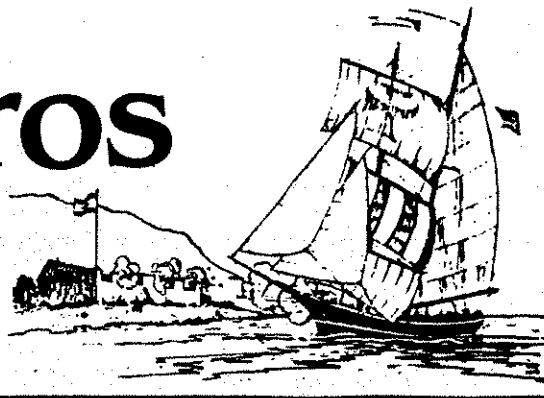


# Fort Guijarros Quarterly

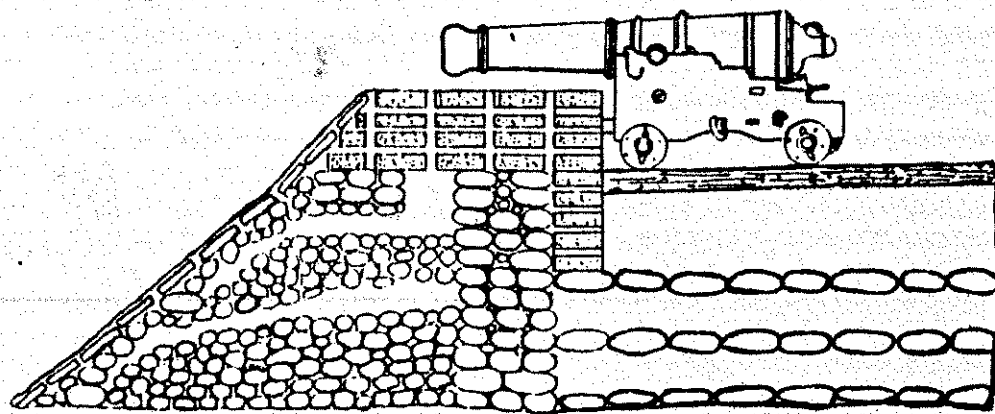


SPRING 1987

VOLUME I, NUMBER 1

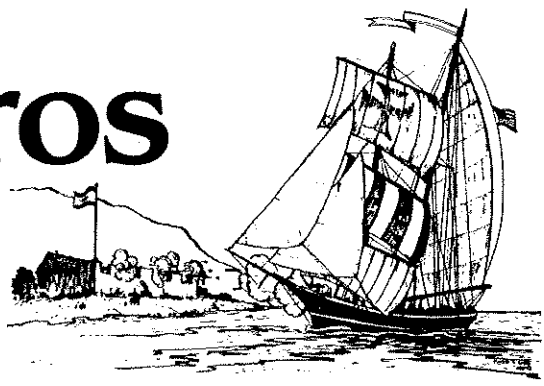
FIRST ISSUE TO SHARE DISCOVERIES FROM  
1981-1986 RESEARCH ON THE U.S. NAVY  
SUBMARINE BASE, BALLAST POINT,  
SAN DIEGO, CALIFORNIA

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Hypothetical cross-section of 1796 fort.  
Joyce Reading McLeod, Artist

# Fort Guijarros Quarterly



SPRING 1987

VOLUME I, NUMBER 1

THE SPIRIT OF THE COMMANDANTE OF FORT GUIJARROS CORDIALLY INVITES YOU TO  
JOIN IN THE 1987 BATTLE OF SAN DIEGO BAY FIESTA!!!

The Friends of Fort Guijarros are invited to a free commemoration ceremony on March 22, 1987 at 12:00 noon. The event will feature the memory of Spain's role in San Diego history as well as the dedication of a new bronze plaque honoring the Ballast Point Whaling Station.

Everyone is invited to join in the exciting event. There will be 150 chairs set up adjacent to the Fort Guijarros Monument at the foot of Rosecrans Street on the U.S. Navy Submarine Base. The U.S. Navy Cannon Team will fire the 1863 Civil War cannon "El Justin" to begin the flag raising ceremony.

An exhibit of artifacts recovered in the excavations of Fort Guijarros and the Ballast Point Whaling Station will be on hand. Archaeology crew will be available to answer questions and point out the locations of our past six years of digs.

Speeches during the ceremony will include a delivery by Conde Don Pedro Temboury, Consul-general of Spain and Captain Ralph Johnson, Commanding Officer of the U.S. Navy Submarine Base. Master of Ceremonies will be Ronald V. May.

Dedication of the Ballast Point Whaling Station plaque, California Landmark #50, will be officiated by

Dr. Eugene Chamberlain, E Clampus Vitus Historian. ECV purchased the plaque and constructed the monument as a donation and gift to the U.S. Navy.

At the end of the ceremony, the Cannon Team will fire off a couple of rounds on "El Justin." Casa de Espana dancers and guitarists will then perform and invite all in attendance down to the beach out on the point to continue the celebration with a fiesta. Paella, sangria, and other lunch foods will be provided by Casa de Espana for a nominal fee. Dancing and music will continue throughout the afternoon.

In order to enter the U.S. Navy Submarine Base, you will have to have your name on the guest list. Please send (1) your vehicle type, (2) driver's name and (3) vehicle license number to the following address:

The Fort Guijarros Museum Foundation  
P.O. Box 231500  
San Diego, CA 92123

Or call in at 294-3262.

Please join us in this exciting event!

### EDITOR'S NOTE

Welcome to the first issue of the Fort Guijarros Quarterly. This publication endeavors to focus upon the periods of California heritage represented in the sands of Ballast Point, but not be limited solely to the history and archaeology of this historic site. The publication assumes an unusual approach in illuminating our understanding of Spanish, Mexican, Yankee maritime, and U.S. Army Coast Artillery history in San Diego by sharing reports and accounts of similar sites being studied by scholars elsewhere.

Over the past six years the Fort Guijarros Museum Foundation has incorporated and initiated research and commemoration of the history of Ballast Point. Constant and intensive research and analysis has been undertaken by our associates centering around the discovery of the ruins of the fort and those periods of history represented by archaeological evidence in the excavations.

The membership has received annual reports in brief announcements at the March Battle of San Diego Bay Fiesta and the Annual Fort Guijarros Fiesta at the end of summer. However, no formal reports on the archaeology, history, or technical analyses have been made available. In 1983 an attempt was made to establish a newsletter. However, the work required to maintain the publication was too great along with the summer excavations and our regular jobs in the community. The newsletter was discontinued after the first issue.

Readers will find that one way to understand Spanish California and how it differed from the later Mexican California is to accumulate the bits and pieces of research being compiled by scholars in the field. This goal is being approached here by writing scholars all over the southwest and

requesting short un-footnoted articles on their work. These short reports will lend depth to our understanding of life in the presidios, missions, forts, and outlying communities of Spanish California between 1769 and 1821. Future articles may include material by Bill Pritchard on Castillo de Monterey, Richard Whitehead on the Santa Barbara Presidio, and Roberta Greenwood on Mission San Buenaventura. In this issue, Corey Braun will introduce some of the families who lived in San Diego and may have served duty on Fort Guijarros (see page 19).

Very few historians or members of the Foundation have a very complete understanding of the living conditions in Spanish California. The communities were military outposts and the populations constantly moved from garrison to garrison as orders changed, seasons passed, and political winds shifted. The presidios and missions were actually complexes of residential and industrial activities. Within these fortified towns the soldiers and their wives and children made and sold things, repaired leather and ironmongery, and processed grains, meats, and other agricultural products for local consumption. Supplies were regulated by Spanish laws and the system remained essentially self-reliant until about the time George Vancouver sailed down the coast surveying Spanish defenses for the English crown in the 1790's.

