A non-profit organization incorporated in 1981 to research and promote the heritage of San Diego's old Spanish fort and the subsequent history of Ballast Point in San Diego Bay.
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With the printing of this issue, the Fort Guijarros Museum Foundation will have completed publication of a second year of the Fort Guijarros Quarterly.

This journal of active archival and archaeological research, community outreach, and public education has earned the organization widespread distinction. The Board of Directors have steered the 1988 programs to compound upon successes in the past.

A graduate student from San Diego State University is actively using the archaeological collection for coursework and a thesis topic. Californians of Spanish descent have purchased back issues of the Quarterly to assist them in genealogical work for their families. The Foundation is actively seeking grants to develop new programs of outreach to the San Diego community.

In the fall of 1987, the Fort Guijarros Museum Foundation offered to assist the U.S. Navy by conducting an archaeological project on Ballast Point. That dig yielded not only artifact collections that will address important research topics on the social history of 19th century whalers, but also the only known architectural foundation of a tryworks oven in the United States.

The archaeological dig consumed 370 person days from June until late November of 1987. A team of fifteen volunteers hauled what seemed like tons of cobbles and sand to expose floors, work areas, cooking areas, the ovens, and a possible boatyard. Square bronze nails and spikes, medicine and beverage bottle glass fragments, food remains, and Spanish tiles were also recovered.

The U.S. Navy also committed to constructing a laboratory and storage room on the Submarine Base to consolidate the collection from the various storage areas.

Impressed with the importance of the tryworks oven foundation, the U.S. Navy also committed to seek a contractor to move the tryworks oven remains, stone by stone, and reconstruct it elsewhere on the Submarine Base. This will occur in 1989 and will be the subject of another issue.

The County of San Diego granted $1000 from the Community Enhancement Fund in June of 1987 to assist in the Foundation's public outreach programs. The Board of Directors used this money to fund improved exhibit cases and artifact displays, as well as re-publication of 100 copies of the 1987 Quarterly (all issues in one binding) which were donated to schools and libraries. The funds were also used to support the printing of 35 copies of the new video on Fort Guijarros. The County of San Diego renewed that $1000 grant in 1988.

The public speakers forum continued to provide slide lectures on the dreams and programs of the Fort Guijarros Museum Foundation to various community groups. These groups included the Peninsula Shepard's Association, the Saratoga Community Club, the Point Loma Rotary Club, and the Peninsula Chamber of Commerce.

The Foundation hopes to expand all of these programs in 1989 with a look to the 1992 Quincentennial celebration of the discovery of the Americas by Christopher Columbus.

Future Foundation goals include seeking grants and community donations to develop a "Spanish Cultural Center" on San Diego Bay. Such a project has been discussed by officers of both Casa de Espana and the Fort Guijarros Museum Foundation. The Foundation will also consider ways to use the information Professor Donald Cutter discovers in his research in Spain. Although 1988 was a banner year, 1989 can only get better.
Mallorca as a Source for California Mission Architecture

Norman Neuerberg, Ph.D.
Fort Gujjarros Fiesta Keynote Speaker 1988

Thirty years ago Kurt Baer published a book on the architecture of the California missions in which he discussed the possible sources of mission architecture. One reviewer of the book commented, rather scathingly, that he was wasting his time doing that since Fray Junipero Serra had brought the complete plans for the twenty-one missions with him from Mallorca. Of course, when Serra reached the New World in 1749 he had no idea that twenty years later he would begin founding a chain of missions in California, so that statement is without merit.

We can laugh at this simplistic view, but it does pose the very real question of the degree and nature of direct and specific Spanish influence on California's mission architecture. Others have attempted to make occasional comparisons, such as Rexford Newcomb, who suggested that the church of Mission San Gabriel was based on the Mosque at Cordoba, though that suggestion, incidentally, does not hold up. However, the question has never been investigated in depth. It is complicated by the fact that the missionaries were mostly from Spain while the trained artisans who often were the ones to design the buildings were Mexican by birth.

This past April (1988) I had the opportunity to visit the island of Mallorca. I was given what one might describe as an "immersion course" in Mallorcan culture and architecture and looked at a large proportion of the churches on the island with the goal of finding possible parallels. Not only did Serra come from Mallorca but fifteen other Mallorcan missions came to California to be missionaries as well. Six of them, Fathers Juan Crespi, Francisco Dumetz, Antonio Jayme, Francisco Palou, Miguel Pieras, and Antonio Ripoll, came from Palma, the capital. Two, the brothers Juan and Pedro Cabot, came from Bunyola; two, Bartolome Gili and Juan Bautista Sancho, came from Arta; two, Geronimo Boscana and Mariano Rubi, came from Llucmajor. Junipero Serra came from Petra, Luis Jayme from San Juan, Mariano Payeras from Inca, and Buenaventura Sitjar came from Porreres.

I had the opportunity to visit all these towns. I became aware of a remarkable consistency in the style of architecture which seemed to lack significant regional variation. After the glorious centuries of Mallorcan independence, the island became a provincial backwater and reflected artistic tendencies elsewhere in Spain rather than initiating them. Mallorca was so far behind the times that the Gothic style of construction which had died in continental Spain in the sixteenth century continued well into the eighteenth century and only ended a few scant decades before the Gothic revival began!

My guide and host, Bartolome Font Obrador, was particularly interested in my finding parallels, and the first day out he took me to his hometown, Llucmajor—which he shared with Geronimo Boscana—and pointed out the belltower of San Buenaventura, the Franciscan church. It consists of a
rectangular chamber topped by an octagon and a dome. He suggested a possible influence on the later of the two belltowers at Carmel in California where one similarly finds a rectangular chamber topped by an octagon and a dome, though the proportions are admittedly different.

As it happens, this scheme appears in numerous belltowers of Mallorcan churches, some identical to that of San Buenaventura, others of a less odd proportion such as that of the parish church of Montuiri where Serra preached, and even the tower of the cathedral in Palma would have been of this type had the dome been placed on top of the existing octagon.

The parallel here was with a concept rather than an exact form, but, in the chapel of the Blessed Ramon Llull in the church of San Bernardino in Petra, Serra's birthplace, the tile wainscoting is an exact parallel to the painted wainscoting in the old Crucifixion Chapel in the church at Carmel. These three examples are all from Carmel, but, of course, Serra never saw that church, his successor there was a Catalan, and the master mason, Manuel Ruiz, who built and possibly designed the church, was from Mexico.

He may have been trained in Guadalajara, where one can find a good parallel to the baptistry ceiling at Carmel in the sacristy of the church of Santa Maria de la Gracia. However, one must emphasize that Mexican architecture derives largely from Spain.

A less common method of hanging the bells, the espadana, appears over the entrance at Selva where Serra preached. In concept it might be related to the facade of Mission San Antonio de Padua, and at least three Mallorcans were missionaries there over the years, but again one can find similar schemes in Mexico as in the chapel at the Hospicio de Cabanas by Manuel Tolsa in Guadalajara.

One of the most typical design features of Mallorcan churches is the rectangular facade with a circular window above an elaborate doorway. Circular windows are rare in California, there being only those of Santa Barbara and San Luis Rey in this position. Santa Barbara was built during the administration of Fr. Antonio Ripoll, the last of the Mallorcans to come to California. The design of the facade is surely based on the engraving of an Ionic temple in the 1787 edition of the Ten Books of Architecture of the Roman architect Vitruvius, of which this mission owns a copy. It is possible that Fr. Ripoll may have suggested the round window which is lacking in the engraving where it would not have been appropriate.

An important detail of the ornament of Santa Barbara's facade is the set of sculptures of Faith, Hope, and Charity which stood at the apex and the extremities of the gable. Their placement may have been suggested by the three pedestals in the Vitruvius engraving, but groups of virtues can be seen as paintings flanking the sanctuary in the Franciscan churches of San Bernardino in Petra and that in Soller, and there are statues of virtues on the main altar of San Francisco in Palma.

Ron May presents award of merit to Professor Neuerberg at 1988 Fiesta.
However, these are all inside churches while the closest parallel for the placement of these statues is perhaps on the upper part of the facade of the Cathedral of Mexico City which was being completed just about the time Fr. Ripoll was in that city. Although the statues by Manuel Tolsa were not actually installed till after Fr. Ripoll had left, he may very well have heard of them.

The other mission church with a circular window in its facade is San Luis Rey. A Mallorcan, Fr. Boscana was there when the cornerstone was laid, though the document recording that tells us that the architect was Antonio Ramirez, one of the artisans who came from Mexico in the 1790s. Boscana left before the church was dedicated, but he may have suggested the round window to Ramirez, who then went on to Santa Barbara to work on the church there. Thus, all questions concerning possible direct influence from Mallorca remain tantalizingly hypothetical.

Where do we find a very strong Mallorcan influence that goes beyond the hypothetical is in the area of the religious devotions and the saints to whom the missions were dedicated. All of the saints, especially the Franciscan ones, can be found repeatedly in Mallorcan churches.

Of the twenty-one patrons, seven are Franciscan friars, one is a Franciscan nun, three are members of the third order. Six of the friars and the nun were all patrons of missions founded during Serra's administration. San Carlos Borromeo was a member of the Third Order of the Franciscans and had a Mallorcan Confessor, though he was chosen to honor King Carlos III rather than for these other connections. San Luis Obispo was related to the Mallorcan ruling house as were the kings Fernando and Luis de Francia less directly.

Of the advocations of the Virgin Mary La Purisima Conception was a special patron even before being chosen patron of a specific mission. It is in that form that she is most frequently venerated in the churches of the island, where she often appears not only on the main altar but in separate chapels in the same church as well.

The great defenders of the Immaculate Conception were the Franciscan San Buenaventura and the Mallorcan Blessed Ramon Llull. The former accompanied her to California and because of that his image appears with surprising frequency here, while the latter, because of his lesser state of recognized holiness, had to stay home.

The influence was not just one way as the Virgin of Guadalupe appears in two churches in Mallorca. More frequent, though, are the plants from the New World, and I was fascinated to see a stand of prickly pears, higos chumbos, as they are called on the island, next to a field of a wild mustard, that plant which the missionaries brought to California as seeds and sowed along the coast in such abundance that few realize it is not a native.
Stanley South's artifact pattern study was hailed by Lewis Binford as "the first systematic comparative study of archaeological data relative to the historic period in North America."(1) South's method involved total artifact counts for an entire site. Each artifact within the sample was classified within nine functional groups: Kitchen, Bone, Architecture, Furniture, Arms, Clothing, Personal, Tobacco Pipes, and Activities.

The percentage of the total artifact sample within each of these groups formed the pattern for the site. A given pattern could then be compared to that of another site. South's artifact patterns proved to be sensitive to variables between two sites of the same type and between two units within one site. Thus, South's artifact patterning proved to be a sensitive measure of site variability.

Working on the east coast, South established two separate type sites based upon geographic location and function: the Carolina and Frontier patterns. The Carolina artifact pattern, reflected by sites predominantly domestic in nature, was generally defined by a high mean percentage of the Kitchen group (63.1%) and Architecture group (25.5%). In contrast, the Frontier pattern, reflected predominantly by trading and military functions, demonstrated a lower mean percentage of the Kitchen group (27.6%) and a higher percentage of the Architecture group (52%). In addition, the mean percentage of the Arms group was higher in the Frontier pattern (5.4% versus .5%). The Clothing group had a lower mean percentage in the Frontier sites than in the Carolina pattern (1.7% versus 3%).

In my thesis, I will focus upon new applications of South's artifact patterning methods as they relate to the metal collection of the Ballast Point site in Point Loma. The site contains three distinct components. The Spanish/Mexican components date from 1796 to approximately 1835 and represent the first military occupation of Ballast Point to establish marine defense works (castillo).(2)

The occupation of shore-based whalers, following the abandonment of the castillo, took place from approximately 1857 until 1886.(3) In that time period the United States Army evicted the whalers and the site resumed its role as marine defense works.

The Army occupied Ballast Point (Fort Rosecrans) until 1957.(4) Very few metal artifacts have survived from the Spanish/Mexican period. My thesis will deal only with the whaling and U.S. Army periods.

I propose the following research hypotheses developed for the Ballast Point site. Implicit in all hypotheses is the assumption that I will be able to derive a metal artifact data pattern either from South's data base or a similar data base. Only in this way can the Ballast Point data base and other comparable data bases be compared to South's data for such variables as technology, economy, geography, and social change.

Therefore, the first hypothesis is:

1. Since Stanley South has demonstrated that artifact data bases encompassing all artifacts in a sample form comparable patterns, and metal artifacts are a subset
of this total artifact sample, and metal artifacts, being constructed of material easily rendered fluid or malleable are therefore useful in most of South's functional categories, then metal artifacts from South's data base are expected to render a reliable pattern comparable to the Ballast Point metal data base.

Having established a basis for metal data base comparison, I will then turn to the shore-based whaling data at Ballast Point. Since the function of whaling stations was generally the rendering of whale blubber into oil, these sites could be said to have had a manufacturing function. Initially, I will compare the data base from this component with another manufacturing site data base. Bartel's work with a Roman mining camp in Krk'ulu Yordan, Yugoslavia indicated a manufacturing artifact pattern could be distinguished from South's Carolina pattern. Bartel utilized five of South's eight classes: Activity, Kitchen, Architecture, Personal, and Arms. Significantly, the Activity class comprised 87.5% of the total artifact count. The Kitchen and Architectural groups comprised only 10.08% and 1.82% of the artifact count respectively. Again, it will be necessary to determine how metal artifacts were represented within each of Bartel's artifact groups. With this information, a comparison can be made between Bartel's data and that of the Ballast Point whaling component.

