GOLD RUSH ENTREPÔT:
THE MARITIME ARCHAEOLOGY OF THE RISE OF THE PORT OF SAN FRANCISCO

by

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ABSTRACT

The California Gold Rush of 1848-1852 transformed San Francisco into a major city. This rapid rise, often attributed by historians to the accident of the gold discovery, is more a result of centuries-long processes of integration of the Pacific into the European world system. Integration of the Pacific occurred through maritime exploration, trade and commerce. By the mid-nineteenth century, California and its gold was another commodity in the *longue durée* of Pacific integration. Ships responding to the gold discovery brought mass-produced industrialized goods as well as commodities to support the growing city and its surrounding region. The role of shipping underscores how San Francisco's rise reflects the role of entrepôts, or zones of free exchange, as a model for integration, and as a new way of assessing a "frontier". San Francisco is not only an American settlement on the Pacific Coast of North America, but also a globally-linked port on the edge of the Pacific Rim.

This dissertation assesses the rise of San Francisco and the role of a maritime system as an agent of the world system through historical archaeological examination of the buried Gold Rush waterfront of the city. A 9-square block area, partially burned and covered by landfill, includes well-preserved sites including partly burned fallen buildings and buried ships filled with cargo. These demonstrate how the rapidly constructed Gold Rush waterfront of moored ships, piers and buildings are macro-artifacts reflecting economic, social and political agendas in Gold Rush San Francisco. The waterfront provided the means for an ostensible mining settlement to survive the pattern of "boom or

bust", and to become a critical entrepôt for United States interests in and ultimate command of Pacific and Asian trade.

Analysis of these sites through a study of archival evidence, recovered artifacts and buried features interprets the maritime cultural landscape of the Gold Rush waterfront. While the Pacific by 1850 falls beyond the range of Wallerstein's original thesis for a World System, San Francisco's rapid rise is part of a frontier process linked to a "maritime system" that in itself can be incorporated within world systems theory.

Keywords: California gold rush, Maritime archaeology, world system, ships and shipping.

DEDICATION

This is dedicated to my family, especially my wife, Ann, who inspired, guided, and gently nudged when needed. It is also dedicated to the memory of my mentor Dr. Theodore C. Hinckley, who encouraged my parents to send me to University. Ted passed away before the culmination of his belief in my academic future came to fruition.

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CHAPTER ONE:
INTRODUCTION

The rapid rise of San Francisco between 1849 and 1856 engaged the attention of contemporary nineteenth century observers and subsequent historians. In that period, San Francisco grew from a small village of a few hundred to a city of thousands. In that period, it also became the principal American port on the Pacific Ocean. How and why the city grew into this role has varied in interpretation, although all accounts have noted the role of the California gold discovery and the subsequent "Gold Rush" as causative factors (for example Taylor 1850, Capron 1854, Soulé *et al.* 1855, Hittell 1878, Bancroft 1888, Eldredge 1912, Caughey 1949, Lotchin 1974, Holliday 1981).

In 1854, E.S. Capron summarized the contemporary view of what had led to the creation of San Francisco:

> Previous to the year 1848, the wildest imagination could scarcely have conceived that a large and populous city would suddenly arise under the flag of the Union on that remote and alien shore; or that the waters of that silent harbor would be whitened with the canvas of every nation, and be vocal with the restless commerce of the world. But enterprise is not now the tardy nag it was forty years ago; the sentiment "*perseverantia vincit omnia*" is not, at this day, a merely literary flourish or theoretic idea, but is a practical fact; and its truth has never been more signally illustrated than in the history of San Francisco – a history that has no parallel in the annals of the world (Capron 1854:122-123).

Capron's assertion, simply stated, suggests that San Francisco was an accidental city propelled into greatness by an enthusiastic, international maritime capitalistic response to

the discovery of gold in California. He is correct in part, but as this dissertation will address, there was nothing accidental in the rise of San Francisco. Gold was not an instigator, but an accelerant to development. The remote and alien shore Capron suggests was neither. Connected to a pre-existing Pacific and global system of maritime trade and commerce, San Francisco was not a frontier in any traditional sense. It was part of a maritime frontier (Gibson and Whitehead 1993).

In this dissertation, I assert a maritime system theoretical approach to explain the rapid rise of San Francisco and propose a frontier model based on the concept of an entrepôt, or a zone of free exchange. Key to my thesis is the assertion that although fuelled by the economic energy of the Gold Rush, San Francisco had earlier been identified as a potential entrepôt by capitalist interests in the early nineteenth century. Those interests focused on domination of Pacific trade. San Francisco's first historians, participants themselves in the process, asserted in 1855 that the port city, while established by Spain in the last century, had lain stagnant until the arrival of capitalist interests:

> The Spaniards had scarcely proceeded any way in the great work, - if they had not rather retarded it, when the Anglo-Saxons, the true and perhaps only type of modern *progress*, hastily stepped in, and unscrupulously swept away both their immediate forerunners as effete workers, and the aborigines of the land, all as lumberers and nuisances in the great western highway of civilization. This highway is fated to girdle the globe...and there need not be the slightest doubt but that the empire, or rather the great *union* of peoples and nations in the Pacific will soon – perhaps in fifty years, perhaps a century – rival, if not surpass the magnificent States of the Atlantic. Indians, Spaniards of many provinces, Hawaiians, Japanese, Chinese, Malays, Tartars and Russians, must all give place to the restless flood of Anglo-Saxon or American progress (Soulé *et al.*, 1855:53-54).

With the United States' acquisition of San Francisco Bay during the Mexican War of 1846-1848, the way was clear to achieving the ultimate goal, an entrepôt that would dominate not only Asian trade but also that of the entire ocean:

> Not only are Japan and China much nearer to the California coast than India is to England; but with the aid of steam the time for accomplishing the distance is immensely reduced...So it was with the English in India; and so it may be with the Americans in China. Just give us *time*. England has not been very scrupulous in her stealthy progress over Hindostan, Ceylon and Birmah. Then neither need America fear her reproaches, if she, in like manner, conquer, or annex the Sandwich Islands, the Islands of Japan, those of the great Malayan Archipelago, or the mighty "Flowery Empire" itself. A few more years, and a few millions of Americans in the Pacific may realize the gigantic scheme...The railway across, or *through* the Snowy and Rocky Mountains, which will bind all North America with its iron arm into one mighty empire, will facilitate the operation. And then SAN FRANCISCO – in the execution and triumph of that scheme, will assuredly become what Liverpool, or even London is to England, and what New York is the Middle and Eastern states of America – a grand depot for numerous manufactures and produce, and a harbor for the fleets of every nation (Soulé *et al.* 1855:54-55).

The first steps in creating the entrepôt were taken with the establishment of American governance and the subdivision of the town's public lands for private sale that would facilitate the development of the port.

This process was abetted and accelerated by the subsequent gold discovery in 1848 and the "rush" that began in 1849. The Gold Rush provided more than large amounts of gold for capitalization, a requisite aspect of the town and port's development as it constantly rebuilt after several disastrous fires. The Gold Rush provided a market and a start-up role for the new entrepôt as it served the needs of the mines and miners who came for gold. Holliday (1999:182) cites how San Francisco's placement on the shores of the region's greatest harbour on a bay into which flowed two major rivers that

penetrated deep into the surrounding country and its role as the landing place for thousands of passengers and cargoes made it the "Great Commercial Emporium of the Pacific" (*ibid.*). San Francisco by 1850 was a port "secure in its monopoly by the luck of geography," its rise assisted "by the driving ambitions of its businessmen, who worked to connect their port with the vast inland mining empire, mother lode to the city's prosperity" (*ibid.*:182).

The primary means of supply was by ship, with vessels calling from around the globe. Thousands of vessels arrived at San Francisco between 1849 and 1856, discharging thousands of passengers and in excess of half a million tons of cargo (Delgado 1990). A variety of global partners with commercial, not political interests at stake abetted this trade. The focus of their initial efforts to create a successful entrepôt was a quickly built and unique waterfront that utilized ships as floating buildings, wharves as streets, and buildings on pilings into which goods flowed from around the world. On this waterfront, those goods were quickly sold, or repackaged and transhipped to the interior of California and the gold mines.

A major fire destroyed that waterfront on May 4, 1851, but the foundations for a successful entrepôt had been laid, and San Francisco became an established new link in the world's maritime trade and America's New York on the Pacific. The success of the city and port were achieved and described as of 1856

> thus lay transformed San Francisco, from an expanse of sand hills, from a tented encampment, to a city unapproached by any of similar age for size and for substantial and ornamental improvements...The fluctuating settlement stood now the acknowledged metropolis of the west....and this phenomenal progress was the achievement of half a dozen years, surpassing the wildest of those speculations which had incited, first the entry of the pioneers, then annexation by the United States, and finally city

> building, and the founding of an empire out of the manifold resources... A series of surprises marked the advance of the state as well as of the city – the one a wilderness bursting into bloom, the other a mart of progress purified by many fiery ordeals (Bancroft 1888:787).

This new city, outpost of American ambitions on the Pacific, had not only rapidly evolved, but it did so in a way unlike those described as a traditional frontier process.

The frontier process at play was not one that conformed to the model proposed by Turner (1894) with waves of exploration, trapping and trading, farming and settlement by "men of capital and enterprise" who built villages that finally grew into towns and cities. Neither does San Francisco conform to Billington's (1956) modification of Turner's model of a slow and steady movement west. Billington proposed that as the westward movement gathered pace, "a standardized zonal pattern" of settlement emerged. Those zones were those of fur traders, cattlemen, miners, pioneer farmers, equipped farmers, and the "final frontier zone" of town and city (Billington 1956:3-6). The founding of towns and cities, in Billington's model, came with the arrival of entrepreneurs and opportunity seekers who

> chose their homesites at strategically located points in the center of agricultural communities, usually selecting a crossroads, a point in the head of navigation on some stream, or an advantageous spot on a canal or railroad. As more and more concentrated there, a hamlet, then a village, then a town, gradually took shape (Billington 1956:306).

Isolated by the landmass of the continent and the mountain ranges of the Midwest, however, San Francisco was not linked to the rest of the United States by land.

A better understanding of San Francisco's frontier process comes with Reps' (1981) challenges to the Turner and Billington models. Reps, noting the earlier tradition of

Hispanic town planning and settlement and the "simple truth...that in every section of the West, towns were in the vanguard of settlement," laid out as planned communities with designs for future growth. This provides a better framework for understanding San Francisco (Reps 1981:2). Reps specifically rejected the agrarian emphasis of Turner and Billington, arguing that a variety of factors induced migration to the frontier, including mining, urban speculation, railroad building, and escape from religious intolerance.

In this, he also followed the argument of Paul (1963) who argued that the gold and silver discoveries of the nineteenth century created a frontier. These groups and events resulted in a series of detached frontiers. This also fits with the theoretical premise of Steffen (1979), who examined frontier processes and broke down change into two patterns, one of modal change, as a slower, minimal process and one of significant "fundamental" change. These processes created two frontier models in the United States, the "cosmopolitan frontier," with a large number of interacting links and modal change, and "insular frontiers" with few interacting links and fundamental change influenced by indigenous frontier environments. The mining frontier, argued Steffen, was not a frontier in the Turnerian sense, but a continuity of "national trends that occurred in the decades before the initial rush to California" (*ibid.*:110) One of those national trends, beginning in the 1780s, was the American push into the Pacific to seek new avenues of maritime trade. By the nineteenth century, American commercial, military and cultural interests were flooding into the Pacific and dominating the Pacific Basin's oceanic trades (Gibson and Whitehead 1993:6-9).

In this dissertation, I examine how San Francisco is an artifact of the maritime system at play in the Pacific in the first half of the nineteenth century. I will also

examine how it is, as Reps suggests, a planned town by drawing from archival sources and the material record of the Gold Rush waterfront of San Francisco in the late spring of 1851. At that time, San Francisco was in transition, evolving rapidly from a small village into a major port and entrepôt, and the waterfront was a carefully planned aspect of that expansion.

The macro-artifact that is the entire waterfront is specifically sampled through the detailed excavation and analysis of a Gold Rush floating warehouse, known in contemporary terms as a storeship, *General Harrison.* In examining *General Harrison*, I compare it to earlier excavations of other storeships, particularly the neighbouring *Niantic*. The comparison provides additional data missing from the *General Harrison* site in some cases, but also provides a means for assessing the representative nature of the *General Harrison* site and its assemblage within the context of its neighbourhood.

This analysis is enhanced with a comparison of another contemporary site, Hoff's Store. Hoff's Store, *Niantic* and *General Harrison* are in close proximity and all three were "destroyed" in the cataclysmic fire of May 4, 1851. The precise dating of the archaeological deposit with all three sites is particularly important because the next level of analysis, after examining the physical characteristics of each site and their role in the planned development of the town's port, will be the material culture (cargo) of *General Harrison.* It is in this cargo that I look for evidence of the global patterns of maritime trade.

The Domination of Maritime Related Commercial Interests in the City's Creation and Growth

San Francisco was not ideal in terms of future growth, being hemmed by tall sand dunes and a shallow waterfront that at low tide was an expansive mudflat. The town's development started with an initial plat in 1839 that laid out streets on an open grid for future commercial growth, and not as a walled or easily defended citadel as other Spanish settlements. This initial plat, extended by the Americans in 1847 and again in 1849, is a graphic artifact of political manoeuvring in favour of commercial development. The city's plat, described by a newspaper editorial in 1855, as proof of "the jealous avarice of the city projectors into turning every...square [yard]...of the site, into an available building lot" (as cited in Reps 1988:112) as it was nothing but squares of land for speculation and was without public spaces. This purely commercial emphasis also led to the quick development of an extensive, improvisational infrastructure that created a dynamic urban environment in the face of frequent change that accompanied a hectic pace of life, specifically on the waterfront (Barth 1975:130).

It was the development of the waterfront that not only physically but also economically defined early San Francisco, generating an urban, commercial, and mercantile core that allowed its developers/inhabitants to thrive in the face of competition, the limitations of available land, boom and bust economic cycles, and a series of destructive fires. The founders of San Francisco were capitalists gambling on San Francisco's becoming a point of transhipment of goods off-loaded from deepwater ocean-going craft into smaller bay and river craft to navigate the bay and its connecting San Joaquin and Sacramento rivers to the mining settlements in the mountains (Barth

1975:139). Lotchin (1974:6) also cites this creation of a "transportation break" as the key to San Francisco's success. While maritime in nature, this transportation/transhipment-based origin of San Francisco is similar in some respects to the role of the railroad in other frontier settlements, particularly another "instant city," rail-linked Denver, Colorado (Barth 1975). The maritime emphasis on San Francisco's process of creation and ongoing survival thus complements

> the other great nineteenth century American narrative about the articulation of private commerce, public government, land speculation, transportation technology, infrastructure, power, and transformation of urban form, particularly on some given frontier.... [as well as] the story of railroad development in the country (Purser 2003).

Integrating San Francisco through Maritime Trade and Commerce

The San Francisco that emerged was simply the result of the city's maritime capitalists' desire to tap into global maritime trade. Economic historians Eric Jones, Lionel Frost and Colin White (1993:66) note that the gold-fuelled rise of San Francisco's first effect was "to link the regions of the Pacific Rim more closely with metropolitan centers in Europe." It also marked the commencement of a new and expanded pattern of transpacific and Pacific coastal trade. An Anglo-American Pacific trade had previously existed on a smaller scale thanks primarily to the China trade and whaling. The Gold Rush changed all of that. As Jones *et al.* (1993:5-6) state, in the nineteenth century the centre of the global economy "clearly moved from Western Europe to the United States" (Jones *et al.* 1993:5-6). I believe that the major factor in this shift was America's domination of Pacific trade thanks to the Gold Rush and the rise of San Francisco.