When Fort Guijarros was built in 1796 and dedicated as "San Joaquín," the first cannon shots signalled a decline in Spanish control over the Californias. Foreign visitation from that time on came with increasing frequency and the inability of the Spanish military to fend off the intruders opened the California populations to the outside world. The locally famous Battle of San Diego Bay was one such visitation and the

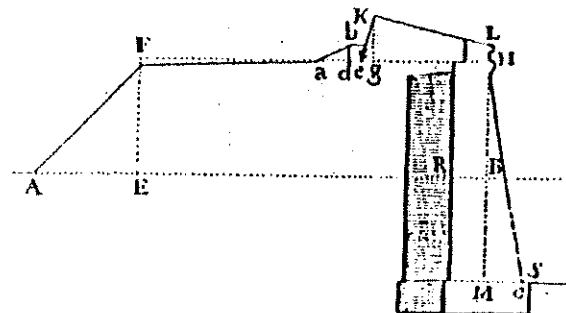
botched attempt to bribe Spanish officials for impounded otter pelts led to the first and only ship-to-shore cannon duel between Spain and the United States. The Battle which has been celebrated on the shores of San Diego Bay since 1978 is important in history for its symbolic role in the processes which led the Californians to increased independence and self-sufficiency in the 19th century.

When the soldiers of Fort Guijarros fired their guns at the Lelia Bird on March 22, 1803 the cannon shots heralded the decline of Spanish control and influence in the Californias. That decline and the processes which manifested in the events following have become the focus of several lines of research in the social sciences. Historians have examined letters and reports throughout the western world to better understand the economic and political decisions and occurrences which led to the end of Spanish rule and development of Mexico. Archaeologists have examined the minute remains of Spanish buildings and communities in that period for subtle evidence of those major changes in world history. Fort Guijarros provides a social science laboratory to simultaneously examine the decline of Spanish influence in both archaeological and historic contexts.

Spanish historian Stephen Colston has learned through reviewing eighteen rolls of microfilmed records that the fort generally had only six men. Even though ten cannons protruded through its gunports overlooking Punta de los Guijarros (Ballast Point, in English), water had to be boated in from North Island and the inactivity of defense needs did not warrant a large force of men and ready artillery. The fort signalled incoming ships and may have served as a first stopping point for visitors.

The shift from "Spain" to "Mexico" was neither sudden nor especially noticeable when Governor Sola declared fealty to the latter sovereign nation. In fact, little is known of that period until a reorganization caused both civilian and military governorship to merge in 1824 and in 1825 Governor General Jose Maria de Echeandia departed Chihuahua to Loreto and then to San Diego. Three years later Mexican soldiers exchanged cannon volleys with the American ship Franklin in another skirmish over protocol and legal authority over foreign trade. Less is known of Fort Guijarros after the 1828 battle than any other period. The last soldiers were removed in 1835 and the fort sold to a retired soldier named Juan Machado in 1840 (see page 9). Although Machado salvaged tiles and hardware for use in building homes in Old Town, cannons continued to be used to salute in-coming ships in San Diego Bay until the Mexican War of 1846 (see page 10).

The Fort Guijarros Quarterly will not only exchange information and reports from colleagues working on Spanish and Mexican California. Ballast Point was used at various times in the early American period and between 1858 and 1860 by Yankee whalers who arrived from parts as yet



unknown and began a whaling operation which lasted until the U.S. Army Corps of Engineers evicted them in 1873 (see page 6).

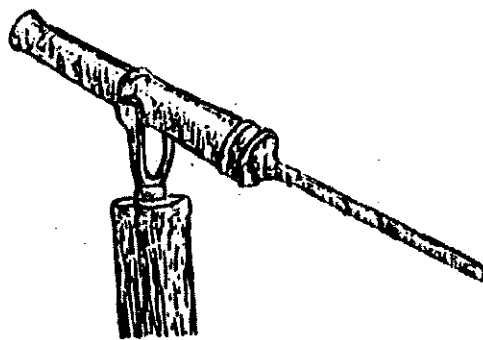
The Foundation has sponsored research on both the whalers and the U.S. Army of old Fort Rosecrans these past six years. Following three years of part-time research on the archival history of the Yankee whalers, an article was submitted to the Journal of San Diego History and published in 1986. Several months later a similar article on the archaeology of the San Diego whaling station was published by the Pacific Coast Archaeological Society Quarterly. Meanwhile, an international symposium on shore whaling research was sponsored by the Foundation at the Annual Meeting of the Society for Historical Archaeology in Sacramento, California. Research and work by scholars from Canada, Holland, Australia, New Zealand, and the United States will be invited to contribute to the Fort Guijarros Quarterly.

In spite of the fact that Fort Rosecrans was a predominant feature in the San Diego geography from 1898 to 1957, almost nothing has been published on its history. While researching the National Archives record groups for an historical overview on U.S. Army Corps of Engineer constructions in the proximity to Fort Guijarros, significant historic records came to light which merited publication. Board Director Commander John C. Hinkle also served the Cabrillo Historical Association as President in 1985 and developed a program which led to the publication of The Military on Point Loma, which included three articles on Fort Rosecrans.

One of those benefits of having a project that is popular in the local media is the volunteerism which comes forth from the local community. Back in 1983 Colonel Wade C. Gatchell

(ret.) came forward and donated his father's U.S. Artillery Corps uniforms from Brigadier General George Washington Gatchell who was Commanding Officer, San Diego Artillery District, Fort Rosecrans from 1907-1910. Following a luncheon in commemoration of General Gatchell the uniforms were donated to the San Diego Historical Society for permanent care in their temperature controlled curation facility. Since that time the Foundation has sponsored a \$100 award for the best papers on military history in the annual San Diego Historical Society Institute of History.

Thus it has come to pass that the Fort Guijarros Museum Foundation will develop this publication around all of the theme periods of history represented on Ballast Point. Sharing reports from colleagues in history, anthropology, archaeology, and other cultural pursuits concerning these periods will enable the membership to better understand the history and importance of the historic resources being uncovered in the archaeological excavations and archival research on the Fort Guijarros project.



THE VALUE OF THE FORT GUIJARROS PROJECT TO  
THE GREATER SAN DIEGO COMMUNITY

Seeing, touching, and holding a real artifact, just having been involved in an archaeological excavation, is a thrill difficult to describe. That bone or piece of pottery has been dormant for many years and then "you" are the first to touch it since a Spaniard last laid it down. Your thoughts probably go back to the "life" of the treasure you are now holding in your hand... where did it come from originally? Does it seem like an unusual find? A broken porcelain cup, a piece of a porcelain platter, a piece of leather ...how could it last for so many years buried?

There are many other discoveries found in the last few years of the Fort Guijarros archaeological excavations which have been shared with the peninsula community from Point Loma in the south to La Jolla in the north. For the past three years exhibits have been placed in four different areas to share the exciting finds with the people of San Diego. The first was in the Great American Savings Bank. That business was the closest to the site of the old Spanish fort and the "Dig" on the U.S. Navy Submarine Base. It was a rare opportunity to participate in this activity. The Bank of America in Ocean Beach was the next public exhibit and then it went on to Point Loma High School. In the Media Center students could examine the newly unearthed artifacts and read textual labels identifying their role in the events which have become San Diego history.

At present, an exhibit is in the Glendale Federal Savings and Loan on Sports Arena Boulevard. This fourth exhibit has been arranged by Vice President and General Manager Robert

Fowler, who has reported many complimentary remarks regarding the exhibit. Visitors need not hold accounts at the bank to visit the exhibit.

It was Commander John C. Hinkle, Commanding Officer of the U.S. Navy Submarine Base in 1980 who was able to arrange this unusual project. Cdr. Hinkle approved the commemorative events and dig plans and facilitated permits from Washington, D.C. Since he has transferred to other duties the project has continued due to the dependable and cooperative nature of the participants with Hinkle's successors, Captain David G. Harscheid, Captain Kirk Walters, and the current CO, Captain Ralph Johnson.

Although there is a definite careful technique in uncovering an artifact, inexperienced volunteers are welcome to participate in excavation and the laboratory. The Board of Directors of the Fort Guijarros Museum Foundation has even given a seat to a member of the Peninsula Chamber of Commerce. The Foundation and all of the archaeological excavations and events are under the leadership of a very qualified archaeologist, Ron May. Much progress has been made with his guidance. He has written articles which have also included military history, whaling, and other local events.

Should anyone be interested in joining the Fort Guijarros Volunteers this summer of 1987, please contact the Peninsula Chamber of Commerce at P.O. Box 7018, San Diego, CA 92107 or telephone at 223-9767.

