive characteristics of a type, period, or method of construction that represent a significant and distinguishable entity whose components may lack individual distinction.

Battery Whistler, 1916. Cast concrete. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A and in the process of HABS/HAER documentation.

Battery Command Station for Batteries White and Whistler, 1916; Base End Station for Battery Ashburn, 1943. Cast concrete. H-10, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Base End Station for Batteries White and Whistler, 1916; Battery Command Station for Batteries Zeilen and Woodward, 1943. Cast concrete. H-10, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Fire Commander's Station, 1916; Battalion and Harbor Stand-by Command Post, 1941. Cast concrete. H-8, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Fire Commander's Station, 1916; Battalion and Harbor Stand-by Command Post, 1942. H-10, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Fire Commander's Station, 1916; Base End Station for Battery Strong, 1941. H-21A, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Base End Station and Battery Command Station for Batteries White and Whistler, 1916. H-22, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Searchlight #1, 1916; Searchlight #11, 1941. H-5. Cast concrete, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Searchlight #4, 1916. Wood frame, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Power House for Searchlights 1 and 2, 1916/ Radar Unit S.C.R., 1942. Cast concrete. H-18. Building 15C, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register of Historic Properties under Criterion A.

Fire Commander's Station (Batteries White and Whistler) 1916. Cast concrete with steel shielding. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Fort Commander's Station (Batteries Wilkeson, Fetterman, McGrath, White and Whistler), 1916. Cast concrete. Located at Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Base End and Battery Command Station, 1916-1924. Cast concrete. H-22. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Signal Station, 1916. Cast concrete. H-23. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A.

Plank Walkway, 1916. Wood frame. H-30. Naval Supply Center. This structure needs to be evaluated for contributing value to the Fort Rosecrans Historic District. A careful examination of the dense brush surrounding the feature has not been conducted to determine if historic archaeology exists.

War in Europe, World War I and the Great Influenza Epidemic, 1917-1919

American entry into the war in Europe triggered one of the Nation's largest military buildups in history (Joyce 1996). Emergency War Act funds in 1917 fueled massive construction projects at Fort Rosecrans to house 21,000 soldiers, officers, and support personnel (May

1999a). Entire neighborhoods of barracks were constructed in the first 90 days, as Fort Rosecrans expanded far beyond the Colonial Revival buildings along Sylvester Street. Lumber stripped from older military bases was reused in these structures. All areas of the Military Reservation were used during World War I.

The following properties are recommended as eligible for inclusion under Criteria A because they are associated with America's role in World War I and response to the Great Influenza Epidemic during the period between 1917 and 1919:

(gone) **Temporary Cantonments; Ballast Point, Middle, and Upper, 1918.** (demolished by 1934). The 1974 Navy enlisted barracks, Rosecrans Street, and White Road have impacted portions of prehistoric site CA-SDi-48 and historic archaeology associated with this cantonment.

Building 138, YMCA Service Club, 1919. Wood frame, Craftsman Bungalow Style, Naval Base Point Loma. Determined by the SHPO to be a contributing element to the Fort Rosecrans Historic District. Lawns and the back alley cover portions of prehistoric site CA-SDi-48 and historic archaeology.

(gone) **Hospital Steward's Quarters, 1904 and 1917.** Brush covered gullies and the northern fill slope contains historic archaeology deposits, architectural remains, and cobblestone drains associated with this structure. These have not been examined or evaluated for National Register value.

(gone) **Hospital Storehouses, 1918.** Cuts in uphill terrain on the west show broken purple glass, white ware ceramics and the potential for buried historic archaeology in the surrounding soils. The alley on the east contains portions of prehistoric site CA-SDi-48.

Knights of Columbus Building, 1918. Building 215, Naval Base Point Loma. (Buildings 122 and 71 on older maps). Determined by the SHPO not to be a contributing element to the Fort Rosecrans Historic District, this structure was totally rebuilt in 1998. The lawns contain portions of CA-SDi-48, as evidenced by rock-packed fire hearths and portable metate fragments exposed in sprinkler trenches in 1999.

(gone) **Building 110, Club Chef's Quarters, ca. 1920.** Naval Base Point Loma. Asphalt covers portions of prehistoric site CA-SDi-48 and historic archaeology.

Radio Station, 03HS-2, 1917. Concrete. This radio station once included two towers, which are now gone. During World War II, radio operations expanded and relocated to the Harbor Defense Command Post and this building became a meteorological station for the Army Coast Artillery. This is in the Cabrillo National Monument Historic District and now houses public exhibits regarding the coastal defense systems.

Searchlight Shelter, 09HS-5; Generator Plant, 09HS-6; and Searchlight Shelter, 09HS-7, 1918-1919. Cast concrete. This partially dug-in structure contained a 60-inch searchlight mounted on narrow gage rails and covered with a wooden door. Originally named "No. 5," it was renumbered "No. 11" and then "No. 18" in 1942. This is within the Cabrillo National Monument Historic District. This includes the generator plant (09HS-6) and the shelter (09HS-7).