The second hypothesis follows:

2. Since Bartel's Krk'ulu Yordan manufacturing site and the Ballast Point shore-based whaling component both represent manufacturing functions, the metal components from both sites are expected to have a large percentage of the Activities Group and corresponding low percentages of Kitchen and Architectural Groups.

A third goal is to refine pattern definition specifically for shore-based whaling sites. Lourensz Haquebord has provided total artifact distributions using South's pattern analysis techniques on a number of 17th century shore-based whaling sites on Amsterdam Island, in the Arctic. Like Bartel, Haquebord's data showed a relatively high percentage of artifacts in the Activities Group (2.4-12.8%). The Architectural group was particularly high (66.9-82.8%). This pattern may be due, in part, to climate, as Haquebord reported the lower range of air temperature in July and August to be 4 degrees to 5 degrees C. In this climate the crew would naturally prefer to conduct as much work as possible in a sheltering structure.

Data comparison with a relatively temperate Taieri Island site in New Munitions casings from the U.S. Army period at Fort Rosecrans.
Zealand should be sufficient to render a comparison. (7) Again, the metal data will have to be culled from both sites.

The third hypothesis follows:

3. Since shore-based whaling sites are similar in function, cross-comparison of the data bases of different shore-based whaling sites are expected, contingent upon similar climate, to yield similar patterns.

A fourth goal is to determine whether South's Frontier artifact pattern could be comparable to the 20th century Military pattern for Ballast Point. The advent of plumbing and electricity in the 20th century are expected to skew the data in favor of the Architectural artifact group. For this reason, the electrical components and plumbing apparatus will be added to South's categories in order to distinguish them from this class in a second analysis. This will aid in analyzing the impact of these factors upon the Architectural artifact group.

The final hypothesis follows:

4. Since South's Frontier pattern was established at sites similar in function to the Fort Rosecrans site at Ballast Point and the 20th century artifact categories of Electrical Components and Plumbing Apparatus can be included or excluded as needed for cross-comparison, South's Frontier pattern and the Fort Rosecrans pattern are expected to be similar.

**Theory**

In conforming to South's research design, I necessarily adopt his underlying models. He embraced, as a controlling model, the new cultural evolution model formulated in the 1950's. Built upon Leslie White's materialist orientation to this model, South sought to look at culture change via pattern analysis as it was found in the archaeological record. The hypothetico/deductive methodology, newly championed by the Binfordians as scientific archaeology, was also an important part of this model. South believed the cultural evolution model could be applied whether one drew data from historical documentation or the archaeological record.

South also utilized two operational models. The historical model allowed for the addition of historical evidence into the data base and comparison of historical and archaeological data. The functionalist model provided the framework for the categorization of the artifacts. (8)

**Data Collection and Analysis**

The data I will be analyzing comes from a field excavation of a portion of Ballast Point designated as Field III. This field was excavated in an attempt to locate the 18th century castillo foundations, confirm historical accounts of the method of its construction, and compare the archaeological evidence of the construction of the 18th century Monterey castillo.

Field III was excavated in 1982, 1985, and again in 1987 by stratigraphic levels. Twelve levels were distinguished for Field III, including a cobble foundation of the castillo wall, an earthen berm constructed to fortify the castillo wall, rubble from the collapsed wall, a whaling deposition layer, and a sizable U.S. Army trash midden.

The classification system I will be using for the artifacts from this field will conform as much as possible to that of South. (9) I have adopted only seven of his nine groups, as the remaining two groups are not represented by metal artifacts. The groups I will utilize are: Clothing, Personal, Furniture, Architecture, Kitchen, Arms, and Activities.
The Clothing groups will include all metal items normally found on clothing (such as hooks and eyes, eyelets, buckles, and buttons) as well as metal items associated with the construction of clothing (such as straight pins, scissors, and irons). A conflict arises because the Ballast Point collection contains many buttons and buckles with military insignia. South's clothing group contained buckles and buttons, yet he reserved items bearing military insignia for his Military category (within the Activities group). To alleviate this conflict, I will have a separate category in the Clothing group for buttons and buckles bearing military insignia.

This category can then be compared as a part of the Clothing group or as a part of the Military category with the Activities group.

The Personal group will be composed of items normally found in one's pocket or shoulder bag. These include watch fobs, combs, coins, and keys. The only categorical addition I will make to South's Personal group is the pocket knife, an indispensable item in 20th century military personnel tool kits.

The Kitchen group was defined by South as items functioning as indoor subsistence tools. This group included metal items such as table utensils and kitchen implements such as graters, pot hooks, and kettles. I will also add tin cans to this inventory with a cautionary note that although tin cans were an important food storage item at the turn of the 20th century, they were also used to store non-food items. Due to the effects of the harsh marine environment, existing tin can fragments may be difficult to functionally classify. If this proves to be true, tin cans may be classified in the Activities group, under the Other category.

South's Furniture group consisted of furniture hardware, including hinges, tacks, knobs, and other functional or decorative adornments. I will adopt this class, with no further additions or changes.

The Architectural group will consist of metal items utilized in the construction of dwelling and defensive structures. This group will include South's categories (nails, spikes, hinges, door lock parts, etc.) and also include 20th century architectural categories such as screening, electrical wiring, and plumbing components.

South's Arms group consisted of lead balls, gun parts, and bullet casings: defensive items one might expect a private citizen to own. (South assigned heavy artillery to the Military category within the Activities group.)

The Activities group was South's catch-all group. He used it to group artifacts linked to specialized activities such as smithing and military maneuvers. Within this group, I will be utilizing several of South's categories: Construction Tools, Farm Tools, Fishing Gear, Storage Items, Stable and Barn, Miscellaneous Hardware, Other, and Military Objects. (I expect that specialized activities at Ballast Point, such as shore-based whaling, will result in high frequencies of such categories as Fishing Gear and Storage Items. In contrast, the Fort Rosecrans component is expected to yield a high frequency of Military Objects and Stable and Barn categories.)

Strap buckle from U.S. Army period at Fort Rosecrans.
Pattern Identification

The number of artifacts within the artifact groups and their member categories will be the basis of pattern identification. Each group will be classed according to its function into one of the groups. The number of artifacts within each category and group will be summed and percentages of each group rendered. The percentage scores for each of the seven groups are expected to form a pattern which will be comparable between sites.

Conclusion

The overall goal of this study will be to utilize South's patterning methodology to tentatively define patterns for manufacturing, shore-based whaling, and 20th century military sites. In defining these sites, quantitative cross-comparison with other sites then becomes possible. It is hoped that this study will provide a refinement of pattern distinction for historical sites and contribute to the growing store of data available on South's patterning methods.

End Notes

9. Ibid. 95, 96.
The United States Quarantine Station on Point Loma (1893-1937) and its Place in the History of La Playa

Howard Overton, Cabrillo National Monument and Ronald V. May, Fort Guijarros Museum Foundation

One and a half miles north of Ballast Point and just south of the Military Reservation boundary at La Playa was the site of the United States Quarantine Station on Point Loma. One of ten such stations planned by Congress to isolate contagious and deadly disease cases from the public, the Point Loma station was among the first. It operated from 1891 to 1937.

The site is of great significance in San Diego history, for La Playa had been the Spanish embarcadero made famous in the mid-19th century by Mexican hide trade merchant shipping firms. Richard Henry Dana, Jr. described the bustling community at length in Two Years Before the Mast, A Personal Narrative of Life at Sea (New York: Doubleday & Co., 1959). La Playa, embarcadero, and "Hide Park" were all names given to this property between 1820 and the Mexican War of 1846. British and American leather merchants licensed by the Mexican authorities in Monterey built two-story warehouses on the beach to store cruelly cured cattle hides. Each of the twelve warehouses was marked with the name of their freight ships, such as "Brookline." At that particular warehouse, a strange version of the American flag was raised in 1829 to mark the earliest officially sanctioned American business in California. The flag was made from a green calico shirt and red and white longjohn underwear. The California Landmark Commission bronze plaque, Landmark #61, indicates that 800 people once lived at La Playa to support the hide industry. The 1845 Pueblo survey by Henry Delano Fitch and Santiago Arguello marked the hide houses as Las Barracas, a term misinterpreted by General Henry Halleck in 1846 to
mean "military barracks." The north line for the Military Reservation was set in 1870 based upon Halleck's error.

However, the United States Quarantine Station site selection may have been based upon two more sound premises. First, there existed a Protestant cemetery at the embarcadero that served all ethnic groups and nationalities associated with the bustling hide industry. In 1854, Matthew Simpson visited that cemetery and described its location as a high hill with reddish soil rising back of the landing. Simpson saw forty mounded graves, about half had markers. Several were surrounded by poled enclosures. Among the marked were "R. Bradley, on board Congress, '47," "R. Adams '47" and:

Mary Jane Sandey, wife of Wm. A. Sandey, who was born in the town of Cherryfield, Mass. Anno. 1828, and who departed this life on board the ship Monterey in the harbor of San Diego on the 25th of August 1850, aged 22 years -- Behold my friends as you pass bye, As you are now so once was I. As I am now so you must be, Prepare for death and follow me."(2)

Other markers included "Sault of Boston," "Caniz of New York, 1851," "J. A. Sawyer, Master of Newton of New Bedford, '44," "Neil McCullen of ship Congress," "J. Cart from Indiana, February 11, 1852, aged 28," "Tyler, Michigan," "Miller, Rhode Island," "Howes, Maine, 1852," and "Allen, Vermont." The cemetery also included Mrs. Jesse Hunter, wife of Captain Jesse Hunter, Mormon Battalion commander. There was also a local legend that four Russian sailors found dead on North Island in the 1830s were given Greek Orthodox rites at that cemetery(3).

By the end of the 19th century, nearly all the citizens of San Diego that contested the boundary of the Military Reservation on La Playa had abandoned their homes and moved to the waterfront at New San Diego. Much of La Playa had been purchased from the City Council by the Pacific Coast Steamship Company in 1849 to anchor the California and Vandolritter (Book E of Deeds, p. 123). This was a carry over arrangement with the American authorities that had begun under Mexican license. The upland areas of La Playa had been owned by Juan Maria Marron, B. Lopez, Louis Rose, M. Keating, Miguel Pedrenosa, J.D. Lord, John Hammond, Joseph Smith, Oliver S. Witherby, Alonzo E. Horton, J. Chauncey Hayes, P. Sainsevain, Samuel P. Heintzelman, J.B. Hinton, John Bensley, P.J. Neal, John Bleeker, John Gardner, John C. Bogardt, A.J. Chase, E.W. Morse, and James McCoy. Even though the Supreme Court ruled against these title holders for lots within the Military Reservation, taxes were still paid as late as 1901.

By the 1880s, La Playa was in a state of transition. Small communities of Chinese and Portuguese fisherfolk were replacing the earlier Anglos. The old Bleeker and Gardner Store was rotting on shallow water stilts. The Donohoe House, adjacent to the Ocean House at the water's edge, was an occasional rental. John Brown's house and Captain John C. Bogardt's house were abandoned more often than rented. The last whalers had moved away from La Playa in 1880 and Louis Rose's wharf was rotted with ship worms.

When the United States Treasury Department selected La Playa on San Diego Harbor, they found an isolated marine settlement inside the Military Reservation. The nearby cemetery would soon increase with sailors dead from cholera, smallpox, yellow fever, bubonic plague, dysentery, and other dreaded diseases.(4)

The strategy for the Quarantine Stations was a line of national defense against diseases from foreign ports. The belief in Congress and
Taken from hand drawn map of Station circa 1894.

Officers Quarters Building occupied by Quarantine Officer and family. Small attic room upstairs for servant.

Mens Quarters Building occupied by attendants.
the Treasury Department was that the civilian populace would have nothing to fear as commerce expanded.\(^{(5)}\) The term "quarantine" derives from the French word "quarantaine," meaning forty days, or the time of medical isolation necessary to control epidemics. President Grover Cleveland authorized $57,500 in August of 1888 to establish the San Diego Quarantine Station\(^{(6)}\) and a committee requested transfer of the property from the United States Army. Bickering in the War Department delayed the transfer until 1891.\(^{(7)}\)

The property to the north and west of the quarantine station, marked off in blocks, was plotted and surveyed as the town site of La Playa, before the survey of the military reservation was completed. When the survey was finished and the cornerstone placed, it was found that a portion of the townsite was within the military reservation, lots and blocks had been sold and many already had built houses on them, these were ordered removed by the military authorities, which was done. On blocks 93 and 94, however, the case was different, the supposed owner having built an expensive wharf out from the waterfront of these two blocks to the ship channel. This could not be so easily removed and the owner of the wharf, whose name was Louis Rose, proposed that the government purchase it. The matter finally being brought before Congress, it was decided that the wharf was not needed by the government and as the reservation was a large one, it was decided in justice to Rose to cede him two blocks from which the wharf extended, this was done ...

(Act of Congress, 3 March 1877).\(^{(8)}\)

Louis Rose sold blocks 93 and 94 for one dollar to C. W. Fenn, who sold it to the Treasury Department for $5000 on 17 February 1880.

As early as 1889, Dr. W. W. McKay, M.D. United States Quarantine Inspector, had visited San Diego and negotiated title to the La Playa site.\(^{(9)}\) Construction began in 1891 and the primary compound completed between 1892 and 1893 (Figure 2). There were five shore buildings near a small wharf with an attached boathouse...