Caroline Crosby, President  
Peninsula Chamber of Commerce, and  
Fort Guijarros Board Member

A PRELIMINARY REPORT CORRELATING THE CERAMICS WITH  
HISTORIC ARCHAEOLOGICAL STRATA IN THE FORT GUIJARROS DIG SITE

Introduction

Between 1981 and 1985, the archaeological investigations at the site of Fort Guijarros yielded ceramic "sherds" in almost every layer of soil exposed by the "Fort Guijarros Volunteers." After the artifacts were cleaned, catalogued, and boxed separately from their associations, the ceramics were turned over to Mrs. Jean Krase for typological identification.

A series of brief reports and notes were produced by Krase and this information is currently archived in the Fort Guijarros Museum Foundation. It is this data base from which the following report was created. The actual historical research has been elaborated in articles published and delivered at professional archaeology meetings.

The assemblage of ceramics recovered in the five years of archaeological investigations were deposited in and around the site of the 1796 coastal cannon battery known today as Fort Guijarros. When dedicated it was named San Joaquin, but in the subsequent years it has been nick-named after the point of land the Spanish called "Punta de los Guijarros". Literally, the Spanish called the place "cobblestone point," which the later U.S. Americans translated as Ballast Point. The rounded heavy stones were taken and deposited by sailing ships throughout all periods for ballast.

Beginning with the Kumeyaay Indians, all people who used Ballast Point left broken artifacts where they lived and worked. The high seas washed most of the remains off into

the bay, but those accumulating around the elevated mound of the old Spanish fort remained.

The actual history of the fort and subsequent episodes of Mexican and American use of Ballast Point will not be the focus of this article. However, historical events as they relate to the processes that formed the layers of earth encountered by the archaeology team will be discussed.

Since each of the archaeological episodes are distinct in culture and historical process from one another, they will be examined separately. The order of introduction will follow the sequence in which the Fort Guijarros Volunteers encountered them during the archaeological excavations.

U.S. Army Coast Artillery  
(1898 to 1957)

From 1851 to 1873, the United States Army and Congress had been planning to fortify the California coast line from foreign invasion. After the Civil War had passed, Congress began funding architectural renderings and war gaming boards to design fortifications capable of driving back armadas and marines from San Diego Bay. In 1872, Lt. John Hall Weeden was sent from San Francisco to San Diego to begin construction on such a fortification.

The first step was to evict all the maritime community which had been residing on Ballast Point. Both whalers and Chinese fisherfolks were required to leave. Their domiciles

were incorporated into the military landscape and at least one whaler's shanty was used as Lt. Weeden's office and home. It is possible that the shanty illustrated in an 1873 design plan was his home.

Civilian contractors assisted Lt. Weeden construct one mess hall, several barracks, and a stable prior to excavating several hundred thousand cubic yards of earth from Point Loma to create the earthen foundation. That construction measured 750 feet long by 450 feet wide and was twenty feet above the sands of Ballast Point. The ruins of Fort Guijarros were avoided and marked "ruins of Spanish barracks" on the old maps.

Congress cut the funding in 1874 when it was learned that foreign ordinance being developed in Germany was capable of penetrating such defenses as Lt. Weeden was constructing. A civilian caretaker was hired--Mr. Gerould--and it was he who basically maintained Ballast Point free from permanent squatters in the ensuing twenty-two years.

The U.S. Army Corps of Engineers returned in 1896 to relieve Gerould of his position and begin construction of a new and more massive fortification. The Corps used the old earthen foundations of the 1874 fort, but only the south face.

To be named "Battery Wilkeson", this immense structure measured thirty-two feet thick with boulders and concrete. Heaped in front was another thirty feet of earth. Inside were four gun emplacements for ten-inch caliber "disappearing rifles". When the regular U.S. Army assumed command, the property was named "Fort Rosecrans" and the garrison became the "San Diego Artillery District". The men and their companies were part of the Coast Artillery.

The 115th Company of Coast Artillery was created in 1902 to man Bat-

tery Wilkeson. Their barracks was constructed in 1904 on Sylvester Road. Later companies included the 68th and 128th, both of which manned the smaller rapid-fire and three inch batteries and mine fields.

According to Colonel Wade C. Gatchell (ret.), whose father was Major George Washington Gatchell and commanded the San Diego Artillery District from 1907 to 1910, details of soldiers would haul trash from Fort Rosecrans and dump the material in shallow water or on the beaches. This practice would explain the thin layers of burned U.S. Army artifacts mixed with domestic refuse in the first layer of soil atop the ruins of Fort Guijarros.

The field strategy that first weekend in 1981 was to use a backhoe to remove the top sixty centimeters of reddish-orange dirt which the U.S. Army had poured over the area in 1942 to elevate Ballast Point and fill in the bayside north toward La Playa. Under lay a ten to twenty centimeter thick layer of ashy black sand. Mixed among the ash and sand were thousands of artifacts from Fort Rosecrans. Most of these date between 1900 and 1924, which correlates directly to the period when Fort Rosecrans operated prior to the period of isolation when Congress closed most of America's military installations.

Later laboratory correlations of the individual test unit labels by senior staff resulted in uniform numbers given for all appearances of particular strata. The ashy black sand with American army artifacts was labeled "Strata XII".

Most of the ceramics from Strata XII can be separated into (1) flower pots, (2) electrical insulators and parts, (3) Brown Glazed Stone Ware ventilator and sewer pipe, (4) door handles, and (5) a large array of



Stone China table wares. The last category were issued by the Quartermaster Department in San Francisco and many have "Q.M.D." marked in blue or black on the bases. Stone China found in the excavations include mugs, cups, bowls, oval platters, round plates, serving dishes, sugar bowls, and tureen lids.

A (6) sixth category is civilian domestic tableware and ornamental ceramics. Since the trash details did not record specific locations for officers, non-commissioned officers, and enlisted men, rank can not be inferred. However, the single enlisted men can be discounted from this grouping. The ceramics in this category include French/German Porcelain plates, Chinese Overglaze Enamel plates, Earthen Ware plates and bowls, Stone Ware crocks, a Ring-design Yellow Ware serving dish, and a few sherds of a Chinese Green Leaf plate, a Japanese Blue-on-white Porcelain plate, and a Japanese Phoenix and Dragon cup.

#### Yankee Whalers (1858 to 1873)

In 1858, the San Diego Herald reported a company of whalers boiling oil from California Gray Whales on "La Playa". Later documents have indicated that Captains Alpheus and Prince William Packard had arrived in 1857 but did not begin whaling until 1858 in order to study the behavior of the whales. By 1860, they were regularly joined by the Tilton Company and Johnson Company.

The origins of these early industries remains obscure, but one possibility is that they were established by Captain James Pope Davenport. This man is known to have begun the earliest stations in California at Monterey and Santa Cruz in 1854. His name appears on over ten different coasting schooners as financier of the \$500 annual licence

fee and part owner in many vessels.

In 1857, Davenport declared to the U.S. Customs House in Monterey that he was bound to Baja California to begin whaling ventures. It is possible to hypothesize that Davenport conducted that venture by establishing a series of stations along the Baja coast beginning with San Diego. Certainly all the oil produced at Punta Banda and Puerto Santo Tomas was homeported at Ballast Point and then shipped to San Francisco.

California shore whaling differed from ocean whaling in that the stations were able to include the families of the primary officers. Small farms and vegetable gardens could be supported by the families and alternative incomes could be pursued in fishing and the trades. While the whaling operation lasted only from October to April, some of the families seem to have lived at Ballast Point year around.

One source places the Johnson Company barracks right atop the ruins of Fort Guijarros. If this is correct, it could explain the "midden" of greasy brown sand mixed with thousands of fish bones, sea shells, and broken clay and glass artifacts. Judge Benjamin Hayes later wrote in his 1875 diary that he was graciously received by the wife of Captain Miles Johnson on Ballast Point in 1860.

The archaeological team first encountered the midden and later labeled it "Strata X". Under it lay a uniform layer of flat sandstone cobbles quite unlike the usual assortment on Ballast Point. This layer was labeled "Strata IX." The function of Strata IX remains unknown, but has been hypothesized as an attempt to stabilize the uneven and unstable sand and tile layer below.