Fire Control Stations 09HS-8, 9, and 10, 1918-1920. Cast concrete. Three partially underground bunkers with steel shutter-covered windows served as observation posts to triangulate artillery plotting. The surface of these structures originally had sandbagged bunkers, wire netting, natural rock and earth heaped on top to camouflage these features from enemy naval observation. This is within the Cabrillo National Monument Historic District.

These serviced Batteries Calef-Wilkeson and are in preserved condition. Window glass fragments and shaped wooden pieces from WWII use are visible on slopes near these structures.

Meyler Road, 1918-1919. Graded dirt road connecting Searchlights 5 and 6, power plant and Billy Goat Point. Renamed "Bayside Trail" by the Park Service, it now serves as a walking trail. The Army honored the memory of Army Lt. James J. Meyler, Base Engineer, Fort Rosecrans, who served as the first Base Engineer after Major Charles E.L.B. Davis turned command of Fort Rosecrans to the regular army. Lt. Meyler died on duty at Fort Rosecrans. An abandoned portion of this road parallels the modern roadway at a lower elevation contour.

Interwar Period, 1922-1935

America believed the political myth that World War I was "the war to end all wars" in the period following Armistice (Joyce 1996). The political sentiment towards internal recovery and rebuilding America's economy led to a period of isolationism. The public entrusted the League of Nations to reconstruct Europe. Citizens returned to their farms and factories. The Washington Naval Treaty of 1922 resulted in mothballing thousands of naval ships and closure of military bases across the Nation. Fort Rosecrans closed to caretaker status in 1924, when the 115th and 28th Companies of Coast Artillery shipped out to Puget Sound, Washington (Ruhlen 1959; Flower, Ike and Roth 1982; May 199a).

Civilian caretakers maintained Fort Rosecrans with locked buildings and minor repair work in the years following 1924 (Gerould 1966). National Guard units used the fort for training. This included 6th Infantry HQ Brigade who occupied the 1904 Administration Building in 1928. One year later, the 11th Cavalry moved from Camp Hearn in Imperial Beach to join them (May 1999a). These units created the anti-aircraft Batteries Gillespie and Point Loma in 1930. They trucked in 155 mm. Howitzer rifles to remote posts on the western cliffs that no longer exist near the 1891 Lighthouse.

The cost of maintaining American military posts became an isolationist issue. Congressional hearings of base and post closure met with stiff resistance from veterans and political scientists concerned about new movements in Europe. Congressman Phil Swing of San Diego went on record opposing closure of Fort Rosecrans (Union 5/25/1931). The 1933 German invasion of Poland heralded the end of isolationism and Congress began to reassess American defense capability. There are no Army properties from this historic context (See Navy Supply Center and Fuel Depot for representation).

War in Europe and The War Preparedness Act of 1935

The Nazi Blitzkrieg across Europe caused world powers to reconsider their safety (Joyce 1996). In the contest of wills between isolationists, nationalists, and war veterans, Congress voted to rebuild American military defense capability under the rubric of recovery from the Great Depression. In 1935 Congress directed the Army Corps of Engineers to dredge San Diego Harbor to handle larger ships (May 1999a). That same year, six Japanese spies were caught with notebooks, maps, and photographs of military installations, which further fueled public insistence for a stronger military presence (*San Diego Daily News*, 3/7/35). National Guard troops restored the artillery at Batteries Wilkeson, Fetterman, McGrath, White, and Whistler. Test firings of these artillery positions for the House Appropriations Committee in 1936 resulted in recommendations for funding to modernize Fort Rosecrans (*San Diego Union*, 7/23/36).

The following year, the Department of War implemented new artillery systems throughout the nation. Fort Rosecrans played a major role in this historic decision to rearm America.

The following properties are recommended for inclusion on the National Register because they are associated with America's recovery from the Great Depression and make a contribution toward our understanding of revitalization for military infrastructure in President Franklin D. Roosevelt's administration.

Battery Gillespie, 1930-1936. Cast concrete. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A and may qualify under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeological resources covered by the Navy for safety purposes.

Battery Gillespie Base End Station, 1936. Temporary wood frame. H-4, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeological resources covered by the Navy for safety purposes.

Battery Strong, 1937. Building 397, Space and Naval Warfare facility. Cast concrete. Recommended eligible for inclusion on the National Register under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeological resources covered by the Navy for safety purposes. South of Battery Strong, portions of sandbagged trenches and two cast concrete bunker entrances indicate the surrounding area is honeycombed with historic features.

Battery Strong Base End Station, 1937. Cast concrete. H-9, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeological resources covered by the Navy for safety purposes.

When news reached the United States that France had fallen to the German invasion and British soldiers were streaming out of France on an immense armada of civilian and military transports, the western powers abandoned all pretense of isolationism. Congress accelerated military spending to prepare to fight the anticipated European invasion, as Canadian troops to the north shipped out to support the British military (May 1999a).

