A SOCIOECONOMIC INTERPRETATION OF 19TH CENTURY ARCHAEOLOGICAL CERAMICS FOUND AT CONTEMPORANEOUS, CULTURALLY DIVERSE SITES ON BALLAST POINT IN SAN DIEGO, CALIFORNIA

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DEDICATION

This thesis is dedicated in loving memory of my father, Carl Wilson Graham, with whom I had wished to share this accomplishment. For the gifts of knowledge and experience he so proudly gave me.

I also dedicate this work to the inspiration left by Dale Ballou May, who devoted 30 years to the Fort Guijarros Project and left an indelible footprint on the archives and the hearts of those who knew her.
ABSTRACT OF THE THESIS

A Socioeconomic Interpretation of 19th Century Archaeological Ceramics Found at Contemporaneous, Culturally Diverse Sites on Ballast Point in San Diego, California

by

Michelle Donna Graham
Master of Arts in Anthropology
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This thesis assesses the degree to which the type, form, and function of 19th century ceramics recovered from archaeological sites on Ballast Point reflect ethnic identities of their owners. A dualistic approach is employed to determine whether culture or economy played a greater role in influencing the acquisition of ceramic goods at these sites. Comparisons are drawn from contemporaneous deposits associated with a Chinese fishing camp (Trench 2), and a European American whaling operation (Trench 6) excavated from the Ballast Point Lighthouse site (BPLH) during the 1991 and 1992 field seasons of the Fort Guijarros Project. This thesis reconstructs a complex history of the social and economic relationships among people inhabiting Point Loma and exploiting its marine resources during the second half of the 19th century.
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CHAPTER 1

INTRODUCTION

An advantage of working with historical ceramics is often knowing who produced them, of what they are made, from where they came, when and why they were made, and how. Interpretation of the resulting data provides information about the people who used the ceramics and the society in which they lived. This thesis compares ceramic material recovered from two mid-to-late 19th century fishing and whaling sites on Point Loma in San Diego, California. The primary question addressed is how two archaeological deposits from contemporaneous sites in such close proximity can be so fundamentally different. The material from the kitchen deposit at the Chinese fishing camp was primarily of Chinese manufacture, while the material associated with the European American owned whaling station was of British or American manufacture. This thesis builds upon a series of observations and hypotheses set forth regarding the connection between the artifacts and the identities of their owners.

Determining the geographic origins of the ceramic types and their relative values within each assemblage provided information about the cultural and economic processes that brought them to these sites. Historical price lists could not be located; the Chinese and British or American wares have been ranked according to value relative to wares of shared origin using other comparative data (Evans 1980; Garrow 1995; Greenwood 1994; Miller 1984, 1991). In the absence of monetary values, it could not be determined which culturally specific assemblage held a higher market value. However, both collections were found to be of overall better quality than the ceramics typical of other Chinese or European American labor camps from their period.

The historical development of British Creamware and Pearlware, then British or American Whiteware and Ironstone was characterized by a loss of value and decline in popularity of earlier types as innovations were introduced to the market approximately every 20 years. Therefore, earlier types were generally less expensive as well as less desirable. In contrast, the production of most of the Chinese types remained constant over centuries.
Stoneware was the least expensive, porcelaineous stoneware moderately expensive, and porcelain most expensive. The relative value of Chinese types was reflected in the quality of the paste, and intricacy of decoration. Analysis of the form and function of the vessels suggested food items consumed and the dining customs of site inhabitants. All factors combined to reconstruct aspects of life on the peninsula and the fishers’ and whalers’ relative status within their greater society.

Although historical accounts of 19th century Ballast Point suggest cooperation and harmony in an environment free of the ethnic and racial discrimination characterizing society in California at that time (Kelly and May 2001:ch. 4:1; McEvoy 1977:1), closer examination of the artifacts told a different story. Historical and archaeological evidence for ethnic segregation and what we now call scientific labor management practices suggest that although the two groups interacted to some extent, cultural and economic boundaries remained very much intact. Scientific labor management refers to the practice of selecting labor for a particular industry based on the “race” of the workers, as was the case with the African slave trade (Little 2007:57). In 19th century California, Chinese labor was preferred for work in the gold mines and on the railroads (Wollenberg 1971:224). Mexican labor continues to be exploited in the agricultural industry today. The Chinese fishers and European American whalers were operating within a colonial trade system that organized people along ethnic lines. Competition and exchange determined the economic status of groups and their access to material goods, including geographically specific types of ceramics. The multi-ethnic composition of the whaling crew was an exception to the practice of ethnic segregation as only 64% of the men were born in the Eastern U.S. or Ireland and the remaining 36% (n=9) declined to list their birthplace. The American born whalers were predominantly of British or Portuguese descent, and the other crew members could have originated from numerous points of contact in Asia, Europe, Africa, the South Pacific, and the Caribbean (Fox 2001:15; May 1985c:8, 1986:74, 1986:79, 1987a:6). Therefore, the predominantly British or American ceramics used by the whaling crew reflected the ethnic identities of the European American company owners, and not the crew members themselves.

The following analysis supports the notion that the economic function of these labor sites and the sub-economic trade systems within which they were operating, rather than the
ethnicity or preference of the workers, primarily influenced the selection of particular ceramic vessel types and forms. Therefore, although a preliminary glance at the assemblages suggested that the ceramics functioned as ethnic markers for these sites, the results of this study indicate that their acquisition was more dependent upon economy than culture.

**ARCHAEOLOGICAL CERAMICS IN SAN DIEGO**

The archaeological record in San Diego shows that ceramic types tend to reflect the ethnicity of their owners. The term ethnicity refers to a socially constructed identity shared by a group of individuals competing for resources with other groups through regular social, economic, and political interaction. Although cross-cultural negotiation is an ancient practice, colonialism intensified this interaction on a global scale; the resulting relationships are visible archaeologically. Sites occupied by Kumeyaay people typically contain coarse, low-fired earthenware ceramics dating from approximately 900 A.D. until the point at which their ceramic tradition was almost invariably replaced by other, foreign traditions. Apart from the work of the Pai Pai ceramists at Santa Catarina, Baja California, continuous knowledge and practice of the craft among the original inhabitants of this region has been interrupted.

Spanish influence on ceramic production in the Americas is noted from the colonial period and continues into the present. The early combining of cultural traditions produced wheel thrown earthenware ceramics at mission sites that were fired at a higher temperature than the local ceramics. Lead and tin glazes were introduced creating Mexican Majolica and Galera Ware, which are still on the market today. Sites inhabited during the Spanish colonial period in Southern California typically contain indigenous course earthenware ceramics identified by archaeologists as Brownware or Buffware, as well as Spanish influenced types such as Majolica and Galera Ware. Another ceramic type used by early European settlers was Canton Trade Ware, a Chinese export porcelain imported to Acapulco from as early as 1573 on Spanish trade ships via the Philippines. The earliest evidence for Chinese porcelain in San Diego was found at the Presidio and dates to 1777 (Krase 1981). The acquisition of porcelain and other imported luxury goods was limited to consumers who could afford their relatively higher cost compared to locally produced earthenware.

By the late 18th century, British, Russian, and American trade ships were competing with Spanish merchants at ports in California. In 1805, the Spanish crown closed Californian
ports to ships from all other countries and from 1811 to 1820, political tension with Spain had made provisions so scarce that Spanish settlers appealed to American merchants and began importing contraband from New England. Whiteware types from England were imported during this period; American-made ceramics had not yet arrived in San Diego. American merchant ships also sold Chinese export porcelain acquired through trade with China in exchange for sea otter skins harvested in San Diego (Krase 1981). The same British Creamware and Pearlware types imported to Spanish California via New England were used by the whalers on Point Loma decades after they had fallen out of common use elsewhere.

**Ballast Point Fishers and Whalers**

The political and economic climate in California through the early 19th century determined the nature of trade in this region. The above synopsis of ceramic production and trade covers the period prior to the first documented arrival of an American trade ship to San Diego in 1821 – the same year Mexico gained independence from Spain. Illicit trade with American merchants prior to that date went unrecorded (Krase 1981). The 1821 voyage predates existing historical accounts of the fishing and whaling operations on Point Loma by 30 years. The U.S. conquered California in 1846, and historical documents show the first whalers arrived from New England and established their outpost(s) on Ballast Point a full 12 years later, in 1858. The end-use/popularity dates for the British Creamware and Pearlware ceramics found at these mid-to-late 19th century sites were 1820 and 1830, confounding archaeologists at the time of their discovery since ceramics can often be used to reliably date the occupation of a site (Garrow 1995:2-3; Majewski and O’Brien 1987:118; May 1987a:11-12, 1989:9; South 1971:1). The New England traders may have exploited the San Diego coast prior to 1858 and their activities apparently were unrecorded while the local American political administration was still in its developmental stage. Therefore, although the present sites date to the post-1850 period based on analyses of the other artifact classes, earlier sites occupied by American mariners may be present on Point Loma, or in the vicinity. The whaling captains from New England supplied their crew with British and American ceramics regardless of the ethnicities of the crew members, who were from all over the world (Fox 2001:15; May 1985c:8, 1986:74,79, 1987a:6). These men had entered an industrial capitalist
system controlled by European American interests and probably did not have access to material goods reflective of their individual ethnic or personal preferences.

The earliest historical documentation for Chinese fishing activity on the California coast dates to 1853 and 1856 in San Francisco and San Diego, respectively. These coastal communities were associated with the wave of Chinese migrant workers attracted to California in the 1850s by the gold rush. Since many of the men had come from fishing communities in China, they opted to pursue their traditional maritime livelihood here as well. The fishers on Ballast Point primarily exploited the abalone population, which had exploded due to over-hunting of their main predator, sea otters, during the late 18th and early 19th century (Leung 2013:18). Some of the seafood was sold locally and the majority of the catch was dried and shipped back to China in exchange for other goods (McEvoy 1977:14). The Chinese settlers’ use of Chinese ceramics was not reflective of their ethnicity precisely, but dependent upon the intricate ties maintained with their homeland through a transnational trade network much in the same way the Anglo-American whalers maintained economic ties to England. The Chinese fishers did not use the same Chinese export porcelain that was historically sold to European and American merchants; their assemblage contained brown glazed utility stoneware and porcelaineous stoneware vessels typical of 19th century Chinese households. These men were participating in a merchant capitalist sub-economic system somewhat independent of European American influence, while the multi-ethnic whalers’ industrial capitalist system was controlled by European American entrepreneurs and incorporated into the national economy.

**RESEARCH QUESTIONS**

The ceramics provided temporal data used to estimate the site occupation spans. The spatial distribution of the sherds was examined to determine how the archaeological deposits were formed. The type, form, and function of the vessels in the assemblages provided information about the ethnicity and economic status of their owners. Interpretation of the data addresses the following questions:

1. Did culture or economy play a greater role in determining the acquisition of ceramics at these sites?
2. How do ceramic type, form, and function reflect the ethnic identity and economic status of their owners?
3. Were these communities collaborating, or were cultural and economic boundaries clearly drawn? Can ethnic discrimination be inferred through the ceramics?

4. Was one group more affluent than the other? What were their economic positions within their greater society?
CHAPTER 2

HISTORICAL BACKGROUND

FORT GUIJARROS PROJECT DESCRIPTION

The Fort Guijarros Project involved 14 field seasons of archaeological excavations from 1981 through 1995. Investigations took place at three principle geographic locations: the Fort Guijarros (FG; CA-SDI-12,000), Ballast Point Search and Rescue (BPSAR), and Ballast Point Lighthouse (BPLH; CA-SDI-12,952) sites. Work commenced on Fort Guijarros proper in 1981 and terminated in 1995. The BPSAR project was carried out during the field seasons of 1988 and 1989 and excavations took place at BPLH in the summers of 1991 and 1992 (May n.d.:1) (see Figure 1; Ballast Point (Point Loma) n.d.). In collaboration with the U.S. Navy, an onsite curatorial facility was established in 1995 with the conversion of the Fort Rosecrans morgue into an artifact repository (May 1996a). The Fort Guijarros crew spent the five-year period from 1996 to 2011 processing the extensive collection of artifacts. Upon cessation of the project in 2011, the U.S. Navy sent the material stored in the repository on Point Loma to the San Diego Archaeological Center, and the Fort Guijarros Museum Foundation sent the site documents to the South Coastal Information Center at San Diego State University for the development of an electronic database in the fall of 2012.

Throughout the duration of the Fort Guijarros Project, the Principle Investigator, Ronald V. May, and his archaeological staff worked in collaboration with two supporting organizations: the “Casa de España de San Diego”, an organization dedicated to the development of cultural, educational and social programs relating to Spanish culture, and the San Diego Chinese Historical Society, dedicated to the preservation and dissemination of Chinese and Chinese American material culture. These organizations were influential in undertaking historical research and generating public interest in and support for the project. The Fort Guijarros Museum Foundation operated an onsite museum, provided annual memberships, hired artist Jay Wegter to paint watercolor interpretations of the sites informed by extensive archaeological research (see Figures 2-4; Jay Wegter n.d.a-c), sold T-shirts and other souvenirs, and held regular fundraising events such as the Fort Guijarros Fiesta.
Figure 1. Ballast Point (Point Loma) map. Source: Fort Guijarros Collection n.d. Fort Guijarros Archives. San Diego State University, San Diego, CA.
Figure 2. Chinese fishing camp depicted by artist Jay Wegter. Source: Jay Wegter n.d.a “Chinese Fishing Camp at Ballast Point 1860-1874”. The Fort Guijarros Museum Foundation. San Diego State University, San Diego, CA.