Both Strata IX and X were inter-mixed with the remains of marine meals and artifacts. Preliminary analysis of the domesticated bones indicates the whalers ate prime quality cuts of beef, pig, and some goat. These were saw-cut in the fashion typical of American butchers. Bones of seals indicate cutting consistent with skinning. Several large sea mammal teeth might indicate a marginal trade in these bones. A number of whale vertebrae were among the artifacts, several of which were unmistakably used as stools.

Around the stools were piles of pismo clams and oyster shells. Jumbled in the midden were fragments of clay pipes, ceramic vessels, and glass bottle sherds. Of particular interest are the number of ceramic and glass ale bottle artifacts; all of which are English ale containers. Adding to this puzzle was the presence of a number of high quality English Staffordshire Transfer-print Flow Blue plate and an English Luster Ware pitcher sherd fragments. Both the Flow Blue and Luster Ware are dated in the 1840 to 1850 period.

Also found in the whaler's midden were sherds of French/German plates, Yellow Ware platters, Stone Ware Crocks, a sherd from a Rockingham jar, and numerous fragments of Kumeyaay Indian Tizon Brown Ware cooking bowls and jars.

While it is not difficult to imagine the families of the Johnson Company living in the barracks and using domestic table ware, the quantity of older English ceramics might well suggest the Johnsons to have been English immigrants. The presence of English ale containers could support this hypothesis, since ale would have been a cultural preference over domestic beers brewed in California.

### Mexican Wall Rubble (1840)

After the government of Mexico assumed authority over all military establishments in California in 1822, financing of repair and new constructions all but dried up. Garrisoning and replenishment of supplies was sporadic and Fort Guijarros began to disintegrate. Only once, in 1828, did the Mexican army fight a cannon duel with a foreign vessel.

Similar to the 1803 Battle of San Diego Bay between Spain and an American merchant, the 1828 battle erupted over failure of Americans to honor Mexican authority in trade procedures. As the officers of the ship Franklin fled the harbor, shots were fired from Fort Guijarros which blew holes in the starboard side of the vessel and damaged the rigging. Damage to the fort, if any, remains unknown.

By 1835, internal problems throughout Mexico caused cessation of funding to California and the Commandante of the Presidio ordered Fort Guijarros decommissioned. Cannons, shot, and powder were left on the site in the event of their need, but never used again in combat. Blank shots were occasionally fired to salute in-coming ships.

It has been both legend and briefly recorded that retired Mexican Army Corporal Juan Machado purchased salvage rights in 1840 to recover wood, hardware, and fired tiles from both the Presidio and Fort Guijarros. Tiles identical to those found in the fort excavations have been recovered in Old Town State Park.

Still, the cannons remained operable enough to salute in-coming ships after Machado removed what he wanted. In 1843, a gentleman named Waseurtz af Sandels recorded a cannon salute from Fort Guijarros to a ship entering the harbor. This is the only known rendering of the fort.

That same year, a sea captain ordered his crew to drive iron spikes into the breeches of the Fort Guijarros cannons in fear that they might be used in the impending Mexican War.

The success of the spiking is questionable, for at least two of the guns played a role in the Mexican War in 1846. During the seige of San Diego Harbor, the U.S.S. Cyane commandeered two of the guns and hauled them to the west side of Old Town to lay seige to that community. These and the balance of the armament at the fort were reported by Judge Benjamin Hayes and Philip Crossthwaite to have been dumped in San Diego Bay.

Once the Fort Guijarros Volunteers had removed the whaler's midden of Strata IX and X, a sterile layer of white beach sand and cobbles mixed with seaweed was encountered which overlay a heap of red-clay tiles jumbled down at a 60 degree angle toward the tip of Ballast Point to the east. Some of the whaler's artifacts, clay pipe fragments for example, were found in this sandy "Strata VII".

The massive rubble heap of broken tiles, jumbled, and some with partial coverings of mortar and finished plaster was clearly shattered architecture. In fact, the top of the heap later proved to include the massive interior "foundation" known in Spanish architectural terms as the "contrafuera". Large cobbles from the disarticulated contrafuera were also strewn out with the jumbled tiles.

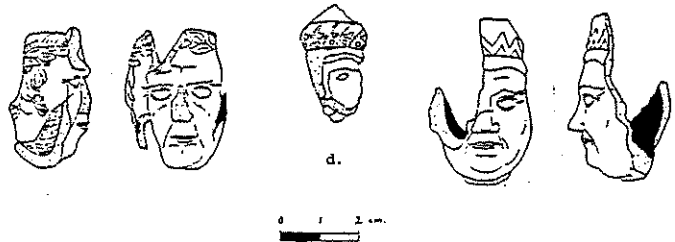
The heap of tiles was labeled "Strata VIII" and has been named the "Machado Layer" by archaeologists attempting to interpret how it once was put together. The conclusion has been that this feature was created by Juan Machado and his workmen as they tore apart the breastworks in search of reuseable materials for Old Town.

Key to understanding how the wall once looked is the 60 degree slope of the Machado Layer. Underneath lay a thin to thick layer of beach sand, sea weed, drift wood, and occasional cobbles. Directly below is a massive heap of fist-size cobbles sloping at a 45 degree angle and abutting the contrafuera.

Current interpretation by Fred Buchanan who is analyzing the fort architecture is that the outer wall was the cobble heap sloping all around the wall like a skirt. Above was an adobe breastwork faced with fired clay tiles and plastered white. The cannons fired out holes in the breastwork. The overlaying sand is believed to have been placed there by wave action.

The Machado Layer does not represent an occupation by Mexican soldiers. In fact, when Machado was working on the salvage effort there probably was no one out on Ballast Point. Philip Crossthwaite testified in an 1870 deposition that when he arrived in 1845 he saw no fort on Ballast Point. Therefore, the few sherds of Tizon Brown Ware, white Earthen Ware plate sherds, and single Galera Ware sherd among the rubble probably filtered down through Strata IX from the whaler's midden.

The Mexican Lead-glazed Galera Ware sherd should be consistent since the whalers operated out of Mexico during the entire operation of the Ballast Point station. Moreover, Captain Prince William Packard's Mexican wife Magdalena lived and died at Ballast Point in the 1860's.



Fort Guijarros Occupation  
(1796 to 1835)

When Spain began to experience hostile incursions into Californian territories in the 1790's the Viceroy of Mexico directed the Governor of California to assign engineers and architects to develop fortifications. Intended primarily to establish political dominion, the fortifications were never anticipated to do more than hold back invaders until civilian populations could flee back into the countryside.

The location of Punta de los Guijarros as a fortification site was recommended by Miguel Costanso and designed by Engineering Lieutenant Alberto de Cordoba. The actual designs or sketches used by Brigadier Pablo Sanchez to critique and improve the fort or by Cordoba to oversee its construction have evaded nine years of historic research by associates of the Fort Guijarros Museum Foundation. Dr. Steve Colston has led that research through eighteen rolls of microfilm from the National Archives of Mexico City.

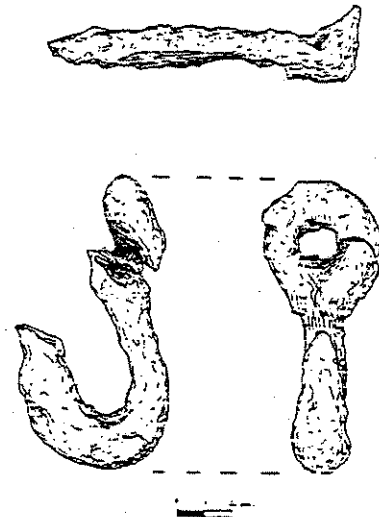
The current analysis of the 1981 data and architectural pieces may prove to be the only direct evidence of what the fort looked like. Analogies are being drawn from forts of about the same size built in the 1790's in San Francisco and Vera Cruz, Mexico. This work will be the subject of a future paper.

In 1983, the Fort Guijarros Volunteers embarked upon an ambitious search for the parade grounds behind the walls of Fort Guijarros. This required designing a test unit the size of a small room. As the crew dug down through the landfill from World War II, the 1898 Battery Wilkeson earth covering, and the 1873 earthen pad, wooden shoring was constructed to sheath the sides and cross-beam the center. At two meters,

a concrete drain from the 1873 earthworks was encountered which keyed-in to the architectural renderings from the U. S. National Archives. The test unit was labeled "Field IV".