By the fall of 1940, there were 21,000 soldiers at Fort Rosecrans (*San Diego Union*, 10/17/40). To accommodate this massive build up, new cantonments were built at Ballast Point and at the old Upper Cantonment between the Post Cemetery and Radio Point Loma (May 1999a).

World War II, 1941-1945.

Fort Rosecrans expanded dramatically during World War II from the Endicott and Taft Period Army Post concentrated on the eastern side of Point Loma (Flower, Ike and Roth 1982). All of the 1852 Military Reservation on Point Loma became the staging area for advanced anti-naval coastal artillery and anti-aircraft batteries (Joyce 1996). Complex electrical and communications systems linked sighting base end stations and communications command centers with artillery batteries. Fort Rosecrans continued to service and staff the older obsolete Endicott and Taft Period batteries until replacements became available in 1942 and 1943. By that point in time, the Army soldiers changed uniforms, personal weapons, and living accommodations to form the new Coast Artillery Corps (May 1999a). In truth, Fort Rosecrans linked with extended units beyond Point Loma as east as Otay Mountain, North Island, and Camp Callan to the north. Within the World War II defense scheme, distinct communities were isolated and functionally insular from one another.

Since the original 28th and 115th Companies of Coast Artillery departed Fort Rosecrans in 1924 to Puget Sound, Washington, new Army units formed between 1935 and 1942 (May 1999a). The 262nd and 281 Coast Artillery Battalions formed the Fort Rosecrans units that met World War II emergencies. These soldiers of the 1930s and 1940s were entirely different than the earlier troops, as indicated by their uniforms and reason for being there. The soldiers of World War II Fort Rosecrans were largely drafted from the Mid West and East Coast to fight the war in the Pacific Theater or Europe. These were not professional soldiers, but people motivated to achieve an immediate objective.

Dredging operations to deepen San Diego Bay in 1940 provided the Army Corps of Engineers with material to fill in half the inlet north of Ballast Point to form a new building pad (Turhollow 1975). The fill allowed the Quartermaster Corps to extend Rosecrans Street south of the Naval Fuel Depot to terminate at new warehouses at Ballast Point. The 1940 building pad supported a cantonment of barracks, mess halls, and support facilities built in 1942.

Congress authorized the Department of War to rebuild America's defenses in 1935 (Turhollow 1975; Floyd 1985). The Army Quartermaster Corps worked with civilian contractors and the Works Progress Administration to carry out this Congressional mission (May 1999a).

Emergency Defense Batteries, 1941-1945. Immediately following the Japanese attack on Pearl Harbor on December 7, 1941, emergency defense batteries were installed along the Pacific Coast to ward off aircraft attack. Examples of those batteries exist on Point Loma (Flower, Ike and Roth 1982). With one exception, careful archaeological examination of these features has not been conducted, but .30-06 shell casings and historic glass indicates that soils contain historic archaeology features.

The following properties are recommended as eligible for inclusion on the National Register because they represent America's immediate emergency response to the bombing of Pearl Harbor in the days following that pivotal event in American history:

WW II 30 Caliber Machine Gun Emplacements, 1941. H-3, Space and Naval Warfare facility. CA-SDi-13749H and CA-SDi-13750H. Recommended eligible for inclusion on the National Register under Criteria A because of their role in the defense of Fort Rosecrans from potential aerial assault. The soil at this site contains underground sandbagged trenches and wooden bunkers and other historic archaeology that have been covered by the Navy for safety purposes.

Three underground wooden framed 30-caliber machine gun emplacements were installed on the upper western slope of Point Loma at the northern end of Space and Naval Warfare facility. Two are spaced 100-feet apart and the other is located 300-feet west. These emplacements are wooden rooms with wood floors with stairs that lead to a 2-bunk sleeping quarters. Earth covers the roofs and one has completely collapsed.

Battery Strong Latrine, 1941. Wood frame. Building 401, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy.

Battery Strong Plotting Room and Power House, 1942. Building 549, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A. The soil at this site contains underground sandbagged trenches, wooden bunkers and other historic archaeology covered by the Navy.

Underground Bunker, 1941-1945. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of America's early response to defending the Pacific Coast. A canyon uphill may contain historic archaeological resources.

Ground Attack Defenses, 1941-1945. Wood post and chain link boundary fence and barbed wire. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of America's early response to defending the Pacific Coast in World War II.

Searchlight Shelter, 05HS-15, and Generator Station 05HS-16, 1942. Cast concrete. This underground structure has a sliding sheet steel door that has been sealed and the Generator Station has an inclined walkway that has been filled-in with dirt. It is similar to 09HS-7. It is within the Cabrillo National Monument Historic District.

Battery Bluff, 09HS-11, 1942. Cast concrete. Two emplacements of 37-mm artillery were mounted at the entrance of San Diego Harbor to protect against motor torpedo boats. This is located within the Cabrillo National Monument Historic District. Oral history exists regarding construction and operation of this battery. Historical archeological resources include gun emplacements, a dug-out feature, a few surface artifacts and an isolated but deteriorating wooden plank reserve munitions storage box.