The intermingling of mariners in regularly arriving ships, and the influx of miners who came into the city for goods, services or simply to avoid the harsh winters of the mountain camps made San Francisco a hub of trade and a core of the communication network. From here, "investment capital, knowledge, and personnel moved into the mountains and dividends, experience, and information about the West returned to the east" as well as Europe (Barth 1975:209). Not coincidently, this was also a time when

> oceanic routes integrated the world economy as never before.... [worldwide] rapid growth and revolutionary change in transportation and communications increased the output and trading of goods...shifting patterns of international trade across the North Pacific further stimulated commerce (Perry 1994:61).

To tap into this emerging new Pacific trade, San Francisco needed to quickly establish a proper zone of commercial maritime exchange on the waterfront. "Wedded to maritime trade," Barth suggests San Francisco's residents spotted the solution to the emerging town by transforming the shoreline into the heart of the business district (Barth 1975:210). Barth identifies these resident/developers, as a "new breed of speculators, responsive to the hectic pulse of the changing city" (Barth 1975:211). Lotchin (1974:9) also describes the quick development of commercial facilities on the waterfront, quoting contemporary journalist Bayard Taylor's observation that whatever advantages San Francisco lacked for success as a transhipment point "will soon be amply provided for by wealth and enterprise."

Those with the means to do so were the merchants with strong international ties to maritime trade, most of them commission merchants with pre-existing business arrangements in Central and South America, China, the eastern United States and Europe.

Lotchin (1974:52) places them at the top of the economic food chain of Gold Rush San Francisco because they essentially controlled the city's trade based on their handling of incoming goods. Their role in building up San Francisco, largely on their own initiative, was abetted by a weak government presence. Vigilantes drawn from the ranks of the mercantile elite dealt with lawlessness. Lack of coin was solved through the establishment of private mints, and "solutions to other problems were often provided within a context of free market operations rather than reliance on government" (Jones *et.al* 1993:90).

No strangers to the frontier process, commission merchants had played a significant role in the development of the Mississippi Valley frontier prior to the California Gold Rush. In San Francisco, commission merchants had access to an undeveloped waterfront, which, developed to their specific needs, became the locus where goods were quickly offloaded, safely stored, or quickly sold and reloaded for transhipment. By tapping into the gold of California, they literally had unlimited means to create such an entrepôt. This was a circumstance unusual in world history and repeated only one other time in North America in Denver (Barth 1975). However, unlike Denver, the instant city of San Francisco, linked solely by the sea, did more than draw the American frontier westward. It realigned Pacific and then global maritime networks of transport. This international trade linkage made San Francisco a "cosmopolis" and a "world city" from the start, much like a Venice, Amsterdam, or St. Petersburg (Barth 1975:211).

To summarize, miners came to California from various lands or states, driven by a variety of economic or social circumstances to try their hand in the mines. Merchants,

nonetheless, were the instigators of settlement and development who maintained the lines of trade as part of an interlinked global network. Merchants tapped the energy of the Gold Rush to create San Francisco, a critical link in further tying the Pacific into the world system. Despite longstanding American desires to dominate this shift (Perry 1994), it was accomplished as a global effort, particularly demonstrated by the international relationships of commission merchants ands their backers in London, Hamburg, Paris, and ports from diverse spots such as Hawai'i, Denmark, Sweden, and Portugal. This will be made clear in the analysis of overlapping documentary and archaeological accounts. The internationalism of Gold Rush San Francisco was no accident, and like the city itself is an artifact of the use of maritime trade to integrate the Pacific from a peripheral into a core zone.

Historical Archaeology on San Francisco's Waterfront as the Means to Test the Theoretical Model

Since the 1970s, as historians rejected the Turner model of the frontier and looked in new directions (known as the "new western history"), the application of historical or text-aided archaeology (Little 1982) joined in formulating the basis for a new model of the frontier. Particularly significant was Hardesty's argument that a mining community on the frontier was an urban-like organization "loosely integrated and atomistic, cosmopolitan, male-dominated, marked often by dramatic boom-bust fluctuations in population size, and with economic and political dependencies upon large scale world systems" (Hardesty 1993:5). What I propose is an emphasis that adds a context through the role of the global maritime system (a subset of the world system) that had expanded from its fifteenth century beginnings beyond Europe by sea. Maritime trade in the first

half of the nineteenth century was rapidly bringing the system to the Pacific Rim, and Gold Rush San Francisco is an artifact of that process.

San Francisco provides an archaeological sample within a discrete physical and temporal boundary to assess the rapid adoption of the role of global maritime trade to create an "instant port" that succeeded because it was an entrepôt. Economic historians have noted that "a settlement located at the intersection of major trade routes, at some point where a change in the mode of transport is required... will be well placed to attract investment in transport facilities and commercial activity" (Jones *et al.* 1993:134). San Francisco's entrepreneurs saw their raw and undeveloped city as such a place and invested capital to overcome its physical limitations,. They also fought off competing port cities on the bay, and the obvious question of bypassing San Francisco and sailing directly into the heart of the gold fields. They did this by using their economic and political clout to seize legal status as a government-enforced port of entry for foreign goods. In doing so, they created the business foundation for their entrepôt.

This dissertation adopts an historical archaeological approach that draws on Hardesty's "features system" (Hardesty 1988 and 1993) and an emergent school of thought of a maritime system subset of world systems theory (Staniforth 2003, Russell *et al.* 2004) to examine the rise of Gold Rush San Francisco. Such an archaeological assessment is possible due to the Gold Rush city's construction of much of its infrastructure over water. Its subsequent partial destruction by fire left it encapsulated by deep burial in a wet environment where high levels of preservation, even of organic remains, provide a rare archaeological matrix.

This matrix is a rich archaeological assemblage of material things numbering into the tens of thousands of artifacts. When combined with a detailed archival record that begins with San Francisco's major newspaper, the *Daily Alta California*, other newspapers such as the San Francisco *Daily Herald* and the San Francisco *Bulletin*, contemporary written accounts including business correspondence, and an amazing array of graphic evidence including maps, plans, drawings and photographs, the total data set offers an impressive amount of material for study. The integrity of both sets of data more than adequately meets Deetz's (1977) highest standards for "visibility" and "focus" – a prominent abundance of the physical remains and the potential to read and clearly interpret the remains.

This dissertation is based on field and archival research that has sporadically taken place over 28 years. Some of the results have been already presented in an historical model that argued for a maritime-oriented frontier process (Delgado 1990a and 1990b). Here I build on that work, following Deetz and Hardesty's suggested format of study by integrating oral, written and material sources of information to interpret the Gold Rush waterfront of San Francisco and by extension examine how this Pacific Rim "frontier port" fits the theoretical model of a global maritime system. This hypothesis of a maritime-driven Pacific context of the world system will no doubt have relevant application to other ports and sites, especially those where the concept of "new towns" built on "made land" was adopted for better functioning of the port (e.g. Valparaíso, Hong Kong, Sydney, Seattle and Vancouver).

The archaeological data in this dissertation, as noted earlier, is drawn from three sites, a piling-supported store and two storeships converted from floating vessels into

warehouses and offices by and for commission merchants in the heart of the Gold Rush waterfront. These ships were part of a fleet of several hundred vessels that arrived at San Francisco during the Gold Rush years of 1849-1850. Close to 500 were laid up, some permanently and others turned temporarily to other uses. Over 250 were converted into floating or mud-moored buildings, most of them warehouses, linked by pile-supported wharves and structures to create the necessary infrastructure for the commission merchants' locus of transhipment and commercial exchange. Without access to those ships, the rapid rise of San Francisco would have been different and perhaps impossible.

The storeships, controlled by the commission merchants, tapped into and focused an international production sphere's output as goods flowed in from around the world. They created a distribution interaction sphere whose locus was not only San Francisco, but specifically that 9-square city block area on the waterfront where the storeships were located. The storeships are the quintessential Gold Rush San Francisco artifact. By intensively studying their characteristics and activity as represented by their preserved cargoes we can better understand the nature of the city in the global patterns of maritime trade in terms of its interaction with the world system as an entrepôt. Moreover, the European modern world system as it reached the Pacific in the nineteenth century is best illustrated and its actual workings best tested and examined through the global patterns of maritime trade and interactions.

Collectively by drawing on the data, I also address the critical importance of storeships in the emerging economy of the port, and more specifically the role of the commission merchants. The Gold Rush waterfront informs on more typical aspects of the capitalist world system, especially core/periphery production, supply relationships

and trade patterns, as well as the shipment of market goods (see Russell *et. al* 2004). As such, it is similar to Hardesty's (1988) view of mining frontiers where

> mining colonies were financed, manned, supplied, from the urban centres of America and Europe. Despite their geographical remoteness and small size, the colonies were linked into a vast transportation, communications, demographic and international scale (Hardesty 1988:1).

Drawing from approaches such as Murphy (1984 and 1997) and Staniforth (1997) this dissertation focuses much of its theoretical perspective on the concept of the maritime system. A maritime system approach conceptualizes integrated maritime activities for an event like the Gold Rush. It incorporates all aspects of a maritime world, from ships, shipyards, waterfronts to activities (Russell *et al.* 2004:101). It looks at interconnectivity, not specific sites or isolated events.

Summary

As an archaeologist I have participated in the excavation and analysis of numerous Gold Rush waterfront sites in San Francisco. Drawing on and reanalyzing these data, including more recent analysis of the material culture and historical connections related to the *General Harrison* site, I argue the thesis that San Francisco does not fit the traditional pattern of frontier development in the United States. It is an outpost on the maritime frontier, created as an entrepôt, or zone of free movement of goods, as part of a long desired dream of American economic domination of the Pacific, especially Asia. That process was abetted by the European dominated capitalist world system, then extending into the Pacific Rim thanks to global patterns of maritime trade. The serendipitous discovery of gold in California provided the economic engine for

American entry into the Pacific Rim, which was achieved in part thanks to the rapid rise of San Francisco. As the major American port on the Pacific it was the springboard for further expansion via steamships, the acquisition of island colonies, and ultimately dominance of trade.

In the chapters that follow, I lay out the theoretical perspectives relevant to assessing the creation of San Francisco, and how they fit in the development of the thesis. Subsequently, I offer an historical summary of the development of the city and port, with specific attention paid to the role of the commission merchants. I then will discuss the development of archaeological methodology and field techniques in the excavation of the material record of San Francisco. This has not hitherto been presented and it is critical to understanding the historical archaeology of San Francisco's waterfront and the reasons why it has taken two and a half decades to reach a sufficient sample to develop and assess my thesis. I then summarize the material record before drawing my conclusions about the maritime world system's role in San Francisco's creation.

CHAPTER TWO:
THEORETICAL PERSPECTIVE

As a maritime archaeologist, my theoretical perspective is generally in accord with those of a number of colleagues who ascribe to a maritime school that applies aspects of world systems theory to our work (Staniforth 1997, 2003, Russell *et al.* 2004). However, there are a variety of theoretical perspectives and approaches, practiced both in urban and mining sites archaeology, that are pertinent to this dissertation. This chapter summarizes and synthesizes my theoretical perspective as it applies to the thesis.

What Kind of Site? Urban? Mining Frontier? Maritime?

This dissertation addresses a site that happens to be a massive assemblage representing a "new town" that, while within an urban context and on a mining frontier, is maritime in its *raison d' etre*. This poses a seeming dilemma in terms of the approaches adopted with the various types of sites found within each of these archaeological contexts (urban, mining, and maritime), and ongoing theoretical debates within each area of study.

I assert that despite its urban setting and temporal placement during the California Gold Rush, San Francisco's waterfront is foremost a maritime as opposed to an urban archaeological site. Typically, maritime sites are discrete features including shipwrecks, their associated cargoes and other contents. Here I am assessing more than one ship and

a several block area of associated waterfront and its infrastructure, in keeping with the view that "maritime archaeology is concerned with all aspects of maritime culture" (Muckelroy 1978:4). It is not just technical matters, but also social, economic, political, religious and other contexts that includes within its study "all surviving material aspects, of all aspects of seafaring" (*ibid.*). In this case, I include the landscape of wharves, docks, beached ships, waterfront buildings, and their associated assemblages, be they stowed cargoes, discarded or lost merchandise, or even the landfill used to reclaim land from the sea that encapsulates this vast maritime site.

Theoretical Premise

San Francisco's Gold Rush waterfront is an artifact developed within the context of the worldwide development of capitalism, a position that is in general accord with a growing group of fellow maritime archaeologists who have adopted elements of the *annales* school and world systems theory. This premise also is in accord with the historical school known as the "new western history" in which the west was a place where the process of European advance was one of conquest, colonization, exploitation, development and expansion of the world market (Gibson and Whitehead 1993, Limerick 1987, 1991, White 1991, Nugent 1994, Robbins 1993).

My role, then, is to assess how the maritime system subset of world system theory explains the development of the San Francisco waterfront and entrepôt. In doing this, the dissertation fits within the overall transition of nautical and/or shipwreck archaeology from both shipwreck ***anthropology*** and ***maritime*** archaeology (my

emphasis) to a more integrative aspect of overall historical archaeology within the context of world systems theory and the new western history.

World Systems Theory

> Trading systems often have what is almost a life of their own....they extend widely, over the boundaries of many politically independent societies. But sometimes the different parts of a widespread trading system of this kind can become so dependent on each other commercially that one can no longer think of them as independent entities (Renfrew and Bahn 1996:336).

The essential premise of the above citation is at the base of Wallerstein's argument for a modern world system. By world system Wallerstein did not mean something that encompassed the globe because such an economic (as opposed to political) system "is larger than any juridically-defined political unit" (Wallerstein 1974:15). Wallerstein originally conceptualized a series of world systems that encompassed discrete geographical entities, such as the Mediterranean, the pre-Columbian Americas, Asia and Europe, existing in different periods and dating back some 5,000 years (*ibid.*16-18; Frank and Gills 1993).

It was only in the more modern era, post 1450 AD, that a more global economic system evolved. This period witnessed the rise of a world economy and capitalism that spread from Europe to create an interconnected global system of commodity exchange. Wallerstein's premise, inspired by the *Annales* school, and the work of Fernand Braudel (1980) saw that rise occurring in the *longue durée*, in which change was "slow, a history of constant repetition, ever-recurring cycles" (*ibid.*:20). These cycles were marked by periods of contraction and expansion that when charted through decades show a wave-

like pattern of peaks and troughs. These are known as Kondratieff or K-waves (Kondratieff 1979). The K-waves reflect periods of economic stagnation and depression that are followed by booms. The booms coincide with actions to integrate new geographic areas and their commodities into the world system.

The proponents of world systems theory see it as a unifying, "albeit diverse, stream of world history" of interrelated processes that offer "a powerful antidote to Eurocentric or Western-centric distortions of history...as well as to Sino-, Islamo-, Afro-centric and other parochial alternatives to Eurocentrism" (Frank 1994:1). Adherents to this perspective see the process of capital accumulation as the motor force of history, playing the central role in the world system for several millennia" (Gills and Frank 1991, Frank and Gills 1993).

In the world system approach, there are centres or core and peripheral zones of exchange, where the peripheral zones supply the cores with raw materials, and the core zones are politically and economically dominant. Within world system there are also long and short economic cycles of both ascending and descending phases, with changes in the centre and periphery that are cyclical and occur in tandem with each other in K-wave patterns (Frank 1994:2). For example, Liu (1988:178) stresses how changes in trade affected sites of accumulation, specifically in the Indian Ocean and Asia where "the shift of trade routes caused the rise and fall of these cities as effectively as warfare or other political crises."