... the plant consists of a surgeon's residence, men's quarters, cottage hospital, and an excellent wharf with warehouse and boat house. Water from the Point Loma main is piped to the station. ... The surgeon's residence is 38'x42.6', exclusive of a eight foot veranda on all sides ... The hardware is all of solid brass. All mantels of the house are of different design in woods, with tiles. The ranges in three of the buildings are of the best steel, such as are used in the larger steamships and hotel, with 80 gallon boilers. Baths with hot and cold water, lavatories and toilets are placed in each dwelling. A cement cistern has been dug under each, 8'x10' feet ... The men's quarters are 24'x67' with a wide veranda on front ... The other rooms are a dining room and kitchen. The cottage hospital is 58'x31'.\(^{(10)}\)

The wharf and gangway spanned 504 feet from the shore to the harbor (Figure 3). At the end, the bottom depth was twenty-six feet and able to dock any ship in San Diego Bay at the
turn of the century. The wharf and two special mooring anchors were built in 1892 by the Coronado Foundary and Machine Company.(11)

The process of transferring quarantined sailors or passengers from merchant or military ships included detention of exposed personnel in a barracks near the wharf boat house. The ships and people were then disinfected with machinery from the disinfecting plant at the warehouse on the wharf. Pumps and blowers directed steam from a sulphur furnace and bichloride tanks.(12)

The waterline from Point Loma served both domestic and fire protection facilities. There were two fire hydrants on the grounds and two more on the wharf gangway. Hose wheel carts extended the service 450 feet in any direction.

Heat and lighting were primitive on all Point Loma facilities until 1901. Coal or wood fireplaces heated rooms and water and kerosene or oil lamps lit the quarters. In 1901, a gas plant was installed to improve conditions.(13)

Around the structures, 1200 feet of boardwalk was installed to facilitate all-weather movement between the structures. The entire compound was fenced and coated with whitewash. After several near disasters, a fogbell was added in 1898.(14)

When the United States Quarantine Station was formally accepted for operation in 1893, all employees suited up in their new uniforms. Hospital attendants wore black silk caps with gold letters spelling out "U.S. Quarantine."(15) Ironically, the original owners of the site at La Playa, the Pacific Mail Steamship Company, had the honor of docking the first vessel on the wharf. On April 3, 1893, the City of New York tied up to the wharf for quarantine inspection.(16)

The standard operation required a thorough disinfection whenever a quarantine occurred. All textiles and bedding were placed in a chamber that exceeded 100 degrees Centigrade. The surfaces and fixtures of the ship were washed down with a bichloride of mercury solution. The hatches were then sealed and sulphur dioxide gas forced through to sit inside for twenty-four to forty-eight hours. A great concern was the problem of

The Nightingale, shown anchored in the foreground, was built in New York in 1984 and shipped to San Diego by rail. The boathouse is beside the gangway, closest to the Nightingale. Immediately behind it is the steerage passenger detention barracks. A warehouse at the end of the gangway housed the disinfecting machinery (it can be seen in the cover photo.) Photo courtesy of Cabrillo National Monument.
yellow fever in the bilges of wooden ships that often could not be soaked long enough to penetrate all the seams.(17)

Passengers and crew were held in a detention barracks that was on the wharf. Built in 1905 at a cost of $19,394.71, this 50'x144' structure served as a home for the unfortunate victims of circumstance. A typical quarantine experience was relayed to the San Diego Union by N.C. Nason on September 19, 1900. A resident of San Diego, Nason visited Seattle on the steamship Walla Walla when a case of smallpox resulted in three weeks of detention at Victoria, British Columbia. He reported how the hearts of the passengers sank:

That night we were vaccinated and our clothes that we were to wear were tagged and sent ashore to be fumigated. Unfortunately, many of us were unprepared for this, having but one suit of dress in our cabins. Next morning before we were turned loose like sheep on a lonely island, we had to go through a building, strip ourselves and pass under a hot shower bath and then we were given the clothes we gave up the night before. When we (dined) at breakfast in the dining room that morning, a queer site presented itself. Down came both ladies and men wrapped in blankets, some with shoes and some with sheets wrapped about their feet. The men resembled Roman senators, the women Indian squaws.(18)

When the San Diego Quarantine Station began operations in 1893, Dr. W. W. McKay had four assistants. Hans P. Olsen worked as boatman and cared for the boathouse. T. Yamashita cooked and prepared the meals at the Hospital, Mena's Quarters, and Officers' Quarters building. He also operated the laundry building. Patrick Walsh was hired as watchman, but was soon replaced by John Supple. Olsen, Yamashita, Walsh, and Supple each earned $40 a month above free room and board. Dr. McKay received $100 as Acting Assistant Surgeon in Charge of the U.S. Marine Hospital and Quarantine Station, and was raised to $150 in 1905.(19)

Over the years, these employees were replaced and the number fluctuated from four to six. Their hours of duty were from sunrise to sunset, six days a week with federal holidays. Duties changed over time and a pilot joined the boatman and an engineer managed the disinfecting machinery. A carpenter continually repaired and maintained buildings, fences, boardwalks, boats, and the wharf. When a fire consumed the stable in 1901, the carpenter had to completely replace the structure.(20)

The quarantine operations consumed a great deal of time for the station employees. From July of 1893 to June of 1894, eighty-seven steamers and twenty-six sailing vessels arrived at the San Diego Quarantine Station.(21) The dead from infectious diseases were immediately buried and their belongings incinerated.(22) For example, when the British ship Carlisle City entered San Diego from Hong Kong in 1901 with five dead sailors and one dead passenger, the ship was quarantined, the crew were given injections of Yersin, and belongings of the dead were burned.(23) The burials cost about $10 each and were billed to the Surgeon-General.

The Quarantine Station staff had to tie up all the loose ends associated with the legal papers of the deceased. When Alexander Herman died on August 21, 1906, a money order for $5.50 was telegraphed to Mistress Anna Herman of Liban, Russia.(24) In an instance where Seaman H. A. Socher survived gonorrhea, papers from the station
were transferred with him when he returned to active duty in the U.S. Revenue Cutter Service.(25)

Personnel at the Quarantine Station also accepted patients from local incidents. When the Ship Bennington blew up in San Diego Harbor, the injured were cared for in the hospital and the dead tended in the morgue before burial at the Fort Rosecrans National Cemetery.(26) In 1906, a civilian from Roseville who had contracted smallpox in the aftermath of the San Francisco earthquake and fire was also quarantined at the station.(27)

Congress approved and accepted the expense and burden of the United States Quarantine Station in 1888 after several devastating epidemics in the mid 19th century. As the emphasis upon San Pedro grew as a major international shipping port grew during the Great Depression of the 1930s, the role of the San Diego Quarantine Station diminished. On March 10, 1937, the station was terminated and the wharf was later demolished. One of the original buildings was used by the U.S. Navy as a payroll office from 1942 to 1949.(28) In that year, 11.2 acres were transferred from the Public Health Service to the Naval Electronics Laboratory. That organization has since been re-named as Naval Ocean Systems Center (NOSC).

On the grounds of NOSC, just inside the Military Reservation, are a number of historic monuments that denote this area of Point Loma as one of the richest historical sites in California. California landmark #61, is a large bronze plaque at the Security Office commemorating La Playa and the Quarantine Station. Nearby is a steel plaque installed by the American Automobile Club. A large rubber or fig tree was planted in 1934 and protected by an Act of Congress. On the Quarantine Station marker is the inscription:

On this site stood 'Hide Park' (La Playa) trading station, hide storage depot

The Quarantine Station, left center, in the early 1900s. The Navy coal pier is to the right. North Island across the bay has not yet been developed. Whaler's Bight, immediately above the crane on the coal pier, was where whalers moved after their removal from Ballast Point by the military. Ballast Point is seen at right center. Photo courtesy of Cabrillo National Monument.
for the Pacific Coast. Scene of Richard Henry Dana, Jr's hide-drought operations as described in 'Two Years Before the Mast', the Hide House 'Brookline' where in 1829 the American flag was first raised (unofficially) in California; Russian oven; Early American Customs House; Bayard Taylor's 'Paseo Del Mar'.

It is important that the historical value of the cemetery and ruins beneath those grounds at NOSC not be forgotten over time. An effort is currently under way by E Clampus Vitus and the Congress of History to re-cast the La Playa Trail Marker that is set in the sidewalk at the entrance of the gates to NOSC and the United States Naval Submarine Base. A commemoration ceremony recognizing the role of the Quarantine Station is long overdue.

END NOTES

1. D. E. Hughes, Assistant Engineer, to Captain James J. Meyler, United States Army Corps of Engineers, 23 February 1901.


4. SDU, 1 January 1896.

5. Occidental Medical Times, Sacramento, June 1890.

6. SDU, 1 January 1895.

7. United States National Archives, Record Group 90, Box 2, 25 November 1899.

8. Ibid.


10. Ibid., 12 June 1893.

11. SDU, 7 July 1892.

12. SDU, 11 June 1891; Record Group 90, 27 August 1894, 1 March 1896.

13. SDU, 25 September 1901.

14. Record Group 90, July 1895; 7 August 1893; SDU, 3 July 1892, 6 May 1934.

15. Record Group 90, March 1893, 16 June 1899.

16. SDU, 30 March 1893.

17. SDU, 1 January 1895, 1 January 1896.

18. SDU, 19 September 1900.


20. Record Group 90, 1 February 1901.

21. Record Group 90, 27 August 1894.

22. Record Group 90, 1 July 1899, 6 July 1901.

23. Record Group 90, 21 January 1901, 1 February 1901.

24. Record Group 90, 16 June 1909.

25. Record Group 90, 7 November 1905.

26. Record Group 90, 22 July 1905.

27. Record Group 90, 24 May 1906.

Iberia Airlines Joins in Sending Scholar to Spain

In April of 1989, Iberia Airlines will fly Dr. Donald Cutter, Professor Emeritus, University of New Mexico, to Madrid, Spain for free. Iberia Airlines agreed to donate the flight to contribute to the joint project of the Spanish government and Casa de Espana in search of the plans of Fort Guijarros and other related documents.

The project was conceived over ten years ago by groups associated with the Fort Guijarros project, but it took the leadership of Ambassador Pedro Temboury, Consul-general of Spain in Los Angeles and Sra. Maria Olson, President of Casa de Espana (1987-1988) to raise $2000 for the effort.

A search committee comprising Ambassador Temboury, Maria Olson, Professor Raymond Starr, Ph.D., Professor Carla Phillips, Ph.D., Professor William Phillips, Ph.D., Professor Brad Bartel, Ph.D., and Ronald V. May reviewed candidate scholars. By winter of 1988, the search committee selected Professor Cutter to travel to Spain to research various archives.

Professor Cutter is a well known scholar of Spanish history in the American west. After receiving his Ph.D. in 1950 from the University of California, Cutter then taught at San Diego State College, the University of Southern California, and the University of New Mexico. He has spent many years using the various archives in Spain and served as a member of the University of Maryland, European Overseas Division in Spain from 1961 to 1962.

His research areas includes the Spanish Southwest, Spanish naval history, American ethnology, Spanish artists on the Northwest Coast of America, and the exploration of the Malaspina Expedition to the Pacific. Dr. Cutter owns an apartment in Madrid from where he will live while conducting is research for the Fort Guijarros Museum Foundation.

On December 10, 1989, the Fort Guijarros Museum Foundation honored Professor Cutter at a potluck dinner. Board member Eleanor Nealy hosted the affair, making special arrangements thorough the San Diego Historical Society to have the dinner at the Serra Museum in Presidio Park.

The Fort Guijarros Museum Foundation owes a round of applause for to all the organizations and individuals that have worked to make this project a reality. In addition to the Spanish Consulate and the Casa de Espana, Francisco Rebollieto of Iberia Airlines was a major force in the success of the project. Airfare to Spain and back to the United States was generously donated by Iberia Airlines.

Host Families Wanted

Host families for Spanish foreign exchange students are being recruited for the fall semester of 1989. Spanish high school students seek homes to live in while attending school for one year. For more information, contact:

Sra. Angeles Whitney
Spanish Heritage
440-4086 or 440-1590
Financial Statement  
2-1-88 to 1-31-89  
Fiscal Year 1988-1989

**BALANCE, Feb. 1, 1988**  
$7933.30

**INCOME:**

- Contributions: $217.48
- County Grant: $1000.00
- Dues: $1800.00
- Interest: $379.23
- Sales (Taxable): $417.82
- Sales Tax: $26.18
- Contributions, Fiesta: $2920.00

**TOTAL INCOME**  
$6760.71

**TOTAL**  
$14,694.01

**EXPENSES:**

- Telephone: $122.56
- Supplies & Material (regular): $1066.48
- Supplies & Material (dig): $495.01
- Printing & Publications: $1426.64
- Dues (Peninsula Chamber of Commerce): $25.00
- Sales Tax: $29.00
- Exhibit & Display: $106.74
- Life Member Cards: $66.34
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- Community Outreach Video: $419.99
- Gift: $21.47
- Secretary of State, CA: $2.50
- Printing, Fiesta Invitations: $640.00
- Postal Box: $36.00
- Insurance: $168.67
- Fiesta: $1311.16
- Plane Fare, Dr. Cutter: $112.00

**TOTAL EXPENSES**  
$6149.56

**BALANCE, January 31, 1989**  
$8544.45
Merchandise Order Form

T-Shirts

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Size 1" x ½"
$5.00 Each

Prices include tax and shipping

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(Please check category desired)

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COVER: Figure 94 of Don Pedro De Lucuze's 1772 Princípios de Fortificação was selected to depict the strategies of defending a fortified city. The cover figure illustrates a series of defensive lines, outpost forts, and a citadel above the walls of the fortress. Fort Gujjaros is equivalent to one of the outpost forts.
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BATTLE OF SAN DIEGO BAY KEYNOTE SPEECH
March 22, 1988

by Brad Bartel
Fort Gujjarros Museum Foundation Advisor

Dr. Bartel is a Professor of Anthropology at San Diego State University where he currently leads the excavations at the Presidio de San Diego. He is also the Associate Dean of the Graduate Division and Research at San Diego State University.