Figure 3. Whaling station tryworks depicted by artist Jay Wegter. Source: Jay Wegter n.d. b “Whaling Station”. The Fort Guijarros Museum Foundation. San Diego State University, San Diego, CA.
The recovered ceramic collection includes material associated with at least four populations that have occupied the Point Loma peninsula: Kumeyaay, Spanish, Chinese, and European American. The first recorded European American community on Ballast Point included whaling companies owned by the Packards, Johnsons, Tilton, Flanders, and Price. The second European American occupation, by the U.S. military in 1872, continues into present day. Point Loma was first inhabited by Native Americans as early as 12,000 years ago (Kelly and May 2001, ch. 2:16) and ethnographies record the presence of a Kumeyaay village on the peninsula called Totakamalan (Luomala 1978:593; Moriarity 1977:130; Pourade 1960:10). A cultural resource survey conducted by RECON in 1996 identified 13 archaeological sites of which 11 primarily contained indigenous cultural material. Of those, seven contained some post-contact period artifacts (Unknown Author a 1996). The Spanish first arrived in San Diego with Juan Rodriguez Cabrillo’s landing in 1542 (Kelly and May 2001, ch. 3:2) and Fort Guijarros was built more than 200 years later, between 1794 and 1796, by a workforce that included some Kumeyaay laborers (Kelly and May 2001, ch. 3:5-6). Mexico gained independence from Spain in 1821 and the fort was abandoned around 1835 (May 1985b:21) just 11 years prior to the American conquest of California (Crane 1991:105; Van Wormer and Roth 1985:1). At the conclusion of the Mexican-American War, the 1848 Treaty of Guadalupe Hidalgo ceded all Spanish or Mexican military posts to the
U.S. government, and the Ballast Point peninsula was turned over to the U.S. Army (Van Wormer and Roth 1985:2). U.S. military spending decreased considerably after the Civil War (Van Wormer and Roth 1985:2). When the U.S. government made no immediate plans to occupy the peninsula, historical records indicate that the fishers and whalers began to use the area as a base from approximately 1856 to 1886 in order to exploit marine resources (Berryman 1999:22; Kelly and May 2001, ch. 4:12; May 1986:73). Maritime activities were temporarily disrupted in 1872 when the army began the construction of a U.S. coastal battery; the project was discontinued in 1873 (May 1985a:121), and the whalers returned until the government permanently reclaimed the land in 1886 for the establishment of Fort Rosecrans. The fort was shut down in 1959, and the Department of Defense assigned most of the land on Point Loma to the U.S. Navy while a portion was also donated to the National Park Service.

**THE CHINESE FISHING INDUSTRY**

Chinese fisheries were established in California in the early 1850s and continued operation until the turn of the 20th century (Bentz 1999:16; Collins 1985:2, 1987:63). The first such community was reported on San Francisco Bay in the Daily Alta California newspaper on March 5, 1853. The fisheries in San Francisco primarily exploited shrimp while those in San Diego specialized in the processing of abalone meat and shells, and fresh fish (Leung 2013:3). Overexploitation of sea otters in the early 1800s had virtually eliminated this abalone predator from San Diego Bay and the coast, and the abalone population subsequently exploded (Leung 2013:18). The earliest archaeological evidence found for Chinese abalone fishing in San Diego dates to 1856 (Berryman 1999:22). Archival documents revealed that most of the wholesale shipments from San Francisco were exported to China and Chinese settlements in other places (McEvoy 1977:14). There is little evidence of wholesale shipment from San Francisco to Chinese communities in the western U.S., indicating that smaller scale transactions made by fishing communities likely went unrecorded (Collins 1987:63). Arthur McEvoy, lawyer and maritime historical ecologist, described San Diego as a safe haven for Chinese immigrants who would have suffered greater discrimination in other parts of California because

> [the] fishermen had dealings with white San Diegans at several critical points in their work…A standard complaint in the mining and railroad camps to the north
was that the Chinese refused to buy anything from American shopkeepers but
boots and a few tools, but in San Diego the fishermen purchased lumber for their
boats and houses from local suppliers and traded with local merchants for rice,
hardware, and other supplies. They relied on white shipping agents and the Pacific
Mail Steamship Company for getting their harvest to Chinese distributors in San
Francisco. Abalone shells, which were produced for an American market, were
sold to American merchants who sorted and finished them for export. In all, the
fishermen offered a striking contrast to the insularity of other Chinese
communities in California. (McEvoy 1977:15)

The Chinese dominated the fishing industry in San Diego from the mid-1850s until
the 1890s (Leung 2013:17) and their success has been attributed to their substantially lower
market prices (Goode and Collins 1880:37), their willingness to take greater risks on the
rough seas than their competitors, and the building of more able ships (Leung 2013:2).
Chinese ship builders had emigrated from Guangdong Province to California and probably
made use of the skills they brought with them (Bentz 1999:16). Two Chinese fishing
settlements were recorded in San Diego in 1869, one of which consisted of about 10 houses
at Roseville on Point Loma (McEvoy 1977:15). This community made a central contribution
to the development of San Diego’s fishing industry, which continued to be one of the most
important local industries in the late 19th through much of the 20th century (Bentz 1999:16;
McEvoy 1977:14). In 1887, the U.S. Commissioner for Fish and Fisheries reported that

[i]n San Diego County, where formerly there was a considerable number of
Italians engaged in fishing, there are now none, they having been starved out by
the Chinese, who furnished fish to the local market of San Diego at such low rates
as to render competition on the part of the Italians impossible. It is not more than
ten years ago that the Italian fishermen had the entire business at this place in
their own hands. (Goode and Collins 1880:37)

The decisiveness of the above statement may have reflected the bias of anti-Chinese
sentiment rampant in the U.S. during the late 19th century because as late as 1888, fishers
from Central America, South America, Europe, Russia, and Japan were documented to be
working alongside the Chinese in California, each group in relative isolation (Leung 2013:1).
*The San Diego Union* reported the arrival of several Italian fishers in 1871 and they were still
working from Point Loma at the turn of the 20th century (Richardson 1981:214).

California in the 1860s was characterized by escalating racial hostility toward
Chinese people (McEvoy 1977:13) and by the 1870s, Chinese immigrants elsewhere in
California had been excluded from profitable industries and confined to low paying positions
as laborers, cooks, or laundrymen (McEvoy 1977:13). By 1880, legislation had confined
Chinese fishers in San Francisco and the Sacramento Delta to catching certain species as European Americans gained interest and involvement in the growing and lucrative industry. The Chinese in San Diego still dominated the market at that time with the operation of 12 companies while only four were owned by European Americans (McEvoy 1977:15). However, the completion of the California Southern Railroad exacerbated animosity toward the Chinese as competition for control of the fishing industry rose (McEvoy 1977:17). They were accused of depleting the fish populations by using tightly woven nets which caught small fish along with the large. Chinese fishers were also suspected of aiding in the trafficking of illegal immigrants and it was in this climate that the Chinese Exclusion Act was passed in 1882. Chinese immigrants already living in the U.S. were allowed to leave and return again until 1888 when the Scott Act was passed and fishers could no longer go to Baja California and legally return to the U.S. (McEvoy 1977:19). Although the 1888 the census recorded 52 Chinese fishermen, 46 American, and 27 Portuguese (McEvoy 1977:17), the number of Chinese junks had dropped from 13 to six by 1890 (McEvoy 1977:19). In general, reconstructing the history of Chinese workers’ contribution to California’s fishing industry relies heavily upon the archaeological record because so few historical documents are available (Collins 1985:2, 1987:64).

**The Whaling Industry**

The first European whalers in North America crossed the Atlantic Ocean from Basque country to Newfoundland in the 16th century. Although British and American companies dominated the industry in North America, ship crews were typically multi-ethnic (May 1987a:6). Historical records indicate that the Packard brothers, New Englanders borne of a Portuguese father and British mother, arrived in San Diego in 1857 and operated at La Playa until 1858 when they relocated to the newly developed community of Roseville on Point Loma (May 1986:75). Thus began 28 years of historically documented whaling history in San Diego (May 1988:2). Kelly and May describe the cultural atmosphere on Ballast Point in the mid-19th century as follows:

Unlike the ethnically segregated communities of Old Town and New San Diego, the Ballast Point Whaling Station of the 1860s and 1870s was distinctively multiethnic with dark complexioned Portuguese-Americans, Chinese, Irish-Americans, and European sailors and their families. At least one Native American woman from Santo Tomás, Baja California lived in this community. Three
Chinese individuals worked for the whalers and sold fish in Old Town and New San Diego. The people of the Ballast Point whaling station are important because their maritime history enabled an early multi-ethnic group to work together in an otherwise segregated and racially biased and intolerant Victorian California. (Kelly and May 2001:4.1)

Many 19th century whalers are thought to have been of Portuguese descent (Fox 2001:15; May 2001:6) carrying on a family whaling tradition from the Portuguese Azores Islands in the Atlantic before landing in Massachusetts (May 2001:6). Of the 1550 Portuguese immigrants living in California in 1860, more than 80% were, in fact, from the Portuguese Azores (Fox 2001:16). However, Fox cautioned that statistics are unreliable because many Portuguese whalers anglicized their names (Fox 2001:12), and California whalers were from all over the world including Japan, China, Jamaica, Italy (Fox 2001:15), Africa, New Zealand, Australia, Portugal, Hawaii, the South Pacific, the Caribbean, and the United Kingdom (May 1986:74, 1987b:6). In consequence, May variously described the whalers at San Diego as Portuguese, or “mainly New Englanders of unknown ethnic descent” (May 1985c:8, 2001:6) and noted that whaling companies arrived in San Diego not only from New England, but also from the South Pacific (Kelly and May 2001:ch. 4:2). The Packards and Johnsons occupied the peninsula for the longest period while other companies, such as those of Tilton, Flanders, and Price came and went (May 2001:7). Census records indicate that at least one married family and 10 men lived at the Packard Company settlement, and at least one married family, 2 cousins, and 7 to 10 men with the Johnsons (May 1988:7). Kelly and May wrote that “of the 23 known whalers who operated on Ballast Point between 1858 and 1886, ten came from New England, two from New York, one from Ireland. The rest did not register their birthplace...[and] names are not positive indicators of ethnicity” (Kelly and May 2001:ch. 4:5). San Diego resident Winifred Davidson is quoted as saying “[t]he Packards had a little shack about the middle of Ballast Point and lived in it; but the Johnsons had a much bigger establishment, a big building on the shore near Fort Rosecrans, that was used as dormitories for the whalers” (May 1986:76). The combined evidence provided by Davis’ sketch, the historical photograph, and Davidson’s testimony led to the conclusion that the shanty atop the Fort Guijarros ruins belonged to the Johnsons (May 1987a:8). When the whalers were temporarily evicted by the U.S. Army in 1872, the Johnsons’ whaling station was leveled for the construction of the “fort that never was,” and the shanties were used as housing for the soldiers (May 1986:84). The Packard brothers shifted their business to
another outpost to the south of Ensenada, Baja California, at Santo Tomás, and were said to have never recovered from a storm that swamped the outpost in 1879 (May 1985c:2-3). Although it remains unclear whether the Chinese fishers returned after the 1872 expulsion, the whaling industry on Ballast Point experienced a revival in 1874 (May 1986:73) when Enos Wall, one of the Packards’ old employees, began operating Wall & Plummer. This new whaling station had a tryworks oven- a round, brick furnace built for rendering whale blubber- that attracted many tourists until 1885 when Wall died. Higgins & Scranton Company relocated to Ballast Point from Baja California in 1885 and is thought to have purchased Wall & Plumber and remained in operation until 1886 (May 1985c:13).

**EXCAVATION SUMMARY**

The Fort Guijarros excavations uncovered the first whaling station to be documented archaeologically in the United States. Its good state of preservation was owed to the function of the peninsula as a military reserve (May 1988:2). The interpretive framework for the Fort Guijarros project relied heavily upon historical research, and the resulting narrative was not adequately supported by archaeological theory. Historical archaeologists must be aware that "...historians traditionally have tended to overlook or not emphasize…the correlates of social stratification [and] interethnic relations outside of official policy…" (Deagan and Scardaville 1985:34). Historians have dealt primarily with written records that contained the biases of individuals who belonged to a privileged socioeconomic class, documenting only that which the elite considered significant (Deetz 1991:6; Little 2007:57). In contrast, archaeologists unearth and interpret the material cultural remains of all people, including populations that have been overlooked in the writing of history. Despite the awkward relationship between history and archaeology and their sometimes incomplete synergy, May's training as both archaeologist and historian supports Thomas King's observation that because "historical archaeologists study the archaeology of societies with written records...they often have academic backgrounds in history" (King 2005:19). Archival training is of particular importance to Spanish colonial archaeology, and archaeologists in this sub-field are encouraged to receive graduate training in historical research methods, or have the research conducted by trained historians in order to ensure the generation of complete documentary collections (Deagan and Scardaville 1985:32-33). However, the ultimate goal of archaeology
is not to illustrate what the historical record has already communicated, but to go beyond the written record and permit the artifacts to independently convey all that which the documents fail to reveal.

Excavations at Fort Guijarros proper uncovered the remains of an historically documented whaler’s shanty, or rudimentary wooden housing structure, and a blacksmith’s shop which had been built atop the fort ruins and occupied between 1860 and 1873 (May 1989:2). Approximately 1000 feet to the east, the BPSAR site contained a contemporaneous tryworks oven, and the remains of a second residential structure (May n.d.:1). The Fort Guijarros crew was then contracted by the U.S. Navy in 1991 and 1992 to salvage archaeological material from the ruins of a conglomerate of old U.S. Lighthouse Service buildings (1890-1957). Excavations took place between 50 and 200 feet east of the tryworks operation at what would become the site of the United States Navy Officer’s Club on Point Loma. It was at this most easterly location, nearly at the tip of Ballast Point on Point Loma, that the Chinese fishing camp and second whaling station were discovered. Although a direct association could not be made between this whaling site and the Johnsons’ operation at Fort Guijarros, the two were found to be contemporaneous.