A review of Wallerstein's basic premise is in order. Wallerstein (1980:7) cites three critical dates, 1500, 1650, and 1800 AD. Beginning with 1500, it is a period in which Europe expands beyond the Mediterranean, a series of acts that create "a capitalist

world-system." The year 1650 marks a time of emergence for the first capitalist states of the Netherlands and Great Britain. Finally, by 1800 the role of industrialism becomes the crucial agent of change. Wallerstein's argument is that:

> the modern world-system took the form of a capitalist world-economy that had its genesis in Europe in the long sixteenth century and that involved the *transformation* of a particular redistributive or tributary mode of production, that of feudal Europe (Braudel's "economic *Ancien Régime*), into a qualitatively different social system. Since that time the capitalist world-economy has *(a)* geographically expanded to cover the entire globe; *(b)* manifested a cyclical pattern of expansion and contraction....and *(c)* undergone a process of secular transformation, including technological advance, industrialization, proletarianization and the emergence of structured political resistance to the system itself – a transformation that is still going on today (Wallerstein 1980:7-8).

The world-economy remained the same between 1500 and 1750, expanding after 1500 to encompass the Caribbean *(ibid.*:9). During this period, Wallerstein analyzes changes within the boundaries of the world-economy in Europe by examining shifting economic, political and cultural patterns. He also notes how one commodity from the Americas made the modern world system possible. That was bullion, "a necessity for the expansion of the European economy" (Wallerstein 1974:45). Bullion would also play a role in the establishment of San Francisco, an entrepôt of the world system central to this dissertation.

I have particularly looked at how Wallerstein assesses the role of maritime transport in the development of the world-economy and world-system. In this, I see ships and maritime trade as the connective links of the global system of commodities exchange. I have also examined how Wallerstein assesses the role of entrepôts in the mercantilist origins of the modern world-system. Wallerstein, in assessing Dutch hegemony in the

world-economy of the seventeenth century, asserts that the critical factors for hegemony are:

> Marked superiority in agro-industrial productive efficiency leads to dominance of the spheres of commercial distribution of world trade, with correlative profits accruing both from being the entrepôt of much of world trade and from controlling the "invisibles" – transport, communications, and insurance. Commercial primacy in turn leads in turn to control of the financial sectors of banking (exchange, deposit, and credit) and of investment (direct and portfolio); These superiorities are successive, but they overlap in time (Wallerstein 1980:38).

Wallerstein believes that Dutch seafaring efficiency was first manifested in the early seventeenth century herring fishery. Combined with the creation of the polders, the successful growth of agriculture and the rise of the textile industry it developed into a substantial shipbuilding industry and maritime dominance (Wallerstein 1980:40-45).

By the last quarter of the seventeenth century, Dutch shipping dominated the world's carrying trade, growing ten-fold between 1500 and 1700 (*ibid.*:46) The creation of the *Vereenigde Oost-Indische Compagnie* (VOC) in 1602, and its domination of the spice trade was key to Dutch hegemony. It also added the East Indies as a peripheral zone to the capitalist world-economy, albeit one linked solely by maritime transport (*ibid.*:47). In that world-economy, Amsterdam was its greatest entrepôt because of its commodity market, role as a shipping centre and capital market (*ibid.*:55, Wallerstein 1974:212). Wallerstein's key argument for the success of the Dutch and their entrepôt, the superiority of their "commercial organization" was based in large part upon a network of commission agents (*ibid.*:56).

Dutch hegemony led to competition, particularly from England and France. This encouraged the emigration of skilled Dutch shipwrights, leading England and France to

build up their navies, and in the case of England, a competing East India Company (*ibid*:70). A century and a half of struggle ensued between the three would-be powers, culminating with the rise of England as the new hegemonic power after 1763(*ibid.*:240). English success included the acquisition of the key Dutch entrepôt of Nieuw Amsterdam, in the semiperipheral area of Middle Atlantic North America (*ibid.*:236).

Once English, the renamed entrepôt of New York played an important role in English maritime trade, especially the triangular trade of slaves, molasses, lumber, tobacco and manufactured commodities between Africa, the Caribbean, British North America and England. Wallerstein notes that the significance of the trade was not in movements of ships, but in flows of commodities (*ibid.*:238). Interestingly, an effort by Scottish capitalists to create a "major entrepôt of world trade" on the Isthmus of Panama at the end of the seventeenth century failed because "neither Amsterdam or Hamburg merchants would invest the necessary capital" and the venture collapsed (*ibid.*:253). As asserted in this dissertation, a similar effort by American capitalists to establish a major entrepôt of world trade on the Pacific, at San Francisco, succeeded 150 years later with the support of New York, London, Amsterdam and Hamburg investors, among others, because of the need for a maritime mercantile foothold on the Pacific and the boon of California gold.

Wallerstein acknowledges the role of maritime trade in the seventeenth century rise of England, emphasizing a focus of profit on "new transport infrastructure" such as ports and ships, and "the entrepôts of Atlantic trade" such as London (Wallerstein 1989:59). He also notes that while European protectionism kept British ships from reaping large profits, Britain's more extensive colonial holdings proved key to greater

success, because not only did Britain have a far larger colonial market than France, it was able to "penetrate extensively the markets of other colonial powers" (*ibid.*:68). Britain's aggressive overseas trade policy, backed by a Navy to protect that trade, expanded the British Empire to India in 1757 and Canada in 1763. This added new peripheral zones into an increasingly British world system that the French characterized as a "despotic power over the high seas" (*ibid.*:71). The final struggle for hegemony was the wars of 1792-1815 in which Britain prevailed (*ibid.*:112).

The rise of English hegemony was consolidated economically and militarily through the acquisition of maritime bases around the globe. Between 1763 and 1815 Britain acquired Trinidad and Tobago, St. Lucia, Bathurst, Sierra Leone, Ascension, St. Helena, Tristan da Cunha, and Gough Island in the Atlantic/Caribbean, the Cape Colony, Mauritius, the Seychelles, the Laccadive and Maldive Islands, Ceylon, Penang and the Andaman Islands in the Indian Ocean region, New South Wales, New Zealand, the Macquarie and Campbell Islands, Auckland, Lord Howe and Chatham Island in Australasia, and Malta and the Ionian Islands in the Mediterranean *(ibid.*:123). At the same time, because of maritime trade, commercial commissions and remittances from the colonies, Britain became the financial centre of Europe (*ibid.*). The world-economy centred on the Port of London, now the world's greatest entrepôt.

The spread of Britain across the globe by sea did not keep other maritime nations from expanding their own trade. The eighteenth and nineteenth centuries were the period when the burgeoning European world economy added new peripheral zones such as India, the Ottoman Empire, Russia and West Africa. These zones, argues Wallerstein, had previously been external, but as trade increased the production processes in those

zones shifted to become integral to the commodity chains in response to "market conditions" (*ibid.*:129-130). Key elements in the processes of incorporation were effective decision making bodies that could control production and merchandising decisions, one model being the plantation system of grouping primary production in large units. More relevant to this dissertation is the model that would ultimately be used in San Francisco, where merchants "what the French called *négociants* as opposed to *traitants* or *commerçants*" (*ibid.*:153) stationed themselves at bottlenecks of flows to adjust production to respond to market demands – or to limit flows to create demand. Examples include Indian opium, Chinese silk, Indonesian spices, California gold and Middle Eastern oil.

Also of relevance to this dissertation is Wallerstein's assertion that the incorporation of India introduced Central Asia and China into the European world system as an external zone. Britain subsequently developed a triangular maritime trade of goods between India, China and Britain (ibid.:167-168) that began with silver, moved to cotton and finally shifted to opium. Unfortunately, Wallerstein did not more fully develop his perspective on China's incorporation because "that is another story" (*ibid.*:168). Wallerstein did address the role of the United States in the world economy, stating that at the end of the eighteenth and in the early nineteenth century the newly independent nation's economy and trade was largely in the hands of the British because Britain's entrepôts were strong and offered inexpensive commodities and United States merchants had "long established commercial connections" with them (*ibid.*:228). Initial United States efforts to expand its trade, according to Wallerstein, were in the Caribbean (*ibid.*:230). This was followed by westward expansion, which would play out in the

nineteenth century as the United States joined other economic rivals in the further development of a world system that would be "far more organized, systematic and self-conscious" (*ibid.*:256).

A large body of scholarship adopts, challenges and refines Wallerstein's basic frameworks, especially those who reject a Eurocentric worldview of history. For example, Wallerstein viewed Asia as a peripheral zone. Frank (1994:11-12) however argues that China, the Ottoman Empire, India's Mughals, and Persia's Safavid Empires dominated the world system of Asia **and** Europe until the period of 1750-1850, making Asia the world's strongest core. Wolf (1982) specifically challenges Wallerstein and Frank, separation of mercantilism from capitalism and arguing that a truly capitalist world system only emerged with the industrial age and the global movement of mass-produced commodities and labour to extract those commodities (*ibid.*:296-353).

The circum-Pacific, also relegated to a peripheral zone because Wallerstein's studies terminated around the 1840-1850 period, were by themselves part of a world system. As this dissertation will explore, that system was incorporated into an emerging Anglo-American world system beginning in the late eighteenth century and dramatically so after 1849 (Gibson and Whitehead 1993). In this context, San Francisco became an important locus of accumulation, and the entrepôt built for it on the new city's waterfront is a significant artifact of that process. This is particularly relevant to my argument because San Francisco was a regional centre that was both influenced by and in itself influenced that same global phenomena.

Since the late 1970s, archaeologists have adopted Wallerstein's theoretical model to examine intersocietal interactions. Trigger (1989:333) specifically notes how Childe's

(Childe 1928) studies of interactions between a Near Eastern core and Europe "anticipated world-system theory in many important aspects and have no doubt predisposed European archaeologists to accept Wallerstein's approach." Kohl (1978, 1979, 1987) has used world system theory to assess Southeast Asian, Central Asian, and Near Eastern sites, while Ekholm and Friedman (1979) have used it to look at ancient systems. Blanton *et al.* (1981) has adopted it for economic interpretation of Monte Alban and its region. Renfrew and Shennan (1982) have used it in assessing early Europe. In the 1990s, Kohl remained a vocal advocate for world systems theory, as did Peregrine (1992) in Mississippian sites, Kristiansen (1994) in Bronze Age studies and La Lone (1994) in Andean archaeology. More recently, Grover (2003) has utilized world system theory as an interpretive tool in the analysis of an Appalachian farmstead to "explore capitalism's structuring influence on rural households...during the 19th century" (*ibid.*:21)

Others argue that world system theory has no use in archaeological interpretation, and that a better approach is to look at interregional interaction systems such as Cohen's (1971) "Trade-Diaspora Model" or Stein's (1999) "Distance-Parity Model." Frank (1999) takes issue with these models, arguing that world system theory does work for archaeology, and while occasionally abused, nonetheless is a valuable theoretical approach. This is especially so in assessing the extent of world system beyond Wallerstein's European model of the last 500 years.

Wallerstein's world system theory has been accepted by some maritime archaeologists, who focus on the global maritime trade of the eighteenth, nineteenth and twentieth centuries as the origins and the primary means of direct expansion of a global

world system. In this dissertation, I argue for the development and role of San Francisco during the Gold Rush as an important aspect of the expansion of the Anglo-American world system into the Pacific and Asia.

The Development of Theory in Maritime Archaeology

Maritime archaeology, whether termed nautical, underwater or marine archaeology, developed with the application of archaeological methods into submerged environments in the early 1960s. The seminal events in the development of maritime archaeology after the initial work of Bass (1966, 1972, 1988) were the publication of *Maritime Archaeology* by Muckleroy (1978) and a subsequent colloquium organized by the School of American Research published under the editorship of Gould (1983) as *Shipwreck Anthropology.*

Muckelroy, advocating a theory of maritime archaeology, noted that it largely focused on all aspects of maritime culture and humanity's interaction with the sea and other waters. He proposed a three-tier hierarchy, beginning with the 1) archaeology of shipwrecks, 2) the archaeology of ships, which included ships as closed communities; and 3) the archaeology of maritime cultures, in which nautical technology, naval warfare, maritime trade, shipboard societies, and incidental contributions by maritime sites to various aspects or avenues of archaeological inquiry were considered.

Beginning in the 1980s, maritime archaeologists began to embrace a regionalized approach to study, assessing groups of different types of craft that happen to wreck within specific geographical areas, sometimes referred to as ship traps (Gould 2000, Murphy 1997). At the instigation of the United States National Park Service's

Submerged Cultural Resources Unit, a seminar on maritime archaeology was organized at the School of American Research by Richard Gould in 1981 (Gould 1983). In all the papers presented and published, perhaps the most salient statement was that of Gould, who summarized how the seminar had introduced:

> a new willingness to posit generalizations about past and present human behaviour based upon shipwreck remains. For some of us, shipwreck archaeology is viewed as part of social science. What makes it a science is not the use of scientific techniques or apparatus, but an organized process of reasoning based on the application of certain rules of science, such as the testing of alternative hypotheses, the principle of parsimony, the need for repeatability of results, and the ability to extend the results from a particular case to the realm of general propositions about the nature of variability in the behaviour of the human species in a convincing manner (Gould 1983:22).

Following Gould's volume, additional emphasis on maritime archaeology on a broader scale emerged, particularly in the ranks of the United States National Park Service. Here the agency had a mandate to survey for and hence then assert management control over significant cultural resources both within and outside the National Park System, particularly through the use of the National Register of Historic Places.

Gould in more recent years joined the argument seeking an expansion of maritime archaeology into maritime infrastructure. While his discussion was limited to the development of ancient ports and one modern technological approach (a floating dry dock), his point is valid (Gould 2000:299-315). In the same vein, McCarthy (1999) emphasizes the issue of maritime landscapes, specifically the shoreline resources of Oakland, California, on San Francisco Bay. The focus of McCarthy's work is to look at individual features as components

> to understand the Oakland waterfront as a maritime cultural landscape worthy of scrutiny, the way in which that landscape connects to the greater San Francisco Bay Region, the role of human choice and responsibility in the making of landscapes, and the historical context within which decisions about landscape modification have been made (McCarthy 1999:11).

A similar argument by Esser (1999), drawing on the Sacramento River Delta, assesses a terrestrial/maritime landscape interface at Montezuma Slough at the confluence of the Sacramento and San Joaquin rivers.

In addition to the United States, the greatest amount of published shipwreck research and theoretical debate in maritime archaeology pertinent to this discussion has been centred in the United Kingdom and Australia. This is not to denigrate outstanding nautical archaeological work in other regions, especially the Baltic and Mediterranean, but rather to focus on the broader theoretical perspective of non-particularistic study. In the United Kingdom, archaeology has been more closely wedded to history than anthropology, but regional and thematic survey have proceeded. The work of Peter Marsden (1994, 1996), who has focused on the rise and development of the port of London, is specifically relevant to this dissertation.