Madame President, Mr. Ambassador, Captain Klintworth, Reverend Waite, Mr. May, and fellow citizens of San Diego; as an anthropologist who has studied many different ceremonies in other cultures, it is a refreshing change of pace to be able to participate in a ceremony, especially in one's own country, and as important as this one has become.

I found it interesting that the Battle of San Diego Bay is one of the only historic ceremonies to be found in San Diego on an annual basis. In all societies, ceremonies are used for renewal, as a time to reflect on what is important to a group of people. Ceremonies are also extremely important to the education of the future generations. This is the theme I want to stress today.

When the epic poetry was recited in Greece and Rome thousands of years ago, or even today in parts of Albania and Yugoslavia, the main purpose was historical education. To allow adults and the young to understand, discuss, and ponder the implications of past historic episodes, no matter how some are laced with exaggeration and the supernatural.

This ceremony is no different. The visual stimuli of the reenactment, coupled with the written word and speeches, allows all of us to understand the past in a very effective way. One only hopes there will be many more years of this ceremony, along with others in San Diego that include parts of our heritage.

The education of the citizens of San Diego about our history is presently at a critical juncture. For so many years we have had to rely upon the written word for an understanding of the events of the past two hundred years. It is only during the last decade that modern archaeological research has opened a new vista into what the past was like.

Historical written documents give us one interpretation of past events; often with a filter of bias towards a specific individual or societal class. The archaeological record gives us confirmation of the historical writings, or, in many instances, conflicting interpretations. The understanding and integration of these two data sources is what really aids us in bringing a true history alive.

Brad Bartel addresses those attending the Battle of San Diego Bay.
There are presently two very exciting and important archaeological projects taking place here in San Diego. The two earliest Spanish forts established in San Diego during the 18th century, here at Fort Guijarros, being excavated by Mr. Ron May and volunteers from the [Fort Guijarros Museum Foundation and the] San Diego Archaeological Society with support of the United States Navy; and the new excavations at the San Diego Royal Presidio in what is now known as Presidio Park, being excavated by San Diego State University under my direction and with support from the San Diego Historical Society.

Using new field techniques and computer applications, these two excavations are uncovering the origin of San Diego. They are telling us about the facets of everyday life so important to the young and old of our city; how people worked, played, and went about their daily round of activities. Important to the scientific community, these projects are answering questions about the social process of colonialism: the interaction between Spanish colonists and Native American. These new excavations are finding thousands of important artifacts, showing the richness and diversity of the lifestyle of the first Europeans in California.

The Presidio excavation is also trying to aid in the education of the school children of San Diego by offering loaner artifact kits to schools, representative of the material found at the site, as well as teacher training guides about the objectives of history and archaeology.

The community of archaeologists and historians in this city are looking forward to a revitalization of interest in ceremonies such as this one, along with renewed concern about the past of our beautiful city and state. As the noted historical archaeologist Ivor Noel Hume said:

We must all surely agree that there can be no substitute for historical truth, even if the acceptance of it requires that we change our cherished concepts of the past. But if we do not seek it now, the opportunity will be lost and our misconceptions will be propagated until the end of time. The responsibility of this generation is to see that it is not allowed to happen.

The Presidio and Fort Guijarros archaeological projects welcome your interest. I present all of you an open invitation to visit the Presidio excavation any Saturday during the mornings and early afternoon in Presidio Park to watch us uncover our past. Thank you for sharing today in an important ceremony.

The U.S. Navy Cannon Team exchanges cannon fire with a Torpedo Retriever to reenact the Battle.
The greatest challenge to the Fort Gujjarros Museum Foundation has been to recreate an image of how the 1796-1835 Spanish fort on Punta de Gujjarros, San Diego Bay, California physically appeared. No known sketches or plans have been found in archival research by Research Associates Steve Colston or Linda Roth. Archaeological excavations have produced one good cross-section of only a small part of one of the walls. No overall aerial illustration or description has been found that explains the layout of walls, cannon, ramps, barracks, kitchen, storage areas, powder house, corrals, water sources, or the parade ground.

Monterey historian Amelia Elkinton and Santa Cruz historian Edna Kimbro reported a discovery of a conceptual plan for a sister fort built in Monterey in 1794. Spanish historian Eric Beerman copied the plan from the Archives of Segovia, Spain in 1984, and Elkinton forwarded the copy to the Fort Gujjarros Museum Foundation. The Board of Directors of the Foundation then approved $200 to retain Beerman to research the Archives of Segovia for plans of Fort Gujjarros.

Foundation Vice Chairman Jesus Benayas met Beerman in 1985 in Madrid, but did not receive any documents concerning San Diego. Beerman did copy the 1772 book by Don Pedro de Lucuze entitled Principios de Fortificacion and Benayas brought the copy back to the Foundation.

Review of the Lucuze book revealed direct correlations with architectural elements exposed in the archaeological excavations.

Later that year, Founding Life Member Fred Buchanan assumed research interest in analyzing the hundreds of tiles, mortar, plaster, and other pieces of the puzzle housed in a security room at the U.S. Naval Submarine Base, San Diego, near the ruins of the fort. Buchanan drew from thirty years experience as an engineer for the Department of Public Works, U.S. Navy and on the principles of practical construction to examine, sketch, and work out solutions to how the pieces might have functioned. Researchers in the Foundation have assumed that Lucuze's work would have been mandatory reading for Spanish engineers in the 18th century.

Buchanan enticed Colonel Frank Quillin, U.S. Army (ret.) to join in the project by translating Chapter VI of Principios de Fortificacion. Col. and Mrs. Quillin completed that work and have gone on to complete most of the balance of the book.

Future issues of the Fort Gujjarros Quarterly will include reports by Buchanan on the progress of his research. Quillin's translation of Chapter VI is provided in this issue to introduce this project. It should be noted that Don Pedro de
Lucuze intended that the book instruct in the strategies of fortifying entire cities along waterways. He provided detailed plans for "star forts" that surrounded buildings and homes. Outlying defense walls and cannon forts provided the front line of defense. Fort Guijarros was the first line to defend a maritime assault against the Royal Presidio de San Diego de Cosoy, some five miles inland.

PRINCIPLES OF FORTIFICATION

VI
"Division of the Works in Essentials, Conveniences, Accidentals, and Accessories."

"The works of a fort are considered to be in four classifications according to their importance, in respect to their essentials, conveniences, outbuildings, and accessories.

The essentials are understood to be the ramparts, the moat, covered way, and esplanade.

The conveniences, at whatever place the terrain permits, are: retired flanks, rear guards, observation posts, counter guards, places for entrenched arms or lunettes, multi-directional firing ports, serpent's tongues, and counter-mines.

The Accidentals (that only apply in particular cases according to requirement) are: mounds of earth, places high and low, low ramparts, crown works, horn-works, clawa, bonnets, staked bastions, redoubts, and barriers.

The Accessories in all forts are: sentry boxes, guard house, gates, bridges, portcullises, brigs, message center (P.B.) barracks, storerooms, cisterns, hospital, arsenal, church, and other minor buildings.

VII
"The Rampart and its Parts."

By rampart is understood the work which girds or closes the plaza; consists of a thick mound of dirt (faced with) revetted on the outside by sod, stone, or brick work on the exterior.

The revetment is called the (skirt, jacket) casing of the (wall) rampart: when it is of stone or brick it takes the name of muro, ordinarily.

The "terraplein" is a mass of earth, whose regular height is seven varas*; of sufficient height to cover the buildings of the plaza. Its upper width is proportioned in such a way that the parapet and the bank is formed leaving space for the artillery, and passage of the troops. This way is called the "adarve" (parapet walk) for being covered by the parapet, and is given a slight inclination toward the plaza so that the water may run (off) without detention.

[* Vara is about 33" or a (approx.) yard. (American Heritage Dictionary says 32" to 43".)]

The ground takes its natural slope to the interior part, in all the fort there are smooth inclines, for common use, and ease in transporting cannons. A street is left between the houses and the terraplein in order that the troops may go quickly to where (they may be) needed.

The revetment is regularly made of rubble, of stone, or of brick, with buttresses that may enter (join) the terraplein. This facing serves principally to prevent continuous repairs that would be necessary to the conservation of the terraplein, if it were not revetted, like the defenders will want it, in the occasion of an attack; will the cannon makes greater damage in the rubble-work than in the earth.

From the plane of the moat the revetment rises to the upper (surface) area of the terraplein, forming in the outer part the
escarpment, whose base is (usually) regularly the sixth part of the height. For the purpose of making it with this slope, and accompanied with reinforcements, it resists more, and with less material both the pressure of the earth, as well as the batteries of the besieger.

All the rubble work, both wall and buttresses require firm foundation, that is deepened, more or less, according to the terrain; but it is made of greater width in order to allow a skirting board to each side with which to make more secure the foundation of the wall and buttress.

In countries that lack good rubble and have good meadows (abound in good pastures, sods) revet the wall of rubble and dirt with sods or grasses, leaving between this and the moat a space of 5 or 6 feet, called the bank or berm, in which they put stakes in order that ruins from the rampart do not fall in the moat.

The 'cordon' is an adornment or molding, semi-circular in figure, that runs through the upper extreme of the revetment of stone or through the magistral line and distinguishes the exterior of the work from the interior; so it is understood through the 'cordon' is called the interior and the rest exterior.

The parapet is formed above the terraplein (mound rampart) following the line of the 'cordon,' good earth well rammed (tamped), not mixed with rocks, with its small revetment of brick to conserve it. It should be strong enough to resist a cannon ball; for which it is given a width of seven 'varas' or eight if (if it is not revetted) no revetment. The exterior height is 4 feet and the interior 8, sloped at the top so that it discloses the line of the counterscarp.

The 'banqueta' is a step of earth or stone made over the terraplein next to the parapet, four feet wide and the height proportioned in order that troops would be able to fire with chest covered.

The figure 30 represents the plan of a half-hexagon fortified, with lines necessary to the intelligence of the rampart, moat, covered way, and esplanade.

The space H indicates the body of the plaza, closed by the four parallel lines.

The exterior (always thicker - wider - than the others) represents the magistral line or the 'cordon.'
The first space between this line
and the one that follows indicates
the width of the parapet.
The second small space, between
the second and third line delineates
the "banqueta."
Finally the 3rd and 4th line
indicates the terraplein.
Omitted are other lines that
should represent the escarpment,
slopes of the parapet, banqueta, and
terraplein, not to confuse the
figure. When this is formed by a
single line it is understood to be
the magistral, or the 'cordon.'

VIII
"Of the Batteries on the Rampart."

In the rampart are batteries that
are made with gunports, merlons, and
esplanades for cannon.
The gunport is an opening,
arranged in the parapet in order
to fire the cannon. The gunport begins
three feet high through the interior
part, which is called "rodillera,"
and with slope toward the exterior
where it has a width of ten feet in
order that the muzzle blast does not
destroy the sides: the interior
width is 2 1/2 feet.

It is known that the air is
violently agitated by the blast of
the piece through the ignited powder
whose expansion destroys whatever it
opposes.

Merlon is the portion of the
parapet that is left between two
embrasures. These are made
ordinarily 15 to 18 feet distant from
center to center, in order that the
merlon remains strong, and to enable
the artillerymen to serve the pieces.

Bateria is whatever place,
covered by the parapet, appointed to
a number of pieces of artillery, in
order to fire on the enemy. The
diverse types of batteries will be
seen in Section II.

When there are no merlons the
bateria is called the 'barbeta';
might be disposed so in case of
situating itself on an eminence,
whose height naturally covers or in a
front that corresponds to the sea, in
order to direct the fire with freedom
no where suitable. Never-the-less,
if the (site) siege is very low or at
water level it is important to cover
it with merlons, then the freedom of
firing to whatever part is gained by
making the gunports wider than
ordinary.

Barbetas also are made in the
flanked angles of the bastions, and
other exterior works, raising the
'bateria' 4 1/2 feet above the
terraplein so that the cannon is able
to shoot without damaging the
parapet: this manner of firing took
the name of 'barba,' or 'barbeta.'
The cannon esplanade consists in
a firm pavement of stone or wood so
that the wheels of the gun-carriage
do not bury themselves by the heavy
weight of the piece: its figure is
trapezoidal with a gradient very
gentle toward the parapet, in order
to lessen the backward movement or
recoil of the cannon, and to
facilitate its return to battery.

On the flanks and other places
where there should be some cannon the
esplanade is tiled with square hewn
stone.

If it has to be of wood a
'batiente' is needed, 5 (girders)
sleepers, 18 planks, of 180 nails
(spikes).

The 'bastiente' is a rather thick
wood of 9 ft. in length, that makes
the front of the esplanade, and it is
positioned near and parallel to the
parapet.