A series of test excavations conducted by Brian F. Smith and Associates in 1987 informed the research design for the Ballast Point Lighthouse salvage project (May 1991a:1). Smith’s cultural resource survey confirmed the location of the lighthouse era ruins, and recorded the presence of mid-19th to early 20th century artifacts in the vicinity of the Old Lighthouse and Assistant Lighthouse Keeper’s house plots (May 1991a:1-2). Excavation of seven trenches and six test pits revealed archaeological material to a depth of one meter and the soil profile was subdivided into Loci A, B, C, and D. The existing ground contour was compared with an 1867 topographic map to confirm that Locus A comprised a man-made fill layer, which reached a depth from 0 to 20 centimeters and contained early to mid-20th century artifacts (May 1991a:2). Locus B (20-30 cm) dated from 1920 to 1957, Locus C (30-55 cm) from 1890 to 1920, and Locus D (55-99 cm) from 1860 to 1890 (May 1991a:2-3). Smith focused on subsurface deposits near the U.S. Lighthouse Service workshop, oil house, bath house, and keepers’ houses and the project’s main priority became the recovery of glass bottles and ceramic material from the brick privies (May 1991a:1).
The Ballast Point Lighthouse salvage project undertaken by the Fort Guijarros crew aimed to expose the lighthouse building foundations, and recover collapsed architectural material from the basements (May 1991a:4, 1992a:2). The research design proposed investigation of the old kitchen, storehouse, and barn documented in an 1886 sketch by Edward Davis, and an 1890 photograph on file at the San Diego History Center (May 1992a:3). Although Brian F. Smith and Associates reported these buildings to have been constructed by the U.S. Army, the map and photograph indicated that they, in fact, predated the lighthouse and were probably built by either Chinese fishermen, or European American whalers (May 1991a:7). May inferred that “the lighthouse establishment had been built on the grounds of a former Chinese fishing family household site and industrial area for whaling operations from the 1860s through the early 1870s” (May 1991a:2). Interpretation of the recovered artifacts would determine the ethnic group(s) responsible for the construction of the buildings, their socioeconomic conditions, and their possible relationships to each other.

During the 1991 field season, eight trenches were dug to locate cultural deposits and expose soil profiles. A U.S. Navy Seabees’ backhoe removed the manmade fill, denominated “Locus A” by both Smith and May, and dug each of the trenches (May 1991a:2, 1992a:8). An interview with Lighthouse Keeper Radford Franke in 1991 revealed that the site had, in fact, been leveled and backfilled for landscaping in the early 1930s (May 1991b:2, 1992a:9, 1992c:5). The Assistant Lighthouse Keeper’s house foundation and surrounding features were uncovered in Trench 2, where the Chinese deposit May had anticipated based on historical research was found beneath the rubble (May 1992a:11-20) (see Figures 5-6; The Fort Guijarros Collection n. d.). In Trench 6, the slope between the north foundation wall of one of the warehouse plots and the waterfront revealed a trash pit associated with the whalers (May 1992a:21-25). The 1992 field season was dedicated to the rescue and interpretation of the whaling deposit, which would soon be disturbed by the building of the MILCON P-100 parking lot (May 1992c:2, 7). This thesis compares the ceramic material recovered from these contemporaneous kitchen features, one of which is associated with the Chinese fishers, and the other with the predominantly European American whalers.
Figure 5. Trench 2 unit 1 locus 5A. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

Figure 6. Trench 2 unit 2 locus 4A. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
The Chinese kitchen feature comprised Trench 2 Unit 1 Loci 4A and 5A, and Unit 2 Loci 3A and 4A (see Figure 7; The Fort Guijarros Collection n. d.); each distinct soil deposit was assigned a different locus number. Unit 1 Locus 4A was described as a “Wavy or Tidal Wash Trash Feature” measuring 75 centimeters from east to west, 1.24 meters from north to south, and 30 centimeters thick. This feature lay below the Assistant Lighthouse Keeper’s house foundation and contained “a beach sand deposit mixed with artifacts that date in the 1850-1880 time period” (May 1992b:12). The sand was water screened in 1/8th inch mesh and found to contain a large Tizon Brownware bowl fragment, a small brass button, metal and brick chips, fish bone, *Tivela stultorum* shell, and saw-cut mammal bone. Under these objects were fragments of a Bamboo bowl, a Double Happiness bowl, a brown-glazed Asian stoneware utility jar, and two aqua blue bottle glass sherds (May 1992b:12).

![Figure 7. Trench 2 overview. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.](image)

Unit 1 Locus 5A (see Figure 8; May 1992b) correlated with Unit 1 Locus 4A and comprised a 5-8 centimeter thick “black charcoal lens” measuring 20 centimeters deep. This locus held a concentration of historic artifacts from the 1860-1880 time period. These included Chinese porcelaineous stoneware bowls as well as English and American artifacts such as saw-cut mammal bone, a light green bottle base, a dark green bottle wall, and a melted English Common brick. Adjacent lay an aqua colored bottle with a hand-applied blob top, a broken 3-tined ferrous metal fork, broken dark green ale/wine/cider bottle glass, Blue Shell Edged plate sherds with pearlized glaze, and charred sand. Below these objects lay a
crushed ferrous metal can that may have contained cooking oil, burned animal bone, Celadon and Double Happiness bowl fragments, blue Shell Edged plate sherds with pearlized glaze, green and blue bottle glass, and charcoal (May1992b:13). Unit 2 Locus 3A was located at the southwest corner of Trench 2, 15 centimeters below the Assistant Lighthouse Keeper’s house foundation (see Figure 9; May 1992b). This locus correlated to Unit 1 Locus 5A and included several fragments of a Bamboo bowl, a Double Happiness bowl, a brown-glazed Asian utility stoneware jar, and fish bone. Several aqua bottle glass sherds cross-mended with the bottle sherds from Unit 1 Locus 5A. Buckets of soil were water-screened in 1/32 inch mesh to recover small items. Three varieties of wild bird shell, four Sebastoides fish otoliths, three species of limpets and human hair were recovered from the air-dried residue. Among the limpets were substantial quantities of Notoacmea, a species that lives exclusively on Feather Boa Kelp. The County of San Diego Sheriff’s Crime Lab analyzed the human hair and determined it to be color gray, from a Caucasian, and cut with no hair follicles (May 1992b:16). Figures 8-11 were extracted from the original fieldnotes (May 1992b).
Unit 2 Locus 4A also corresponded to the Chinese trash pit and correlated directly with Unit 1 Locus 5A. This undisturbed locus contained charcoal-black, oil-rich sand and held the contents of a Chinese oven and associated kitchen refuse. As excavators loosened the soil and removed large objects, the soil was collected in buckets for water-screening through 1/32 inch mesh and careful sorting in the laboratory. Artifacts included Bamboo, Double Happiness and Celadon bowl sherds, brown-glazed Asian stoneware soy sauce pot and vegetable jar sherds, white clay smoking pipe fragments, ferrous strap iron, brass ship’s nails, a 22 centimeter long ferrous iron drift pin, several curious copper wire twisted loops, a large metal can, and fragments of a leather shoe and a cast iron pot. Throughout this locus were crumbling saw-cut bone, fire-spalled cobble chips, and iron grill fragments. In addition to the large metal can, hundreds of rusted ferrous can scraps were scattered throughout the
Figure 10. Trench 6 aerial sketch. Source: May 1992b Ballast Point Light House Salvage Field Director’s Field Notes and Lab Sketches: 1991 and 1992 Field Seasons CA-SDi-12,593. Fort Guijarros Collection. South Coastal Information Center Archives, San Diego, CA.

deposit. The large can measured 20 centimeters by 22 centimeters and was thought to have contained cooking oil similar to those reported from Chinese mining camps in northern California (May 1992b:17).

The trash pit in Trench 6 was associated with the whaling station and comprised Locus 2 of Units 5, 6, and 11 (see Figures 10-12; The Fort Guijarros Collection n. d.; May 1992b). This feature measured 210 centimeters from east to west by 185 centimeters from north to south and 92 centimeters deep with a flat, level bottom and straight sides that slumped half way to the top. The charcoal-rich sand overflowed the top of the pit to extend the midden 15 centimeters thick outward in all directions. Because there was no clear break between the trash pit feature fill and the overflow, it was all labeled Locus 2. This feature yielded Whiteware plate and bowl sherds, English Dipped Annular Ware bowl sherds, an Asian Blue-on-White bowl sherd, Chinese Bamboo and Double Happiness bowl fragments,
Figure 11. Trench 6 profile sketch. Source: May 1992b Ballast Point Light House Salvage Field Director’s Field Notes and Lab Sketches: 1991 and 1992 Field Seasons CA-SDi-12,593. Fort Guijarros Collection. South Coastal Information Center Archives, San Diego, CA.

Figure 12. Trench 6 overview. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
sherds of Blue Shell Edged plates with pearlized glaze, a glazed red clay smoking pipe rim fragment, aqua blue peppersauce or mustard bottle sherds, dark green ale/wine/cider bottle sherds, toy marbles including a China marble dating from the 1850 to 1914 period, sherds of a porcelain doll head, a cast iron stove part, brass ship’s nails, copper sheet, ferrous strap iron with rivets, rusted metal fragments, a gilt broach, bottle glass, a white “China” button, a metal button, a whale vertebrae, *Tivela stultorum* and other marine shell, saw-cut mammal bone, and a leather shoe heel (May 1992b:22-24).

The Fort Guijarros Project entailed 14 years of intensive historical and archaeological research and provided San Diego State University with a wealth of data on San Diego’s diverse and complex history. The stratigraphy of these sites revealed the presence of successive, ethnically distinct occupations built one on top of the other. This project materially reconstructed over three centuries of cultural interaction culminating in the displacement of entire human populations from Point Loma on at least three occasions. The peninsula was controlled by the Kumeyaay people, then the Spanish and Mexican military, then the U.S. Army/Navy. These political occupations were temporally discrete. Although some interaction is archaeologically visible between the Kumeyaay and the Spanish, the Kumeyaay and the mariners, and the fishers and whalers themselves, it remains clear which ethnic group dominated each site. The nature of their relationships is visible archaeologically.
CHAPTER 3

LITERATURE REVIEW

COLONIALISM, RACISM AND ETHNIC STRATIFICATION

It seems too simplistic, but archaeology’s purpose today is to play a role in ending racism. Everything follows from this fact. --Robert Kelly

It would be impossible to interpret 19th century archaeological sites occupied by ethnic groups in the U.S. without considering the role capitalism played in shaping national immigration policy and encouraging racism and ethnic stratification. The notion of individual cultures in the modern world may be a colonial invention because “[c]olonialism is not about an event but, rather, about processes of cultural entanglement, whether voluntary or not, in a broader world economy…” (Silliman 2005:62). Ethnic identity formation occurs as a result of group interaction, not isolation, and is defined as a “social relationship between agents who consider themselves as culturally distinctive from members of other groups with whom they have a minimum of regular interaction” (Eriksen 1993:12). For this reason, Frederik Barth suggests that it is more productive to study the boundaries delimiting ethnic groups than the traits they enclose (Eriksen 1993:35). The maintenance of ethnic boundaries is influenced by competition, ethnocentrism, and power. Randall McGuire writes that "competition provides the motivation for group formation, ethnocentrism channels it along ethnic lines, and the differential distribution of power determines the nature of the relationship" (McGuire 1982:173); ethnicity determines the nature and extent of interactions between both individuals and groups (Penner 1997:259). Because it is a fluid construct, ethnicity is perpetuated and shifted through every day interaction (Penner 1997:258). As groups compete for resources, it "...provides members with a symbolically ascriptive and exclusive subculture with which to identify, and...allows members to confine primary relationships to others within this subculture" (Staski 1990:122). Origin, customs, language, and law are not necessarily prime determinants because an individual must acknowledge membership to an ethnic group (Eriksen 1993:37-38) and there is a continuous flow of
information, interaction, exchange, and individuals [across ethnic boundaries]” (Eriksen 1993:39). Ethnic identity formation is a defense mechanism established to mitigate the effects of colonial racism and Edward Staski quotes David Babson as stating that “‘[r]acism, as manifest in forced segregation, economic deprivation, and prohibited access to various goods and services, can be observed archaeologically’” (Staski 1990:125).

Such a large number of different ethnic groups have migrated to California since its inception that it boasts a more varied ethnic history than any other U.S. state besides Hawaii. Charles Wollenberg describes tension between two competing social movements in the United States: one which encourages uniformity and conformity to a single political and economic system, and another by which ethnic, religious, and national minorities struggle to maintain separate identities while participating equally within the greater system (Wollenberg 1971:221). Ethnic relations in California have been characterized by periods of interethnic tension and violence. By 1880, armed conflict, disease, and socioeconomic pressure had reduced the Native American population in California by 90% (Wollenberg 1971:223). During the gold rush period following the American conquest of California in 1846, Chinese labor was preferred due to discrimination against African Americans and the surviving indigenous and conquered Spanish speaking populations, and the perceived ability of Asians to more easily adapt to Anglo-American culture (Wollenberg 1971:224). By 1870, approximately 10% of the population of California was of Chinese descent, and when the economic depression hit in the 1870s, competition for even the low paying jobs between European American and Chinese workers led to race riots and the passing of the Chinese Exclusion Act in 1882 (Wollenberg 1971:224). Chinese communities suffered institutionalized discrimination, mob violence, and labor hostility throughout the remainder of the 19th century (Wollenberg 1971:225). The 20th century is characterized by the immigration of Mexicans to California to fill vacated agricultural, construction, and service positions. Americans of Mexican decent have also suffered periods of acceptance and rejection in conjunction with economic fluctuations and demand for labor (Wollenberg 1971:226). Although African Americans have resided in California since its inception, an immigration after World War II resulted in an 800% increase in the African American population between 1940 and 1970. The early decades are characterized by ethnic conflict culminating in the Watts Riot in L.A. in 1965. What sets this riot apart from the Chinese Riot
of 1871 and the Pachuco Riot of 1943 is that non-whites became the aggressors rather than the victims of European American aggression (Wollenberg 1971:228-229). Wollenberg suggests that this shift represents the beginning of a fundamental improvement in ethnic relations in California (Wollenberg 1971:229).