Marsden's work was conducted over the last three decades and only recently has it been summarized in two comprehensive volumes. As Marsden explains, its importance lies in the fact that since London was founded nearly 2000 year ago, maritime trade has made London "one of the leading financial centres in the world," but "nothing was known about the early waterfronts that formed the gateway through which so much of this wealth passed" (Marsden 1994:11) Merchants from the continent founded London around 50 AD to serve as a provincial capital. However, "its importance lay in the

trading process," with much of its wealth "no doubt derived from maritime trade" (*ibid.*). Marsden began by assessing a series of more or less intact wrecks and then expanded into broken up ships, some of whose parts were recycled to construct waterfront bulkheads, quays and wharves, as well as excavated berths, environmental reconstruction of the riverfront and its once tidal banks, and spilled or broken cargoes. In his second volume, Marsden elaborated with more extensive examples drawn from the next several centuries (Marsden 1996) Marsden's approach provides a theoretical and methodological analogue of the study of Gold Rush San Francisco's waterfront. However, it only took San Francisco a decade to create what took London seventeen centuries. Coinciding with Marsden's work, Milne (1992) and Goodburne (2003) have further built the model of maritime landscape. Among other things, these studies extend the maritime landscape to incorporate timber building techniques and shipyards. Milne's work (1998, 2003) also assesses vessel types in the ship's graveyard on the River Medway in Kent as an analogue to London, and he reconstructs the port of Medieval London.

Urban Archaeology's Intersection with Maritime Archaeology

Both historians and archaeologists have long been concerned with the rise of the city, city planning, and the infrastructure or urban systems (for example Barth 1975, Galantay 1975, Reps 1981, Hamer 1990, and Cantwell and Wall 2001). The archaeology of modern European and North American cities for many years focused more on aspects of life in those cities as opposed to the archaeology of the city despite a long tradition of archaeological study (Staski 1987:ix). However, Staski (*ibid.*:x) reports that historical archaeology in New England and in Seattle was beginning to offer

preliminary conclusions about "how the relative impacts of economic market forces... in shaping the urban environment" and how "the physical and social configurations of a city – together representing the urban ecology – can mirror and influence one another."

The work of Mrozowski (1987) in Boston and Newport, and Ostrogorsky (1987) in Seattle began to point to the city as a macro-artifact. Mrozowski (1987:4) examined whether or not "market forces were fuelling the urban development of these communities." Ostrogorsky (1987:12) concerned himself with economic and social forces and how these shaped the physical redevelopment of Seattle from 1851 to 1889. In this latter study, he found that "industrialization and urbanization, along with social stratification, are reflected in significant and coordinated terrain alteration" (*ibid.*). This marked an important shift in the theoretical approach to urban archaeology, a move from archaeology **in** the city to the archaeology **of** the city.

A variety of urban archaeological studies have been undertaken. The most relevant to my purposes, outside of Marsden (1994 and 1996) and Staniforth's (2003) maritime-oriented work is that summarized by Cantwell and Wall (2001) in which they examine the urban archaeology of another port city, New York. Their approach is to examine the entire city, in itself a daunting task because "viewing a modern city as an archaeological site and studying both its urban and pre-urban past constitute a radically new way of looking at an American city" (*ibid.*:4).

Cantwell and Wall note that Nieuw Amsterdam/New York was established in 1622 by Dutch traders intent in making this isolated island locale, with broad moorage ground for ships on a salt water river that would not freeze up in the winter, as an "entrepôt, where the Dutch transferred goods from riverboats to ocean-going ships for the

long Atlantic crossing" (*ibid.*:154). This role continued well into the nineteenth century, as New Yorkers established international trade ties by sea, gradually assuming the role of the United States' principal port. What flowed in, from raw to manufactured goods, made New York "the country's foremost manufacturing center but its center of banking and finance as well" (*ibid.*:161). The city's size and population boomed in response. Between 1790 and 1840, New York grew from 33,000 to 313,000 inhabitants.

Cantwell and Wall's linkage between the growing maritime trade and the growth of the city's land base, particularly on the waterfront has a direct analog with processes of growth in San Francisco. "Making land" in New York commenced on its "most valuable real estate – along the shore adjacent to the east river port" (Cantwell and Wall 2001:224). Land filling began in 1650, abetted by the English conquest of Nieuw Amsterdam and its transformation into New York. Of particular interest was the Dongan Charter of 1680, which allowed civic officials to sell waterlots, build wharves and use them to "make land" between high and low water (*ibid.*:225). This had two dramatic effects – it created much of the modern shoreline but it also

> extended the city's shoreline beyond the shallow water near the natural shore so that eventually ships could tie up at landside wharves instead of having to anchor out in the river. Second, "made land" provided more of the city's most valuable real estate – the low-lying area adjacent to the harbour- which merchants could develop to accommodate the warehouses, and stores they needed to handle the goods entering and leaving the port. By the end of the eighteenth century, these newly made waterfront parcels had become the bases of operations for some of the city's richest mercantile families (*ibid.*:226).

This process, commencing in the eighteenth century, continued through the early nineteenth century, and by 1840, lower Manhattan had achieved the shape that would

characterize it for more than a century. Thus a specific concept of urban development and its effects on the emerging world system – especially linked to maritime commerce, was instituted by American merchants, some of whom immigrated to California during the Gold Rush.

The archaeology of urban New York, as illustrated by Cantwell and Wall (*ibid.*:233), includes a range of sites they describe in a chapter on the archaeology of landfill. In that landfill, in addition to discarded household goods, exotic materials suggestive of ships' ballast, clean fill, and garbage, also included bulkheads, wharves and derelict ships "used to hold back the fill" (*ibid.*:233). The integrative approach taken by Cantwell and Wall again provides an important theoretical underpinning to this dissertation – their use of data from a variety of sites, including maritime ones (wharves, buried ships, ballast dumps, and "made land" reclaimed from the sea) has direct and relevant ties to San Francisco. Yet, while we are assessing an urban site borne of maritime trade as an entrepôt and developed as such, it did so within a larger temporal space than San Francisco (1680-1840 as opposed to 1849-1855). The integrative approach taken by Cantwell and Wall is, like Marsden's, heretofore unique in the annals of both urban and maritime archaeology.

Urban Archaeology and the Mining Frontier

Still another theoretical intersection in my development of a theoretical basis for this dissertation involves the archaeology of mining settlements, as argued by Hardesty (1988, 1993). While viewing inland hard rock mining sites, Hardesty (1988:14) drew on a maritime analogy in his approach to the "mining frontier...as a network of 'islands'

colonized by miners. Island colonies participate in world systems, linking the frontier to the heartland of American and European civilization" (*ibid.*: ix). In his assessment of the Nevada mining frontier, Hardesty notes that

> mining colonies were financed, manned, and supplied from the urban centers of America and Europe. Despite their geographical remoteness and small sizes, the colonies were linked to a vast transportation, communications, demographic, and economic network on a national and international scale" (*ibid.*:1).

Hardesty discusses the rich documentary record of mid to late nineteenth century world marketing systems and makes an innovative argument for interacting spheres as he analyzes the archaeology of mining.

I view the frontier that was San Francisco by following Hardesty's suggestion of three interacting spheres of materials, population, and information. The materials interaction sphere involves the transportation of materials between the frontier and the heartland. In the California Gold Rush, goods moved from various production centres and ports linked by the global maritime system to San Francisco in large ocean-going craft. They were then transported in smaller scows, riverboats and steamers up the bay and then up the Sacramento and San Joaquin rivers to Sacramento and Stockton. These two cities served as subordinate ports and as distribution centres, with commodities from the riverboats transferred from the riverboats into wagons or carried by horse and mule into the mining camps. In this way San Francisco, and by extension the California mining frontier on a larger scale became tied to a global migration network

Hardesty (1988) notes that world systems structures are created by the exchange of information, ideas and symbols. Historians and technologists stress that the rapid

exchange of information and ideas was more the result of later nineteenth century developments such as the telegraph in the 1860s (see Hardesty 1988:5). The relatively swift nature of maritime movement, and an extensive correspondence network between commission merchants greatly aided the integration of the San Francisco entrepôt into the world system, as Wallerstein might predict. This was particularly true in the early period when many of the commission merchants relied on communication via sea to the pre-existing entrepôts of Valparaíso and Hong Kong, and the regularity of mail delivered by steamers via the isthmus of Panama.

While the historical record suggests wild speculation, a glut of certain commodities, and ruined fortunes (e.g. Brandes 2002, Rohrbaugh 1997, Holliday 1999) this was not the case. Commission merchants kept up a constant correspondence, and followed the "prices current" feature of the San Francisco newspapers, with the latter also regularly dispatched by mail via sailing ship and steamer to distant ports and trading partners. Commission merchants also developed aspects of the infrastructure – particularly storeships to temporarily hold slow or non-selling merchandise – an idea borrowed from the British and American experience in the always glutted opium market in China (Layton 1997, Ho *et al.* 1991). The material record of the *General Harrison* storeship is particularly illustrative of this context. The exchange of ideas and technology in this case was the hulk or storeship, from Chinese-based drug warehouses to common and oft-mentioned features of the waterfront of Gold Rush San Francisco.

While I focus on the specific loci of *General Harrison*, Hoff's Store and *Niantic*, like Hardesty (1988 and 1993) I see value in assessing features separated by distance. A concern with features systems focuses "attention on the material remains of the total

system, of human activity rather than an isolated part of the system" (Hardesty 1993:3). In this case, I argue that the waterfront and the ships are more than a neighbourhood – they are the loci of the total system that made Gold Rush San Francisco succeed, not an isolated group of maritime sites. Ultimately, I am back to the approach argued by Staski and followed through by Marsden *et.al* and Cantwell and Wall to assess the buried waterfront's multiplicity of features to define the archaeology of early San Francisco.

The Maritime System

In Australia, the work of Staniforth (2003) and his study of the role of maritime trade in the development of the dependent colonies of Australia is also critical to this dissertation. Staniforth notes that historical and maritime archaeologists often dismiss modern maritime trade, because of extensive records of

> shipping movements and detailed cargo lists. I suggest that while the available documentary sources are sometimes extensive, they are frequently not comprehensive. Furthermore, I suggest that taking a cultural perspective to examine economic activity can often illuminate different aspects of the past (*ibid.*: 17)

Staniforth enunciates a common criticism of maritime archaeology – particularly historical maritime archaeology of the last half-millennia that it "incorporates a large amount of descriptive information derived from purely historical sources...." but goes on to show how his work will place individual shipwreck sites and their associated artifacts into their cultural and historical context, "primarily in order to explore issues of cultural continuity and the transfer of cultural attitudes from Great Britain to the new Australian colonies" (*ibid.*:19). Taking this approach to San Francisco, I place individual buried ships, their surrounding infrastructure, and associated artifacts into a cultural and

historical context primarily to explore the nature of maritime trade and the maritime system in creating San Francisco.

Staniforth embraces Hodder's contextual archaeological approach, where the complexity and variability of culture "in the form of societies and communities within their specific historical contexts" is acknowledged along with the "important part that individuals played within these societies" (*ibid.)*. In adopting this he then examines the historical and social context of port of origin and destination for each of his sites (*ibid.*:24). This approach is the one championed here for assessing Gold Rush San Francisco.

Staniforth adopts the *Annales* school's use of Braudel's three scales of history – *longue durée*, *conjunctures*, and *événements*. While I am looking at the rise of San Francisco in the context of a centuries-long rise of a world system (the *longue durée*) and *conjunctures* in terms of assessing processes or social time with 50 to 75 year cycles, I am also focusing on events. The nature of the sites, with massive development and change occurring within a tight temporal framework, makes the Gold Rush waterfront of San Francisco a good model to assess the archaeology of *événements*, or the events and individuals of individual time. Heretofore this has not been accorded much archaeological or historical interest "because much of the archaeological record doesn't lend itself to event interpretations" (*ibid.*:27). The *General Harrison* site may especially be an exemplar of the archaeology of *événements* but its true value lies in its association with the wider infrastructure of the waterfront, the conjunctures or social processes of the world system in the industrial nineteenth century, and how this relates to the Pacific's *longue durée*. The events and individuals of the Gold Rush period created San

Francisco's waterfront and linked it and its individual merchants and storeships to Pacific and global maritime trade, providing another example of how applying an *Annales* framework can "illuminate wider issues from a specific case" (*ibid.*::28).

In maritime archaeology the event typically is that of the loss of the vessel – the shipwreck event – that is capable of being stretched from *événements* to *conjunctures* and the *longue durée*. As previously noted, much maritime archaeology has been too focused solely on largely meaningless (in the big picture) *événements* or on particularistic assessments of sites as individually unique time capsules (*ibid.*:30). The approach taken by both Staniforth and in this dissertation is to interpret the material culture "in terms of the societies for which they were bound... [linking] maritime archaeology much more neatly to historical archaeology since it treats the transport of cargo as a single step in a wider trajectory or system of use" (*ibid.*:30-31). Staniforth synthesizes his historical and archaeological data to follow the full trajectory of his artifacts in assessing colonial Australia.

Staniforth enunciates this theoretical adoption of world system theory to maritime archaeology and its relevance to historical archaeology as the archaeology of capitalism by reminding us that "it was the development and expansion of long-distance shipping that allowed the movement of people and goods across the world's oceans" (*ibid.*:34). Such an adoption provides a non-particularistic framework that allows maritime archaeology to at last take a new critical step by adapting this theoretical approach and move towards "a critique of modernity, addressing the origins, dynamics, and global spread of western industrial capitalism and its associated institutions"(*ibid.*) and more in accord with historical archaeology in general.

More recently Russell *et.al* (2004) have also asserted the model of a maritime system that conceptualizes the "integrated maritime activities for a particular region (large or small) or time period, and their relationship to the larger capitalist world system" (*ibid.*:101). The assessment of maritime systems is as yet a growing area of theoretical approach in maritime archaeology and has potential applicability to the concepts of maritime landscapes, and the regional and thematic approaches previously discussed, although it might also provide a framework for assessing different regional maritime systems, temporally distant systems, or event-based maritime systems, and conjunctures such as "the California Gold Rush, or the American Civil War or World War II" (*ibid.*:101).

The present shift in thinking in and about maritime archaeology coincides with ongoing debates and refinement of Wallerstein's original modern world system model (Hugill 1993). A group of maritime historians gathered in Salem, Massachusetts in Spring 2000 for the World Marine Millennial Conference. The assembled scholars and their papers, published in a post-conference volume (Finamore 2004), discussed the role of maritime trade, commerce, naval warfare, exploration and culture in a global context.

Critical to this discussion are the assertions of Fernández-Armesto (2004), who argued that a millennium of maritime endeavour culminated after 1490 with the rapid discovery of the fixed-wind systems that made long-distance transoceanic voyaging more practical over the next century. From then on global history became a reality and it grew out of maritime history. Building on this, Janzen discussed the role of the oceans as highways from 1604-1815, noting that in this period,

> European commerce flowed along oceanic highways that were truly global in extent....it was an age characterized by what historians today refer to as 'mercantilism,' in which maritime trade was dominated by a rapidly

> expanding volume... and when European powers struggled increasingly...to control and use the wealth that traveled on these oceanic highways (Janzen 2004:102).

Janzen's argument was followed by that of Mancke (2004: 149) who asserted, "early modern European expansion (1450-1800) was in fundamental ways an oceanic experience." It is not coincidental that this period, when extended into the next century, is the same time frame Wallerstein follows in his development of the "World System." Mancke sees this as a maritime-driven phenomenon, with

> linkages of political power to transoceanic trade, colonization and piracy...the expanding European powers defined the world's oceans, and not just territorial waters, as political space...this development is a critical link between early modern state formation and empire building and the emerging definition of a global international system in the early modern era" (*ibid.*:150).

Mancke specifically addressed "the profitability of overseas commerce that ultimately made these empires viable, thus undergirding the ability of mercantile wealth to jockey with landed wealth in defining the role of the state" (*ibid.*).