Battery Point Loma, 05HS-14, 1939-1941. Cast concrete and steel rail. Four 155-mm. artillery guns were hauled by tractor to be installed in mounts that are 90 feet apart. Three are covered with dirt, but one is exposed. Each mount has a steel circular rail that has a 38.5-foot diameter. Sandbagged communications trenches link the rear of the emplacements. Three partially underground igloo bunkers contain the remains of wood and wire bunk beds. One was dynamited and some of the trenches bulldozed in 1966, as observed by Ronald V. May. These are located with the Cabrillo National Monument Historic District. One gun ring has been documented through archeological excavations and oral history exists regarding the operation of this battery (Jones and Overton 1984). It is recorded as archeological site CA-SDi-11,936H and meets Criteria D as well as others.

Magazine, 05HS-17, 1942-1943. Cast concrete. This igloo-style magazine is identical to the 1942 Hospital Morgue Annex, uphill and west of the 1940 Hospital Annex along Sylvester Road. Interior wooden shelves are bolted to the floor. It is located within the Cabrillo National Monument Historic District.

The following properties are recommended as eligible for inclusion on the National Register because they are associated with America's role in World War II and can contribute to our understanding of this important period of history:

Buildings 210-212, Nurses Quarters, Lower Cantonment, 1942. Wood frame. Naval Base Point Loma. Recommended for inclusion on the National Register of Historic Properties under Criteria A, because they contribute to our understanding of the World War II Post Hospital in the Fort Rosecrans Historic District. These buildings were built on 1940 water-landfills and do not likely to cover historic archaeology.

Battery Cabrillo, 1942. Located in two places within the Space and Naval Warfare facility near Battery Strong and at a lower elevation. Each emplacement was armed with 90mm anti-motor torpedo boat (AMTB) fixed and mobile guns. Recommended for inclusion on the National Register of Historic Places under Criteria A because they reflect emergency coastal defense measures.

Battery Command Station for Battery Cabrillo, 1941-1945. Cast concrete. H-21B. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of the sighting infrastructure necessary for gunnery calibration systems.

Base End Station for Battery Cabrillo, 1942. Cast concrete. Space and Naval Warfare facility. Recommended for inclusion on the National Register of Historic Properties under Criteria A because it contributes to our understanding of the sighting infrastructure necessary for gunnery calibration systems.

Battery Cliff (1916 Searchlight #4) 1942. Cast concrete. Space and Naval Warfare facility. Recommended for inclusion on the National Register of Historic Properties under Criteria A because it contributes to our understanding of nighttime sighting infrastructure necessary for defensive action.

(gone) **Battery Fetterman and Fire Control Structures, 1943.** Cast concrete. H-28B. Ineligible for inclusion on the National Register. The asphalt parking lot south and north of Coast Guard Search and Rescue Station cover portions of the Euro-American and Chinese fishing camp at the 1858-1886 Ballast Point Whaling Station at CA-SDi-12,593. Trenches in this asphalt revealed cast iron stove parts, cut and burned whale bones, Asian ceramics, butchered domestic livestock bones, 19th century bottle glass, and artifacts associated with the 1890-1957 Lighthouse. Although the California SHPO determined no National Register value to the historic lighthouse in 1988, no evaluation of the historic archaeology has been reviewed by SHPO staff. Archaeology investigations in 1988, 1989, 1991 and 1992 exposed historic archaeology trash deposits, architectural foundations and thousands of artifacts that are still under analysis by the Fort Guijarros Museum Foundation.

Building F-12, Battery Woodward, 1943. Cast concrete. H-11. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register or Historic Properties under Criteria A because it represents a pivotal development in seacoast defense strategy and the turning point in World War II defense technology. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Building F-3, Administration Office, 1942. Wood frame. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register of Historic Properties under Criteria A because it represents an example of support infrastructure for the Coast Artillery.

Building F-1, Administration Office, 1944. Wood frame. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register of Historic Properties under Criteria A because it represents an example of support infrastructure for the Coast Artillery.

Buildings F-1, F-6 and F-9, Administration Offices, 1942. Wood frame. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register of Historic Properties under Criteria A because it represents an example of support infrastructure for the Coast Artillery.