The sleepers are five woods, 18
ft. long, whose heads support
(prop)(stay) the batiente; and
separated equally one from the other,
occupying the space of the esplanade,
forming its gradient.

The space between the sleepers is
made firm by well-tamped earth, then
the planks are placed nailing each
one to all the sleepers.

It should be noted that saying
'esplanade' it is understood that it
is of the plaza if it is not
distinguished by the expression
'esplanade of cannon.'
C...As the figure of the embrasure.
M...That of the merlon.
Q...Of the banqueta between the esplanades.
H...Disposition of the sleepers
D, Supports of the batiente T.
B...Esplanade covered with its planks.
A...Esplanade of stone or tiled.

'Road of rounds' is a space 5 feet wide that, in ancient constructions, was left between the cordon and parapet provided with a guardrail for the security of the rounds (patrols, beat, or ammo). In modern works this way is omitted as unnecessary (useless), and the rounds are made by the terraplen in with greater convenience.

The murralla forms, in its diverse directions all the bastions (bulwarks) and curtains of the enclosure.

IX
"Of the Bulwarks and Curtains."

The principal part of the fort is the bulwark (bastion), because of its disposition, shape, magnitude and construction the defense of the plaza is depending. It can be full, vacant, united, separated, double, (chopped), cut, and level.

If the terraplen occupies all the space of facings, flanks, and demi-gorges one has the full bastion; when it only follows the direction of flanks and facings it is called empty.

The full bastion is preferable to the empty vacant; because in it a mound of dirt can be raised that dominate the works of the besieger, and defend the pass of the moat; and in case a breach is opened in the facing, it offers the convenience of cutting that is not easy to do in the 'vacío.' This question is decided by the excavation of the moat (fosa); if there is not enough dirt to fill the bulwark, it remains vacant, usually advantageous to situate a warehouse. It is certain that the (llen) "full" is exposed more to the cannon than the mine, and the "vacant," (vacío) more to the mine than to the cannon.

'Bulwarte unido' (united bastion) is that which has its flanks, and demi-gorges united to the curtains; in contradiction from the 'separado' (separated), that some want to separate from the body of the plaza by a small, intervening moat...

X
"Of the Low Rampart, and Moat."

Low rampart is a forefront below the level of the plaza, similar to the ancinet barbican, ten varas wide, covered by parapet, order to better defend the moat, and to destroy lodgements of the besieger in the covered way. It has the defect that the ruins of the main wall deter usefulness especially in the facings: by reason of not being (allowing admittance) generally admitted, but doesn't stop being useful in some particular cases.

The moat is a deep space, which circles the plaza and makes an essential part of its defense: it can be of water, or dry, whatever mode is good, though with some diversity (differences—distinction). (Lucuze 1772:24–35)."
The Fort Guijarros Museum Foundation Board of Directors approved a research project for the summer of 1988 that would assist the U.S. Navy in a 1989 military construction project. Private contract archaeologist Brian Smith found the site during the summer of 1987 while conducting excavations for the Navy.

The proposed construction zone involved an area covered by a layer of soil that Smith interpreted as a whaler's camp. Consultation with the State Historic Preservation Office (SHPO) in Sacramento in accordance with 36 CFR 800 did not provide satisfactory resolution as to whether or not the layer of soil was scientifically significant.

While the Fort Guijarros Museum Foundation investigated the ruins of the walls of Fort Guijarros, Smith conducted trench and test pit excavations in various places at the tip of Ballast Point. Although he did not examine the whaler's soil layer at the Fort Guijarros site, Smith found white clay pipe fragments and glass that dated in the 1860 to 1880s. He concluded that he had found another place where the whalers had boiled whale oil.

Smith recommended that further archaeological work be done to resolve the question of importance or salvage of the material before construction. At issue with the SHPO is whether or not the Presidential Advisory Council's 106 Procedures under the National Historic Preservation Act of 1966 would apply to the construction project. If the deposit turns out not to be significant enough to be eligible for inclusion on the National Register of Historic Sites, then the review process can be considerably shortened.

However, the expense of a contract archaeology dig could adversely affect the plans of the U.S. Navy. The Board of Directors of the Foundation reasoned that the value of obtaining comparable scientific information to assist in the study of the whaler's deposit atop the ruins of Fort Guijarros would be worth expending the 1988 Summer dig time at the construction site.

Analyses of bones, glass, ceramics, metal, and other materials could be published in the Fort Guijarros Quarterly. More exciting, perhaps, is the presence of Spanish clay tiles among the gray soil at the new site. The mystery of these tiles is a direct relationship to the research on the Spanish fort.

Although Foundation directors were uncertain of the SHPO's position on the deposit at the tip of Ballast Point, they went ahead and applied for the 1989 Archaeological Resource Protection Act (ARPA) permit through the Naval Facilities Engineering Command (NAV FAC ENG COM) in Arlington, Virginia. That permit included a research design for excavation in U.S. Army, whaler's, and Spanish deposits along the walls of Fort Guijarros.

A new arrangement with Dr. Brad Bartel and the new Anthropology Museum at San Diego State University was agreed upon for the future curation of the collection. In April, Dr. John Bernard Murphy, NAV FAC ENG COM, informed the Foundation that the ARPA permit had been...
FAC ENG COM, informed the Foundation that the ARPA permit had been approved. The section of the ARPA permit that addressed the whaler deposit for Fort Guijarros will be applied at the military construction site. The only changes will be in the field strategy.

Problem Orientation of a Shore Whaling Station

The Fall 1987 issue of the Fort Guijarros Quarterly featured an article entitled "The Maritime Tradition of Shore Whaling: Research Implications From Ballast Point in San Diego Bay," by Ronald V. May. That twelve page article reviewed the history of shore whaling over a period of 150 years in the Pacific Ocean. It was proposed that the strategy for establishing outposts along remote coastal shorelines originated in Australia and New Zealand and was carried on to Mexico and California in the early 1850s. The economy and adaptive lifestyle of those men and their families who occupied the stations remains largely undefined in either the historical or archaeological record.

The discovery of the whaler's midden atop the ruins of Fort Guijarros was a major find. It provided the first opportunity to examine the remains of a nineteenth century maritime community uniquely adapted to isolated coastal ecozones. The dietary patterns of the mariners, selections in consumer goods from major ports, and interactions with local communities can be examined from analyses of items recovered in the midden. An example of such information was provided by Paul E. Langenwalter and Daniel A. Gutherie in, "Avian Remains From The Field III Excavations at San Joaquin De La Punta De Los Guijarros" in the Fall 1987 issue of the Fort Guijarros Quarterly. Langenwalter and Gutherie revealed that twenty-seven species of birds were represented in the whaler's midden and that "these specimens provide a unique example of bird use" in a maritime site (Idem. 1987:24).

The marine shell and fish bone are still undergoing analysis. The domesticated animal bone has been analyzed and will be published in a future issue of the Fort Guijarros Quarterly.

The ceramics recovered in the excavation were of particular interest. All were English earthenware and many were transfer prints. This analysis is under re-examination and will be published at a future date. Several hypotheses have been advanced, one being that the whalers brought their families who decorated their tables with traditional Victorian ceramics familiar to their native homes back in New England. Another is that the 1840 trend in the age of the ceramics indicated inability to purchase contemporary ceramics in the 1860-1870 era during which the whalers occupied Ballast Point. Both hypotheses require further examination of documentary and archaeological materials.

TESTABLE MODELS

Figures 2 and 3 in the Fall 1987 Fort Guijarros Quarterly illustrated models for "the economic network" and "the whaling station system" (May 1987:8,9). Information on these models is provided in Michael Pearson's paper "Shore Based Whaling at Twofold Bay, 100 Years of Enterprise," (manuscript in the National Parks and Wildlife Service, New South Wales, Australia) and Peter J.F. Coutts' article "An Archaeological Perspective of a Whaling Station on Taleri Island, New Zealand" (paper delivered to the Society for Historical Archaeology/Council on Underwater Archaeology Annual Meeting, Sacramento, California, January 9, 1986), in comparison with Charles M. Scammon's 1875 publication, The Marine Mammals.
The Northwestern Coast of North America (New York: Dover Publications, Inc. 1986). These models provide an excellent basis for archaeological testing of maritime adaptation to shore environments on the California frontier.

The Economic Network Model

Shore stations were outposts established on remote coastlines where whales passed close to shore. Financial backers outfitted $3,000 worth of equipment and supplies to sustain ten to twelve men for eight months between October and May on the California coast. These backers would appoint an agent at a major maritime port who would receive oil from the base station and send back funds and supplies. A "captain" or other agent would keep the books at the base station. These men would meet and send out chartered or owned transport vessels to the major port, base station, and outpost stations. Small boats such as sloops would ferry oil, men, and supplies between the base station and the outposts.

The source for the financial backing of the various station systems remains a mystery. A chain of circumstantial evidence was provided in the Fall 1987 issue of the Fort Gujiarros Quarterly (pages 9,10) that led to the hypothesis that Captain John Pope Davenport developed California shore whaling from bay whaling experience in the South Pacific. His intricate investments in $500 to $1000 bonds and licenses for schooners involved in Mexican and Californian whaling was cited as a pattern of behavior that could well have included co-investing in the Ballast Point whaling station. This is indicated by a note in Package 61 of the U.S. Custom House records from Monterey (Bancroft Library) that Master Elihu Avery of the schooner Sovereign sailed for Mexico via San Diego in 1857 to engage in foreign trade in Mexico.

That same year, brothers Alpheus and Prince William Packard arrived in San Diego to set up the first whaling station. Research on these whalers revealed that most of the men registered to vote with the notation that they were born in New England. Most of the men were 30 to 45 years of age and listed their occupations as mariners.

At least three of the main companies that shared Ballast Point settled for the season with their wives and children. One of those men married an Indian woman from Santo Tomas, Baja California, Mexico.

Newspaper accounts also stated that replacements generally came from San Francisco, as did regular supplies on the Pacific Mail Steamship Lines.

The success of the stations is difficult to measure. However, in 1865, a court seizure of property at Ballast Point hauled in 200 barrels of oil to pay off an outstanding debt (May 1985:1-14). Due to the effect of the American Civil War, oil sold in Boston at that time at $1.65 a gallon or about $512 a barrel. The confiscation represented only a small part of that year's oil recovery from the entire season.

On the surface, this would suggest an incredible amount of money in the whaling business. However, the value of oil in California would have been considerably less than in Boston. Moreover, the various companies that owned shares in the co-mingled assets all shipped their oil on the same company transports. Still, the agents and the backers probably recovered a great deal for their investments.

Archaeological research at this outpost community on Ballast Point affords an almost unique opportunity to study the processes of adaptation by Victorian New Englanders to isolated environments. Shipping networks across the seas and overland transportation of goods can be compared to other frontier situations where Victorian Americans adapted to desert and mountain environments.
The evidence of diversification of species of edible birds reported by Langenwalter and Gutherie should be examined in the studies of fish, mammal, and other food materials. It would be ideal, as well, to compare these data with food practices of Victorian Americans in other coastal communities such as fishing and lumber sites.

**Whaling Station System Model**

The brief review of the economics of the greater network has shown that the whaling stations were very complicated operations. Ballast Point usually had two separate companies side by side. The Packard Company consisted of at least one married family and about ten men. The Johnson Company consisted of one married family, two Johnson cousins, and a crew of seven to ten men.

Over the years, other companies joined or left the two primary companies. It is likely that only one agent managed the transhipping of oil, men, and supplies between San Francisco and Ballast Point.

The base station was usually a large residential community, which in the case of the New Zealand stations consisted of local Maori villagers. At Ballast Point, it seems to have consisted mainly of New Englanders and a few Chinese fishermen.

The community would have included a warehouse, cooper and blacksmith shops, small boatyard, several barracks, several homes for the married families, an office and a store, gardens, and livestock areas. Water at Ballast Point was hauled from a spring across the bay.

At least two outpost stations were regularly maintained in the whaling station system linked to Ballast Point. About 100 miles south was a point of land called Punta Banda and fifty miles more distant was Santo Tomas. Each was repeatedly mentioned in newspaper accounts of the period.

In 1872, the Johnson Company operated at Punta Banda and the Packard brothers split between Ballast Point and Santo Tomas. That year more oil than ever before had been recorded in shipments to San Francisco. Unfortunately for the whalers, the U.S. Army evicted them in 1873 to construct an artillery fortress on Ballast Point.

Both the base station at Ballast Point and the outpost stations had "tryworks" operations where the blubber from the whales was boiled into oil. The dead whales were towed around to the calm waters of the bay and then hooked up to a capstan that was secured on the beach. Men would wind the capstan and haul the animals into the shallow water.

A team with long knives would then cut the blubber into chunks, haul it to a work area to be minced into thin slices, and then feed it into huge iron pots. Those cauldrons were usually set in masonry ovens heated by burned whale skin and fried out blubber. The oil was then skimmed in ladles and poured into oak barrels of a variety of sizes and capacities.

Coopers constructed and sealed the casks. Other men would roll the barrels to the warehouse area to be marked and accounted by the station agent or captain.

**Hypotheses**

1. The economic network model provides a framework within which artifactual collections of supply containers, metal hardware, and personal goods can be analyzed to study the quality of life experienced by the inhabitants of remote base and outpost stations. This level of information is not available in the documentary record.