The bottom of Field IV under the 1873 earthen fill and concrete drain was white beach sand. Labeled IV-1-9, the sand was carefully scraped away. It was actually a lamination of interbedded gravels and sands from hightides. Underneath was a dark gray wet clay embedded with fired red clay tiles, split animal bones, and marine shells.

The dark clay strata was labeled IV-1-10 and has been interpreted to have been formed by a shallow pond inside the walls of Fort Guijarros. The clay was actually very fine silt with a clay content which soured when organic matter decomposed in the high water table. The organic material probably was garbage and trash discarded by Spanish occupants of the fort.



Perhaps the most exciting find for an archaeologist, trash pits provide "time capsules" of dietary data on the people who created them. The clay from our trash pit was scooped out intact and placed in a box screen with 1/16th inch mesh. Buckets of water were carefully poured over the clay and agitated by hand. This cleaning process broke down the clay and revealed thousands of artifacts, bones, shells, and natural gravels. Analysis of the fish bone, animal bone, and marine shell by specialists will enable a statistical demonstration of the diets of the occupants of the fort.

Although the analysis of the domesticated bone will be the subject of a future paper, it is interesting to report that all of this class of bone was "radially-split." Breaking food bones in this manner exposes the marrow, which indicates that the bone was intended for stews, soups, or casseroles.

Most significant to this discussion was the array of ceramics recovered in IV-2-10. The ceramics were clearly late 18th and very early 19th century Spanish. Key to this conclusion were the sherds of Mexican Majolica plates. Only Spanish commissaries and government suppliers had access to the types of ceramics known as Majolica (pronounced "Ma-yo-lee-ca"). It is a tin-glazed earthen pottery which looked like China until breakage revealed the pottery core.

Majolica types in this feature include Wavy Rim Blue-on-white (1790-1810) and Monterey Polychrome (1800-1830). Associated were Mexican Galera Ware plate, bowl, and pitcher sherds. This lead-glazed common red pottery dates after 1790 and was not imported after 1846 to California. The Spanish controlled Manila Galleon trade is indicated by the presence of a Canton Blue-on-white platter sherd, Chinese Blue-on-white

vessel, a white Porcelain cup lip, and a Chinese Overglaze cup sherd. Large quantities of Kumeyaay Indian Tizon Brown Ware were in the trash pit.

In 1984, a second large and deep pit was excavated adjacent to Field IV. This was labeled "Field VII" and it too was shored like a cross-braced wooden room. Unlike Field IV, no 1873 concrete drain was found and the sought after architecture of the barracks or kitchen was not found. In one corner lay another trash pit similar to IV-2-10. This one differed in some respects and was labeled "VII-1-7".

This feature was shallower and contained less of all categories. The ceramics were more typical of the pre-1800 era, but the low frequency suggests caution in pronouncing this feature as earlier than IV-2-10. The datable pieces were Wavy Rim Blue-on-white and San Elizario Polychrome. Both of these Majolica types are primarily decorated with blue-on-white design elements, the latter being more elaborate and accented with black lines. Associated were Mexican Galera Ware plate sherds, a Tonalá Polychrome water pitcher sherd, and numerous sherds of Tizon Brown Ware.

### Conclusions

As the analysis of the ceramics progresses toward statistical tabulations, the above generalizations can be refined. The synthesis will also improve with the completion of reports on such artifact categories as buttons, clay pipes, and glass.

Key to their analyses are the general statements which date the strata by ceramic and historical associations. The use of historical overviews written by Steve Colston and this author are necessary in order to properly interpret the context within which the artifact

classes functioned. Unusual or unexpected patterns can then be examined.

To reverse the presentation, now that the associations have been correlated in the order encountered in the excavations, conclusions can be proposed. The ceramic types recovered clearly refine what was learned in archival research.

First, the ceramics from features IV-2-10 and VII-1-7 date these trash pits to the Spanish occupation of Fort Guijarros. The total lack of European or U.S. American ceramics points to the period when Spain was able to control its territory. This conclusion suggests that the future analyses of the food remains may become indices for other scholars working on Spanish military sites.

Second, the ceramics dumped in the midden over the walls of Fort Guijarros by Johnson Company whalers and their families reveals significant new information on the domestic life of these people. Nowhere in the archival literature is there such revealing information on the furnishings of the whaler's homes. Moreover, the preponderance of English artifacts might suggest a cultural preference for English ale and even the ethnic origins of the Johnson family.

Finally, the ceramics have confirmed the dates and furnishings of the Quartermaster Department of the Coast Artillery Corps between 1902 and 1924. The presence of nice European and Oriental table ware hints to the domestic tastes of married soldiers during this period. The actual selection of the domestic pieces might even reflect foreign service in World War I or China.

Ronald V. May  
Director of Archaeology  
Fort Guijarros Museum Foundation

## SAN DIEGO'S OWN NAPOLEONS

On Wednesday morning, September 22, 1886, the San Diego Union noted that "the two twelve-pounder brass cannon for the U.S. Army post at this place arrived on the Orizaba Sunday, accompanied by 1,000 pounds of powder". Thus began the local saga of San Diego's own "Napoleon" guns.

This historic gun was first developed in France in 1850 as a result of a requirement initiated by Emperor Louis Napoleon III and they have been known as "Napoleons" ever since. The initial goal was to design a field piece of medium weight of twelve-pound caliber (4.62 inch bore diameter) capable of using both shot and shell. The Federal Napoleon went through several modifications, such as lengthening the barrel and eliminating the "Dolphins" or lifting handles and other ornamentation before standardization as the "Model 1857."

The U.S. American piece weighed slightly more than 1200 pounds and fired a service charge of 2.5 pounds of black powder giving a range of 1680 yards. It was deadly in the relatively wooded country in which much of the Civil War was fought. It could fire solid shot, shell, and spherical case with equal facility, and "loaded with cannister against personnel at a quarter mile, it was downright vicious," according to reports from the field.

Its record led the Chief of Ordinance, U.S. Army, to write on July 4, 1864: "No instance has occurred during the war . . . of the 12-pounder bronze gun having worn out or of its bursting." This indeed is high praise, considering the proclivity of most cast-iron guns to burst and injure or kill their own gunners.

There were 1156 Federal Napoleons made and of our two guns, one has

been beautifully restored. This gun's lineage is precise, but the other is less clear. The gun which was restored by Fort Guijarros Museum Foundation members, San Diego Cannoneers, and the U.S. Navy at the U.S. Navy Submarine Base, was cast by the Revere Copper Company and bears Foundry Number 290, as stamped on the right trunion collar (projection from which the gun pivots its elevation in the carriage).

It weighs 1213 pounds and was accepted by the U.S. Ordnance Department on August 26, 1863, by the Chief of Ordnance, Thomas Jefferson Rodman, who assigned our gun Number 289. This was one of 100 Napoleons he accepted on that date from the Revere Copper Company.

Napoleons are bored to 4.62 inches in diameter, but our gun is worn at the muzzle to over five inches. This strongly suggests that it has indeed seen heavy battle duty firing cannister. This shot was a tin can holding twenty-eight 1.5 inch iron balls or one hundred and forty-eight .69 lead balls. It was reported that this shotgun effect was particularly deadly from cannister which used a large number of balls and turned smoothbores into murderous weapons at optimum range.

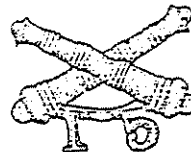
These guns are brass, not bronze. This alloy is 90% copper and 10% tin, with a variance of no more than one part tin, more or less, according to ordinance and instruction manuals of the period. This time-proven formula made for a tough, resilient metal to withstand the repeated severe shocks of black powder exploding in the breach, creating great stress from heat and pressure.

U.S. Napoleans are historically a hybrid between a gun and a howitzer and were a resounding success (pun intended). Major General G.B. McClelland, upon assuming command of

the Union armies on September 1, 1862, ordered that "The proportion of rifled guns should be restricted to the system of the U.S. Ordnance Department . . . and the smooth-bores be exclusively the 12-pounder of the Model 1857." As a result, all but one Federal battery at Gettysburg were thus furnished. As it was necessary to supply the growing Union armies with guns which were reliable, foolproof, and easy to manufacture, it was not long before the Napoleon became the favorite piece of the artillerymen on both sides of the conflict.