Harbor Defense Command Post, 1941. Cast concrete. Located at Space and Naval Warfare facility. Recommended as eligible for inclusion on the National Register under Criteria A because it represents the command infrastructure necessary to coordinate targeting and operation of the Coast Artillery during World War II. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Battery Grant, Wood and sandbags. Space and Naval Warfare facility. Battery Grant had

two 6-inch guns installed in 1943. Recommended as eligible for inclusion on the National Register under Criteria A because it represents a pivotal development in seacoast defense strategy and the turning point in World War II. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Building 560, Battery Ashburn, 1943. Cast concrete. Space and Naval Warfare facility. Determined eligible for inclusion on the National Register under Criteria A because it represents a pivotal development in seacoast defense of the Pacific Coast and the height of artillery technology in World War II. It may qualify under Criteria C because it embodies distinctive characteristics of World War II artillery construction that represent a significant and distinguishable entity whose components may lack individual distinction. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Battery Ashburn Plotting Room, 1942. Cast concrete. H-24. Space and Naval Warfare facility. Determined eligible for inclusion on the National Register under Criteria A because it represents a pivotal development in seacoast defense in World War II. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Building T-17, Battalion I Command Post World War II, 1941. Cast concrete. H-23. Space and Naval Warfare facility. Recommended for inclusion on the National Register of Historic Properties under Criteria A because it represents infrastructure necessary to coordinate targeting and operation of seacoast artillery in World War II. The soil at this site contains underground sandbagged trenches, wooden bunkers, kitchens and barracks and other historic archaeology that have been covered by the Navy for safety purposes.

Building 557, Harbor Defense Command Post, 1941. Cast concrete. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it represents infrastructure necessary to coordinate targeting and operation of seacoast artillery in World War II. This site contains underground historic archaeological resources covered by the Navy for safety purposes.

Building 547, Battery Humphrey, 1942. Cast concrete. Space and Naval Warfare facility. Determined eligible for inclusion on the National Register under Criteria A because it represents a pivotal development in seacoast defense strategy and the height of artillery technology in World War II. It also may qualify under Criteria C because it embodies distinctive characteristics of World War II artillery construction that represents a significant and distinguishable entity whose components lack individual distinction. No evaluation of the potential historic archaeology has been undertaken and no report exists addressing this issue.

Building 15, Administrative Office, 1945. Wood frame. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register of Historic Properties under Criteria A because it represents the support infrastructure for Sea Coast Defense in World War II.

Searchlight #15, 1942. Cast concrete and steel. H-15, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of artillery sighting infrastructure during World War II. This site may contain underground historic archaeological resources.

Water Tank Foundation, 1941-1945. Cast concrete. H-17, Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of support infrastructure during World War II.

The soil at this site may contain historic archaeological resources.

Conduit Box, 1941-1945. Cast concrete. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of electrical infrastructure during World War II.

Battery Zeilin, 1942. Space and Naval Warfare facility. Recommended eligible for inclusion on the National Register under Criteria A because it contributes to our understanding of the artillery defense of the Pacific Coast early in World War II. The soil at this site contains underground historic archaeological resources.

Building 213, Chapel, 1942. Wood frame. Naval Base Point Loma. Recommended for inclusion on the National Register of Historic Properties under Criteria A because it contributes to our understanding of the morale and welfare of American soldiers during World War II. Portions of this structure were built on 1940 water and landfills, but the western portion may cover portions of prehistoric site CA-SDi-48.

Building 112, Ordinance Repair Building, 1943. Wood frame. Naval Base Point Loma. Recommended for inclusion on the National Register of Historic Properties under Criteria A because it represents a pivotal development in sea coast defense strategies at the turning point in World War II, and it represents the height of artillery technology at that time. It also qualifies under Criteria C because it represents a significant and distinguishable entity whose components may lack individual distinction. Portions of the asphalt surrounding the structure includes the Army coal shed foundations and some of prehistoric site CA-SDi-48.

[<<< Previous](#) [<<< Contents >>>](#) [Next >>>](#)

Map Number	NRad Number	Van Wormer Number	Cabrillo Number	Description
1	A-02	H-33	—	Naval Radio Station
2	E-15	—	—	Ground Attack Defenses
3	E-15	—	—	Ground Attack Defenses
4	—	H-01	—	Ground Attack Defenses
5	E-15	—	—	Ground Attack Defenses
6	D-02	—	—	Utility Structure
7	E-01	—	—	Ground Attack Defenses
8	D-01	H-02	—	Battery Gillespie
9	D-02	—	—	Utility Structure
10	D-03	H-04	—	Temporary (wooden) Base End Station for Battery Gillespie
11	B-01	H-05	—	Searchlight
12	B-02	—	—	Searchlight
13	E-03	—	—	Ground Attack Defenses
14	B-03	H-06	—	Searchlight and Powerhouse
15	E-16	—	—	Fire Control Structure
16	—	B-03	—	.30-caliber machine gun emplacement
17	E-04	—	—	Battery
18	B-07/E-17/E-18	H-08	—	Fire Commander's Station in WWI; Battery and Harbor Command Post in WWII
19	D-06	H-09	—	Combined Battery 1 Command and Base End Station
20	B-06	H-07	—	Battery Whistler
21	E-06	H-11	—	Battery Woodward
22	E-05	—	—	Battery Support
23	B-04/B-05	H-10	—	Base End Station and Battery Command Station
24	D-07	H-12	—	Battery Strong
25	D-08	—	—	Fire Control Structure
26	D-09	—	—	Fire Control Structure
27	E-19	—	—	Site Feature
28	H-07	—	—	Site Feature
29	E-08	—	—	Site Feature
30	E-08	—	—	Site Feature
31	E-07	—	—	Site Feature
32	E-07	—	—	Site Feature
33	E-20	—	—	Ground Attack Defenses
34	D-10	H-13	—	Harbor Defense Command Post
35	E-22	—	—	Ground Attack Defenses
36	D-04	—	—	Searchlight
37	D-05	—	—	Searchlight
38	H-09	—	—	Site Feature