ARCHAEOLOGY OF ETHNICITY

African, Mexican, Chinese, and Native Americans are the most visible “minorities” in the archaeological record due to behavioral, cultural, and physical distinctions resulting from relatively pronounced and enduring periods of discrimination faced by these groups (Staski 1990:125). Archaeology becomes a necessary source of information about their lives because they are also the least represented people in historical documents. Written information is an expression of influence and power (Staski 1990:125) and the effect of social inequality on the recording of history is such that James Deetz warns:

[i]f only written records, rich and detailed as they are, are studied, then the conclusions will reflect only the story of a small minority of deviant, wealthy males, and little else…we need archaeologists to find what was left behind by everybody, for every conceivable reason. The unintentional record of people provides scholars with ways to determine the underlying reality of our history. (Deetz 1991:6)

The paucity of ethnic histories is contrasted in this study by the abundance of existing historical data on the European American whaling industry, and the few historical resources on the Chinese fishing industry. Barbara Little attributes the underrepresentation of exploited populations in historical documents to “…racism, sexism, nationalism, and ethnocentrism…used to deny the promise [of liberty and a place in the new republic] to anyone defined as being on the disadvantageous side of the color and gender line” (Little 2007:57). She says that

[a]rchaeologists at some 19th and 20th century workers’ sites have identified ways that ‘scientific management’ techniques of the time were used to try to divide and control workers and to enforce discipline and obedience to authority. Part of such management entailed assigning jobs according to ethnicity, color, and national origin. Indeed we often find evidence for ethnicity in Western work camps through specific foods and other items…Nonetheless; ethnicity is not always reflected in artifact assemblages at sites known to have been occupied by different ethnic groups. (Little 2007:49-50)

If one of the aims of colonial archaeology is to reconstruct the social, and economic conditions that contributed to the formation of a site assemblage, archaeological data
reflecting quotidian life can be used to study changes in ethnic boundaries through time, while historians' documents have tended to focus on significant events and more frequently contain the ethnic bias of the researcher (McGuire 1982:161). Archaeological interpretations of ethnicity must be made with caution and a firm grounding in method and theory because although “[c]eramic assemblages contain elements of competition and social interaction involving class, ethnic, and gender relations, precisely how those elements relate, what they meant, and what they now mean are not altogether clear” (Little 1997:238). McGuire writes that "[c]onsideration of the 19th century Chinese archaeological materials on the west coast has…revealed variations in food remains and ceramics…food refuse and ceramics make up a large portion of the archaeological record, so these data classes would yield sufficient information to make ethnic identifications" (McGuire 1982:163). Ceramic analysis must include not only type, but also vessel form and function because "[t]he material correlates of ethnically specific behavior are more likely to be represented in the archaeological record than the material symbols of ethnic identification (McGuire 1982:163) and the form and function of ceramic vessels for the preparation and consumption of ethnically specific foods can be a more accurate indicator of ethnicity than the type of ceramic material from which they are made. Wendy Nettles and Colleen Hamilton observe that faunal and floral remains, particularly minor meat constituents and selection of spices and fruits, are more enduring ethnic markers than ceramics (Nettles and Hamilton 2005:28). However, Staski points out the role ceramics indirectly play because

…investigations of dietary patterns often involve [not only] recognizing species of animal and cuts of meat, [but also] methods of preparation (including the use of various ceramic and glass vessels), and then the determination of to what extent traditional ethnic diets were followed. (Staski 1990:129)

Regarding Chinese sites on the west coast of California, he writes that “…the many ceramic vessels intended for the transport and storage of Chinese food are evidence that the distinctive diet was often maintained in the foreign land” (Staski 1990:129). As a point of contrast, McGuire’s investigation at Punta de Agua in Arizona, a site inhabited by both Anglo and Latin Americans, revealed that consumer choices were governed more strongly by economic ability than ethnic identity (McGuire 1979:93). This turns our attention to the connection between ethnicity and economic status and reveals that the socioeconomic
conditions present in a particular time and place will determine which factor, culture or economy is more influential in the acquisition of material goods, including ceramics.

Archaeology of Economic Status

This research tests the reliability of ceramics as an ethnic marker because although archaeological ceramic types often reflect the ethnicity of site occupants, economic forces were at work during the colonial period that began to separate regionally specific populations from their own culture, and means of production. Staski observed that

[m]uch of the research into consumer behavior involves simply recognizing types within artifact classes—most often ceramics—and then computing the relative occurrence of traditional ethnic types within the total artifact class assemblage. It is often hypothesized that a greater relative occurrence of traditional materials reflects a stronger identification with the ethnic group, and thus less assimilation. (Staski 1990:128)

He argued that this overly simplistic model does not account for site formation processes and socio-cultural conditions must also be taken into account (Staski 1990:129). Although “…the various symbols for [ethnic] ascription and exclusion often have material expression” in archaeological assemblages (Staski 1990:124), consumer choices are driven not only by ethnicity, but also economic level, status, the availability of goods, family size and life cycle, religious and political affiliation, and individual preference (Staski 1990:133). Therefore, although preliminary analysis of the ceramic assemblages on Ballast Point may suggest that ethnicity played a key differential role, institutionalized discrimination against the Chinese in 19th century California, and the inherent connection between ethnicity and labor class enforced during this period must be considered. Eriksen points out that

…when groups are ranked by their differential access to resources, there will exist a high correlation between class and ethnicity, where ethnicity takes on a strong hierarchical character. Competition, then, provides the impetus for this ranking of groups while class is inextricably tied to the relative distribution of power in a given society. Thus, where differential access exists (and it exists in all societies), the high correlation between class and ethnicity is affected by the power relations inherent in the institutional framework of society. (1993:47)

McGuire stated that "[e]conomic status, since it results from material wealth, has great potential for adding to the materials at a site and, a priori, should be considered the dominant social dimension evident in the archaeological record of domestic dwellings in a single society or economic system" (1982:164). He said that “…attainment of a higher
economic and social status will entail adoption of material and behavioral symbols and ideologies that are characteristic of another group even while maintaining their original ethnic identity” (1982:115). Staski added that

[a] complicating factor involves the possibility that European American ethnic diversity remained great while the more obvious material indicators of that diversity disappeared...[i]t has been suggested that European American ethnic distinctions were increasingly difficult to observe in material culture as early as the Colonial Period of North America, but not because ethnic diversity was decreasing. Rather, it was increasing British control over trade, and the resulting restrictions on available goods, that led to an apparent homogeneity of material forms. (Staski 1990:126)

Little agrees that although the industrial revolution had a homogenizing effect on material culture, mass manufactured goods does not imply mass manufactured culture (Little 2007:65). European American ownership of the whaling stations on Ballast Point may explain the near-exclusive presence of British and American ceramic material in the multi-ethnic whaling community’s trash pit, while the Chinese were using predominantly Chinese ceramics due not only to their ethnicity, but their relatively limited involvement in the greater American economy. At this site, ceramic type is not only an indication of ethnicity, but the degree to which each group was participating in the regional or national economy.

**DIASPORA STUDIES**

Transnational migration and the formation of relatively independent sub-economic systems are reflected in the archaeological record because the flow of goods, information, and political influence link communities on “…regional and global scales through relationships of power and exchange. These relationships are reified by the commodity” (Carroll 1999:132; Glick-Schiller 2003:104). There exists little historical documentation about members of the Chinese fishing community on Ballast Point and even less on the whaling station laborers who were born outside of the United States and Europe. This lack of information reflects Glick Schiller’s observation that to avoid persecution in their host country, “[m]igrants are particularly inclined to obscure the nature of their transnational relationships for political, economic, and religious reasons” (Glick-Schiller 2003:117). Nonetheless, the ceramic assemblages left by these two groups reveal much about their lives.
CHAPTER 4

METHODS

This thesis project developed when the Fort Guijarros archives were sent to San Diego State University for processing and storage in the fall of 2012. The responsibility as a Graduate Assistant of categorizing, filing, and scanning the archives into an electronic database generated interest in the topic and an appreciation for its fundamental significance to the local community. Studying this archaeological collection presented a challenge because the artifacts had been separated from the documents and stored at a different location. The social, economic, and political motivations for this series of events are symptomatic of a greater structural problem in San Diego that has hindered access to archaeological research material. In this case, permission was granted by the U.S. Navy to conduct analyses of the Ballast Point Lighthouse (BPLH) ceramic assemblages, and the staff at the San Diego Archaeological Center welcomed and encouraged the use of their facilities. This work would not have been possible without access to the artifacts because the minimum vessel count had not been determined and several vessels had been reconstructed subsequent to the creation of the original box inventories.

DATA COLLECTION

Preliminary inventory tables of the ceramic material recovered from the cultural deposits in Trenches 2 and 6 were created using the original box inventories in the Fort Guijarros archival collection housed at San Diego State University (May 1981-1995). The artifacts were analyzed in hand specimen at the San Diego Archaeological Center through the spring of 2014 and the tables were modified to include only the artifacts present in the physical collection and one vessel, the “FU-like” plate, which was known to remain on display at the U.S. Naval base on Point Loma. Although the Navy retained possession of other vessels, attempts to obtain an inventory list were unsuccessful; the contents and provenience of that artifact collection remain uncertain. A minimum vessel count was generated using the method applied by Roberta Greenwood (1994) in her study of the
Chinese ceramics from the Ballast Point Lighthouse excavation. All small fragments of a specific vessel and any partial vessels that were matched with similar fragments were counted as a minimum of one, while overlapping fragments of similar vessels, i.e., more base fragments than are needed to complete the circumference of a vessel, were counted as a minimum of two (Greenwood 1994:1-2). Sherds that were too small or nondescript to cross-mend were considered redundant and eliminated from the sample. Inconsistencies noted between the artifact descriptions in the excavation summary, the material recorded on the inventory lists, and the sherds present in the physical collection have been attributed to human error and/or interference. The material in the collection at the San Diego Archaeological Center was photographed and original photos of the same or, in some cases, similar vessels were selected from the Fort Guijarros archives at San Diego State University for use in this publication.

**ANALYTICAL FRAMEWORK**

The ceramic material from the Ballast Point Lighthouse sites is analyzed within the constructs of time, space, and form. The ceramic intersection date range provides the median site occupation span, while the terminus post quem and terminus ante quem determine the earliest date the settlers could have arrived at the sites and the latest date at which they departed. Temporal differences between excavated units are analyzed in order to interpret changes in socioeconomic conditions and dietary habits through time. Cross-site comparison of the temporal data provided by the assemblages suggests which group arrived first, and which was first to leave. Precise mean manufacture dates could not be generated for either the Chinese or the British and American wares as only two makers’ marks were present in each sample. The end-production dates are unknown to archaeologists for the ceramic types represented in both assemblages. For that reason, start manufacture dates are used in combination with end-use dates to establish their periods of distribution. Accurate ware-based dating of Chinese ceramics is complicated by the centuries-long production of like vessels (Choy 2014; Greenwood 1994; Olsen 1978:16). Chinese marks are impossible to interpret in cases where the characters have devolved into abstraction. Attempts at dating legible marks are confounded by the common practice of paying tribute to past emperors by applying their name to a vessel in later time periods (Choy 2014). With regard to the British
and American Whiteware in the sample, the futility of distinguishing between ware types is amply demonstrated. An alternative to classification and dating advocated by Teresita Majewski and Michael O’Brien is used to identify patterns in the assemblages and draw social and economic inferences.

The spatial distribution of the sherds across the two sites indicates that the majority sherds at each site had originated from the same geographic area as the ethnic group controlling their production and distribution. Homogeneity of the ceramic assemblages is demonstrated when greater than half of the material in each deposit is found to have been manufactured and distributed by a single ethnic group originating from the same geographic/political region as the ceramics. At both sites, the majority occupants are determined to belong to the same ethnic group that produced most of the ceramics based on identifications already made from historical and other archaeological data. Analysis of the vertical and horizontal stratigraphy of the ceramics explains their archaeological context, providing information on the circumstances leading to their deposition. The uniformity of the ceramic assemblages is taken as evidence for ethnic segregation; evidence for scientific labor management is discussed to infer the degree to which discrimination was experienced by site occupants.

The ceramic types represented in the assemblages reflect the economic status of each group based on their relative market values within the independent sub-economic trade units controlling the availability of goods. One group is considered more affluent than the other if the relative market value of their ceramic assemblage is comparatively higher. Vessel form is found to reflect the ethnicity of site occupants when the shapes imply the containment of ethnically specific foods. Vessel form is also found to reflect economic status based on the value of probable food items consumed. Dining customs correspond to the material function of the sites.

The social and economic implications of all results are assessed to conclude that the economic conditions at these sites had greater influence over the acquisition of ceramics than the ethnic identities of group members. Similar, contemporaneous site assemblages are compared to corroborate the research findings.
CHAPTER 5
CERAMIC ANALYSIS

Preliminary observation of the fishing and whaling site assemblages suggested that the ceramics served as ethnic markers for site occupants. The minimum vessel count of ceramics recovered from the two Ballast Point Lighthouse deposits revealed that 85% of the vessels from the fishing camp deposit were of Chinese origin and 87% of the vessels from the whaling deposit were of British or American manufacture. Remaining material in the collection at the San Diego Archaeological Center included one undecorated Tizon Brownware bowl with a flared, flat rim found in Trench 6 Unit 5 Locus 2 (Garrow 1995:9). Coarse earthenware ceramics of this type have been produced by indigenous Yuman speaking tribes in Southern California and Northern Baja California since approximately 960 A.D. (Van Camp 1979:41). Tizon Brownware was more abundant at the BPSAR tryworks site than the residential Lighthouse site and may have been used by the whalers primarily for industrial/extractive rather than domestic purposes (Garrow 1995:35). Kumeyaay laborers reportedly worked for the whaling companies and other San Diego trades in significant numbers until the Great Depression in the 1930s (Carrico and Shipek 1996). However, no evidence of Kumeyaay habitation was discerned from the excavated residential quarters apart from the above bowl. Portuguese-British American whaler Prince William Packard married Magdelena, a Mexican woman from Santo Tomás, Baja California, who potentially brought Tizon Brownware ceramics with her (May 1985c:3; correspondence February 2013). Of course, the bowl could have belonged to anyone living at the site. The multi-ethnic component of the whaling station is of central relevance to the present study.