2. The economic network model provides an explanatory method to discriminate supplies from the major supply center in San Francisco from the local supplies.
obtained in Old Town San Diego. The quantity of outside goods purchased and used by the whalers should hint at the level of dependence upon the agents in San Francisco. For example, the documentary record has not revealed if the whalers received payment incrementally over the season or at the end. The key would be to distinguish container goods that were exclusively supplied from sources in San Francisco.

High frequencies of tinned and glass food containers and low frequencies of domesticated meats would suggest that the whalers did not purchase perishable food from the local markets, but rather subsisted on preserved foods. While this would not prove the source as San Francisco, it would suggest lesser interaction with local markets.

Conversely, low frequencies of commercial containers and high frequencies of domesticated meats, wild game, and marine foods might suggest greater dependence upon the local markets for food sources. This latter inference would also indicate affluence among the whalers.

3. The whaling station system model provides a framework to test the functional organization of the use of Ballast Point by the whalers. Excavation in various points should reveal if the community was as complicated as portrayed earlier in this research design or more localized and less of a residential community than in New Zealand.

4. The whaling station model provides an opportunity to examine an isolated community of New England maritime families in the early frontier period of California. Their selection of personal items, decorations, and food consumption varieties should reveal Victorian values transported from distant homes. English earthenwares recovered from the 1983 excavation supported this hypothesis. The Summer 1987 issue of the Fort Guizarros Quarterly explains this hypothesis in more detail.

5. The whaling station model provides a unique opportunity to examine the adaptive dietary patterns of mariners in the 19th century. Since most whaling operations were ocean-going, the residue from their meals was pitched overboard and lost. However, the men who lived in the barracks and in the private residences at Ballast Point dumped their refuse out entrances and on the beach around their homes and work areas.

The greasy gray sand exposed in Fields I and III contained bird and fish bone, marine shell, and saw-cut animal bones from the meals of the whalers. Statistical counts of these specimen collections can provide direct evidence that can not be found in the documentary record. The report by Langenwalter and Gutherie in the Fall 1987 issue of the Quarterly revealed an astounding variety of shore and pelagic species of birds that were clearly consumed.

Field Strategy

The field strategy selected for the deposit of midden or sand mixed with artifacts and food remains has been based upon Brian Smith's test units. These one meter square pits revealed that about fifteen centimeters of yellow sand fill lay between the parking lot and the suspected whaler's camp debris. An oval-shaped area was hypothesized for
to expose the surface entirely before proceeding to cut units through it. A grid of two meter blocks separated by one meter "balk units" was designed on paper to wrap around the building. The large squares are will be excavated by teams of volunteer archaeologists. The balk units will provide cross-sections to illustrate the midden as though it were one large feature.

All soil recovered by hand-trowels will be poured into buckets, screened, and the artifacts and food remains recovered for the laboratory. The unit number, layer, and map reference will be entered into the catalog book and an accession number will be placed on the object before it goes off to a specialist for analysis.

The teams will fill out field note forms for each of the units and count the artifacts in their field bags. This cross-reference system will assist in managing all the recoveries. Photographs of architecture, pipes, old refuse pits, or other internal features will be keyed to the notes and catalog book.

The photography team will consist of Mike Nabholz and Don Lyons. Mike will photograph each unit and balk unit from above as they are exposed to form a mosaic of the site feature. Don Lyons will videotape the features and capture the opinions of the field teams and note takers as they work. A video program of the field season may be edited in the fall. All of this photography will be available for the final report and for future scholastic studies.

An Early Field Season Report

Prior to the commencement of the field project, a meeting was held at

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Map of the 1988 excavation area showing initial grid of excavation blocks.

THE FORT GUIJARROS QUARTERLY
the County of San Diego office building to orient the twenty-five volunteers who signed up to dig, screen, clean, and catalog the summer's recoveries. Each person was given a copy of the research design for the whaler's deposit.

A combination lecture and slide show on the background of the scientific problem then followed. Other background materials such as past Quarterlies, books on archaeological excavation techniques, and reference materials were also provided.

Preparations had also been made with the Submarine Base to ready the dig area for excavation. A large area of asphalt was removed with a backhoe and a fence area was opened for soil piling and screening. The Navy also installed a metal storage shed to house the excavation equipment and supplies. Protocol for this project has been arranged through the Sub Base Command.

The dig began on Saturday, June 4, 1988 at 10:00 A.M. Volunteers received an on-site orientation lecture and introduction to the dig. Sixteen people arrived that first day to haul out the equipment from the bunker at Battery Wilkeson and set up in the "Ballast Point" dig area. The crew spent the first day removing asphalt and fill sand from the work area.

A project by Mike Nabholz to seek the buried whaler's deposit under a lawn will involve the use of a soil resistivity meter. This device was made by Mike from a design published in The Journal of Field Archaeology. The meter consists of four metal probes that are linked by wires to an electronic circuit that measures the electrical resistance of the soil in the area where the probes are inserted. Higher values of soil resistance may indicate the presence of the midden because it is denser than other soils.

Mike plotted the first series of measurements onto a graph. The measurements appear to delineate the limits of the midden. The results of this experiment will be reported in a future issue of the Fort Gujjaros Quarterly.

Stan Berryman arrived early the second weekend, June 11, 1988, to set up the excavation grid around the parking area. Fifty units were defined and a map of the entire layout was completed. Ron May then assigned field crews to the individual units within the grid system.

A chain-of-command was established early in the project to maximize supervision over the large work area. Four teams were segregated into four quarters of the parking lot portion of the dig area. The lawn area will be excavated in the near future. Crew chiefs Mike Nabholz, Jim Royle, Don Lyons, and Andie McKee were each assigned crew

A June 11 view of the parking lot excavation area looking east, the A and B teams are in the foreground and C and D teams in the background and San Diego Bay in the distance.
members and dig areas A through D respectively, in which to work.

The type of work differs greatly between the west and the east portions of the parking lot. The east is at a higher elevation and the midden ranges from just below the asphalt to fifteen centimeters down. Somewhere in the middle of the parking lot area, the midden dips sharply down about forty centimeters to a cobble beach layer. This may be a bluff-like bank of the midden that was once eroded by the waters of San Diego Bay. Teams A and B first began clearing away a layer of yellow, sandy fill dirt that has been interpreted as the surface prior to construction of the parking lot. This layer is generally clean of artifacts until contact with the midden where cobbles and artifacts are found. The majority of artifacts found to date have been in this contact area.

The midden surface could have lain exposed for half a century before the parking lot was constructed. The mix of artifacts on that surface could range from the time of the formation of the midden up to the unknown date of the parking lot.

Both C and D teams have cut through deep yellow sand (parking lot fill) to find the cobbles. These teams are working east toward the midden. They have removed about eight cubic yards of yellow sand by 4:00 PM on June 18, 1988.

Several discoveries have been noted these first few days of the project. A cast-iron pipe was found at about the mid-point in the parking lot area. The pipe may have been a sewer or drain pipe that emptied into San Diego Bay. It is surrounded by heavily weathered concrete.

Near the pipe, excavators uncovered a line of redwood that was embedded in the midden. Excavation teams will take care to only excavate the artifact-bearing soil and leave the wood on a pedestal of earth.

The association of the redwood and pipe might indicate a decomposed structure associated with the whaling activities on the beach. It could also have been an undocumented building constructed by the U.S. Lighthouse Service at the turn of the century. Time and more work will enable the team to solve this puzzle.

Dating of the midden is essential to this current project. Key artifacts that would link the midden to the whalers in the 1858 to 1873 period are clay pipes, hand-blown glass bottles of certain varieties, square bronze spikes, and whale bones. Significantly high frequencies of these artifacts would confirm the age with confidence.

Alternate interpretations of the midden are that it was formed by prehistoric Indians or Chinese fisherfolk. The midden does not appear on the surface too much different from a prehistoric Indian camp. The presence of Indians at the U.S. Naval Submarine Base was confirmed in 1987 by an excavation by Westec Services.

Chinese families were known to have lived on Ballast Point in the 1860s, and Lucy Wentworth reported in her memoirs that Juk and Ah Sing sold fish to the whalers' families. Chinese habitation could have formed the midden as easily as Indians or whalers. The Chinese preferred to eat pickled foods and native sauces imported in brown-glazed stoneware vessels from China. Fragments of those containers are abundant in Chinese sites. Indian sites have broken stone tools mixed among the marine shell and charcoal-stained sand.

The whalers deposit atop Fort Gujjaros lacked stone tools or brown-glazed stoneware ceramics, but did contain English pearlware pottery along with pipes and bronze nails mentioned earlier. Future issues of the Fort Gujjaros Quarterly will include more information on this fascinating project.

THE FORT GUJJAROS QUARTERLY
On June 30, 1985, the worst urban fire in living history in San Diego raced up the southern slopes of Mission Valley to overwhelm sixty-four homes in the suburb of Normal Heights. This is the story of how archaeology was used to meet a unique challenge left from the aftermath of that disaster.

At first unaware of the flames at his doorstep, Dr. Abraham Nasatir, a retired history professor from San Diego State University, sat in his living room editing the first draft of a book on the Anglo-Spanish frontier of the Upper Mississippi. He and Dr. Carl Eckberg of Illinois State University had been working on that book for twelve years.

Racing against time, police and firemen hurriedly evacuated people from their homes as neighboring vehicles, gas lines, and buildings exploded against a backdrop of smoke, flame-reddened sky, and billowing clouds of steam. No sooner had Nasatir seen the flames out in the canyon to the west of his Spanish-style bungalow than San Diego firemen rushed him and his wife out the door. Left with only the clothes on their backs and a pair of reading glasses, they turned to see sixty-two years of their life's work consumed in fire.

As urban fires go, the Normal Heights fire was a minor affair. Of the losses it inflicted, however, one of the most tragic was to the Nasatir home, which housed an estimated 500,000 rare or unique historical documents amassed by Dr. Nasatir over a period of sixty-two years. The irony of the event was that the collections were destined for archives at local universities where Dr. Nasatir had taught for a total of fifty years.

As the implications of the loss began to unfold, local and national news media focused upon the Nasatirs as an example of the tragedy. The true meaning of their life history became exemplified by such stories as "Professor's Life Work, A History of California, Goes Up in Smoke." Dr. Nasatir's files, note cards, manuscripts, notebooks, and rare book library were his legacy from a lifetime of scholarly research.

Abraham Nasatir began his outstanding academic career in 1921 with an A.B. degree with honors in history at the University of California at Berkeley. A year later he earned an M.A. from that same institution. His doctorate followed in 1926 with a dissertation entitled "Indian Trade and Diplomacy in Spanish Illinois Country, 1763-1792."

Nasatir traveled to France and Spain where he began to work with the papers of the Captain General of Cuba overseeing Louisiana. He later accepted a professorship in history at San Diego State College where he taught from 1928 until 1974.

Dr. Nasatir's library of rare books, microfilms, and duplicates of important documents was carefully acquired over his career. An important part of that library included duplicate copies of documents from France. Scholars have long been deprived of microfilm copies because the French tourist industry feared that general distribution of the materials would negatively impact their business. Nasatir's materials were mostly obtained through lengthy and frustrating meetings with French officials on diplomatic levels. Personal trust and professional exchanges eventually enabled him to copy documents on the California Gold
Rush which were located at the Paris Police Department.

Some of Nasatir's work was summarized into eighty-seven articles or studies in historical journals, newspapers, book contributions, handbooks, encyclopedias and bibliographic dictionaries. He had also published thirteen books. His collections were so important that he often would allow colleagues to use his research notes and library to benefit their own individual research projects.

Fellow researchers recognized that the distinction of the many books and journal articles Nasatir produced in his lifetime lay in his unique ability to piece historical facts into supportive evidence. To simply purchase replacement copies of rare books, microfilm rolls, and professional journals that had been destroyed by the fire would never substitute for the personal insights and understandings in the mind of the man. For this reason, friends, former students, and fellow researchers all over the country shared in the loss, while contemplating the contents of their own homes.

To the average person viewing the June 30 and July 1 telecasts of blackened rubble from the fire, few would suspect that anything of real value could have survived. But to those whose professional training involved interpreting the ruins of the past, hope for survival was a reality.

Following news reports of the fire, a grass-roots community effort arose to save the "Nasatir Papers." Volunteer archaeologists from the Fort Gujjarros Museum Foundation and the San Diego County Archaeological Society joined together for the benefit of the Nasatirs and posterity to rescue the burned remains of Nasatir's sixty-two years of work.

The idea is not as improbable as it might first appear. Archaeologists often excavate the burned ruins of homes in ancient and modern set-

tings. To do this, a knowledge of the physical properties of the behavior of fires is necessary to completely understand and interpret the discrete layers of ash and charred things in the context of structures. Moreover, archaeologists anticipate organic survival to the extent that prior to excavation, laboratory teams are well-equipped with chemicals, non-corrosive containers, and photography equipment to save such delicate recoveries as charred basketry, papyrus, and bits of leather.

The year of the Normal Heights Fire, the Fort Gujjarros Museum Foundation was in its fifth season of research at the ruins of Fort Gujjarros. Foundation archaeologists had experience with fire-damaged things. Atop the tumbled architecture of the old fort lay burned debris from the contents of a U.S. Army layer. This debris suggested a strong possibility for the survival of important personal objects in the ruins of residential fires.

The idea to rescue the Nasatir Papers was conceived after Foundation members viewed news broadcasts of the fire. The plan involved the recruitment of a team of historic archaeologists who had the training and composure to carefully dissect the debris in order to recover as much as possible from the remains of the fire.