39	—	H-17	—	Unidentified foundation, possible water tank location
40	E-23	H-24	—	Plotting Room, Battery Ashburn
41	H-24	H-14	—	Battery Ashburn
42	—	—	15	Searchlight Shelter
43	—	—	16	Generator Station
44	—	H-15	—	Searchlight
45	—	—	12	Fire Control Structure
46	—	—	13	Fire Control Structure
47	E-25	H-23	—	Signal Station
48	E-26	—	—	Ground Attack Defenses
49	E-11	—	—	Utility Structure
50	—	—	17	Magazine
51	H-12	—	—	Battery
52	H-13	—	—	Searchlight
53	—	—	14	Battery Point Loma
54	—	E-16	—	Point Loma Light House
55	H-14	—	—	Fire Control Structure
56	A01	H-18	—	Searchlight, Powerhouse, Radar
57	E-28	—	—	Battery
58	B-11	H-19	—	Searchlight; Battery Cliff
59	B-09	H-22	—	Base End Station and Battery Commander's Stations
60	E-27	H-20	—	Battery Humphrey-Ground Attack Defenses
61	B-10/D-11	H-21	—	Fort Battery Commander's and Base End Station
62	—	—	04	Electrical Connection Box
63	—	—	05	Searchlight Plant
64	—	—	06	Generator Plant
65	—	—	11	Battery Bluff
66	—	—	07	Searchlight Shelter
67	—	—	03	Fire Control Structure
68	—	—	02	Radio Transmission Station
69	—	—	10	Generator Plant
70	—	—	08	Fire Control Structure
71	—	—	09	Fire Control Structure
72	—	H-27E	—	Searchlight, Historic Dump
73	—	E-26	—	Radio Transmission Station
74	—	H-27D	—	Battery McGrath
75	—	H-25	—	Battery John White
76	—	H-27B	—	Batteries Gillespie & Wilkeson
77	—	H-27C	—	Battery Fetterman
78	—	H-27F	—	Mining Casemate
79	—	H-28B	—	AMTB Battery Fetterman and Fire Control Structure

80	—	H-29	—	Fort Rosecrans Historic District
81	H-21	—	—	Fire Control Structure
82	—	H-30	—	Plank Walkway
83	—	—	—	Fort Rosecrans Historic District non-contiguous structure
84	—	—	—	Horse Burial
85	—	—	—	Fort Rosecrans Historic District non-contiguous structure
86	—	—	—	Fort Rosecrans Historic District non-contiguous structure
87	—	H-32	—	La Playa-Quarantine Station-Navy Supply Center
88	—	H-31	—	Ground Attack Defenses, Barbed Wire
89	A-03	—	—	Target Repair Base