TRENCH 2 CERAMICS: TYPE, FORM, FUNCTION

The ceramic assemblage from Trench 2 associated with the Chinese fishing camp contained a minimum of 20 vessels of Chinese (n=17) and British or American (n=3) manufacture (see Appendix Table A.1). Seven of the Chinese vessels were of brown-glazed utility stoneware including two spouted jars, one of which was identified as a soy sauce jar.
(Greenwood 1994:12; see Figure 13; The Fort Guijarros Collection n. d.). Spouted vessels of this type are also reported to have held liquor, black vinegar, or peanut oil (Choy 2014; Yang and Hellman 1997:61). One small wide-mouthed food storage jar was identified as a “turnip jar” used to store pickled vegetables. Wide-mouthed vessels also held preserved tofu, sweet bean paste, black, brown, yellow, and white beans, sweet gherkins, soy bean cheese, or shrimp paste (Olsen 1978:32; Yang and Hellman 1997:61). Four larger wide mouthed food storage jars were described as cylindrical vessels used to transport and store dried or salted vegetables, fish, meat, and eggs (Greenwood 1994:3; see Figure 14; The Fort Guijarros Collection n. d.). These large vessels may also have contained sheet sugar, rice, other grains, sticky rice powder, and whole soy beans (Yang and Hellman 1997:61). Brown-glazed utility stoneware vessels have been produced in China in these and a variety of other forms since ca.1400 A.D. and their manufacture continues into the present (Choy 2014). This ware type is difficult to date with any accuracy because vessel forms remained fairly constant over 200 years or more (Yang and Hellman 1997:59). They were commonly available on the U.S. market until the 1920s or 1930s and had largely disappeared from shelves by the 1980s. Jeannie Yang and Virginia Hellman were able to locate three out of the seven major vessel forms in their study in shops when they visited the Chinatown in San Francisco in 1995 (Yang and Hellman 1997:60). The authors did not specify as to the form or contents of the vessels they encountered. For interpretative purposes, the present study incorporates an end-use/popularity date of 1930 for Chinese brown glazed utility stoneware based on Yang and Hellman’s research.

The Trench 2 deposit also exposed a minimum of ten Chinese porcelaineous stoneware vessels including one blue underglaze Bamboo-like bowl with no shoulder and a shrimp/bat design, three Bamboo bowls (see Figure 15; The Fort Guijarros Collection n. d.), two Celadon bowls, one Celadon cup (see Figure 16; The Fort Guijarros Collection n. d.), two Double Happiness bowls (see Figure 17; The Fort Guijarros Collection n. d.), and one “FU-like” Double Happiness plate (see Figure 18; The Fort Guijarros Collection n. d.). With eight bowls and only two plates present in the sample, bowls represented 80% of all dinnerware vessels.
Figure 13. Brown-glazed stoneware spouted jars. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

Figure 14. Brown-glazed stoneware wide-mouthed food storage jars. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

**CHINESE PORCELAIN TYPES**

A large sample of Chinese ceramics from the Ballast Point Lighthouse excavation was analyzed by Roberta Greenwood (1994). She discriminated 35 dinnerware vessels of which 80% were bowls (n=28) and the remainder were plates (n=7). Of the 28 bowls she counted, a minimum of 18 were Bamboo, four Double Happiness, three Celadon, two Other Blue Hand-Painted and one Japanese Transfer Print (Greenwood 1994:1). The most commonly occurring rice bowl type found at 19th century Chinese labor sites displays the Bamboo pattern of three circles, bamboo, “dragonfly” and flowers. Inventory price lists from
Figure 15. Bamboo bowl. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, CA.

Figure 16. Celadon/winter green tea cup. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
Figure 17. Double happiness bowl. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

Figure 18. “FU-like” plate. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
the period show these to have been the least expensive variety; up to 80% of the bowls recovered from railroad and mining sites of the 1870s and 1880s display this pattern. In contrast to the 64% Bamboo-style bowls from the BPLH sample she analyzed, only 41% of the rice bowls found at the Los Angeles Chinatown site were Bamboo (Greenwood 1994:2).

After Bamboo, Greenwood determined the most common porcelainous stoneware types occurring on 19th century Chinese sites to be Four Seasons and Celadon (Greenwood 1994:2). However, the Los Angeles Chinatown assemblage she cited for comparison, occupied from 1880 to 1933 (Greenwood 1993), was established almost three decades later than the fishing camp on Ballast Point. The relative over-representation of Double Happiness, or “Double Joy,” bowls found at the BPLH sites supports an earlier occupation date because this was among the earliest of rice bowl patterns and is rarely found in post-1860s assemblages (Costello et. al. 2004:ch. 6:64; Greenwood 1994:3). The Double Happiness bowls associated with the fishing camp were also described as atypically small, measuring 12 centimeters in diameter instead of 16.5, and of finer porcelain than those found at the Los Angeles Chinatown site (Greenwood 1994:3). This data supports Philip Choy’s observation that the stylistic elements of Double Happiness bowls devolved over time; the variability present in this design is illustrated in a catalog produced by the Malaysia Chapter of the Southeast Asian Ceramic Society (Choy 2014; Unknown Author b 1981:64). The manufacture of both Bamboo and Double Happiness bowls began during the Sung Dynasty between 960 and 1280 A.D. in the eastern region of Guangdong, in Dabu County of the Mei Xian prefecture. This is considered the Classic Period of Chinese ceramic production during which elegant, fine porcelain with exquisite glazes was first created (Helmer Stalberg and Nesi 1980:30). Although both Bamboo and Double Happiness had ceased to be imported to the United States by 1900, the Double Happiness motif is still applied to a variety of vessel forms today (Choy 2014). Julia Costello and colleagues report Bamboo and Celadon to be the most commonly occurring ware types found on Chinese sites from the late 19th through the early 20th century. For this reason, in the present study 1930 is considered the end-use date for these ware types.

In total, the Los Angeles Chinatown site contained 56% Four Seasons vessels, 27% Celadon and only 17% Bamboo (Greenwood 1993). Four Seasons patterned vessels were more expensive than Bamboo and included serving bowls, serving plates, rice bowls, tea
bowls, wine cups, condiment dishes, and spoons (Greenwood 1994:2-3). This pattern began production in Jingdezhen, northeast Jiangxi province, during the Ching Dynasty between 1796 and 1821 A.D. (Choy 2014) and was imported to the United States until the Pacific trade route was closed in 1939 at the onset of the Second World War (Choy 2014). Based on Choy’s research, 1940 has been adopted in this study as the end-use date for Four Seasons vessels. Only one small plate fragment and a possible second were present in the Ballast Point sample (Greenwood 1994:3). Greenwood observed that this design was used on so many different vessel forms and was so prevalent at most broadly contemporaneous sites that its underrepresentation on Ballast Point was unusual.

Celadon vessel forms also included rice bowls, tea bowls, wine cups, spoons and occasionally condiment dishes or serving dishes (Greenwood 1994:3). Although they, too, were produced in Jingdezhen, their introduction was much earlier, contemporaneous with that of Bamboo and Double Happiness during the Sung Dynasty between 960 and 1280 A.D. (Choy 2014). The importation of Celadon to the United States also ceased when the Pacific trade route was closed in 1939 at the onset of the Second World War (Choy 2014). 1940 has been adopted as the end-use date for Celadon vessels. Apart from three rice bowls, the only Celadon implements Greenwood reported at the Lighthouse site were three tea bowls, four wine cups, and two spoons (Greenwood 1994:1). Neither Four Seasons, nor Celadon serving bowls and plates, typical of Chinese sites, were present in the Ballast Point Lighthouse assemblage (Greenwood 1994:3). Choy (2014) challenged archaeologists’ use of the term Celadon and indicated that Winter Green is the correct translation and more appropriate term for this ware type. Although actual Celadon ceramics also began production during the Sung Dynasty and were green in color, they were an entirely different ware type produced in Chekiang province (Choy 2014; Helmer Stalberg and Nesi 1980:96). The correct term, Winter Green, was adopted for this study.

Only two of the vessels from the Chinese trash pit displayed maker’s marks. One Bamboo bowl read YU HO/HE (“Jade Cooperation or Partnership” “closed” / “combined together”) and the “FU-like” plate read PING (“level”). This plate, or shallow dish (see Figure 18; The Fort Guijarros Collection n. d.), resembles other 19th century vessels acquired from Indonesia and Malaysia except that the FU (“Good Fortune”) symbol sometimes applied to the interior base is absent on the Lighthouse specimen (Helmer Stalberg and Nesi
1980:86; Unknown Author b 1981:82; Unknown author c 1993:128). May hypothesized that the “FU-like” plate, from China or Southeast Asia, had been modified for use as a shaving or bleeding bowl based on its symmetrical rim fracture and its association with Caucasian human cut hair found in the Chinese deposit (Kelly and May 2001:ch. 4:12). The only British or American vessels present in the assemblage from the Chinese feature were one Pearlware plate, one Whiteware Soft Paste Pearlized cup, and one Blue-bodied Ironstone mug. Patrick Garrow (1995) identified the “Pearlware” and “Whiteware Soft Paste Pearlized” sherds as Cream Colored Ware.

**TRENCH 6 CERAMICS: TYPE, FORM, FUNCTION**

The trash pit in Trench 6 associated with the whaling station contained a minimum count of 39 ceramic vessels of British or American (n=34), Chinese (n=4), and Kumeyaay (n=1) manufacture. The Creamware (n=4), Whiteware (n=29), and Yellow Ware (n=1) vessels were classified by both Ronald May and Patrick Garrow (1995) using substantially different typological systems (see Appendix Table A.2). Garrow analyzed a total of 4106 ceramic sherds from the three Fort Guijarros excavations, of which he studied 23 British or American sherds from the Chinese deposit in Trench 2 of the Ballast Point Lighthouse excavation and 194 from Trench 6 Locus 2 of Units 5 and 6 from the whalers’ trash deposit (Garrow 1995:31-32). From the BPLH sites in particular, he noted that many of the sherds cross-mended to form single vessels. However, he did not attempt a minimum vessel count due to the diversity of contexts within the very large sample and the small average sherd size (Garrow 1995:26). The minimum vessel count of the material from the features in Trenches 2 and 6 of the Lighthouse excavation referred to herein was generated at the San Diego Archaeological Center laboratory in the spring of 2014 using May’s type identifications and Greenwood’s quantification method. The whalers’ ceramic assemblage contained one Tizon Brownware bowl, two Bamboo bowls, and two Double Happiness bowls. All other vessels were of British or American manufacture.

According to May’s type system, Creamware and Pearlware were present at both sites and pertained to the broad Whiteware category. The whaling deposit contained a minimum of one plain Creamware plate, one Annular Creamware bowl with blue and black stripes (see Figure 19; The Fort Guijarros Collection n. d.), and two with blue stripes (see Figure 20; The
Figure 19. Annular/dipped cream-colored ware with blue and black bands. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

Figure 20. Annular/dipped cream-colored ware with blue bands. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
Fort Guijarros Collection n. d.); one small Whiteware Soft Paste vessel of uncertain form, one plain plate, and one “cream-colored” plate; one Pearlware bowl, one plain plate, and one molded plate with a leaf and flower motif on the rim (see Figure 21; The Fort Guijarros Collection n. d.); one Whiteware Soft Paste Pearlized bowl and one plate; four Whiteware Pearlized plates; two molded Improved Whiteware Pearlized soup bowls and one plain plate; one plain Improved Whiteware bowl, one bowl with a beveled rim, one molded soup bowl exhibiting a “Columbia, S…” maker’s mark possibly manufactured between 1922 and 1925 (Garrow 1995:27) (see Figures 22-23; The Fort Guijarros Collection n. d.), two plain plates, one molded plate, three “blue-bodied” plates with one “T. Hughes” maker’s mark dating from 1860 to 1894 (Garrow 1995:27), one molded serving plate, one molded cup, two mugs, and one molded “blue-“blue-bodied mug; and one Annular Yellow Ware bowl with brown and white stripes (see Figure 24; The Fort Guijarros Collection n. d.). With a total of 10 bowls and 17 plates, only 37% of all dinnerware vessels in the whalers’ trash pit were bowls. This data does not support Garrow’s assertion that an over-representation of bowls suggested the consumption of predominantly liquid based stews and soups as opposed to roasted, boiled, or fried meats (Garrow 1995:27).

The type system Garrow applied differed mainly in the distinction he made between Creamware and Cream Colored Ware and his assertion that neither Creamware nor Pearlware were present at the site (Garrow 1995:3). He broadly classified all of May’s other Whiteware types as either Blue-bodied or White-bodied Ironstone (Garrow 1995:3, 5-6; see Appendix Table A.2). To facilitate comparison with May’s data in the present study, the minimum vessel count was modified in accordance with the type categories Garrow used and it was found that he discerned 38 vessels including one plain Cream Colored (CC) Ware bowl and two plates; one Dipped CC (Annular) Ware bowl with blue and black bands and two with blue bands; one small White-bodied Ironstone vessel of uncertain form, one plain bowl, two molded soup bowls, eight plain plates, one molded plate with a leaf and flower motif on the rim (see Figure 21), one molded plate, one molded serving plate, one molded cup and two plain mugs; one Blue-bodied Ironstone molded soup bowl, four plain plates with one “T. Hughes” maker’s mark dating from 1860 to 1894, one molded plate and one molded serving plate; two Yellow Ware bowls; one Semi-Vitreous Ware bowl with a beveled rim, one molded soup
The Tizon Brownware, Cream Colored Ware and Yellow Ware found in the BPLH kitchen features were definitely of 19th century manufacture. The whiter refined earthenware varieties – referred to as Whiteware by May and Ironstone by Garrow – could potentially date to either the 19th or 20th century and were assumed to date to the 19th century in this context (Garrow 1995:24). Garrow also identified Semi-vitreous Ware in the whalers’ trash assemblage within May’s Improved Whiteware group which was reportedly less porous than Ironstone and was assigned a post-1895 date. He described this type as more vitrified than Ironstone, but thicker and less well-made than porcelain (Garrow 1995:5). He concluded that the whalers’ trash pit comprised a “mixed” assemblage containing ceramics associated with later U.S. Lighthouse or Army occupations (Garrow 1995:7).

**British and American Ware Types**

British refined earthenware dominated the European ceramic trade from the late 1770s until 1880 (Majewski and O’Brian 1987:114). Creamware, Pearlware, and later Whiteware varieties are not “discrete, easily identifiable entities,” but represent general
Figure 22. Restoration of a whiteware molded soup bowl. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.