Maritime historians have begun to embrace and perhaps appropriate the "world system"; other scholars have worked to critique and define it in their own fields. Most specific are the critiques of Arrighi (1997:1), who argues

> world capitalism did not originate within the economic activities and social relations that were predominant in the larger territorial organizations of the European world. Rather, it originated in the interstices that connected those larger territorial organizations to one another and their totality to other worlds.

Arrighi points to late thirteenth and early fourteenth century trade in the Eurasian world as an interstice where the dominant organizations that developed the "system" were not territorial states but in this case

> city-states, quasi-city-states, extra-territorial business networks, and other non-territorial organizations. It was within these organizations that the largest profits were made and various forms of capitalism thrived. As a rule, these profits originated in long-distance trade and high-finance, although they sometimes found their way into the reorganization of short-distance trade and production proper (*ibid.*:7).

Such was the case with the Pacific, prior to and during the Gold Rush, where processes already in play created San Francisco. This also fits Frank's criticism of Wallerstein's "Eurocentrism" (Frank 1994). As will be seen, the changes in Pacific patterns of trade that made the rise of San Francisco possible, while involving Euro American capitalists, also depended on the involvement of Hispanic and Asian capitalists. As such, San Francisco is more than an Anglo-American frontier. It is North America's first true Pacific entrepôt, a crucial outpost linked not only to a European and eastern United States market but also into pre-existing Central, South American and Asian markets.

The Gold Rush San Francisco Waterfront as an Example of the Maritime System

The Gold Rush of 1849-1855 is yet another example of Frank's (1994:12) assertion that the "most important European contribution" after 1492 and for three centuries thereafter "was the injection of new supplies of American bullion – and thereby themselves – into the already well established Eurasian economy." While Frank was specifically addressing Spanish-controlled silver and gold from Mexico and Peru, the analogy also fits California gold. The world economy, especially tied to the riches of the

Far East, "remained firmly under Asian hegemony until the 1750-85 period, when Asian economic and political power waned" (Frank 1994:13) It is in this period that Anglo-American entrepôts spring up in the Pacific. These maritime-created frontier outposts provided the means for Europeans and Americans to rearrange the economic game played in the Pacific to fit more into the traditional Wallerstein model of a Eurocentric world system that after 1849, began to shift to a more American-centric one.

In San Francisco's case, it was created by maritime capitalists already familiar with Pacific trade networks with linkages between South America, Hawai'i and China, who saw an opportunity and seized it (Gibson and Whitehead 1993:171-190). Purser (2003) suggests that many of the capitalists, like football players "ran out to catch the forward pass" of the Gold Rush. San Francisco's history, especially its instant history "only makes sense if you plug it into the network it was already part of before 1849," albeit as a small player but with great potential.

My adoption of the maritime system model and its linkage to Wallerstein's modern world system, is not done to merely demonstrate that San Francisco was part of such a system, but to show how the data from San Francisco provides insight into how the modern world system continued to develop and function in the Pacific at the midway point of the nineteenth century. This stance of a more nuanced understanding of the regional aspects of the world system may provide new insights into the historical archaeology of other ostensible Pacific Rim frontier cities and entrepôts.

By following the synergistic approach of modern historical archaeology by following the full trajectory of the Gold Rush storeships and their cargoes, I illustrate how in San Francisco's case, the commission merchants and their associates accelerated

the arrival of the Anglo-American modern world system into the Pacific. In doing so, I may do more than provide another test for the theoretical approach of a maritime system in world system theory – I can assess the role of the entrepôt in the development of a frontier. This assessment is relevant not just to ocean ports but to river ports to assess the maritime factors that makes new or instant cities not only work but survive the problems of boom and bust.

In summation, the archaeology of the Gold Rush waterfront of San Francisco is maritime archaeology. Maritime archaeology has evolved to incorporate theoretical perspectives, and the relevant perspective here is a subset of world systems theory. The rise of San Francisco is explained through its linkage to a maritime system that was part of the capitalist world system spreading globally in the nineteenth century. While inspired by American desires to dominate Pacific trade, the rise of San Francisco was a global effort as ships laden with merchandise came from ports throughout the world. The arrival of these ships was not haphazard or unplanned, but the work of commission merchants who controlled the flow of goods into, and the flow of gold out of California. These goods and gold were funnelled through the commission merchants' quickly built control point, the waterfront of San Francisco. In assessing this process, I adopt Braudel's concept of *longue durée* in the chapter that follows to look at the processes of the world system's incorporation of the Pacific.

CHAPTER THREE:
GLOBAL MARITIME CONNECTIONS
IN THE PACIFIC BEFORE THE GOLD RUSH

In the previous chapter, I laid the groundwork for this dissertation through discussion of the emergence of a maritime theoretical perspective. In this chapter, I turn, through consideration of the *longue durée*, to the theoretical perspective's assertion of a maritime system at work in a larger world system to integrate the peripheral zone of the Pacific. This in turn led to the creation of San Francisco. I begin with the larger picture of the role of Asian trade in establishing interest in the Pacific. I will then focus through the intervening centuries on the development of maritime trade, commerce and interest in the Pacific that culminated in the final emphasis on San Francisco Bay and San Francisco.

Europeans Arrive in the Pacific

Prior to the arrival of European explorers in the late fifteenth and early sixteenth centuries, China and its Southeast Asian neighbours had developed an extensive trade network along the eastern shores of the Pacific. Maritime trade with Korea, Japan, Southeast Asia, and India dates back several hundred years, if not earlier, and through Indian and Arab intermediaries Chinese and other Asian trade goods reached the Roman and later the Byzantine and European world for more than a millennia via both land (the "Silk Road") and sea. As Frank (1994:12) notes, there was a "world system" at play in

this period, in which "the core regions, especially of industrial production, were in China and India; and West Asia and Southeast Asia also remained economically more important than Europe." To gain better access to the rich commodities of Asia, Europeans ultimately sought direct oceanic routes to the Pacific and thence to Asia starting in the late fifteenth century.

European voyages commenced as Portuguese navigators gradually worked down the west coast of Africa, around the Cape of Good Hope in 1498, and from there into the Indian Ocean to tap into the Indian market, before reaching Indonesia, the South China Sea, and Asia (Boxer 1969). Portugal established trade centres – not colonies in the traditional sense, but entrepôts – at Sumatra and Mallaca in 1509, the Mollucas in 1512, Macao on the China coast in 1513, Timor around 1515 and at Nagasaki, Japan in 1543 (Barreto and Garcia 1990:21). Spanish navigators, pushing west beginning with Columbus' voyages in 1492 were initially thwarted by the intervening landmass of the Americas. In 1520, the expedition of Ferdinand Magellan discovered the strait that bears his name and an oceanic passage via the tip of South America was gained into the Pacific (Joyner 1994). Within the next decades, English and Dutch competitors followed them, the Dutch pioneering the Cape Horn route in 1616 (Boxer 1965).

The Dutch gained a foothold in Indonesia and a stake in the rich spice trade, establishing their own fortified trade centres such as Batavia, and direct trade with the Japanese in competition with the Portuguese. The Spanish, however, ultimately prevailed in terms of European "domination" of the Pacific and Pacific trade (Shaw 1988, Spate 1988). They did this through the establishment of an entrepôt at Manila in 1571. This came in the aftermath of their conquest of Central and South American indigenous

empires. Spanish maritime activities in the Pacific focused on trans-Pacific trade with Asia, using the Philippines as a base of operations from which annual "Manila galleons" carried spices, ceramics, silks, beeswax, and treasure across the Pacific to Mexico in exchange for Mexican silver (Schurz 1939, Díaz-Trechuelo 1988). This lucrative trade remained an important Spanish maritime activity through the early nineteenth century. It also inspired the development of a handful of Spanish Pacific ports to serve coastal trade, such as Acapulco, Mexico, Panama City, Panama, Callao, Peru, Guayaquil, Ecuador and Valparaíso, Chile (Early *et. al.* 1998, Ward 1993).

The richness of Spain's American empire, and the ability to seize Asian goods not through trade but by means of pirate attacks on Spanish shipping in the Pacific inspired England to challenge the notion of the Pacific as a "Spanish lake" as early as the 1577 voyage of Francis Drake (Bawlf 2004). The English also engaged in direct competition and outright warfare with the Dutch in the "East Indies," although they would not prevail in the Pacific until the eighteenth century (Boxer 1965, Cook 1973, Frost 1988, Fisher and Johnston 1993). In fact, despite the presence of these various European powers in the Pacific, the true economic power was Asia, particularly China (Frank 1994:12). To acquire, or control the riches of China would dominate the dreams of European monarchs and later European entrepreneurs and capitalists for centuries.

The world system then at play in the sixteenth to eighteenth centuries was therefore still under "Asian hegemony, not European. Likewise, much of the real dynamism of the world economy still lay in Asia throughout this period, not in Europe" (Frank 1994:12). To access and then control the Asian economy, European sea powers utilized their ships and maritime technology to forcibly create a series of entrepôts on the

Asian coast. Regular voyages that transited via the Cape of Good Hope route tied these ports back to Europe. To gain a commodity for the Asian trade, Spain used silver bullion from its American empire. The outward flow of silver was matched in the late sixteenth century by a cross-trade in Asian goods in the Manila galleons that sailed from the Philippine entrepôt of Manila to Spain's Mexican port of Acapulco and Panama City. These goods were then packed across the Central American isthmus and shipped to Spain across the Atlantic (Schurz 1939). Asian goods also went south to Callao, the important southern port of the Viceroyalty of Peru, which systematically shipped out the silver and gold riches of the former Inca Empire via the Straits of Magellan (Early *et al.* 1998, Ward 1993).

Asian trade injected new liquidity into the world economy. It made important though limited changes in financial flows, trade and production patterns within the world economy that allowed Europeans to increasingly participate in Asia (Frank 1994:12). Similar circumstances occurred in 1849-1855 as the ship borne outflow of California's bullion from its newly established entrepôt of San Francisco injected new liquidity into the then world system. The gold-fuelled changes in financial flows, trade and production patterns, permitting mid-nineteenth century Pacific entrepreneurs and capitalists to more actively participate in a world economic system that had steadily been encroaching into the Pacific Ocean since the late eighteenth and early nineteenth centuries.

The "Anglo-American Pacific" is Born

The concept of the Pacific as an historical and geographical entity did not occur until the late eighteenth century. The shipment of American silver bullion to the

Philippines had initiated trans-Pacific commodity exchange in the sixteenth century, "and thus brought the Pacific in a limited way into the world commodity market." However, the "economic integration of the entire Pacific Basin...relied on the developments of the ocean's eastern and northern portions," which would not come until the eighteenth century and the arrival of the Anglo-Americans (Igler 2004:695).

English ambitions for plunder meant that seafaring raids on Manila galleons and Pacific ports continued through the early eighteenth century, although by the last quarter of the century, the weakened power of Imperial Spain and the growing power of Britain saw the introduction of a more pronounced British presence (Cook 1973, MacKay 1985 and Fisher and Johnston 1993). British presence came both in terms of naval expeditions, ostensibly to explore and survey the Pacific, and the establishment of a colonial outpost in Australia at Port Jackson (Sydney) in 1788 (Staniforth 2003:65-67). The new colony's founding ships proceeded from Port Jackson to Whampoa to load Chinese tea before returning home, a reminder that one of Britain's stakes in the Pacific was the maintenance and growth of its China trade. Gradually the new colony commenced its own trade with China in the nineteenth century.

Russia, also eager for a commodity to trade with the Chinese, already knew of the rich sea otter furs off the Northwest Coast following their exploration of the northern Pacific, most notably by Vitus Bering in 1742. To tap into the clearly valuable furs of the area, the Tsar authorized the settlement of the southern Alaskan coast at Sitka in 1784. While not an entrepôt, Sitka was the base of operations for the Russian America Company, which continued to exploit the region's furs as a trade commodity through the mid-nineteenth century (Dmytrshyn *et. al.* 1988).

The voyages of Britain's James Cook between 1768 and 1778 were most significant for emergent patterns of maritime trade in the Pacific (Frost 1988). Until then, the vastness of the Pacific and European ignorance of it, as well as Spain's closure of its American ports to foreign trade "limited the impact of European challengers in this ocean basin" (Mancke 2004:159). Cook first accurately mapped the vast ocean. The British government then publicly unveiled Cook's discoveries to the western world by publishing his journals and charts. The presence of Cook, and Russian ambitions spurred the last acts of Spanish colonial expansion on the Pacific with the establishment of colonies in California and a short-lived outpost on the British Columbia coast at Nootka Sound between 1769 and 1792 (Cook 1973, Fisher and Johnston 1993). However, the Spanish empire and its role in Pacific trade was ending.

Britain and its newly independent colony on the eastern seaboard of the continent, the United States, were eager for increased commerce with Asia. As with the Russians, the opportunity came with the fortuitous discovery during Cook's 1778 voyage of a valuable new commodity, the pelts of sea otters. The maritime fur trade induced a veritable influx of ships to the Northwest Coast of the Americas and then California (Ogden 1941, Gibson and Whitehead 1993:103-130). With Cook's voyage and the expansion of British, Spanish, Russian and United States trading ventures up and down the coast of North America there was now a coherent context for the Pacific world to join the larger world system. And yet, as Igler (2004:695) states,

> the relationship between different Pacific ports, trading nations, and indigenous populations remained fluid during this period. The eastern Pacific cohered as a region so long as an open and inclusive waterscape provided the primary connection between the disparate borderlands.

Carlson (2002: 443) argues that the Cook voyages, and the resultant maritime fur-trade illustrate how an "external arena can have a tremendous impact on the core and other incorporated areas within the system." It provides a pre-emptive desire for colonization and expansion. Since "luxury goods appear to offset the otherwise prohibitive costs of expanding the capitalist system" the new trade induced capitalists to expand and grow (*ibid.*). It had profound consequences.

By the end of the eighteenth century, the maritime fur trade dominated trade on the Pacific Coast of North America (Gibson 1992, Malloy 1998). It also created a triangular route of exchange that saw British and American ships trade on the Northwest coast for furs, exchange these in China for tea, porcelain and other goods, and then return either to Europe, the eastern seaboard of the United States, or to Spain's remote and soon to be independent Pacific colony of California. In California, they traded Chinese goods for bullion, minted coin and California's hides and tallow. The hides and tallow, a by-product of the vast herds of cattle on the huge ranchos, were shipped to the east to feed the growing industrial centres of leather-production around Boston (Ogden 1941).

The maritime fur trade and the introduction of fleets of American and British whalers into the Pacific also opened up a new port – a way station and small entrepôt at Honolulu on the island of Oahu in the Kingdom of Hawai'i (Sahlins and Kirch 1991). While Hawaiian sandalwood, another valuable trade commodity in China, was the impetus for trade and contact, Hawaii's position in mid ocean, fresh water, firewood and food built its stature as a port after 1825 and it became the "crossroads of the Pacific" (Beechert 1991, Gibson and Whitehead 1993:143-145).

The potential riches of the maritime fur trade induced fierce commercial competition and the occasional diplomatic dispute between the Russians, British, Spaniards and Americans (Gibson 1992). War between Britain and Spain over control of the Northwest Coast was averted in 1790 only through diplomatic exchanges. Spain also realized that it was overextended economically and militarily (Fisher and Johnston 1993, Cook 1973). A secret codicil of the Nootka Convention, signed in 1790 to stem the impending conflict, "allowed for freedom of navigation through the Straits of Magellan and the British right to trade and fish throughout the Pacific Basin" (Mancke 2004:161).