John Vandegrift, Member  
Board of Directors  
Fort Guijarros Museum Foundation

(Editor's Note: The two Napoleon cannons are a part of the history of Ballast Point. They were assigned to Fort Rosecrans in 1898 and remained on the property throughout the Spanish-American War, World War I, World War II, and the Korean Conflict. Prior to the Foundation's incorporation, Vandegrift, Wayne Kenaston, Dan Brown, and others assisted the U.S. Navy to return the guns to Ballast Point and their rightful place in local history. The remarkable story of these field pieces and how they came to accompany the commemoration events of the Fort Guijarros Museum Foundation will unfold in a series of future articles by John Vandegrift.)



REPORT ON BURNT BRICKS RECOVERED IN STRATA I THROUGH VI, U.S. ARMY COAST  
ARTILLERY CORPS LAYERS ATOP THE RUINS OF FORT GULJARROS

Firebricks, as the name implies, are designed to withstand high temperatures without damage, say in the range of 1100 degrees F - 3000 degrees F or higher. They must be able to contain that heat and reflect it back as well as prevent any molten material, such as steel, from leaking from the container. They must also be able to resist physical and chemical abrasion as well as thermal stress, rapid heating and cooling, caused by the environmental conditions in which they were placed. Because of these qualities, firebricks have a wide range of industrial applications and are found in, for example, lime kilns, copper smelters, blast furnaces, and boilers of every type. They are even found in the ordinary home fire place, near the back where the heat is, and there is nothing to prevent their use in general construction such as house building, except that they are much more expensive than the red common bricks.

All three of the firebricks examined were manufactured by the same process and the same company. In cleaning up the largest fragment (FG 5024) the following letters could be read: "P.", "B." (probably stands for Brick), "CO." (Company). Beneath these letters are two star shapes. This stands for the Los Angeles Pressed Brick Company (ca. 1891-1926) and their THREE STAR brand of firebricks. This firm was based out of Los Angeles and had at least two plants in that city 1906. In 1920 it was operating four plants and was "one of the largest producers of clay products in the west." This firm was known to be making a THREE STAR brand of firbrick in 1921. Kirk's Brick Book, a collector's book (yes, there

are brick collectors!) contains some 900+ hand-drawn illustrations of brick brands. The Los Angeles Pressed Brick and Terra Cotta Company joined the Los Angeles Chamber of Commerce in 1891. Aubury gives the shortened version in 1906. Roger Kelly noted that back in 1980, Mark A. Roeder, of Scientific Resource Surveys Inc., of Santa Ana, inquired about this same company. Another source he mentioned was "Cesar Dead and Turned to Clay" by Katherine Doyle, in Southern California Business, vol. 9, no. 7, pp. 18-19, 39. In 1926 the firm merged with Gladding, McBean & Co., of Lincoln, California (Dietrich 1928:101). Three other companies made firebricks with a THREE STAR brand during this time period: Evens & Howard Fire Brick Co., Gladding, McBean & Co., and the Parker-Russel Mining & Mfg., Co., but none of these firms match the arrangement of letters found in these firebricks.

All three of the firebricks were manufactured by a method known as the stiff-mud process. In the United States there are basically three methods of making brick at the present time: soft-mud, stiff-mud, and dry-clay or dry-pressed. This terminology is based in large part on the water content of the mud or clay mix. For the soft-mud method, the water content ranges from between 20% and 30%, for stiff-mud 12% to 15%, and for dry-clay-up to 10% (Brick Institute of America). As early as 1856 the same basic types of brick machines were known although the names were different. One of the earliest stiff-mud machines was patented in Britain in 1810 but it was not until the latter half of the nineteenth century that it became



popular. By 1900 it had eclipsed the other methods of brickmaking and today it is still the most popular method.

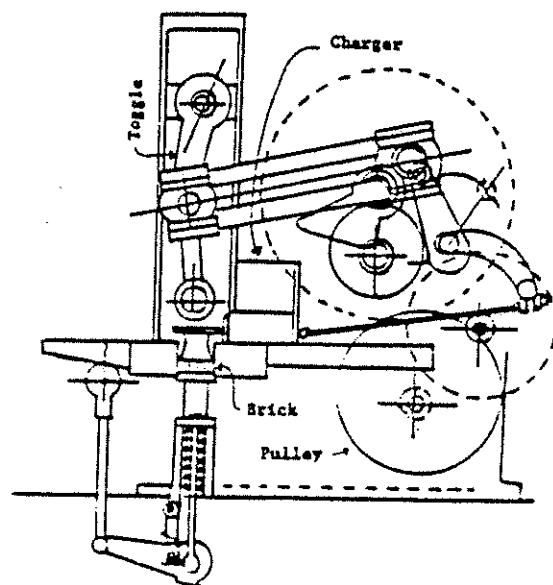
The stiff-mud machine is composed of a chamber that tapers toward one end. Inside this chamber is a rotating auger which mixes the clay and forces it toward the smaller end. Here the clay passes through a rectangular mouthpiece or die and emerges as a long bar or column that is stiff enough to hold its shape. This column then passes onto a cutting table where it is cut into brick-sized units by a series of taut piano wires stretched across a frame. These cutting wires often drag small bits of grit across the surface of the brick leaving small cut marks on two opposite sides of the brick. For example, in the large firebrick fragment (FG 5024) there is a shallow curved cut mark evident between the C and O. In order to apply the brand to the green or unfired brick, the brick is passed onto another machine where the whole brick is slightly compressed in a steel mold and the brand impressed into the cut face.

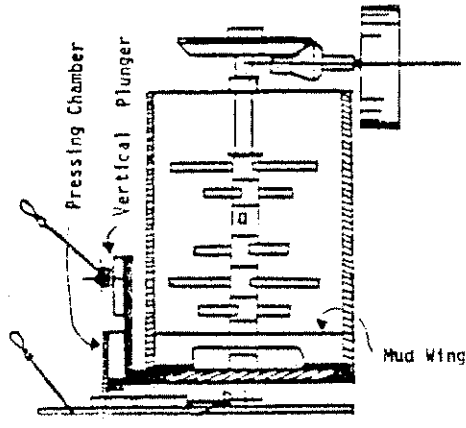
What causes the black appearance? Green firebricks usually burn to a white, yellow, or buff color when they are manufactured. Depending on their use, however, they can become quite discolored. The black substance is some type of tar or other heavy duty oil that has dried on the bricks. When a match was applied, it started to melt and then caught fire! Because this tar is on the inside or broken surface as well as on the outside surfaces, these bricks have probably been dumped either into the tar or perhaps the tar dumped on them. The firebricks could have been part of an oil-fired boiler, either a stationary one or possibly one on board ship because they have definitely been used but that would not have coated the bricks

as they have been. These bricks don't appear to be melted, though that's somewhat difficult to tell with the heavy coating of tar, so they probably were not subject to extreme temperatures such as those found in a blast furnace, for example.

The red sandy bricks are known as common bricks. Common bricks are primarily used in the construction of buildings but they can be used for just about any purpose you might want to put a brick to except for high temperatures. All common bricks were made by the soft-mud process. If you will recall this method involved a fairly high water content which allows the raw material to be worked by hand. So under the title "soft-mud" you can have bricks made by hand or by soft-mud machines.