Figure 23. Improved whiteware (may) or semi-vitreous (garrow) molded soup bowl. Source: The Fort Guijarros Collection n. d. The Fort Guijarros Archives. San Diego State University, San Diego, CA.
overlapping trends in 19th century ceramic production (Majewski and O’Brian 1987:105). According to Majewski and O’Brian, “[t]he single most disconcerting problem in ware-based ceramic analysis is the disagreement among researchers over the definitions of wares” (Majewski and O’Brian 1987:105). In the study of 16th and 17th century archaeological ceramic assemblages, distinctions can be confidently made between earthenware, stoneware, and porcelain. This macroscopic classification method has been erroneously applied to 19th century archaeology because the glaze and paste differences among 19th century wares are relatively minor (Majewski and O’Brian 1987:105). Garrow was numbered among researchers who have “tried to provide objective means for distinguishing among the white earthenwares” (Majewski and O’Brian 1987:105) despite George Miller’s warning that
If an assemblage of ceramics from the first half of the nineteenth century is placed before six archaeologists and they are asked for counts of creamware, pearlware, whiteware, and stone china wares, the results will probably be six different enumerations. The question of how much bluing the glaze has to have before it is pearlware or which sherds have the density to be classified as stone china all hinge on personal options. (Miller 1980:2)

The subjectivity involved in applying these purportedly discrete categories is evidenced by the disagreement between ware types assigned to the BPLH assemblage by May and Garrow. Unless maker’s marks are present, it is impossible to tell the difference between British and American Creamware, Pearlware, and Whiteware. Even the presence of a maker’s mark does not always indicate place of origin given that American factories frequently imitated British marks (Krase and May 1987:3).

Creamware was developed by Thomas Astbury in Shelton, England, around 1725 and perfected by Josiah Wedgwood in Liverpool in 1760 (Hobson 1905:371). It became known as “Queen’s Ware” and was the first earthenware to compete with porcelain in the prestige market. Miller attributed its initial popularity to creative marketing and relatively low cost (Miller 1984:2). In 1775, the introduction of kaolin clays from Cornwall lent Creamware a lighter color (Miller 1991:5). By the 1770s, so many potters were reproducing it that the European market grew saturated and its popularity declined. When the market declined in Europe, North America became its largest purchaser (Miller 1984:3). Although the majority of Creamware was from England, small quantities were being produced in the U.S. by 1850 (Majewski and O’Brian 1987:115). Creamware came to be known as Cream Colored (CC) Ware and was the cheapest earthenware on the market with prices dropping significantly more after 1809 (Garrow 1995:3; Miller 1991:1-2, 6). Between 1812 and 1865, 40% to 50% of the output from Staffordshire was exported to North America (Miller 1984:3). Dipped CC Ware bowls sold at less than half the cost of a comparable Ironstone vessel in 1886 (Garrow 1995:4). Dipped or Annular CC Ware was slip decorated and bisque fired; brown and other earthy tones were the norm before 1835 on American sites and blue bands were the most common style after 1840. This decoration seems to have been most common from 1820 to 1860 and corresponded to the 1858 to 1873 occupation of the BPLH sites (Garrow 1995:3). Although Garrow separated Creamware and CC Ware as distinct ware types (Garrow 1995:3), Majewski and O’Brian (1987:117) and Miller (1991:3) stated that the term “CC Ware” was simply a commercial name applied to Creamware itself – a term that was never
actually used by potters. Majewski and O’Brien added that some researchers have applied the terms to lighter or darker colored pieces despite the fact that color can vary on a single vessel (Majewski and O’Brien 1987:117). By 1820, Creamware sales had been eclipsed by the rising popularity of Pearlware and undecorated utility vessels, rather than dinnerware, became the norm (Garrow 1995:3; Majewski and O’Brien 1987:118). Dipped CC patterned bowls were the exception to this trend as their production continued into the 20th century (Miller 1991:7).

Josiah Wedgwood introduced Pearlware in 1779 and sold it as a change, rather than an improvement, from Creamware. However, the only difference was the use of a glaze tinged slightly blue with cobalt oxide to lend the vessels a whiter appearance (Majewski and O’Brien 1987:118; Sussman 1977:105). The term Pearlware was never used by potters either; Wedgwood coined the term “Pearl White” and other manufacturers developed their own unique names (Majewski and O’Brien 1987:118). Pearlware was the predominant table service ware over the next 50 years until ca.1830 (Garrow 1995:3; Sussman 1977:105). Shell Edged decoration was applied to Creamware from the 1770s and this pattern later came to be more common on Pearlware (Miller 1991:6). Green Shell Edged decoration was rare by 1840; blue was still common until the 1860s and continued to be produced beyond the 1890s. Comparable to Dipped CC Ware bowls, these were the least expensive decorated refined earthenware plates on the market (Miller 1991:6). Beginning mid-century, Edge decoration was increasingly replaced by transfer print on Pearlware vessels (Majewski and O’Brien 1987:115; Sussman 1977:110) and the eventual discontinuation of blue-tinged glaze made Pearlware indistinguishable from white earthenware (Majewski and O’Brien 1987:118; Sussman 1977:111). In recognition of this gradual whitening process, May included Creamware and Pearlware within the broader Whiteware classification. He explained that the difference between Creamware and Pearlware was noted when the glaze pooled in deep spots. The Creamware had a slightly greenish cast in the pooling areas. The Pearlware had a slightly bluish cast when pooled (correspondence July 2014). The presence of Blue Shell Edged Pearlware in the BPLH deposits had been considered unusual because adherence to its generally accepted end-use date of 1830 (Garrow 1995:2; South 1977:212) suggested its acquisition may have pre-dated the establishment of the sites by 20 years (May 1987a:11-12, 1989:9). In fact, based on their end-use dates, Garrow negated the presence of Creamware
and Pearlware in the BPLH assemblage entirely (Garrow 1995:2). However, the above information verifies that both ware types were sold at reduced prices in North America long after their popularity had waned and were, in fact, available for the duration of the site occupations.

By 1830, a lighter refined earthenware variety than CC Ware or Pearlware had evolved into what archaeologists now refer to as non-vitreous Whiteware (Majewski and O’Brien 1987:119; Miller 1991:5). This was likely done to compete with the increasing manufacture and sale of Bone China (Majewski and O’Brien 1987:119). Hardness tests for determining the relative porosity of whitewares include Spargo’s “tongue test” and a scratch test using a penny nail (Krase and May 1987:3; Majewski and O’Brien 1987:113). Miller suggested that the whiter appearance may have been obtained by adding cobalt directly to the paste instead of the glaze (Miller 1980:18). In general, the 19th century ceramic industry is characterized by a trend toward whitening as well as the achievement of greater vitrification through time (Majewski and O’Brien 1987:110). May’s Whiteware Soft Paste and Whiteware Soft Paste Pearlized types may represent transitional batches from Creamware and Pearlware to Improved Whiteware, or what Garrow classified as Ironstone. Of this experimental period, Majewski and O’Brien wrote that

> [g]lazes chosen for a ceramic body must fit that body, that is, the coefficient of thermal expansion of the body should be similar to that of the glaze; otherwise, peeling (when the body has a greater expansion than the glaze) or crazing (when the glaze has the greater expansion) will occur. (Majewski and O’Brien 1987:110)

May applied the term Pearlized to this crazing effect which caused the glaze to crackle (correspondence July 2014). Garrow identified four out of five of the vessels May called Whiteware Soft Paste and Whiteware Soft Paste Pearlized as White-bodied Ironstone. Although non-vitreous Whiteware was gradually replaced by Improved Whiteware/Ironstone, it continued to be produced in England and the U.S. until 1880 (May 1996b:3).

Ironstone was a Semi-vitrified Whiteware type created later by adding china stone, or petunce, to harden the paste (Majewski and O’Brien 1987:120). Its development is attributed to innovations by Josiah Spode in 1805. Early Ironstone was exclusively of British manufacture and had an intentional blue-gray tinge meant to resemble Chinese porcelain (Majewski and O’Brien 1987:121). Archaeologists have coined the term “blue-bodied” to
describe this ware type (Henry and Garrow 1982:466; Miller 1980:19). Majewski and O’Brian noted that Blue-bodied Ironstone had rarely been identified in early 19th century ceramic assemblages and had possibly been confused for Pearlware (Majewski and O’Brian 1987:121). However, unlike Pearlware, early Ironstone held the bluing agent in its ceramic body, not the glaze (Majewski and O’Brian 1987:118). By the 1840s, White-bodied Ironstone was being produced in both England and the United States; during the 1860s, American factories surpassed the British in sales. Classic Ironstone on pre-1870s sites is probably British (Majewski and O’Brian 1987:121). As White-bodied Ironstone gained popularity, Blue-bodied Ironstone was reserved for rural markets (Majewski and O’Brian 1987:122). By the turn of the 20th century, Blue-bodied Ironstone had been largely replaced by whiter varieties which are still in production today (Garrow 1995:3; Majewski and O’Brian 1987:122). “Classic Ironstone” was heavy and often undecorated although some still imitated “oriental” designs. This trend was reversed by the late 1800s and Ironstone production began to incorporate all styles of decoration (Majewski and O’Brian 1987:123). From 1840 to 1880, octagonal or hexagonal shapes were common on Ironstone. Square or rectangular lines and undecorated ironstones rose in popularity around 1870. These were replaced by more delicate relief decorations by 1880 which were influenced by the Art Nouveau movement in England from 1880 to 1905 (Majewski and O’Brian 1987:154-55). Henry and Garrow divided heavy bodied Ironstone produced between 1840 and 1885 into two categories: Blue-bodied and White-bodied (Henry and Garrow 1982:466). Blue-bodied was said to have been typically undecorated while white-bodied held relief and panel molding (Majewski and O’Brian 1987:122). During the course of the present study, it was observed that sherds identified by Garrow as Blue and White-bodied Ironstone later cross-mended to form single vessels. As a result, these types have been grouped into a single Ironstone category for this analysis.

In general, Ironstone was more expensive than Creamware, but less expensive than Porcelain (Garrow 1995:3). Its popularity began to wane in the late 1880s. It was considered “low class” and replaced by molded semi-vitreous and vitreous white ceramics with delicate floral designs (Majewski and O’Brian 1987:123). May’s Improved Whiteware category seems to encompass Blue-bodied and White-bodied Ironstone because for a number of specimens, “blue-bodied” is annotated in the description column on the artifact log. The
difficulty of classifying the British/American ceramics from the BPLH assemblage illustrates how archaeologists are “splitting hairs by trying to distinguish between ceramic bodies that are simply points along a continuum” (Majewski and O’Brian 1987:120). Majewski and O’Brian ultimately suggest that in order to discern the provenance and manufacturing dates for unmarked 19th century Whiteware with greater certainty, marked vessels must undergo geochemical analyses and the results used as benchmarks for the testing of unmarked samples (Majewski and O’Brian 1987).

Yellow Ware was a bisque fired lead glazed type manufactured in the United States from the early 1800s into the 20th century; its period of greatest popularity was from 1840 to 1900 and it was predominantly used to manufacture bowls (Garrow 1995:9). Mocha bands were commonly applied to Yellow Ware throughout the second half of the 19th century (Miller 1991:6). Index values have not yet been assigned to Yellow Ware vessels (Miller 1991:6).

According to Garrow, platters or serving dishes and specialized tea wares were conspicuously absent from all occupation contexts except the post-1890 Lighthouse or U.S. Army periods (Garrow 1995:27). The assemblage associated with the whaling station was “Spartan and basic” and the more diverse collection from the Lighthouse occupation was the first normative vessel assemblage on Ballast Point for its period. He concluded that the workers at the whaling camp held a relatively low economic position within their greater society (Garrow 1995:33). Both the fishing and whaling assemblages contained a limited array of vessel forms in comparison with broadly contemporaneous sites occupied by groups of similar socioeconomic backgrounds. Analysis of the start production and end use dates for each ceramic type, their relative market values, and the functions of represented vessel forms provided sufficient data to determine a different, and unexpected, economic explanation for the scarcity of forms.
CHAPTER 6

RESULTS

The archaeological elements of time, space, and form were interpreted to answer research questions including which ethnic groups had produced and utilized the ceramics, the motivations for their purchase, and the economic status of their owners. Temporal data placed all ceramics within the same historic context and signaled the absence of temporally discreet excavation units at these sites. The spatial arrangement of the sherds provided evidence for ethnic segregation when 85% of the fishing camp vessels were of Chinese origin, and 87% of the whaling vessels were of British or American manufacture. Analysis of vessel form and function provided further evidence for the ethnic identity and economic status of site inhabitants through analysis of culturally specific food items consumed. Interpretation of the data within its historical context revealed political and economic circumstances leading to the formation of the deposits and indicated that the most influential factor determining ceramic acquisition at these sites was not ethnic identity or economic status. Ceramic acquisition was most influenced by the function of the sites as fishing and whaling operations, and the separate economic systems within which each was operating.

TIME – CERAMIC TYPE INTERSECTION DATE RANGE

Historical records date the Chinese fishing camp from 1856 and the whaling station from 1858. The ceramic intersection date range for the Ballast Point Lighthouse sites was determined using the start manufacture dates and end-use/popularity dates for the Chinese and British/American ceramics present at the sites (see Figure 25; Choy, 2014; Costello et al. 2004; Garrow 1995; Greenwod 1994; Henry and Garrow 1982; Majewski and O’Brian 1987; Miller 1980; Olsen 1978; Yang and Hellman 1997). The end-use date refers to the date at which the popularity of one ceramic type was eclipsed by another; these were used in the present study because the end manufacture dates for most of the ware types are unknown. The results provided a very early median site occupation range from 1820 to 1850 due to the presence of British Creamware, which has an end-use date of 1820, and White-bodied
Figure 25. Ceramic intersection date range.
Ironstone, which has a start production date of 1850. These results were compared with the temporal data obtained from analyses of other artifact classes from the sites and, in general, the archaeological data agrees with the historical records and firmly places their occupations within a post-1850 context. For this reason, the 1820 and 1830 end-use dates for Creamware and Pearlware were not ultimately used to date the sites – socioeconomic factors contributed to the continued acquisition and use of these ceramic types two or three decades after their popularity had waned. The New England mariners probably stock piled inexpensive, surplus British Creamware and Pearlware for shipment to the Spanish colonies and continued to use, or sell the excess merchandise thereafter. The trend toward decreasing popularity of a ceramic type should not suggest that it entirely disappeared from the market or the household thereafter. These older, less expensive types may have been preferred for use at a work site such as the whaling station due to their lesser market value, or the convenience of using readily available goods. Annular/Dipped Creamware bowls were common from 1840 to 1860 and were the least expensive bowl on the market. Blue Shell Edged Pearlware plates were the least expensive plates on the market and still common in the 1860s, continuing production past the 1890s (Miller 1991:6).