While British interests prevailed and Russian activities continued, including the establishment of a coastal settlement, *Kolonie Rossiya* (Fort Ross) on the California coast in 1811, Russia and Britain's domination of the Northwest Coast and the maritime fur trade faded with the Napoleonic wars in favour of the Americans (Ogden 1941, Coughlin 1971, Gibson 1992, Malloy 1998). In one of its first independent acts, the United States established trade ties with China, and the fur trade was a means to gain a commodity for trade other than casks of silver (Smith 1984, Howard 1984, Hawes 1990).

The Arrival of the Americans

In the early nineteenth century, American ships poured into the Pacific (Gibson 1992, Malloy 1998). In 1809, American entrepreneur John Jacob Astor established a fur-trading outpost, Astoria, on the coast at the mouth of the Columbia River (Irving 1870). Astor sold his outpost in 1813 because of the War of 1812 and control of the maritime fur trade passed to British interests (Hussey 1957:5). Those interests were, after 1825, solely the Hudson's Bay Company, which established a series of forts and maintained a fleet of

coastal trade vessels (Rich 1941, 1943, 1944, Hussey 1957). Largely thanks to the efforts of the Hudson's Bay Company, Britain retained a claim on some of its Pacific possessions, which would later become the Canadian province of British Columbia and the Yukon Territory.

American maritime traders continued to seek furs on the Northwest Coast, but much of the seagoing trade of the United States on the eastern Pacific coast centred on newly independent Mexico's northern province of California, whose hides and tallow continued to be traded to satisfy *Californio* tastes for Chinese trade goods from American traders (Ogden 1941). Others moved farther out into the Pacific, seeking natural resources from islands such as *beché de mer* and sandalwood as trade goods for the China trade (Hawes 1990, Gibson and Whitehead 1993:155-162). The American presence grew dramatically, at first with larger numbers of merchant vessels, the shifting of its principal whaling fleet into Pacific waters, and the creation of the Pacific Squadron of the United States Navy (Johnson 1963), all evidence of the desire that an increased American presence into the Pacific would make it become "a vast American lake, the bridge to the wealth of the Far East from trading and whaling" (Dudden 1992:17).

Seeing the opportunities of trade in the former Spanish colonies, particularly Peru, Chile and California, a number of Anglo-American settlers, some of them mariners, others merchants, established themselves on the coast. They adopted Mexican, Peruvian or Chilean citizenship, the Catholic faith, and married locally, all the while maintaining their economic and familial ties with the eastern United States and Europe (Haygood 1958, Haygood 1970, Pitt 1966 and Miller 1995). These settlers, as well as mariners and their ships engaged in the trade linking isolated Pacific communities to global trade (Igler

2004:694). Thus, for the first time, there was an interconnection of ports like Callao, Valparaíso, San Blas and Acapulco, Yerba Buena, Sitka, Honolulu and at the far western rim, Canton. The "future American Far West" occupied "a central position in the newly internationalized ocean basin" (Igler 2004:694).

Igler (2004: 693) has focused extensively on voyages in this period of expansion of global commerce across the entire Pacific Basin, but notes that equally important are the ports, specifically the network that linked the future American Far West "long before the United States annexed its Pacific territories" (*ibid.*: 705). One such port, arguably the eastern Pacific's first great entrepôt, was the former Spanish port of Valparaíso. It came to surpass Callao, the formerly dominant Spanish port of the sixteenth to eighteenth centuries, as a result of the variety of international shipping and its linkage into the maritime network in the early nineteenth century.

Valparaíso: The First Entrepôt

The mercantile activities of expatriate merchants and mariners first manifested themselves in Chile, whose port of Valparaíso, closest to the now burgeoning Cape Horn and Straits of Magellan routes into the Pacific, had grown into the Pacific's premier entrepôt. Founded in 1543, Valparaíso languished until Chilean independence in 1824, when it took over control of the region's trade from Callao, the port of entry under Spanish rule (Monaghan 1973:13). Valparaiso served as Chile's base for its merchant marine and its naval forces. As well, the port served as a Pacific base for squadrons from the British, French and United States' navies as those nations' commercial interests attracted a naval presence to help protect them.

In 1810, the town's population was around 5,500. Thanks to the port's activities, both commercial and military, it had grown to 16,000 by 1822, and in 1827 stood at 20,000, not counting a floating population of some 3,000 Chilean and foreign mariners (Duarte and Requena 1970:10). Valparaíso maintained regular connections throughout South and Central America:

> Chile's own national merchant fleet of 100 barks, brigantines, and schooners carried grain, flour, metal, lumber and coal to Peru, Ecuador, and New Granada [Colombia and Panama], bringing back fruits, cocoa, coffee, and sugar. These vessels, along with some 700 New England whaleships now sailing the Pacific, kept Valparaíso shipwrights busy and made the town very prosperous (Monaghan 1973:17).

The maritime connections also included trade with New Zealand, which exported lumber to Chile, and regular connections to London and other European ports. Valparaíso was the first port of call for many foreign ships that had entered the Pacific via Cape Horn.

The foreign connections led many foreigners, principally from Great Britain, to settle in Valparaíso. Enterprising Anglo-American and European merchants moved into the vacuum created by the collapse of Spain's American empire. They took advantage of the relative weakness of economic needs of the newly independent nations, and came not so much on their own account but as representatives of American, British or European houses to establish themselves as commission merchants (Mayo 1987:5, 17, 120-124). Thus they were able to capture the rapidly growing maritime influx into the Pacific at the first decent port a ship would encounter after rounding the storm-tossed tip of the continent.

In Valparaíso, foreigners constituted one-third of the city's population (Monaghan 1973:8) including commission merchants G.L. Hobson y Compañía and American-born

steam navigation and railroad promoter William Wheelwright, a former shipping and commission merchant (Fifer 1998). Other foreign-born commission agents and shipowners were Cook, Wilson, Mickle, Hemenway, and Alsop of the New York and Connecticut banker and merchant family. A German firm, Schutte y Cía began business in Valparaíso in 1822, the year after independence (Monaghan 1973:9). They were not alone in connections to other houses abroad. By 1840, Valparaíso had matured thanks to the trade connections the foreign merchants had opened to Australia, India, the Orient, California, Peru, England and France (Duarte and Requena 1970:11). In 1842, the *Revista Valparaíso* commented that Valparaíso was now "the main commercial port of the Pacific, and has supplied to all the products of commerce that have been required by the merchants of Bolivia, Peru, Ecuador and Central America and Mexico" (Duarte and Requena 1970:12).

While a great port, the town was cursed by a low-lying waterfront that was essentially a mudflat at low tide, and was ringed by high hills. The influx of foreign ships and capital allowed the merchants to invest in the construction of a large central wharf for unloading goods to overcome this. By the end of the 1840s, the city had become not only the busiest Pacific port but also one of the busiest ports in the world (Monaghan 1973:13). In 1847, observer Max Radiguet, described the waterfront:

> The customs plaza, opening to the side of the sea, was a center of bustling, agitated commercial activity which denoted numerous and important commercial transactions; there were piles of covered and tied lumps, barrels of all dimensions and forms, large boxes painted brightly with mismatched letters, the laborious work of a Chinese painter. The workers, like ants, sorted the merchandise from that pile, and with handcarts,

distributed them into the depths of the warehouses (as quoted in Duarte and Requena 1970:13).

The California and Hawai'i Connection

While not as well-established as their counterparts in Valparaíso, Anglo-American entrepreneurs with northern Pacific interests shifted from the Northwest Coast and its furs to trade with California and Hawai'i. They were eager to transplant the success of Valparaíso to their own areas of interest, Honolulu, California's Monterey and Yerba Buena. The pattern of maritime trade that had grown up on the Asian Pacific Coast beginning in the early nineteenth century had favoured both regions. As Spain's strict trade restrictions waned and failed with the new Mexican regime, California as well as Hawai'i became the focus of numerous voyages (Judd and Lind 1974). Here commodities were sought for trade with China that were either natural resources like furs and goods gathered directly or indirectly through commercial exchange (Igler 2004:713). This free market coincided with the demise of older European monopolies in the Asian trade, especially the failure of Britain's East India Company to restrict American trade in the region. Starting in the 1820s, Chinese merchants eager for the benefits of competition sought to open their trade port of Canton, with the result that French, Portuguese, Spanish, non-East India Company British traders and a number of American firms became involved (*ibid.*).

What followed was a shift in the orientation of Canton's markets in the 1820s that expanded transpacific trade. Much of it focused on California, which served as a trade depot because of increased connections with Hawai'i, Alaska and the Northwest Coast (Igler 2004:713-714) as well as a coastal trade with Southern and Central America.

> This new market environment found expression in open markets, burgeoning commercial ports, entrepreneurial shipping ventures designed to exploit specific commodities, and private traders who paid little attention to geopolitical boundaries (Igler 2004:709).

Igler has assembled a database for every known vessel that entered California between 1786 (when it was a closed Spanish colony) to 1848. In all, 953 vessels arrived, "making it one of the most visited parts of the eastern Pacific" (Igler 2004:705) The majority of them continued on to the Northwest Coast, Alaska, Hawai'i, Valparaiso and China. Igler (*ibid.*:705) using California as a point of reference, sees a broader picture of an eastern Pacific "where independent traders competed for the goods and natural resources harvested from these commercial borderlands."

American shipping in the Pacific grew rapidly after 1820 with a surge in trade following the War of 1812, the rise of Pacific whaling, and market changes in Canton. Of the 953 ships that called at California, 44 percent were American, followed by British ships (13 percent) Mexican vessels (12 percent) Russian craft (seven percent) and the shipping of 17 other European nations. Igler (2004:707) consequently asserts that

> U.S. *commercial* [emphasis in original] interests in the Pacific therefore long predated and ultimately influenced its geopolitical and military interests...California's commercial activity was international prior to the worldwide convergence of the gold seekers, and, perhaps, more important, this internationalization of commerce mirrored developments throughout the Pacific Basin.

I agree with Igler's point; it is a critical element in my argument.

American Interests Grow

American interests focused particularly on California, not only because of official government interest in the acquisition of San Francisco Bay as a logical base for an American Pacific entrepôt, but because of the extensive nature of American maritime trade and the large number of Americans already established there (Cleland 1914, 1915). The first step in realizing American desires followed the earlier European model of exploration.

From 1838 to 1842, the United States Exploring Expedition, under the command of Lieut. Charles Wilkes, U.S.N., surveyed the Pacific, paying special attention to both the British Northwest (and the activities of the Hudson's Bay Company there) as well as Mexican California, touring the land and surveying the coast and some interior waters (Viola and Margolis 1985, Philbrick 2003, Stanton 1975). One of Wilkes' officers, Cadwallader Ringgold, surveyed and mapped the Sacramento River, a Mexican internal waterway, as part of an exercise that some foreigners saw as a thinly veiled scientific exercise, at least as far as the expedition's interests in California and British America in the Northwest lay. Ringgold would later return during the Gold Rush to continue charting, this time for a private group of sponsors who paid for the first charts of San Francisco Bay and its approaches (Ringgold 1850).

The Wilkes expedition, the activities of other Americans who were making key land acquisitions and encouraging prominent *Californios* to seek independence from Mexico and closer economic and political ties with the United States (or becoming part of the United States), was part of a plan to undermine Mexican authority in this important

yet distant Mexican province (Hague and Langum 1990). How much of the plan was the brainchild of entrepreneurial capitalists, or the government, or a combination of both, remains both unclear and controversial, but the point is moot. American desires for a goal of manifest destiny and a Pacific presence and port were paramount (Harlow 1982). They were finally rewarded in 1846 when war erupted between the United States and Mexico over the United States' recognition of Texan independence from Mexico and the addition of Texas as a state in the American Union (Singletary 1960, Price 1967).

It was no coincidence that the Americans had played a similar strategy in seizing Texas, formerly a Mexican province, by quietly establishing themselves as citizens and property holders. Then, as a fifth column they took action with native *Tejano* supporters to become independent in the 1830s, and subsequently joined the United States (Singletary 1960). The Texan revolution, and a quickly aborted American conquest of Monterey (California's capital) in 1842 by United States Marines and naval personnel based on a rumour of war, as well as the growing number of Americans in California alarmed Mexican officials. They possessed limited means to deal with the threat, however (Harlow 1982, Eisenhower 1989).

One of the first American acts of the war on the Pacific Coast in 1846 was the creation of a band of irregular volunteer troops under the command of John Charles Frémont, and the landing of marines and naval personnel to seize California's ports. Within a short time, the United States conquered California with naval forces, United States Marines and an overland force of Army troops. Despite outbreaks of localized resistance by a handful of *Californio* nationalists, securely and quietly the United States held California throughout the Mexican War until its end in 1848 (Bauer 1969, Harlow

1982, Eisenhower 1989). The Treaty of Guadalupe Hidalgo, signed by both nations in February of that year, ceded California and the port of San Francisco along with nearly half of Mexico's national territory (Singletary 1960). The acquisition of California would be the key to America's expansion into the Pacific. However, conquest alone did not achieve that goal. It was the discovery of gold in January 1848 that provided the capital to create the port of San Francisco which in turn provided a base to achieve the goal.

British Endeavours in Australia and a New Entrepôt on the Pacific

British interest in the Pacific, spurred by the explorations of Cook, Vancouver, Broughton and Flinders, slowed with the Napoleonic Wars and the subsequent War of 1812 with the United States (McKay 1985, Gough 1980, 1992). British mercantile interests remained peripherally active in the eastern Pacific through the private trading and occasional exploring activities of the Hudson's Bay Company and the East India Company (Gough 2004). The wars with France, the need to house large numbers of prisoners of war, and Britain's own social dilemma of jailing a growing population of the indigent poor reduced to thievery led to an interim solution, the beaching and housing over of retired warships as prison "hulks" at dockyards and along the Thames starting in 1775. This laid the basis for overseas colonies for convicts in Australia.

Britain established its first penal colony at Port Jackson (Sydney) in 1788, followed by new settlements at Swan River (Perth) in 1829, and Port Phillip (Melbourne) in 1836 (Staniforth 2003:5). While established to relocate convicts as colonists, it was also a site for free settlers. Port Jackson by 1810 had become an established mercantile

port. Tied politically to Britain, the colony was not reliant entirely on economic linkages. Staniforth's (*ibid.*: 67) archaeological investigations of the earliest days of the colony suggest trade networks beyond Britain to Indian ports, especially Calcutta.

The maritime system linked the new Australian port with the longstanding patterns of Pacific and Asian trade that had first attracted European interest in the region. This circumstance continued with other settlements, and by 1803, a commercial infrastructure had developed in Port Jackson for the sale and "auction of goods directly from ship, through wholesale warehouses and in commission warehouses" (*ibid.*:71). Thus a system was already in place when Australia later established regular trade links with Valparaíso in the 1830s and a decade later with San Francisco.

Swan River (Perth), established as a "free enterprise" settlement, was a slow start until the introduction of convict settlers in 1850. Even then it grew slowly and was highly dependent on financial support from Britain. Because of its proximity to Asian and Indian Ocean ports, the colony traded directly with some of them, although its level of imports from Britain never fell below 70 percent (Staniforth 2003:126). Small and isolated, it missed out on "many of the economic benefits" which occurred in eastern Australia as the California Gold Rush and trade with California and South America led in turn to Australia's own gold rushes (*ibid.*:126).