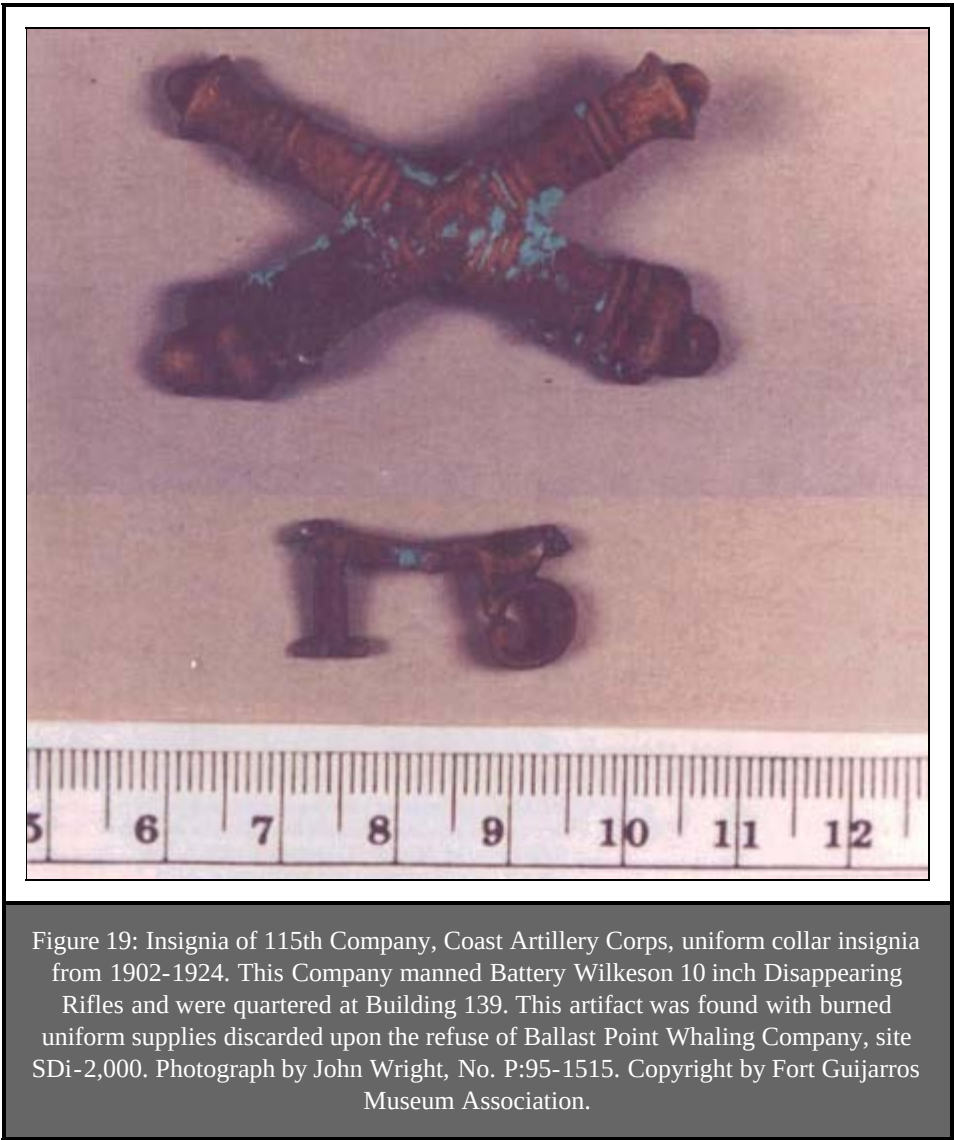


Figure 19: Insignia of 115th Company, Coast Artillery Corps, uniform collar insignia from 1902-1924. This Company manned Battery Wilkeson 10 inch Disappearing Rifles and were quartered at Building 139. This artifact was found with burned uniform supplies discarded upon the refuse of Ballast Point Whaling Company, site SDi-2,000. Photograph by John Wright, No. P:95-1515. Copyright by Fort Guijarros Museum Association.

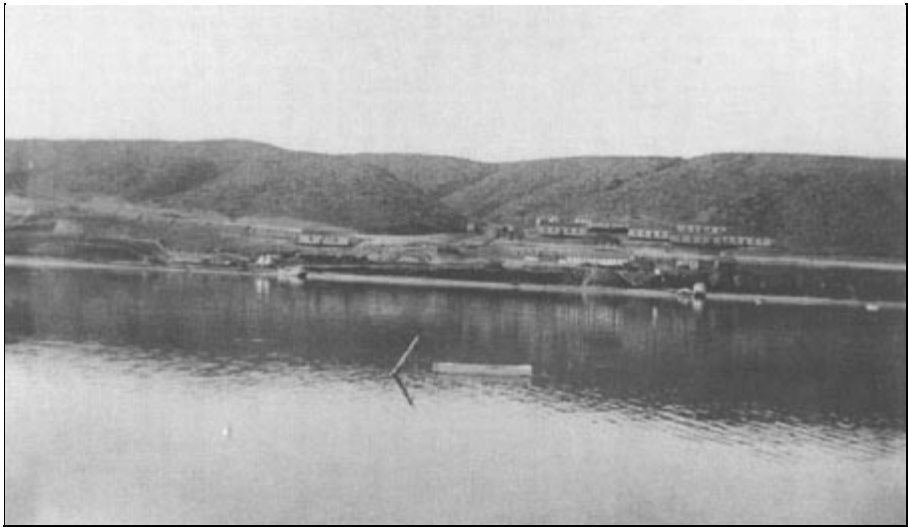


Figure 20: 1890 Photograph of Fort San Diego, constructed between 1873-1974. The white buildings housed work crews who improved the roadway sloping upward and the unfinished artillery battery to the left of the photograph. Photograph taken by Lighthouse Service and is not accessioned. Image is property of Fort Guijarros Museum Foundation.



Figure 21: Ca. 1923 Aerial photograph of 1890 Ballast Point Lighthouse (on top of Keepers' House), with Assistant Keepers' House, Fog Bell, warehouses of Ballast Point Whaling Company (barn-like structure and removed warehouse foundations). The open space immediately beyond the existing structures was occupied by 1860-1870s whaler's oil-rendering tryworks, recorded as archeological site SDi-12,953. At the top of this early photograph are four dark barracks at the waters' edge, constructed in 1917 but demolished in 1924. Photograph is not accessioned but image is property of Fort Guijarros Museum Foundation.