In addition to the author, key persons in organizing the rescue operation included Mrs. Libby Hurrich, who by coincidence, was an old friend of the Nasatirs and an acquaintance of the author and his wife. In tracking down Dr. Nasatir to gain his approval in the venture, Mrs. Hurrich accepted a role as communication link. This was critical to the rescue operation, since the Nasatirs were busy establishing temporary housing, talking, to well-wishers, and settling insurance matters. Once contact was made, Dr. Nasatir agreed to the rescue.
Calling upon the network of professional archaeologists around San Diego county for logistical support and advice on paper conservation, Fort Guijarros archaeologists prepared an excavation plan and schedule for fieldwork. Judy Berryman of TMI Environmental Services, an archaeological consulting firm, her husband, Stan Berryman, and their son R.J. were vital to the operation. Stan was 1985 president of the San Diego County Archaeological Society (SDCAS) and Judy is the Fort Guijarros curator for collections. R.J. had obtained more experience on his parent's archaeology projects than most professionals in the county.

SDCAS had loaned archaeological equipment for the Fort Guijarros excavation and that equipment was borrowed for the rescue operation. Supplies and equipment for the project were arranged through the efforts of the Berrymans. Ms. Linda Roth, an historic archaeologist with extensive experience in Old Town State Park also agreed to join the team.

In addition, the project involved Professor Dennis Berge, who was Chairman of the Department of History at San Diego State University. Berge was coordinating a special fund for friends of the Nasatirs who wanted to make contributions in their behalf. Berge agreed to use a portion of that fund to duplicate documents rescued from the fire.

Shortly after the Nasatirs agreed to the project, a potentially serious problem arose when TV news stations announced that the City of San Diego was bulldozing house ruins in Normal Heights to assist the victims. After a disturbing and sleepless night, Mrs. Hurlich and the author contacted Mayor Roger Hedgecock's office, which replied that Dr. and Mrs. Nasatir must sign their permission prior to bulldozing. Libby Hurlich called upon an old friend of the Nasatir's, Mr. Robert Michaels, to drive down to the ruins early on the July 5th to make certain that no bulldozers moved on the Nasatir house.

Later that day, Michaels reported that when he had arrived a small bulldozer was parked next door in the Nasatir's front yard. As it turned out, the police only allowed bulldozing where owners had given written approval. Michaels notified the San Diego Police Department of the plan to excavate the ruins and then took release forms to pass on to the Nasatirs.

While inspecting the property, Michaels discovered that no one had shut off the municipal water line and that the interior of the house foundation was flooded. A professional plumber, Michaels shut off the water, removed the outer pipes, and excavated a drainage trench. Using a sledgehammer, he then knocked a hole in the foundation to release water from the crawl space of the building.

Word of the need for a trained crew spread through the archaeology community. When the Mesa College Archaeology class met at the Royal Presidio de Cosoy in Presidio Park on Saturday, July 6, Professor Diane Barbolla-Rolland and her Mesa College field school volunteered to join the rescue team. Barbolla-Rolland coordinated much of the telephone communication Saturday evening on July 6 and agreed to bring more screens and additional shovels.

During the excavation of the Fort Guijarros site at the U.S. Naval Submarine Base that same day, Mike Nabholz, Carl Comstock, and Andie McKee were also recruited. By Saturday evening, July 6, screens, shovels, buckets, bags, marking pens, and the laboratory supplies were diverted from the Fort Guijarros Museum Foundation storage area and packed into a pick-up truck. With this crew of trained volunteers, the rescue commenced on Sunday, July 7, 1985.

Following breakfast and a review of the rescue plan, the author and his wife arrived at the Nasatir's
temporary apartment to meet with Libby Hurlich and the Nasatisrs. From there Hurlich, the Nasatisrs, and the Mays caravanned to the ruins where they were met by the volunteer crew to commence the field phase of the rescue operation.

Shortly thereafter, the site of the Nasatir home became the scene of a busy encampment. Archaeology screens were strategically placed at stations outside the foundations. Paper bags, shovels, and other necessary materials were placed by the screens. Dr. Nasatir and Mrs. Hurlich escorted the author around the house foundation and explained the location of furniture, walls, precious items, and the document archive.

As a first step, Dr. Nasatir answered questions as to where in the library certain kinds of documents and furniture had once lay. Stan Berryman was assigned into the closet area between the bathroom and file cabinets and instructed to prohibit foot traffic to the room. Judy Berryman and Linda Roth were posted along the west wall were religious books had once rested in a glass and wood bookshelf. That area of the room was obscured by two metal bookshelves that had fallen inward as a result of the fire.

Dr. Nasatir and Mrs. Hurlich were then escorted to lawn chairs in the front yard where rescue equipment was stockpiled. Barbolla-Rolland's crew was assigned to the dining room to screen for dish fragments, silver remains and other remnants of the china cabinet. Crew members were to follow the north wall westward to the kitchen. Another screen team supervised by Mike Nabholz and Andie McKee excavated a 4 x 8 foot strip of floor in the front bedroom in search of jewelry that may have fallen through the burning bedroom dresser.

The team of four people working around the edges of the archives library were supported by Dale May and Carl Comstock, who bagged or boxed recovered documents that were passed back by the excavators. Boxes were catalogued with marking pens showing the portion of the library from which they had come. Comstock, Barbolla-Rolland, and Hurlich made frequent trips to local stores for empty boxes. Eventually, forty-five boxes were filled with recovered materials.

Throughout the hot day, Red Cross volunteers stationed themselves alongside the house to provide refreshments and support for the workers. Indeed, on both sides of the Nasatir house, friends and family of other fire victims were on hand to dig through the remains of the other homes along North Mountain View Drive. The destruction had been devastating.

Layer by layer the team retrieved documents and passed them back to the packagers. Pointer trowels were used to scrape back charred shelving and furniture parts to expose reams of charred pages, white ash, and occasional legible documents. The larger manuscripts, which probably measured ten inches thick, were water-logged and had to be lifted out on a flat shovel, with two people hefting the specimen. The first specimen was found to be bright yellow, and almost lacking singemarks. Paper clips and rubber bands remained, although the heap had sloughed to one side when the wooden floor of the closet had collapsed to the earthen crawl space under the house. A cardboard box was found under the slurry of cement and tile of the bathroom wall. That box yielded a soggy pile of correspondence from Dr. Nasatir's research.

At the bottom of the library closet lay a melted manual typewriter, an assortment of pen cases, a tube of pencil leads, and small tin boxes of various charred things. Fragments of radio and television components were widely scattered near the doorway and hall, suggesting a volatile end.

A four drawer file cabinet was still standing in the library. Two
of the drawers had been pried open before the archaeology crew had arrived, but the water-logged and charred files remained. As the excavators pried open the other two drawers, two singed, but otherwise nonchalant alligator lizards crawled out of the ashes to once again breathe fresh air. When the two metal bookshelves were lifted, heaps of white ash were all that remained of most of the contents. Again, the best preserved materials were on the lower shelves. The remains of the couch lay below one of the shelves. Dr. Nasatir had recalled stacking a number of manuscripts there before the fire.

It was late afternoon when the crew finally stood back from the foundation walls to realize that all the recoverable Nasatir Papers were now boxed outside in the lumpy earthen field that had once been the Nasatir's garden. As the team turned to loading the boxes into trucks, the Mesa College group completed their work in the living room and kitchen area. Their yield was a box of metal objects, glass doorknobs, two Band-Aid boxes of wrapped coins, and jewelry.

Once they had salvaged the dining room and kitchen, the Mesa College crew had moved to the fireplace and hall area. Their boxes of recoveries were filled with broken crockery and dishes, semi-melted silverware and serving trays, knick-knacks, and small personal items. The work area had been a minefield of shattered glass and fire-corroded metal edges. Heaps of charred books were in evidence about the rooms. Around the fireplace, the screeners had retrieved a few plaques from awards to the Nasatir's many accomplishments as teachers and researchers.

As the last vehicle was loaded with equipment and supplies, the area was cleaned of debris as best as possible and the field crew department. Four trucks hauled the boxes of archives and artifacts to Libby Hurlich's garage in El Cajon with the intention of air-drying the assemblage in the hot July weather. By 5:30 P.M., the boxes were laid on the garage floor and the crew departed for much needed showers and sleep.

On the morning of July 8, 1985, Rhoda Kruse, who was then the librarian for the California Room at the San Diego Public Library, was contacted for advice. The library had in recent years suffered several disastrous floods and undergone emergency archival conservation procedures.

Kruse strongly advised that all the wet documents be immediately frozen to prevent mildew and mold. Fearful that the effort would have been wasted if the documents were not frozen, the author and Hurlich devised a plan to freezer-wrap the papers and place the archives in a rented freezer in Lemon Grove.

All day on July 8, the team sorted through charred documents to decide which were salvageable and which needed freezing. The packages were wrapped in freezer paper and gently packaged in sealable cardboard boxes. Many of the badly charred materials were discarded as unsalvageable. In the end, thirty-five boxes where trucked to the Lemon Grove freezer.

On Tuesday, July 9, contact was made between the author and Richard Esparza, who was the Executive Director of the San Diego Historical Society, to inform him of the rescue operation. Esparza then spoke to Gary Alden of the Balboa Art Conservation Center in Balboa Park. Alden, in turn, recommended that their paper conservator be contacted for advice with the preservation effort.

Janet Ruggles, a conservator with the center, then called back and concurred that freezing or air-drying were the only options to save the papers. She and her sister Ann Ruggles, of the National Gallery of Ottawa, Canada, agreed to meet with the author that evening and together the team went to Libby Hurlich's
home. Stan Berryman and Dale May continued working with Libby to cull and wrap more of the documents for the freezer.

That evening the rescue team worked on the papers while Janet and Ann Ruggles decided upon the best course of action for most of the remaining material. Janet Ruggles offered to loan an infra-red viewer to examine charred documents for legible ink traces once the specimens had been dried.

The collection fell into four basic classes: (1) totally unsalvageable, (2) documents to be frozen and freeze dried, (3) documents to be photocopied, and (4) documents which could be photocopied with infra-red film after drying but were otherwise unuseable. Later that day Stan Berryman transported more of the boxes to the freezer and the balance of the materials were air-dried for further work scheduled for July 17.

On July 10 the author made a series of telephone calls to arrange a brainstorming session on the project. The intent was to spread the responsibility more evenly among the archivists and historians who knew the Nasatirs and were knowledgeable in disaster salvage work. The meeting was scheduled for the evening of July 17th at the park and Recreation Department headquarters. The attendees were Alexa Luberski, a state historian for the California Department of Parks and Recreation, Sylvia Arden, Head Archivist for the San Diego Historical Society Research Archives, and the author. After a briefing on the progress of the project, Arden presented a list of questions concerning the Nasatir's insurance, ability to finance the document recovery, and the variety of materials that had been recovered.

On July 17, the author and Dale May met Stan Berryman at Hurlich's house to package the balance of the materials. The dried documents were placed in file folders and then boxed to transport to the Department of History at San Diego State University for photocopying. The remainder of the wet materials were taken by Berryman to the Lemon Grove freezer.

Members of the community generously offered to help with the next stage of the project. Charles Bull, president of RECON, a local consulting company, offered to contact the Port District to see if work space was available. Richard Carrico, Cultural Resources Manager for Westec Services, offered work space at their new Sorrento Valley offices if the Port District could not help.

Sylvia Arden called to pass on the name and number of Gene Butler of Convair Corporation. Butler had arranged the freeze drying operations for the San Diego Public Library. He agreed to recommend the project to his superiors at General Dynamics, although he cautioned that any decision might be months away and patience would be necessary.

The break in the process came several months later when Neal Matthews of The San Diego Reader arranged for a plea to the community for assistance with freeze-drying. A person volunteered the name of Joyce Anderson, a Leucadia taxidermist who was interested in giving assistance.

Anderson offered to freeze dry the papers at cost. Stan Berryman and the author spent several months ferrying boxes of the papers from the freezer in Lemon Grove to Leucadia and then to the Department of History at San Diego State University.

The process required the documents to be stacked inside the large freeze drying chamber. Each document pile had been weighed and recorded prior to stacking. Every few days, Anderson would warm up the drier and remove the bundles, weigh them, and replace the materials. Eventually, the weights would stabilize and the measurements would indicate that the papers were free of water.

Both before, during, and after drying, Anderson examined the stacks.
Some of the material, obscured by ice and charred paper, turned out to be tax records, duplicate files for old symposia, and magazines. To economize, these less valuable materials were discarded.

The final haul was about twelve boxes of books, manuscripts, letters, and hand-copies of documents. No attempt was made to survey the value of the recoveries due to the immense time the project had already consumed. However, some of the copies of letters carried dates in the 1790s and the contents concerned Spanish military correspondence in the New World.

Eventually, in 1987 the surviving Nasatir Papers were turned over to Dr. Nasatir. He and his assistants have been copying some of the materials and re-filing others. The bulk of his research collection for the future will come from re-tracing his pathways through archives and libraries around the Southwest.

In the end, it was not the value of the documents that made the project worthwhile. The value of what was saved will only be known to Dr. Nasatir. The value to those who donated time, money, and resources to the rescue of the Nasatir Papers is in the personal satisfaction that something has been done for a fellow human being.