By contrast, Port Phillip (Melbourne), settled in 1836, grew rapidly, like Sydney, the result of a wave of immigration that introduced a "period of intense speculation" as cargoes were imported to meet the needs of the burgeoning town. The arrivals included ships from ports throughout Britain, other Australian settlements, South Africa, India (Calcutta), and Canada (Montreal) (Staniforth 2003:102-103). In 1841, at least two

hundred vessels arrived at Port Phillip, which was well situated to play a role in the new patterns of Pacific-induced maritime trade as the world system adapted to the maritime demands of the California and Australian gold rushes.

The final British entrepôt on the Pacific was Hong Kong. Britain established its new port through a forced treaty with China after decades of tenuous and often unsatisfactory trading centres in China. British interests were particularly unhappy after the opening of Canton to all variety of foreigners with the end of the English East India Company monopoly in the 1820s (Keay 1991, Farrington 2002). The prime medium of trade into China now was opium (Layton 1997), shipped by British and American traders from British-controlled India. Opium-fuelled trade shifted the patterns of Pacific and China trade, largely in favour of the British businessmen in Hong Kong and Canton with their direct access to the drugs through India. To remain competitive, American Northwest Coast fur and California hide and tallow traders also turned to drug running, and used the profits to buy the Chinese merchandise they sold to California and other markets (Layton 1997).

The opium could not be landed on the Chinese-controlled shore. Instead, on the Anglo-American dominated water, the drug was stored in floating hulks that were floating warehouses, dismasted and housed over to readily meet the need for easily moveable real estate in a volatile environment. They remained a safe haven even after Chinese efforts to interdict the drug trade led to war in 1839 (Waley 1958). When the Opium Wars ended with Britain and its American allies victorious, Britain gained Hong Kong as a treaty concession.

When established in 1845, Hong Kong served as both a military base and as a China trade entrepôt, giving British entrepreneurs yet another advantage over their foreign rivals in Canton. They also employed storeships or hulks, like those at Canton. The hulks of Hong Kong and Canton played an important role in the European expansion of both ports, and like the British prison hulks and Royal Navy's hulks provided a template for their use in the physical development of the new port of San Francisco four years later. Englishmen and Australians were familiar with them. By 1849, England had employed 53 hulks as floating prisons or receiving ships in the United Kingdom, and 67 hulks abroad in diverse ports like Gibraltar, Malta, Sierra Leone, Ascension Island, Saint Helena, the Cape of Good Hope, Bombay, Trincomalee, Hong Kong, Hobart, Halifax, Bermuda, Barbados, Havana, Martinique, Tortola, Jamaica, Antigua, Rio de Janeiro, Callao, and Valparaíso (Johnson 1970, Campbell 2001). In 1849, 27 British hulks were in service overseas, and eight remained afloat and in use in the United Kingdom (Watson 2001). Americans knew of hulks – the British employed floating prisons during the American Revolution, and after the war, American mariners, like those of other countries, encountered them as they sailed around the world to any port with a British naval presence.

Trans-Pacific trade with China had languished as the maritime fur trade faltered after 1820. The subsequent almost desperate introduction of other Pacific commodities for trade with the Chinese – sandalwood and *beché de mer* had kept the lines of trade open, albeit at a low volume, until the British introduced opium into the equation. The introduction of California gold once again injected bullion into the trade and spurred a regular transpacific exchange. This time it would be directly with a new American port

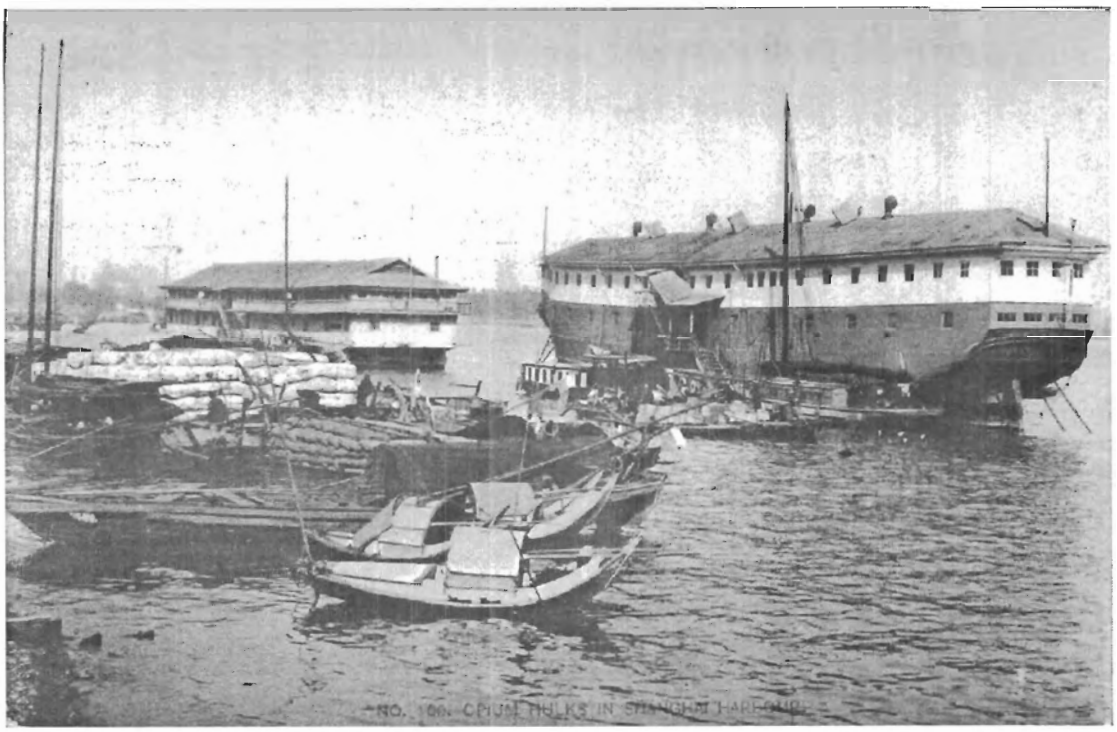
on the Pacific Coast. A number of the China-based merchants who traded in and out of Hong Kong and Canton, American firms who did business in China, and some merchants, readily familiar with the California market because of pre-Gold Rush trade, either sent cargoes or relocated themselves to San Francisco from Canton and Hong Kong after the gold discovery (Layton 1997).

The Pacific Maritime World Poised for Change

By 1845-1846, the Pacific market, now with its own regionalized world system, had been developing for decades in response to the influx of the British and the Americans. Also contributing was the rise of Valparaíso in response to the growing importance of the shipping routes at the tip of South America, and the growing coastal trade of newly independent Latin American nations, which now, freed from Spanish trade restrictions, could welcome foreign trade.

More importantly, however, the stage for even greater change was set as these ports now linked not only to each other but also to global maritime trade. Regular voyages from Honolulu to Canton, Sydney to Melbourne, Valparaíso to Callao, Guayaquil, or Panama, and Mazatlan or San Blas to Monterey and Yerba Buena were now the norm. A series of maritime mercantile capitalists with Pacific interests had gained precious business knowledge. Several were in key locales from which to quickly manuever if new opportunities arose. The centuries old dominance of Pacific trade by China and Asia shifted in favour of the growing power of the European world's economic system.

Figure 1: **A template for San Francisco's storeships was the use of housed-over ships, usually large-capacity merchant vessels, as warehouses and offices in Canton and Shanghai as "opium hulks." This early twentieth century postcard shows two opium hulks on the Shanghai waterfront. James P. Delgado collection.**



The Fortuitous California Gold Rush

All that was needed for the final absorption of the Pacific into the world economic system was a new commodity to provide the liquidity that would introduce more ships and shipping to the Pacific. That catalyst came when the United States forestalled both French and British interests and seized California from México in 1846-1848 and then when gold was discovered in the newly conquered territory. This resulted in a "rush" of thousands of ships, the global shift of maritime trade, and a major new entrepôt, San Francisco, which quickly bypassed a frontier period of development in a matter of less than two years to become the principal port (in terms of volume of shipping and value of

trade) on the entire Pacific Ocean and a major player in global maritime commerce. Particularly significant was San Francisco's post 1849 dominance of coastal trade, ranging from Valparaíso to Vancouver Island. Steamers connected the Isthmus of Panama to shipping on the Caribbean and Atlantic after 1849, and trans-oceanic trade via clippers around Cape Horn was established after 1850. Most significantly, it was the United States' new gateway to Asian trade (Wright 1911, Perry 1994).

These changes, especially the shift of the China trade's formerly westward (Southeast Asia, India and Europe) movement to an eastern flow toward San Francisco, allowed the new city to prosper without relying solely on its links to the gold mines. San Francisco prospered as an international port with ties of its own to Asia and Europe as it was now the entrepôt by which Europeans could seek California commodities like gold and later wheat and lumber. San Francisco provided another focal point for the China trade, particularly after the American introduction of regular transpacific steamship service to the Orient in 1867 (Kemble 1943). The ocean between China and California was no longer a barrier but a highway (Igler 2004:713).

There was also the added benefit that by 1850, California, Oregon and Washington had stronger commercial and political ties to the transcontinental nation (*ibid.*:695). This was all made possible by the assumption of risk, the use of tremendous amounts of capital (California gold) and the rapid and entrepreneurial creation of San Francisco. This was not an isolated accident of the Gold Rush. It was the culmination of decades of activities by a group of mercantile capitalists who seized the moment in 1848-1851 to alter forever the patterns of global maritime trade. The new city served as an entrepôt that would outlast the mining boom. It survived destructive fires and political

challenges to its status as America's major port on the coast because these merchants and their backers constantly overcapitalized and rebuilt to remain active for greater gains in the world economy, especially the age-old dream of tapping the riches of the Orient.

CHAPTER FOUR:
PHYSICAL DEVELOPMENT
OF THE GOLD RUSH SAN FRANCISCO WATERFRONT

European interests in the Pacific thanks to desires for Asian trade culminated in the dominance of American traders in the early nineteenth century and the conquest of California as a base for Pacific expansion. The discovery of gold was a fortuitous spur to achieving American dreams of Pacific trade dominance and a direct ocean link to the China Trade. San Francisco became the locus of that effort as the destination for the many ships and gold-seekers that made up the resultant rush. The rise of San Francisco, however, was possible only with intensive over-capitalization and rapid development that transformed it into **the** entrepôt for the Gold Rush. This chapter summarizes the steps in that development, beginning with the political domination of San Francisco by commercial interests, the appropriation of government land for unregulated waterfront development, and the hasty construction of waterfront infrastructure through piers, piling-elevated buildings, and ships converted into floating warehouses. I specifically detail the histories of three ships, *Niantic*, *Apollo* and *General Harrison*, which exemplify this type of development. These waterfront improvements laid the foundations for San Francisco's ultimate survival and success as America's entrepôt for Pacific and Asian trade.

The Gold Discovery and "Rush" as the Impetus for Development

Throughout the last months of 1848, reports of a tremendous gold discovery in far-off California reached the eastern seaboard of the United States and foreign capitols. By December, California dominated the news. The President of the United States, James Knox Polk, reported to Congress on December 5th that the news was true, and that the gold mines were "extensive." As proof, the United States government displayed 230 ounces of near-pure gold brought back from California by military officers stationed in California (Holliday 1981: 42).

By the end of the year, the rush was on for California. The primary destination, nearly to a ship, was San Francisco, which in most mariners' minds was the bay, not the tiny village that had presumptuously taken the name in 1847. John B. Goodman III, an amateur historian with a keen interest in the vessels that cleared ports on the East Coast of the United States and Canada for California between December 1848 and the end of 1849, spent decades assembling a comprehensive "encyclopedia" of the individual vessels in what he called the "Gold Rush fleet." Goodman's final count of 762 vessels did not include ships caught up in the Gold Rush from South or Central America, Europe, Australia and New Zealand, or the Orient (Goodman 1987).

Presumptuousness notwithstanding, because of several fortuitous factors, San Francisco became the great entrepôt of the gold rush. The founding of the town as a commercial centre in 1835 and its subsequent growth during the Mexican War made it the largest settlement on San Francisco Bay. Within close proximity to the Golden Gate, it was a logical first stop for sea-weary passengers and crews after a prolonged voyage to California. The settlement, small as it was in 1847-1848, offered a sheltered anchorage,

saloons, restaurants, and access to goods and services. The result was that the town, bolstered in 1848 by the first influx of wealth from the gold discovery, dominated San Francisco Bay. Thus a bay side settlement became the point of entry for every vessel sailing for California's gold fields, and a transfer point for smaller vessels to enter the rivers that drained from the Sierra Mountains into the bay.

The Development of the Waterfront, 1849-1850

San Francisco rapidly developed to meet the needs of arriving ships that discharged passengers and cargo, first on its beach and later on its wharves and piers. Between 1849 and 1851, more than a thousand ships called at San Francisco and went no further because they were too large to navigate the rivers. Instead, would-be gold miners and their supplies made their way to the upper reaches of the bay and entered the river systems. Running up the Sacramento or the San Joaquin, they sailed and steamed in smaller craft to the river ports of Sacramento, Marysville and Stockton, the jumping off points for the mines (Lotchin 1974, Delgado 1990, Benemann 1999).

San Francisco boomed because of this transhipment of people and goods as tens of thousands regularly passed through the city. Businesses flourished to serve the needs of recently disembarked passengers. Miners weary of more primitive conditions in the interior returned to San Francisco. The maritime traffic calling at the waterfront also bolstered the economy, as San Francisco's merchants sent vessels to various ports up and down the coast for merchandise to feed the needs of the city and its inhabitants. Foodstuffs came from Hawai'i and other Pacific islands; fruit and beef came from Mexico; grain and manufactured goods came from Chile, Peru and China. Lumber and

wool came from New Zealand, and lumber and wheat came from Oregon. Within two years, lumber was arriving from Puget Sound and the forests of British Columbia. This regular trade not only fed the burgeoning population. It provided, along with goods arriving regularly in ships from the United States and Europe, the materials to expand the city, especially in the form of raw lumber from the Northwest Coast, now linked again to California with a new natural commodity.

The pace of growth and expansion was described as early as July 1849 as "animated" and "propelled by the indomitable perseverance" (Letts 1852:47). The population, estimated at 2,000 in February 1849, grew to 3,000 by March, 5,000 by July, and to between 12,000 and 15,000 by October. The city's population fluctuated between 20,000 and 40,000 during the spring of 1850 (Berry 1984:21). The city's "nucleus of tradesmen, craftsmen, and others working in service industries supported a comparatively high floating population" as miners arrived in the city in the fall and winter months "either heading home or seeking a more comfortable winter abode" (*ibid.*).

However, there were problems such as where to house the people and the goods. In May 1849, French Consul J. A. Moerenhout wrote to his superiors in Paris

> The fact is that the shipments from all parts of the globe exceed all estimates and all expectations. To this I will add what I have had the honor to point out in my earlier dispatches, that in this country there are no government stores or warehouses, that the private warehouses of the business men are insufficient, that the costs of unloading and storage are from 10 to 20 per cent per month for bulky articles, that customs duties are high and payable in cash, that commissions are high and interest on money from two to five per cent. per month, and that if a cargo cannot be sold on board and is stored, it will be eaten up within three or four months by the enormous charges and expenses of all kinds (Moerenhout 1850 as quoted in Nasitir 1935:58-59).

The problems were soon to be resolved. Moerenhout wrote again to his superiors in Paris in October 1849

> business continues to show an activity that more and more surpasses all probabilities and exceeds the most foresighted estimates. Entire cargoes are still readily disposed of and with the exception of a few articles, among which unfortunately are brandies, merchandise continues to sell well, some articles with large profit, such as flour and wines, which have gone up, the former from $ 12 to $20 a sack or barrel, the latter from $20 and $25 to $75 and $80 a cask. Everything seems to indicate that if the arrivals, especially from the United States, let up a bit, this country will continue to be not only the largest but also the most profitable market for foreign commerce in these seas (*ibid.*:70-71).