Figure 22: Ca. 1950 Oblique Aerial photograph of Fort Rosecrans, looking westward. World War II structures include Quartermasters Wharf, barracks and industrial buildings in foreground. Unoccupied flat landfill was installed in 1940. Larger buildings in tree-lined areas are 1904-1908 Coast Artillery barracks and officers' housing. Other buildings are 1940 Post Hospital Annex, Nurses' Quarters, and Bachelor Officers' Quarters. In a canyon is the 1915 Battery White, a large bore mortar emplacement. A fresh-looking hillside cut profiles the top of a 1943 Artillery Ordinance Repair Building. Point Loma Lighthouse is barely visible in the upper left corner of the image. Photograph C-140-7-50 and property of Space and Naval Warfare Photographic Archives. Reproduced by Fort Guijarros Museum Foundation.



Figure 23: Ca. 1936-1941 Photograph of Naval Radio Station and Sound Research Laboratory (foreground) which received the first radio message of the Pearl Harbor

bombing on December 7, 1941. Looking eastward, round tanks are of the 1917-1940 Naval Fuel Depot. Beyond, at shoreline is the Quarantine Station and to the right is the 1907-1917 Naval Coal Depot which covers the 1822-1880s. La Playa community, including the six British hide houses described by Dana in *Two Years Before the Mast*. Copyright and property of Fort Guijarros Museum Foundation.

<<< [Previous](#)

<<< [Contents](#) >>>

[Next](#) >>>

cabr/shadows/chap5e.htm
Last Updated: 06-Apr-2005

CABRILLO

Shadows of the Past



CHAPTER SIX: OVERVIEW OF POTENTIAL UNDERWATER ARCHEOLOGY OF POINT LOMA (continued)

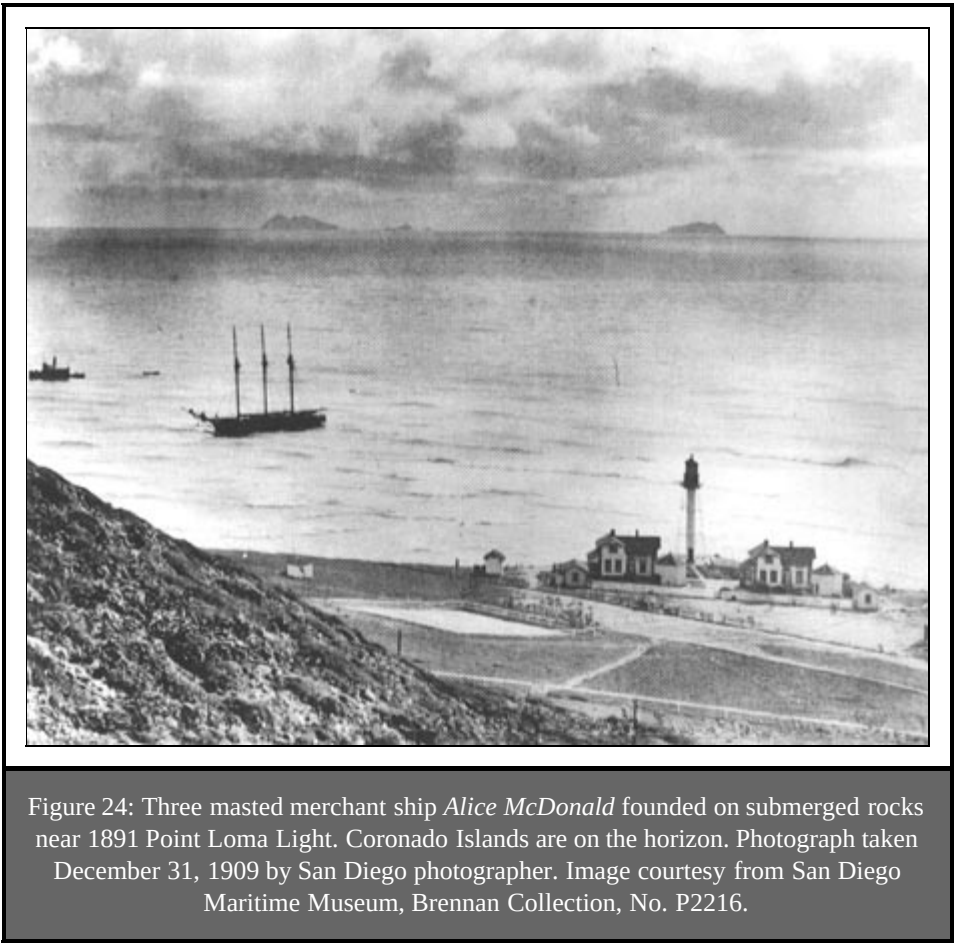


Figure 24: Three masted merchant ship *Alice McDonald* founded on submerged rocks near 1891 Point Loma Light. Coronado Islands are on the horizon. Photograph taken December 31, 1909 by San Diego photographer. Image courtesy from San Diego Maritime Museum, Brennan Collection, No. P2216.

[<<< Previous](#)

[<<< Contents >>>](#)