The process is quite simple. With handmade bricks, the brickmaker stands in front of a table that contains several lumps of tempered clay (or mud), a rectangular wooden mold slightly larger than a brick, a wooden straight edge called a strike, a tub of sand and/or a tub of water. The brickmaker takes a lump of clay about 25% larger than the mold but roughly in the same shape, and raises it high over his head and then slams



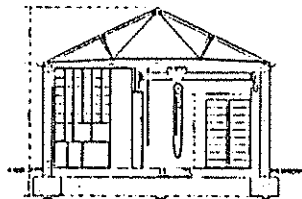


it down into the mold. He then pushes the clay into all four corners and finally he removes the excess clay by rapidly moving the strike across the top of the mold. Dragging the strike across the brick can leave a rather rough surface and often shallow to deep lines running across that face. This is one of the main characteristics of the type and the fact that opposite the struck surface the face is reasonably smooth. Another characteristic is whether the brick has a sand-struck or water-struck surface. To allow the green brick to slip free of the mold, the mold has to be lubricated. Sand or water are the two main lubricants although oil has been used. For sand-struck bricks, the mold is first dipped in water then sand is sprinkled over it. The sand tends to rub off giving the brick a sandy appearance. Wet sand would also work so long as it wasn't too wet or too dry. For water-struck bricks, the mold is dipped in water and this leaves a brick that's fairly smooth but has small ripples or water marks on the sides and bottom. These common bricks, however, are all sand-struck.

Early in the nineteenth century inventors were trying to mechanize brick making and this method was the first one they were successful at. By 1819 there was a successful soft-mud brick machine operating in Washington D.C. Basically soft-mud machines consist of a device that drops a certain amount of clay into a

wooden mold and then a piston descends and compresses the clay into the mold. On simple machines that were sold up to the 1930s, the molds were then ejected and the excess clay struck off by hand. More modern soft-mud machines that were introduced in the early 1920s are totally automated and hence can use a much stiffer clay since humans don't have anything to do with striking the brick. Bricks made on these later machines can be distinguished from those made on the earlier ones but unfortunately handmade bricks cannot be distinguished from those made on the earlier types of soft-mud machines. Like the handmade ones, soft-mud machine made bricks have a strike and also can be divided into sand or water-struck bricks depending on what lubricant is used.

What else can be learned about these common bricks? One specimen (FG 3210) seems to have been subject to a low temperature fire, high enough to discolor it but not high enough to melt it. At what temperature common bricks will start to melt is, of course, highly variable and is dependent on the type of clay used. For most common bricks it ranges from say, 1700 degrees F to 2100 degrees F. It is difficult to tell whether the discoloration was due to uneven burning in the kiln or afterwards. In general, a low or unfired brick will be brown, a medium fired brick will turn red, and a high fired brick will turn purple just before it starts to melt. However, a



whole range of colors are possible because of where it was placed in a kiln.

The white stuff on brick (FG 3210) may be a residue from some type of lime-based mortar. One feature of interest is the small rectangular depression opposite the strike face. This is known as a "frog" and was designed to provide a key for mortar. It also served to reduce the weight of the brick as well as saving some of the raw material. Additional advantage was a reduction in drying and firing time because there was less brick to dry and burn and the heat could reach the interior of the brick quicker. However, a frog as shallow as this one probably wouldn't do any of these very well but it would help protect the name of the company that made it. Many soft-mud bricks have been seen with the same shallow frog and each had the brickmaker's name or initial in the center.

The mortar on another specimen (FG 5026) seems more cement-like than the traces of mortar on the other bricks. However, there is nothing that can be seen that would prevent this brick from being made by the same firm that made the brick with the frog. One soft-mud brick maker who uses a six compartment mold (six bricks made at one time) and three of the compartments have the firm's name carved in the bottom of the mold and three were blank.

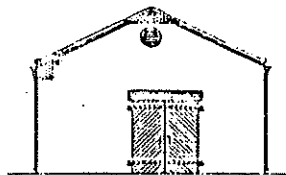
The final brick (FG 3685) seems somewhat weather worn--the edges just are not as sharp as on the other specimens. The color is also slightly darker but you can't rely on this factor to separate types unless you had a larger number of bricks for comparison and even then it would be difficult. Still, one might be able to set this brick up as a separate type by a careful comparison of the clay matrix of this brick with the

others. Unfortunatley, that would require more time and a much larger sample.

In summary then, there are two distinct types of bricks--firebricks, probably manufactured by the Los Angeles Pressed Brick Co. (ca 1891-1926) (its THREE STAR brand). These firebricks were made by the stiff-mud process and then repressed. Aubury notes that the Los Angeles Pressed Brick Co., was making both firebricks and common bricks in 1906. The black stuff on these bricks appear to be some type of oil or tar that the bricks came into contact with sometime after they were thrown out. However, these bricks have been subject to some type of heat prior to their being discarded.

The second type, all common bricks, were manufactured by the soft-mud method and have been sand-struck. Unfortunatley, they are typical examples of this type which has a wide time range, for example, it's fairly common throughout the nineteenth century but, at least in the Pacific Northwest, the type seems to almost disappear at the beginning of the twentieth century. Today, and for most of the twentieth century in the Pacific Northwest, common bricks are mostly made by the stiff-mud process. Could these common bricks have been used on whaling vessels? There's really no way of telling.

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## THE FAMILIES OF THE PRESIDIO DE SAN DIEGO

The Presidio de San Diego housed the Mission San Diego de Alcalá during the first five years of its existence from 1769 to 1774. During that time there were soldiers, priests, and Indians living with the presidio walls. There was only one married soldier stationed there at that time, with two children. It was not until after the Anza Expedition in 1775 that "families" came to live at the presidio.

These presidio families were military families in every sense of the word, and that meant mobility. These families had to be prepared to pack everything and move, at any time, to the garrisons at San Gabriel, San Juan Capistrano, San Luis Rey, the San Diego Mission (which was now five miles east of the presidio), or anywhere they were needed, even to northern California.

To the people who lived there, the presidio and its walls were never really "theirs." They were just "military housing." Most of these people had come to Alta California to start new lives for themselves and that meant owning land and a home, a place of permanence. But for as long as they were military personnel, living in a military fort, there was very little permanence in their lives. They were waiting for a time when they would be given land to build their house as payment for their services to Spain.

Of the soldiers who lived with their families in San Diego before 1800, there were few who ended up owning permanent homes and developing a civilian settlement here. Some of these early military families who stayed into the Mexican Period, which began in 1822, and helped to develop San Diego as a pueblo were the Lopezes, Carrillos, Osunas, Pictos,

Alvarados, Ortegas, Serranos, Silvas, Amadors, Alvarazes, Ibarras, Penas, Sotos, Aguilar, Cotas, Marrons, and others. These families settled here because they were given land and built homes here after the men had left military service.

Many families who had been living at the San Diego Presidio left because the land they were given was elsewhere. The list of these names include the Sepulvedas, Villavicencios, Dominguezes, Oliveras, Felizes, Lisaldes, Lugos, Yorbas, Verdugos, Monroys, Duartes, Valenzuelas, Villalobos, Espinosas, Vallejos, Castros, and many more.

There were also families who had served the Crown in other areas of New Spain who came to San Diego late in the Spanish period or even into the Mexican Period to make their permanent homes. The Machados didn't come to San Diego until after 1805. The Arguellos and Bandinis came to San Diego after 1818 and the Estudillos came after 1824.

Permanent houses did not start to develop in San Diego until the very end of the Spanish Period, in the 1810's. These were houses that were built by men who had finally retired from military service. They were located mostly in Mission Valley near the river where the families could cultivate small gardens for their sustenance. Unfortunately, almost all of these houses were completely destroyed in 1821 when Mission Valley flooded. It was not until the Mexican Period, which began in 1822, that a permanent civilian settlement could be planned in the area of Old Town. After this happened, the garrison at the San Diego Presidio was reduced to a token number. It is no surprise that this "temporary military housing" soon fell into ruin.

Corey Jon Braun  
Chairman/Descendants of Early San  
Diego Pioneers

A RESEARCH DESIGN FOR THE PROPOSED  
1987 ARCHAEOLOGICAL INVESTIGATION OF  
FORT GUIJARROS: LOCATED ON THE U.S.  
NAVY SUBMARINE BASE, SAN DIEGO.

In January of 1987 the Fort Guijarros Museum Foundation submitted its application to the U.S. Navy Facilities Engineering Command in Arlington, Virginia for permission to conduct archaeological investigations on the site of Fort Guijarros. Captain Ralph Johnson, Commanding Officer, U.S. Navy Submarine Base, San Diego had given approval for the application. The proposal is to return to the walls of Fort Guijarros for a second look.