Elimination of Creamware and Pearlware from the date range calculation provides the fishing and whaling sites with a terminus ante quem of 1870 based on the presence of Double Happiness bowls. The terminus post quem of the fishing camp is earlier than that of the whaling station. The latest ceramic type present at the Chinese site is Blue-bodied Improved Whiteware/Ironstone, which was most common during the first half of the 19th century. White-bodied Improved Whiteware/Ironstone gradually replaced the earlier blue-tinged variety during the latter half of the 19th century. No historical records could be located to indicate that the Chinese fishermen returned to Point Loma after the 1872 eviction by the U.S. Army. The absence of White-bodied Ironstone in the Chinese trash pit suggests that the fishermen may not have returned during the occupation period from 1873 to 1886 as the whalers had.

The terminus post quem for the whaling station is relatively later based on the abundance of White-bodied Improved Whiteware/Ironstone at this site. Blue-bodied Ironstone was typically undecorated while later White-bodied vessels were often relief and panel molded (Henry and Garrow 1982:466). The plates and bowls in the whaling deposit
display both designs. The square or rectangular lines present on the bowls in the whaling assemblage rose in popularity around 1870 and the delicate floral relief pattern on the dinner plate was influenced by the Art Nouveau movement in England from 1880 to 1905 (Majewski and O’Brian 1987:154-155). Leland Bibb’s analysis of the Improved Whiteware/Ironstone from the Ballast Point Lighthouse excavations identified seven British maker’s marks, both embossed and impressed. All were White-bodied Ironstone and the date range spanned the 1851 to 1894 time period with all marks overlapping in production only from 1860 to 1864 (Bibb 1993:2). The results of Bibb’s study provide the most accurate means of dating this site with the ceramic material. Therefore, both archaeological assemblages date to sites in use during the pre-1872 settlement period. Based on the ceramic analysis, the whaling occupation continued into the 1874 to 1886 period while the Chinese occupation did not.

**SPACE – CERAMIC DISTRIBUTION**

Table 1 illustrates that the vast majority of ceramics from the Chinese fishing camp were of Chinese manufacture while the ceramics from the whaling deposit were primarily of British and American manufacture. The British and American vessels were quantified for Table 1 using May’s Whiteware type system. The data in Table 2 were generated for the British and American material from Trench 6 using Garrow’s Whiteware classifications. Comparison with May’s data revealed a similar distribution pattern and no temporal differences could be observed across the excavated units using either typology. The whaling deposit was excavated as a single locus measuring 92 centimeters deep because no vertical stratigraphy could be ascertained. Based on the ceramics alone, Garrow posited that the trash pit comprised a “mixed” assemblage including semi-vitreous ware he associated not with the whalers, but with later Lighthouse or Army occupations. Trench 2 Unit 1 Locus 11 contained a similarly mixed deposit which was interpreted as “yard clean-up” conducted prior to, or shortly after, the construction of the Ballast Point Lighthouse. May wrote that Locus 11 was a small pit excavated against the Assistant Light House Keeper’s eastern foundation. Brown topsoil filled Locus 11, which was mixed with large quantities of 1850 to 1918 period artifacts. These included Blue Shell Edged plate sherds with pearlized glaze, Double Happiness bowl sherds, Celadon bowl sherds, brown-glazed Asian stoneware utility jar and soy sauce bottle sherds, improved whiteware plate sherds, aqua and dark green bottle glass sherds, Bennington and
Table 1. Ware Proveniences per Ronald May

<table>
<thead>
<tr>
<th></th>
<th>TRENCH 2 CHINESE FISHING CAMP TRASH PIT</th>
<th>TRENCH 6 WHALING TRASH PIT</th>
<th>Entire Site %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T2U1L4A</td>
<td>T2-U1-L5A</td>
<td>T2-U2-L3A</td>
</tr>
<tr>
<td>Brown-glazed Stoneware, ca.1400 -1930</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Double Happiness, ca.960 - 1870</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bamboo, ca.960 - 1930</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Celadon, ca.960 - 1930</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Other blue underglaze, n/a</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>“FU” plate, 19th century</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Creamware, 1760 - 1820</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pearlware, 1779 - 1830</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Dipped/Annular Creamware, 1820 - 1860</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Whiteware soft paste, 1830 - 1850</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Whiteware soft paste pearlized, n/a</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Whiteware pearlized, n/a</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Improved Whiteware, pearlized, n/a</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Improved Whiteware 1805 – present</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Yellow Ware 1840 - 1900</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tizon Brownware 960 - present</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: * Total does not equal one hundred because decimals were rounded to the nearest whole number. Cross-mended vessels were assigned to the unit from which the majority of sherds had been excavated. In cases where the sherd count was equal, each unit was considered to contain half of the vessel.
Table 2. Ware Proveniences per Patrick Garrow

<table>
<thead>
<tr>
<th>Ware Type</th>
<th>T6-U5-L2</th>
<th>T6-U6-L2</th>
<th>T6-U11-L2</th>
<th>Entire Site %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cream Colored (CC) Ware</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Dipped CC Ware</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Blue-bodied/White-bodied Ironstone</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>65</td>
</tr>
<tr>
<td>Yellow Ware</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Semi-vitreous Ware</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: * Total does not equal one hundred because decimals were rounded to the nearest whole number. Cross-mended vessels were assigned to the unit from which the majority of sherds had been excavated. In cases where the sherd count was equal, each unit was considered to contain half of the vessel.

Table 2. Ware Proveniences per Patrick Garrow

White China toy marbles, an Odd Fellows fraternity lodge pin, strap iron, saw-cut abalone, a woman’s shoe heel, white clay smoking pipe fragments, bone and shellbuttons, and an improved white mug sherd. The quantity of sherds suggests yard clean up to be a function of the pit”. (May 1992b:14)

The trash deposit associated with the whaling station may have been created in a similar fashion during the Lighthouse or the U.S. Army periods.

Analysis of the horizontal stratigraphy in the Chinese deposit did, however, reveal a significant pattern. 71% of the utility brown glazed stoneware was found in Unit 2 Locus 4A of the Chinese trash pit. Not surprisingly, these food storage vessels were recovered from the area of the kitchen where food seems to have been prepared, in the same unit as the oven, iron grill, and metal oil can. In contrast, the dinnerware was concentrated in Unit 1; meals may have been consumed in this area since food refuse, beverage containers, and a fork were also present. Due to the spatial arrangement of the artifacts in functionally distinct areas of the kitchen, this deposit may have held a collection of household goods abandoned in situ when the fishermen and whalers were evicted from the peninsula by the U.S. Army in 1872, rather than a trash pit.

FORM-VESSEL TYPE AND FUNCTION

It is not surprising that the fishing camp deposit contained 85% Chinese vessels and the European American owned whaling station contained 87% British and American ceramics because archaeologists have long since observed that ceramic types tend to serve as ethnic markers at sites in California. In 1985, Jean Krase wrote that
ceramic analysis of several other archaeological sites contemporaneous with Fort Guijarros has demonstrated that differing assemblages of ceramic sherds can almost be designated as cultural markers for the group of people they represent. In California where Kumeyaay Indians lived Tizon Brownware has been found. Wherever Spanish-Mexican habitation sites have been excavated certain types of ceramics have later been excavated. (Krase 1985:4)

The uniformity of the ceramic assemblages indicates that ethnic segregation did take place at these work camps despite the historical interpretations by McEvoy, and Kelly and May, of 19th century Ballast Point as exemplifying a multi-ethnic community atmosphere of harmony and cooperation functioning outside the influence of the racial intolerance typical of Californian society during this period (Kelly and May 2001:ch. 4:1; McEvoy 1977:1).

The fact that 35% of the vessels in the Chinese kitchen deposit were utility brown glazed stoneware supports that this community was participating in market trade with China and consuming traditional Chinese foods. However, since the pots were likely reused to store any food substance, adherence to a traditional diet cannot be guaranteed through analysis of the ceramics alone. There were no rules governing their use and brown glazed stoneware was recycled in the same manner as Tupperware in 21st century American society (Yang and Hellman 1997:60). Analysis of the food remains more reliably signaled adherence to a traditional Chinese diet because the kitchen feature contained pismo clam and wild bird [egg] shells, and Lottia notoacmea, a variety of limpet that feeds on feather boa kelp (May 1992b:16).

The 80% individual bowls and few plates comprising the dinnerware portion of the Chinese assemblage reflect not the ethnicity of the fishermen, but the economic function of the site. The abundance of bowls and absence of serving vessels is typical of Chinese work camps from the period. Choy wrote that “[i]n situations where only male workers were present, such as in work camps for mines or railroads, and in seasonal agricultural work, each worker had his own porcelain rice bowl…Workers’ meals were served out of common cooking utensils directly into these bowls. The luxury of a table setting was impractical” (Choy 2014). In contrast, the average family would have a minimum of serving and eating vessels including individual bowls, main dish platters, small sauce-and-dip dishes, cups, soup bowls, and soup spoons (Anderson and Anderson 1977:365-366).

The Chinese laborers on Ballast Point were wealthier than their Chinese contemporaries working in other industries since Bamboo bowls represented only 64% of the
dinnerware as opposed to Greenwood’s observed high of 80% at other work camps. The data in Table 3, adapted from William Evans (1980:91), confirmed that Chinese work sites from mid-19th century California generally contained a higher percentage of Bamboo bowls and lower percentage of Celadon than the Ballast Point Lighthouse fishing camp. The BPLH assemblage held equal quantities of Double Happiness and Celadon bowls despite the higher cost of the latter type. The low frequency of cups, spoons, tea pots, and sauce pots at the fishing camp may also have a geographic rather than socioeconomic component since these vessels are mainly found in urban areas (Evans 1980:90).

Greenwood and Garrow both considered the Ballast Point Lighthouse assemblages unusual based on the absence of serving vessels and concluded that individual bowls were overrepresented at the sites. The current research confirms that no serving vessels were found in the Chinese kitchen feature and only one Improved Whiteware/Ironstone serving plate was associated with the whaling deposit. However, Garrow’s assertion that the whaling trash pit contained more bowls than plates has been refuted in the present study with only 36% of the dinnerware vessels found to be bowls. Analysis of the faunal remains from the whaling station trash pit indicated that the whalers consumed a high quality diet of seafood and saw cut cattle and pig (May 1996c:39) as opposed to the soups or stews characteristic of European American work sites of lower economic status (Majewski and O’Brian 1987:177). The whaling assemblage contained 11% Creamware and 8% Pearlware, while the vast majority of the ceramics were either non-vitreous Whiteware (31%) or Improved Whiteware/Ironstone (38%). Krase determined the whaling assemblage from the Fort Guijarros excavation, which was contemporaneous with the Ballast Point Lighthouse whaling assemblage, to contain 17.6% luxury class ceramic sherds such as Crackle Ware, Creamware, and Porcelain. Whiteware and Ironstone predominated and were considered middle class ware types (Krase 1985:7). The high frequency of fine porcelain in the Chinese assemblage and of Improved Whiteware/Ironstone in the whaling assemblage does not by any means signal low economic status despite the limited variety of vessel forms. Neither the Chinese fishermen nor the whalers were as poor as their contemporary counterparts from other work sites.
Table 3. Inter-site Comparison of Chinese Wares

<table>
<thead>
<tr>
<th></th>
<th>Bear Valley 1850-1860 n=26</th>
<th>Near Columbia 1850-1870 n=3</th>
<th>BPLH 1856-1886 n=27*</th>
<th>Donner Summit 1865-1869 n=931</th>
<th>Harmony Borax Works 1883-1888 n=91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>11.5</td>
<td>-</td>
<td>14.8</td>
<td>88.5</td>
<td>-</td>
</tr>
<tr>
<td>Bamboo</td>
<td>88.5</td>
<td>100</td>
<td>66.7</td>
<td>11.2</td>
<td>90.1</td>
</tr>
<tr>
<td>Winter Green</td>
<td>-</td>
<td>-</td>
<td>11.1</td>
<td>0.3</td>
<td>9.9</td>
</tr>
<tr>
<td>Four Seasons</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Patterns</td>
<td>-</td>
<td>-</td>
<td>7.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: * Figure represents actual vessel count.

Overall, the results show the occupants of these sites to have enjoyed good economic conditions through participation in lucrative fishing and whaling industries in relative isolation from one another. Azoreans dominated the whaling industry along the coast of California during the 1850s and 1860s while the Chinese monopolized the fishing industry (HARD et al. 2013:133). 19th century whalers did, in fact, earn a higher wage than laborers in other occupations in California (HARD et al. 2013:128) and the Chinese were able to “adapt and prosper despite the hardships associated with isolation and, at times, a harsh environment” (HARD et al. 2013:135). Post-industrial global capitalism has since blurred the material boundaries within which these regionally and ethnically specific transnational trade networks were operating.
CHAPTER 7

INTERPRETATIONS

Although the ceramics were found to reflect both the culture and economy of majority site occupants, economics played a greater role than ethnicity in the selection of ceramics at these sites. The predominant ethnic groups at each site, Chinese and European American, shared the same geographic and cultural origins as most of the ceramic vessels. Ceramic and faunal analyses confirmed that traditional food items were consumed. The relatively higher economic status of these labor communities permitted the purchase higher quality ceramic ware types than those found at contemporaneous work sites with other economic functions, such as mining, railway, or agricultural sites. The correlation between ethnicity and the acquisition of material goods is not directly linked to culture or economic status, but to the nature of global socioeconomic organization during this period.