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**RESEARCH NOTES**

**EARLY LETTER DISCOVERED IN THE CITY OF SAN DIEGO RECORDS FILES**

An important letter concerning the history of Ballast Point and Fort Guijarros has recently been discovered in the Miscellaneous Files of the City of San Diego. Foundation member Paul Waterlander brought a copy of the January 23, 1850 letter to the editorial staff of the Fort Guijarros Quarterly on June 18, 1988 shortly after the find. As best as can be interpreted from the old handwriting, a transcription has been reproduced as follows:

San Diego, Cal.
Jan. 23, 1850

Sir:

Your communication of the 19th, of the present month has been received.

I have received information from the commanding general that Punta Guijarros has been selected for permanent works for the defense of this harbor--- to select a cite, [sic] fulfilling certain conditions, for temporary quarters for the garrison. The cite [sic] selected by me has been approved; but the precise limits have not yet been designated & until then I deem it advisable to prevent difficulty hereafter that no sales be made south of Colorado Street.

I am Sir

Very Respectfully
Your Off. Svt.

S. Heintzleman
Bvt. Major & by
(?) Port.

[copies to]

W.C. Lemore, Esq.
Secretary &c. &c.
Wm. of San Diego, Cal.
COMPARATIVE RESEARCH REQUESTED FROM ITALY

Several months back, an inquiry for information on old American forts was received from Italy. Members of the Foundation interested in corresponding to assist the gentleman in obtaining historical materials on dimensions, form, and the like can write to:

Pierino Maestrioni
48, Via Pozzuolo
19036 = San Terenzo (La Spezia)
Italy

FORT GUIJARROS PROJECT INCLUDED IN NEW PUBLICATION

The Baltimore Center for Urban Archaeology recently released a new book entitled Captivating The Public Through The Media While Digging The Past, Kristen Stevens Peters, Elizabeth Anderson Comer, and Roger Kelly (eds.), Technical Series No. 1, 1987. Ronald V. May was able to include "Programmed Mass Education Through The Media: A Case Study of The Old Spanish Fort on Point Loma."

The December 1987 publication contains fifty-three pages of single-spaced text with five photographs. Eight articles were written by archaeologists from across the United States who used case examples to illustrate the value of proper news coordination for public education. Roger Kelly, National Park Service in San Francisco, introduced the setting. Among the other authors was Douglas D. Scott, National Park Service in Nebraska, who explained how news coverage was beneficial to his excavation of the Little Bighorn Battlefield in Montana. Scott shared his discoveries with the Fort Gujjaros Museum Foundation in 1986.

Copies of this publication can be obtained from The Baltimore Center for Urban Archaeology, Baltimore City Life Museums, 800 E. Lombard Street, Baltimore MD 21202, for $5.00.

NEW PUBLICATION AVAILABLE CONCERNING WHALING

During the Society for Historical Archaeology Annual Conference in Sacramento, California in January of 1986, the Fort Gujjaros Museum Foundation sponsored a Symposium on International Whaling. Among the papers submitted from Holland, Australia, Canada, and the United States was a presentation on the industry in the northwest Pacific by Robert Lloyd Webb. He has now published On The Northwest: Commercial Whaling in the Pacific Northwest, 1790-1967.

Webb is Curator of Research at the Kendall Whaling Museum in Sharon, Massachusetts. In 1985, he assisted the Fort Gujjaros Museum Foundation in research concerning whaling off the California coast. His own interests coincided with the mid 19th century development of harpoon guns and advances in technology that turned whaling from individual skills to factory ship operations.

Webb exposed the lives of the Japanese, Chinese, Norwegians, and Newfoundlanders who drifted to the maritime communities of the Northwest in the final chapter of the whaling industry. The book contains 360 pages, sixteen with illustrations, line drawings, and maps. Cloth covers sell for $25.00 and can be ordered from The University of British Columbia Press, 6344 Memorial Road, Vancouver, B.C. Canada V6T 1W5. Postage and handling is an additional $3.50.
FOUNDDATION NOTES

1988 MEMBERSHIP DRIVE REPORT
Mike Nabholz
Membership Chair

Thank you again to those of you who have joined the Foundation or renewed your membership in response to the 1988 Membership Drive. If you have not sent in your renewal, please return the form in the back of this Fort Guijarros Quarterly with your check today or use the reply envelope which was enclosed with your renewal letter.

The following have contributed to the Membership Drive as of June 19, 1988 (new members are indicated by *):

Individual

Mrs. Fausto S. Acosta
Gilmer Boggis
Bonnie Bowman
Daniel Brown
Angie Burnell

Cabrillo National Monument * (Inst.)
Todd Caffo
Julia Costello
Marie Cottrell *
Leigh R. Coulter *
Beatrice Cox *
Michael J. Curren
Diana Dessel
John Paul Dooley
Eileen Dreysspring
Mrs. T.R. Eller *
Patricia A. Fay

Nicholas M. Fintelberg *
Susan Floyd
Carol E. Fuller *
Donald J. Hartley
Philip L. Hinshaw
Kathy Jenkins
Ollyn L. Jones *

Sister Catherine Louise La Coste
Gerald F. Lamb *
Alexa Luber斯基-Clausen
Denton W. Luke *
Jennie Marks
Mrs. Melba S. McCormack *
Andrea J. McKeef
June Moeser

Maisie Morris
A.P. Nasatir *
Anne Peter *
Patricia Schadelchlin
Harvey Serenco
Dorothy Sites
Ann Steinriese *
Ruth Stinson
Judy Swink
Carlie Urban
Dr. Paul Vanderwood
Paul Waterlander *
R.L. Willcoxson *
Robert C. Wilson

Family

Davis and Barbara Bell *
Richard, Anne, and Nathan Bogardt *
Art and Fran Bovee
Phil and Audrey S. Franklin *
Bob and Marigold Gorton
John and Irene Hannibal *
Charlene and Andrew Hennan
John and Sharon Hinkle
Philip and Kathryn Klintonworth *
Mr. and Mrs. R.C. McKee *
Laurie and Michael Orange-Bishop *
Angelo and Barbara Pugliese
Frank and Margarette Quillin
Lou and Carol Ridgeway
Alan and Arlene Riedinger *
Barbara and Jim Sack
Roland and Virginia Smith
Marvin L. Stevens and Family
Hugh and Marilyn Story
Tom and Erline Surber
Ann, Eric, Wendy, and Lorna Swanson
Lcdr. and Mrs. C. Everly Terry
John and Carol Vandegrift
Mr. and Mrs. Frederick Warn

Corporal of the Guard

Jane W. Ellis
John H. Ellis
J.U. Lemke *
Agustin Lucas
Bill Maier
Dale Ballou May
John W. Miller
Lois M. Miller
Jim Mottner *
Michael J. Nabholz

THE FORT GUIJARROS QUARTERLY
Giving credit to our long-term supporters, several members were noted in the 1987 issues of the Fort Guijarros Quarterly as "new" members, when in fact they had joined as early as 1981. We hope that the "*" system in this issue will keep the record straight.

I would also like to take this opportunity to again thank our Founding Life Members of the Commandante's Circle for their support and acknowledge them, along with our Honorary Life Members:

Founding Life Members

Edward D. Breck
Fred and Mary Buchanan
Mr. and Mrs. Harry Crosby
Caroline Crosby
Mr. and Mrs. R.C. Drolette
Ed Duling
Hazel Duling
Roy E. and Pat Harper
Wayne Kenaston Jr.
Mr. and Mrs. Philip Klauber
Margaret D. Knetzer
Betty Knoff
Dr. and Mrs. Peter Leon
Donald J. Lyons
Ronald V. May
Herb Minshall
Jim Royle
Dr. Raymond G. Starr
Kenhelm W. Stott, Jr.
Juan Suros, M.D.

Honorary Members

Sr. Don Joaquin Munoz Del Castillo
Colonel Wade C. Gatchell (ret.)
Stan Jones
Doris Omundson

COMMUNITY ENHANCEMENT GRANT PROGRAM

In July of 1987, the County of San Diego awarded $1,000 from the Community Enhancement Fund to the Fort Guijarros Museum Foundation. Though the award was far less than the $3800 requested, the Board of Directors directed that it be used for distribution of copies of the Fort Guijarros Quarterly and a new five and a half minute video on "The Search for Fort Guijarros" to be sent to schools and community libraries. The board also authorized some of the money to go toward a special exhibit on whaling.

The four issues of the Quarterly were bound into one single volume and 100 copies were re-printed. A master copy video was made and copies of the video were then made from the master. The distribution of the Quarterlies was as follows:

San Diego County High Schools....(25)
San Diego Unified High Schools...(15)
County Office of Education......(11)
City Libraries.........................(16)
County Libraries......................(16)
Colleges and Universities.........(4)
Community Colleges...............(5)
Other..................................(9)

The "Search for Fort Guijarros," is a five minute slide/sound program that outlines the history of Fort Guijarros and shows scenes from the Foundation's 1987 archaeological excavation. It was produced by Steve Siebert and Dale Ballou May in a class at San Diego State University. Distribution of thirty-four copies was as follows:

County Office of Education........(6)
San Diego Unified School District.(1)
City Libraries......................(7)
County Libraries...................(8)
Other.................................(12)

Some of the grant was used to improve exhibits. The exhibit on 19th century shore whaling at Ballast Point has been on display at Security Pacific Bank in Point Loma and at the March 20 Annual Battle of San Diego Bay Fiesta. It is presently at the Bachelor Officer's Quarters (BOQ) on the U.S. Navy Submarine Base on Ballast Point.

On June 13, 1988 Vice Chairman Jesus Benayas made a presentation to the County of San Diego Board of Supervisors requesting a new grant
for 1988-1989. He distributed bound copies of the three minute presentation along with news clippings, covers of the Quarterly, and other information on the history of the Foundation. The success of that application will be reported in the up-coming Summer issue.

CAROLINE CROSBY DAY

On March 23, 1988, the Peninsula Chamber of Commerce honored their retiring president, Caroline Crosby for ten years of outstanding service. The Chamber invited numerous organizations to join in the commemoration. The Fort Guijarros Museum Foundation discreetly approved a proclamation to be printed on simulated parchment and framed for the event (see text below). As Ron May read the document at the appropriate moment, Mike Nabholz brought up a miniature brass cannon mounted on a red clay tile with a small inscription.

In her capacity as Chamber President in 1981, Caroline included the Foundation in her activities and soon became a Founding Life Member and held a seat on the board of directors of the Fort Guijarros Museum Foundation. She retains that seat as delegate from the Peninsula Chamber of Commerce.

Resolution by the Board of Directors of the Fort Guijarros Museum Foundation

CAROLINE CROSBY DAY

WHEREAS, the celebration of Caroline Crosby Day will provide an opportunity for the Fort Guijarros Museum Foundation to recognize the many contributions Caroline Crosby has made to commemorate the history of San Diego's old Spanish fort on Point Loma and the subsequent history of Ballast Point; and

WHEREAS, the Fort Guijarros Museum Foundation is an organization of several volunteer groups that have bonded together to dedicate and commemorate the history of the Peninsula region; and

WHEREAS, Caroline Crosby has distinguished herself since 1981 in her role as a member of the board of directors of the Fort Guijarros Museum Foundation; and

WHEREAS, she has served as an active member of the Fort Guijarros archaeological field crew; and

WHEREAS, she is a Founder and Life Member in the Commandante's Circle of that Foundation; and

WHEREAS, she has arranged numerous public outreach and traveling community exhibits to educate the San Diego community; and

WHEREAS, she has authored an article in Volume I, Number 1 of the Fort Guijarros Quarterly to promote public involvement in community history; and

WHEREAS, she has promoted the celebrations of the Battle of San Diego Bay and the Fort Guijarros Fiesta in the Peninsula Chamber of Commerce Newsletter; and

WHEREAS, Caroline Crosby has enhanced the festive atmosphere of the many Fort Guijarros Fiestas by introducing guests from the Peninsula community and selflessly donating gifts and door prizes at these events; now, therefore, be it

RESOLVED BY the Board of Directors of the Fort Guijarros Museum Foundation.

Ron May presents Caroline Crosby Day proclamation to Caroline.
Museum Foundation, that we take great pleasure in joining with the Peninsula Chamber of Commerce in honoring Caroline Crosby's contributions to her community, and urges all San Diegans to join in the celebration; be it further

RESOLVED, that this proclamation be presented to Caroline Crosby on this date.

Dated: March 23, 1988

SAN DIEGO-TIJUANA INTERNATIONAL HISTORY FAIR

On August 12, 1987, the Board of Directors of the Fort Gujarras Museum Foundation elected to contribute to the San Diego-Tijuana International History Fair. The International History Fair is an annual community education project that encourages junior and senior high school students in the San Diego-Tijuana area to gain a better understanding of the history of their communities by means of independent research projects.

The first History Fair was held in 1983 by San Diego State University, the San Diego Historical Society, and their counterpart institutions in Tijuana. It now involves hundreds of students. Participation is in the form of table-top exhibits, research papers, slide or video shows, and dramatic performances. About 600 entries are accepted for display at the Fair, which is alternately hosted in San Diego and Tijuana. The 1988 Fair was held between March 4 and March 6, 1988 at the Cultural Center in Tijuana.

The Foundation offered one T-shirt and a $50 award for the best Senior Table-top and one T-shirt and $50.00 for the best Junior High School exhibit. Although no entries were made for Fort Gujarras or the Ballast Point Whaling Station, exhibits on Fort Rosecrans and the U.S. Navy Submarine Base won this year's awards.

Foundation members and guests enjoy dancing by Casa de Espana at the 1988 Battle of San Diego Bay Fiesta.