The walls were uncovered in 1981 after two years of historical research. Historian Linda Roth and National Parks Service Ranger Brett Jones revealed documentary evidence to support the hypothesis that the walls lay in front and on the south side of the 1898 U.S. Army Battery Wilkeson. Excavation under an Antiquities Permit revealed the Spanish walls to be covered by complex layers of colored earth deposited by Yankee whalers and the U.S. Army before 1942.

During the 1981 field season a backhoe was employed to cut through the 1942 overburden deposited during the expansion of Fort Rosecrans during World War II. When the bucket touched a black ashy layer of earth it was moved and eventually opened an area measuring five by ten meters in size. The archaeological name for this area has been "Field I." It was then gridded in two meter test units with string lines. One meter "balks" were left between the units so that stratigraphic profiles could be sketched.

The archaeology team was fortunate to include Dr. Jerry Schaefer, an expert in Middle Eastern and U.S.

American archaeology. Dr. Schaefer devised the system for numbering each colored layer of earth, pit, trench fill, and piece of architecture. As the test unit excavators encountered a colored layer, a "locus" number was assigned with a tag on the wall and recorded in the field notes. This coding system was essential for layer interpretation of the complicated overlapping and disappearing "layer cake" effect of soils which buried the old Spanish fort. The archaeological interpretation of the layers above the fort will be the subject of another article.

Excavators first encountered a jumble of broken fired clay tiles, some covered with sandy mortar, others with finished whitewashed plaster. The plan map included sketches of these tiles in each test unit and then the rubble was removed. Each piece of architecture was bagged or marked according to which test unit from which it came, but none were individually mapped.

Failure to number each individual tile fragment and record the code on the unit plot map has frustrated subsequent technical analysis of the architecture collection. Civil Engineer Fred Buchanan has volunteered to undertake a careful analysis of each piece in order to attempt to interpret (a) the process of tearing down the merlones by Machado's crew, and (b) how the fort was constructed internally.

Fortunately, half of the encountered wall area in 1981 was exposed, sketched, photographed, and then buried intact. This control was done with the concept that at some future time archaeologists might wish to return to the walls to re-examine the remains.

The research design advanced to the U.S. Navy would be to return to the walls in 1987 and micro-map each piece of rubble. Buchanan's typology

of architectural stages will be encoded so that each encountered piece can be marked on the micro-map and relationships examined. The mystery of how the wall was actually constructed may well be resolved from this research.

The Foundation probably will not receive word on approval or denial of the permit application until early April. Delays were encountered last year when application revisions were requested and the field work did not begin until July. The 1987 season is planned for the first weekend in June.

#### FORT GUIJARROS CHICKEN

Although actual recipes of Spanish dishes in 18th century San Diego are not known, the Foundation promotes membership experimentation with Spanish-style recipes. Archaeological analysis of bones encountered in the trash pits from behind the walls in 1983 and 1984 support the findings at the Royal Presidio de San Diego that casseroles, stews, and soups were the primary dishes of families in the time when Fort Guijarros was occupied. The following recipe is borrowed from "an old Spanish recipe" and passed on to the membership.

1. Chop two onions.  
Slice two red bell peppers.  
Slice and dice two red potatoes.  
Chop two carrots.
2. Place one tablespoon of olive oil in a large pan at medium heat and pour in the onions, peppers, potatoes, and carrots. Fry for three to five minutes.

3. Pour one cup of water and stir the above. Let simmer five to eight minutes. Pour one quarter cup of chili sauce and one tablespoon of ketchup and stir.
4. Boil four pieces of chicken thoroughly and separately from above.
5. Mix one tablespoon of corn starch and one quarter teaspoon of saffron into the pan of onions, peppers, potatoes, and carrots. Allow to simmer for three to five minutes. Then mix four tablespoons of sugar and water and stir.
6. Shred the boiled chicken and add a teaspoon of onion salt and a teaspoon of regular salt and spread all this into the main pan. Cover with a lid and simmer for three minutes.
7. Serve in a bowl or casserole dish. This makes about three to four servings.

#### FORT GUIJARROS MEMBERSHIPS

Annual memberships in the Fort Guijarros Museum Foundation are available at the following levels:

- |       |                                 |
|-------|---------------------------------|
| \$150 | Commandante's Circle            |
| \$125 | Patrons of the Fort             |
| \$100 | Yankee Whalers                  |
| \$ 75 | Friends of Fort Rosecrans       |
| \$ 50 | Crew of the <u>Lelia Byrd</u>   |
| \$ 25 | Corporal of the Guard           |
| \$ 18 | Family                          |
| \$ 12 | Regular                         |
| \$ 8  | Military/Student/Senior Citizen |

Founding Life Members  
Life Members  
Honorary Members

# FORT GUIJARROS MUSEUM FOUNDATION

## Membership Form

The Fort Guijarros Museum Foundation is a nonprofit public benefit corporation organized for the discovery, excavation, preservation, and display of historical artifacts and information from the Point Loma area of San Diego.

All members receive the "Fort Guijarros Quarterly" and are eligible to participate in the foundation's archaeological excavations.

### ANNUAL MEMBERSHIP CATEGORIES

Student/Military/Senior	\$ 8.00
Regular	\$ 12.00
Family	\$ 16.00
Corporal of the Guard	\$ 25.00
Crew of the Lelia Byrd	\$ 50.00
Friends of Fort Rosecrans	\$ 75.00
Yankee Whalers	\$ 100.00
Patrons of the Fort	\$ 125.00
Commandante's Circle	\$ 150.00+

Those who become members of the Commandante's Circle in 1987 also will be honored as Founding Life Members.

A check for \$ \_\_\_\_\_ is enclosed.

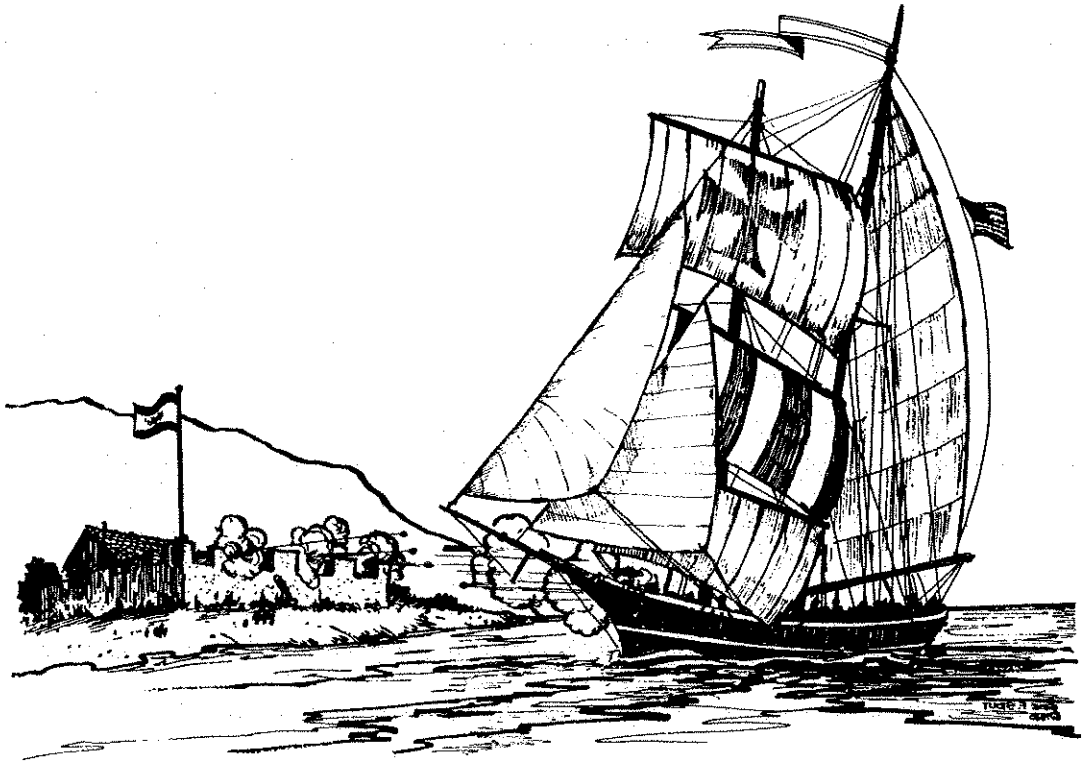
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FORT GUIJARROS QUARTERLY

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