ETHNICITY IN THE CERAMIC ASSEMBLAGES

The fact that the majority occupants of both sites essentially share the same ethnic affiliation as most of the ceramics confirms their participation in different transnational sub-economic trade systems with ethnicity acting as an organizational factor. Although this phenomenon existed prior to the colonial period, increased interaction between geographically bounded culture groups led to more competition, ethnocentrism, and unequal relationships of power with Europeans typically assuming roles of dominance over technologically weaker populations in foreign lands. Widespread discrimination against non-European peoples led to social stratification and the widening of differences between groups; ethnicity grows more pronounced when access to resources is denied. African, Mexican, Chinese, and Native Americans are the most visible ethnic groups archaeologically in the U.S. because these groups suffered extended periods of discrimination; their underrepresentation in historical records is also a result of racism and segregation from European American society. The Chinese community on Ballast Point experienced no exception to this general trend, and although some interaction between groups is evidenced
by the quotidian Chinese ceramics in the whaling assemblage and some British and American wares in the Chinese assemblage, ethnic boundaries remain well defined in the archaeological record.

Colonial archaeologists who study acculturation have assumed that the more “native” an artifact assemblage is, the more “traditional” the people were (Orser 1996:61-62). In 1980, Robert Schuyler observed that Chinese immigrants were more successful at retaining their Old World culture than Africans. He speculated as to the reason for this and listed the relative uniformity of cultural heritage, lesser degree of exploitation, or intrinsic nature of the culture as possible explanations (Schuyler 1980:87). The explanation resulting from the present analysis is tied to China’s long history of intercontinental trade and colonial expansion. The relatively independent transnational economic system within which the fishers on Ballast Point were operating had ensured their access to Chinese goods. Institutionalized discrimination against the Chinese in 19th century California had limited their access to local goods and services. European Americans dealt with the Chinese in a cash economy leaving no written record of the transactions (Wong 1999:297) and they, like Mexican Americans, [have been] constructed as sojourners, disengaged from life in the United States” (Wong 1999:103). Analysis of the type, form, and function of the Chinese ceramic vessels, as well as the food remains from the site, confirmed the community’s trade relationship with China and adherence to an ethnic Chinese diet. The vessel forms of the dinnerware were found to reflect not the culture of the workers, but their dining customs within the context of the labor site.

Regarding the ethnic identities of the whalers, May wrote that “…the English Flow Blue, Luster Ware, and white Ironstone ceramics, cheap pipes, black glass ale bottles, sarsaparilla and aromatic schnapps bottles, and rusted iron do not suggest any particular ethnic group” (May 1985c:9). In the 1877 Great Registry of Voters, 36% of the whaling crew (n=9) had declined to list their birthplace. The remaining 64% were reportedly born in the eastern U.S. except one mariner, William Price, who was born in Ireland (May 1986:74). The ethnic identities of the individual whalers, especially those who withheld their birthplace, are not known and are not reflected in the ceramic assemblage. These workers had ceased to participate in their home economies and were working under European American management. Supplies such as dishes were allocated to the crew by their employers such that
the British American trade network dictated the material goods available to them independent
of their ethnic identities, or personal preferences. The homogeneity of the whalers’
assemblage reflects not the ethnic identities of individual workers, but the ethnicity of the
European American owners. This assemblage illustrates the manner in which increasing
British control over trade in the U.S. led to the homogenization of material culture while
ethnic diversity remained intact.

**ECONOMIC STATUS IN THE CERAMIC ASSEMBLAGES**

The results of this study show that two different socioeconomic systems were
functioning at these sites. The majority of the whalers, including the Johnsons, Packards,
Flanders, Hackett, Lambert, Tilton, Wall, and Wentworth were born in New England, and
others such as Jenkins and Purdy were born in the neighboring states of Pennsylvania and
New York. The fact that 57% of the whalers (n=13) arrived in San Diego from the same
American port region as the British ceramics that were imported from New England to San
Diego throughout the late 18th and early 19th century suggests that these same men were
somehow tied to the initial trade network with the Spanish colonies and were conveniently
using the same ceramics they, or their predecessors, had historically brought with them.

Historical records revealed the whalers to have employed at least three Chinese
workers, including Ah Low, the whaling station cook. According to the tax records, Ah Low
arrived in San Diego around 1863 and was among the first Chinese people to come (Lau
1997; May 1996c:36). Caucasian grey cut hair in the Chinese deposit suggests that a barber
shop servicing the whalers may also have operated from the Chinese kitchen. The “FU-like”
plate exhibited a symmetrical rim fracture that May proposed could have been used as a
bleeding, or shaving bowl. These labor functions fall into the types of professions to which
Chinese people in California were generally confined during this time period as a result of
competition for jobs, and widespread discrimination (McEvoy 1977:14). At least two other
Chinese people worked for the whalers and their exact labor functions are unknown.

Although the nature and extend of the relationships between the fishermen and the whalers
will never be fully understood, the limited existing data do not support a harmonious escape
from the social inequality characterizing this time period. On the contrary, the ceramic
assemblages and supporting documents indicate relative isolation and a situation in which
some Chinese people carried out menial tasks for the whalers. This conclusion is further maintained by historical accounts which describe other ethnic groups, such as the Italians, working alongside the Chinese in relative isolation with each group in competition for control of the industry.

If these site assemblages were not “normative” for their period, their contents are owed more to the labor function of the sites and the greater economic systems within which they were operating than the ethnicity or economic status of the individual crew members. In 1987, archaeologists Jean Krase and Ronald May posited that: (a) the mariners isolated at outpost whaling stations lived hard, lonely, and impoverished lives; (b) the maritime network enabled the whalers at Ballast Point to purchase goods from any ship passing into the harbor; (c) the shore-based stations were well-organized enterprises financed by wealthy fisheries industries and the companies experienced relatively good living conditions as long as the seasonal operations were financed (Krase and May 1987:9). Analysis of the ceramics alone supports the third hypothesis that the crews at both the fishing and whaling settlements experienced good living conditions compared to the workers at other, contemporaneous work sites.
CHAPTER 8

CONCLUSIONS

This thesis has assessed the degree to which the type, form, and function of ceramics from two contemporaneous, yet fundamentally different, archaeological assemblages on Ballast Point in San Diego, California, reflect ethnic identities and economic status of their owners. The ethnicity of majority site members was inferred when greater than half of the ceramic vessels originated either from their own country of origin, or that of their families. Additional information from analyses of vessel forms and faunal remains supported the consumption of ethnically specific foods at both sites. The relative market values of the assemblages were higher than normally encountered on late 19th century labor sites indicating prosperity for the fishers and the whalers. The transnational market systems within which they were operating determined their access to regionally specific types of ceramics and the economic function of the sites dictated the vessel forms required by each community to accommodate their unconventional households comprised primarily of working male adults.

FACTORS AFFECTING CERAMIC ACQUISITION AT THESE SITES

Ethnicity, economic level, status, the availability of goods, family size and life cycle, religious and political affiliation, and individual preference are all factors with the potential to influence the acquisition of material goods. While economic status has been isolated as the a priori determinant of the material items found by archaeologists at residential dwellings, the determining factor for the acquisition of ceramics at the Ballast Point work sites was the availability of goods. The fundamental differences between these particular ceramic assemblages are owed in part to the ethnicity and origin of the majority occupants. However, the trade systems that brought the workers and their ceramics to San Diego were operating beyond the realm of the individual. The ethnicity of these workers, their economic level, status, family size and life cycle, religious and political affiliation, and personal preferences became invisible within the context of these labor camps. The ethnic groups of the majority
site occupants controlled the means of production and distribution of the ceramics present in
the assemblages. Although at least two families were present on Ballast Point, most of the
fishers and whalers were men; their lifestyle determined their dining customs and need for
particular ceramic goods. The relative economic success of both groups is indicated by their
possession of higher quality wares than one would expect at work sites based on the existing
literature, and neither group was found to be more affluent than the other. Despite apparent
economic stability at both sites, social inequality and segregation are suggested by the
uniformity of the contrasting assemblages and evidence that some Chinese workers were
employed in service to the whalers. This marginal interaction is reflected in the
archaeological record since three British or American vessels of the types used by the
whalers were found in the Chinese fishing camp assemblage, and four quotidian Chinese
vessels had made their way into the whaling assemblage.

LIMITATIONS OF THE PRESENT STUDY

Since the Fort Guijarros and Ballast Point Lighthouse sites on Point Loma were
among the first west coast whaling stations to be excavated in the United States, ceramic use
traits had not been accumulated from similar sites to facilitate comparison. The same is true
of the Chinese fishing camp since other Chinese work camps that have been excavated in
California are generally mining and railroad sites. In the absence of data for direct
comparison, this study relied upon comparisons with ceramics from work sites with different
labor functions. The question remains open as to whether the relatively higher quality
assemblages found at these sites are typical of this type of work camp, or represent isolated
economic circumstances unique to this chapter of San Diego history.

The evidence for scientific labor management at these sites also requires further
comparative analysis. Apart from the mining and railway camps, supporting data for
scientific labor management from 19th century Chinese work sites could not be found. More
evidence that Chinese immigrants from this period were confined to menial professions as
laborers, cooks, laundrymen, and barbers should be visible archaeologically, particularly at
sites in close proximity to other ethnic groups.

The disagreement between the ceramic date range for the British/American wares and
the historically recorded site occupation range leaves a sliver of a doubt as to whether the
New Englanders were active on Ballast Point prior to the formal documentation of their activities. Trade ships had been travelling from New England for decades prior to the establishment of this particular settlement and further evidence of their presence likely remains to be found.

Garrow made assumptions regarding the economic status and dietary habits of the whalers based on comparisons with east coast ceramic assemblages and labor sites. His bias should be considered because it remains possible that the whalers were utilizing the ceramic material he associated with later site occupations. He had considered semi-vitreous ware a luxury item too expensive for the whalers and concluded that vessels such as tea cups were associated with the Lighthouse or U.S. Army periods. However, Krase identified fine porcelain in the whaling assemblage from Fort Guijarros and the use of semi-vitreous ware by the whalers would change the interpretation of the depositional process responsible for the feature in Trench 6. The use of these items would also suggest an even higher economic status for the whalers than previously thought, and would indicate greater inequality between the fishers and the whalers.

The use of Blue-bodied Ironstone as a temporal marker for the Chinese site occupation is tentative and requires further testing. The distinction between White-bodied and Blue-bodied Ironstone that Garrow described has not been adequately demonstrated by his own results or the results of this study. In the event that the distinction between the two types is found to exist, the absence of White-bodied Ironstone at the Chinese site could suggest their permanent departure in 1872, or simply have resulted from the small sample size. The other artifact classes within the Chinese kitchen deposit should be reexamined for post-1874 materials.

**Future Research Questions**

1. Were the Chinese fishers at other 19th century coastal sites also more affluent than their contemporaries at inland sites with different labor functions?

2. Were the New England mariners exploiting the San Diego coast prior to the establishment of this site? Were the whalers connected to the original merchants who traded with the Spanish colony?

3. Are Blue-bodied and White-bodied Ironstone really discreet categories? If so, can they be accurately identified in hand specimen?
The data from this study should be compared with that of assemblages from similar sites along the California coast in order to determine whether the conclusions drawn here are specific to these Fort Guijarros sites or relevant to other, contemporaneous fishing and whaling communities. The research material compiled by HARD Work Camps Team and Caltrans staff identified twenty-four other whaling sites in California that may or may not contain preserved archaeological deposits. Chinese fishermen established camps along the California coast from Eureka to San Diego. Known locations include Monterey and Pacific Grove, China Camp along the shores of San Pablo Bay, China Beach along the Central Coast in a small cove east of Capitola’s Depot Hill neighborhood, the San Francisco Bay area, and the Channel Islands in Santa Barbara County. Excavations have already been conducted at a Chinese fishing village site in Pacific Grove, Monterey County (Julian 2010) and at least 32 Chinese abalone processing camps have been identified on the Channel Islands by Braje and Erlandson (2006:23) and Axford (1984, 1987) (HARD et al. 2013:130, 133). Rather than conclude that the availability of goods was the principal factor affecting ceramic acquisition at all 19th century maritime sites in California, this study represents a glimpse into the lives of the members of two small communities that may or may not aid in future efforts to determine normative ceramic use traits for these types of sites.
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Yang, Jeannie K., and Virginia R. Hellman.
APPENDIX

CERAMIC TABLES
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<th>Type</th>
<th>Pattern/Color</th>
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<th>Vessel Count</th>
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(Note continues)
Table A.2. (continued)

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Table A.2. (continued)

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<th>Unit</th>
<th>Locus</th>
<th>Type</th>
<th>Pattern/Color</th>
<th>Form/Function</th>
<th>Vessel Count</th>
<th>Catalog Numbers</th>
<th>Garrow and Greenwood’s Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>2</td>
<td>Improved whiteware</td>
<td>Thin</td>
<td>Mug rim</td>
<td>1</td>
<td>2612</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Improved whiteware</td>
<td>Molded, blue-bodied</td>
<td>Mug wall, rim-wall</td>
<td>1</td>
<td>2558a, b, 2479b, c, d</td>
<td>Semi-vitreous ware</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Annular yellow ware</td>
<td>Brown and white stripes</td>
<td>Bowl wall</td>
<td>1</td>
<td>1967</td>
<td>Dipped yellow ware</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Tizon brownware</td>
<td></td>
<td>Rim, wall</td>
<td>1</td>
<td>2025i, 5273, 4250, 2014b</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Porcelaineous stoneware</td>
<td>Bamboo</td>
<td>Bowl wall</td>
<td>1</td>
<td>2480b, d</td>
<td>First character illegible, second means LI (profitable), first may mean CHUAN (river)</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>Porcelaineous stoneware</td>
<td>Bamboo</td>
<td>Bowl base-wall</td>
<td>-</td>
<td>1996a, b, c</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Porcelaineous stoneware</td>
<td>Bamboo</td>
<td>Bowl base</td>
<td>1</td>
<td>2480c</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Porcelaineous stoneware</td>
<td>Double happiness</td>
<td>Bowl base</td>
<td>1</td>
<td>4080a</td>
<td>Double happiness, not bamboo</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Porcelaineous stoneware</td>
<td>“Bamboo”</td>
<td>Bowl base</td>
<td>1</td>
<td>2480a</td>
<td></td>
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</tbody>
</table>