The key to success was an extralegal seizure by the city's politicians of government land, namely the tidal flats in front of the town. The majority of the city's early politicians were merchants or speculators who directly benefited from their own actions in taking over the government's submerged lands (Davis 1967). Once appropriated, these lands were sold and developed as waterlots.

San Francisco was ill equipped for its new status as the principal American port on the Pacific (Lotchin 1974: 9). Crowded beyond its capacity, the small settlement was hemmed on three sides by huge, shifting sand dunes and by a shallow six to eighteen-foot deep, 336-acre cove (NOAA 1841). The cove was a stagnant pond of thick, foul mud at low tide. The demands of growth were met by moving out across the mud flats and then into deeper water. Starting in 1847, the City fathers subdivided and sold the flats in front of the town as "water lots" (Soulé 1854:182). The initial subdivision created 450 lots, "all contained between the limits of low and high-water mark; and four-fifths of them were entirely covered with water at flood tide (*ibid.*)

In July 1847, the Alcalde (Mayor) of San Francisco sold 200 lots in a public sale. The sale, when advertised, promoted the auction by proclaiming

> The site of the town of San Francisco is known by all navigators and mercantile men...to be the most COMMANDING COMMERCIAL POSITION on the entire western coast of the Pacific Ocean, and the Town itself is no doubt destined to become the COMMERCIAL EMPORIUM of the western side of the North American continent (Monterey *Californian*, April 17, 1847).

On January 3, 1850, after a new survey had taken place, a second public sale by the City sold an additional 343 lots (Dwinelle 1867: 211-213). It was on these lots that the city experienced its most dramatic expansion. The area around Portsmouth Square, the commercial heart of the city since 1835, began to decline in significance by the end of 1849 when water lots became the most desirable real estate in town. Frontage along the bay allowed easy access to offloading ships, and the waterlots provided space for expansion of the necessary infrastructure to conduct the booming business of maritime mercantile activity as more and more ships arrived.

Creating the Waterfront Infrastructure on the Waterlots: An Entrepôt is Born

Prior to 1848 and continuing into 1849, boats landed goods on the beach at the foot of Clay Street, which ran up the slight incline to the southeast corner of Portsmouth Square. By 1849 stores and offices bounded the square as the commercial heart of the city. Despite its proximity, the Clay Street landing was inadequate. This was a fact some merchants recognized as early as 1847, when they built a landing at the foot of Broadway Street at Clark's Point, a promontory at the base of Telegraph Hill at the northern end of

Yerba Buena Cove that fronted deeper water (Davis 1967: 177). However, it was not until 1849 that other wharves followed, financed by private entrepreneurs who obtained long-term leases of the submerged rights-of-way of the city's streets between the water lots.

In the summer of 1849, after several false starts, entrepreneurs built the first wharf bridging the shallows of the cove. This came from private interests with assistance from the city and two private merchants with longstanding ties to shipping, Henry Mellus, a former Bryant & Sturgis agent, and William D.M. Howard, who like Mellus was another veteran of the Pacific maritime trade (*ibid.*:187-189). By the early 1840s, they had settled in California. Actively engaged in maritime trade, and with their own ships running to Hawai'i and South America, they branched out into business as ship's agents and were early investors in Yerba Buena (*ibid.*: 161-164). In 1845 they formed a partnership, and in 1848 built a store at the southwest corner of Clay and Montgomery streets, adjacent to the principal landing spot on the beach and hence one of the best mercantile locations in the town (*ibid.*).

Mellus and Howard were among the first to recognize the need for and benefits of a wharf, and became the principal promoters of the Central Wharf project. The City granted a right of way across public lands, as did Mellus and Howard, who owned the block bounded by Clay, Sacramento, Sansome, and Battery streets that the access street for the wharf would have to pass through. Their motives were altruistic and profitable. The wharf "enhanced the value of the remainder of the block and increased the wealth of the firm (*ibid.*:177). The "Central Wharf Joint Stock Company," formed in April 1849, raised $100,000 in a matter of days. By the first week of May, they advertised for

proposals to build a 36-ft wide, 700-ft long wharf. The principal shareholders were other merchants, including Cross, Hobson & Co., James C. Ward, Joseph L. Folsom, DeWitt & Harrison (commission merchants like Cross, Hobson & Co.), and Samuel Brannan (Eldredge 1912:574).

By the end of August, newspaper reports noted, "piles for its support have been driven for a distance of three hundred feet, and about half that distance is already completed and planked" (San Francisco *Daily Alta California*, August 31, 1849). By September 20, "work has so far progressed as to admit small vessels and scows coming alongside" (San Francisco *Daily Alta California*, September 20, 1849). The new wharf was immediately profitable. At the end of 1849, the Central Wharf Joint Stock Company paid a ten percent dividend to the shareholders after four months of operation (San Francisco *Daily Alta California*, December 29, 1849). Central Wharf also solicited praise and imitation. As visitor William Kelly remarked in 1850,

> there is one great drawback to the harbour in the shallowness of the water around its shore, which prevents vessels from discharging within a mile of a landing; while the expense of discharging by means of scows or flat-bottomed boats, from the enormous rate of labour, involves an outlay almost equal to the freight. To obviate this, some very long and substantial piers have been lately constructed, extending out a great distance, but still far short of the deep water, and only affording accommodation for small craft, but their continuation to that point is contemplated (Kelly 1950:148-149).

The success of Central Wharf compelled the city government to order contracts for wharves at the foot of every street, commencing with Market, Broadway and Pacific streets.

The city tried and failed to finance the wharves. Private enterprise stepped in and the city granted five-year private contracts to build the wharves with a percentage of the profits paid as rent. Meanwhile, several entrepreneurs built private wharves, particularly to connect to their own waterlots and piling-supported structures on them. One such wharf, built at the foot of Sacramento Street, was Howison's Pier, erected in early 1850 and remaining in place until the Sacramento Street wharf replaced it in 1851.

The foot of Sacramento, like the foot of Clay, had already "stood prominent as a reception point for merchandise in 1849 and early 1850" (Bancroft 1887:178). With the construction of Howison's and later the Sacramento Street Wharf, and the private Clay Street wharf, the area between and surrounding these two piers became the new commercial heart of San Francisco, especially Central Wharf. William Heath Davis, a longstanding resident and an early maritime participant in the Pacific trade and investor in Yerba Buena/San Francisco, claimed that by 1850 Central Wharf was the most significant site in the city

> The Central Wharf...was the thoroughfare for communication with vessels, and was crowded from morning 'til night with drays and wagons coming and going, Sailors, miners, and others of all nationalities; speaking with a great variety of tongues, moved busily about; steamers arriving and departing, schooners were taking merchandise for the mines, boats were crowding in here and there – the whole resembling a great beehive, where at first glance everything appeared to be noise, confusion, and disorder (Davis 1967:178).

It was anything but disorder and confusion. The wharves and the intervening buildings alongside them had shifted the commercial heart of San Francisco to the waterfront. It was on the water that the business of exchange of goods to and from ships, overseen by merchants and agents who lived and worked in the heart of this new business district,

created an entrepôt. Of 21 shipping and commission merchants listed in the San Francisco City Directory, the majority (15) were listed within the nine-square block area bounded by Montgomery, Jackson, Front, and California Streets. Four were located on Sacramento, five on Montgomery, and four clustered around the intersection of Jackson and Sansome (Kimball 1850).

Alongside the wharves, waterlot owners began to line the waterlots with piling supported warehouses. In August 1849, the *Daily Alta California* noted that a private wharf at the foot of Pacific Street, the firm of Cross, Hobson & Co. (a Chilean firm relocated to San Francisco) was "erecting a large building...which is to answer as both a storehouse and wharf" while "Messrs. Northam and Gladwin have also erected a large warehouse at the foot of Pacific Street, which will answer the purposes of a wharf also" (San Francisco *Daily Alta California*, August 31, 1849).

After a brief hiatus during the winter of 1849-1850, building resumed at a frantic pace, as new wharves and buildings filled in the waterlots. Other wharves built on city-street alignments starting in 1850 included the Jackson, Vallejo, Market, Pacific, and Washington Street wharves, and by early 1850, more than a million dollars had been expended to build nine wharves that ranged in length from 250 to 975 feet, with a total wharfage of 6,000 feet (Hittell 1878:164-165). The wharves were key to commanding the maritime trade. An advertisement for Cunningham's Wharf, a private venture, stressed in October 1850, "having twenty-six feet of water at its end, and sufficient at the sides for the largest class vessels, [it] offers great inducements to them to land there, as by doing so they would be able to discharge in one-half the time and at much less

expense than they would be put to by lying in the stream" (San Francisco *Daily Alta California*, October 10, 1850).

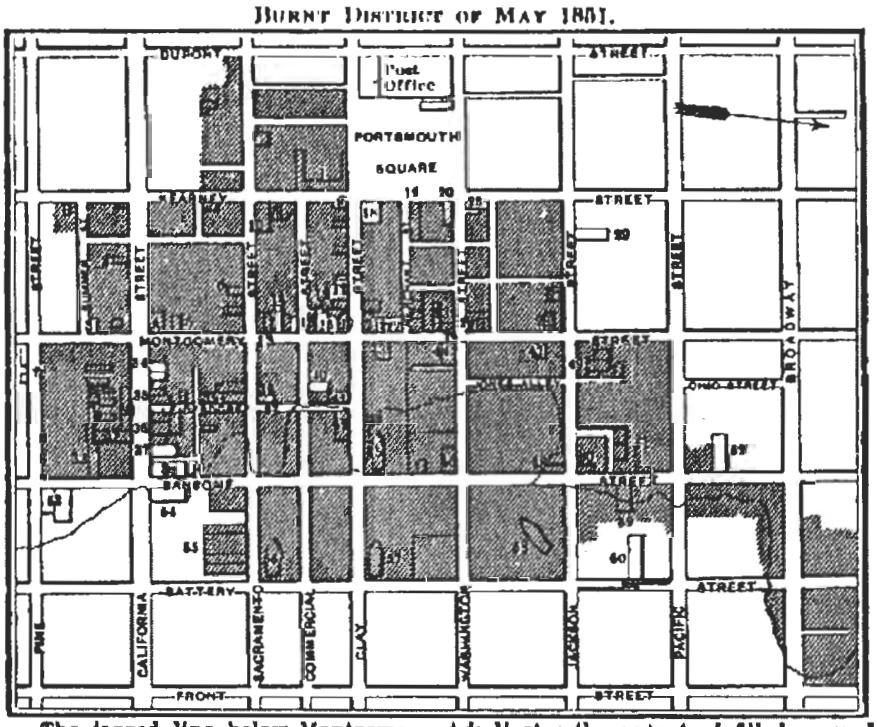
At the same time, another newspaper reported that the "click of the hammer, and the whir of the saw are continually heard. Large substantial warehouses, with numerous floating depots for the storage of merchandise, line our wharves and waterfront" (San Francisco *Daily Evening Picayune*, October 23, 1850). The result was an entire commercial district standing on piles. As one reminiscent account noted, by late 1850, the

> corners of Sansome, Battery, and Sacramento streets were originally on piles – little piers just large enough to accommodate the stores and premises forming the junction of the streets. At high tide goods could be lightered from the shipping to the stores, and from the stores to the Sacramento and Stockton steamers (Barry and Patten 1873:107).

By early 1851, the result was a unique and extensive, rapidly and expensively built commercial district that was aptly described by Gold Rush visitor, Vicente Perez Rosales

> Long piers, supported on redwood piles, were being constructed or were being further extended at the end of every street that ran down to the beach. These carried the street out over the tidal flat, and provided railways and foundations for additional buildings. At one place a lack of ready materials for piers had been solved by piling boxes and sacks of earth across the muddy beach; at other locations, so as to not lose time, piers had been improvised by grounding ships at the ends of streets and laying beams up to them; and there, too, shops and offices were built (as quoted in Beilharz and López 1976:65).

Figure 2: Map of Gold Rush San Francisco showing the landfilled waterfront destroyed in the May 4, 1851 fire (Bancroft 1888).



The jagged line below Montgomery st indicates the extent of filled ground beyond the natural shore line. The larger portions even of the central blocks were covered by wooden buildings. The following list, referred to the plan by numbers, embraces nearly all the notable exceptions, occupied by a large proportion of the leading business firms. The fire consumed also most of the streets beyond the water line, which, being really wharves on piling, burned readily

1. City Hotel, brick building
2. Fitzgerald, Bausch, Brewster, brick b.
3. Capt. Folsom, iron building, adjoining brick b. burned.
4. Custom-house, brick b.
5. Rising & Casili, brick and iron.
6. Cramer, Rambach, & Co., brick.
7. R. Wells & Co. banker, brick
8. Treadwell & Co., brick.
9. J. Hahn & Co. brick.
10. Standard office, brick
11. Johnson & Calfield, wooden b., adjoining brick b burned.
12. Moffatt's Laboratory brick.
13. Quartermaster's office, brick.
14. Gildermeister, De Fremery, & Co., brick
15. U S. Assayer's office, Dodge's Express, F Argenti banker, brick
16. B Davidson, banker brick.
17. Wells & Co., bankers, brick.
18. California Exchange, brick.
19. Union Hotel brick
20. El Dorado, gambling-place, brick.
21. Tallant & Wilde bankers, Page, Bacon, & Co bankers, brick.
22. Gregory's Express, brick.
23. Delmonico's, brick, and three adjoining brick b burned
24. Burgoyne & Co., bankers, brick.
25. The Verandah resort, brick.
26. Ev. Picayune, journal, brick.
27. 28. Brick buildings.
29. Markwald, Caspari, & Co., wooden b.
30. Bornnhardt, Jacoby, & Co., Hellman & Bros, wooden b.
31. Pioche Bayerque, brick and iron, several iron b. in rear.
32. Bonded warehouse, iron.
33. Starkey, Janion, & Co., b'k and iron.
34. I. Naylor, Cooke Bros, brick.
35. Helman & Bro., brick.
36. Starr & Minturn, and others, 2 iron and 2 brick b.
37. Hastier, Baines, & Co., brick.
38. Jones' Hotel, wooden.
39. P M. Steam Navig. Co., brick.
40. W Gibb brick.
41. Godeffroy, Sillem, & Co., brick.
42. Bonded warehouse, iron.
43. Herald office, brick.
44. Courier office, brick.
45. Niantic,' store ship.
46. Baldwin's Bank, iron.
47. J B. Bidleman, brick.
48. Cronise & Bertelot, iron.
49. Larco & Co., brick, iron adjoining.
50. Huerlin & Belcher, brick.
51. Balance office, brick.
52. Dewitt & Harrison, brick.
53. Macondray & Co., brick, iron, and wood.
54. Appraiser's office, iron.
55. Dunker and others, iron.
56. 'Apollo,' store ship.
57. 'Gen. Harrison,' store ship.
58. Georgean,' store ship
59. Cross & Co. iron.
60. Bonded stores, iron.

Besides the above, a score and more of brick and iron buildings were destroyed.

A "Venice Built of Pine" and Its Storeships

A shortage of buildings and the need to protect millions of dollars of cargo landed on the beach or stacked on the wharf also led to a boom in building construction. However, the need for storage space and the high cost of lumber, bricks and hardware, all of which had to be imported, led entrepreneurs to seek another alternative. They turned to the growing number of ships that clogged the waterfront. These idled vessels were the solution to the Gold Rush building shortage. As previously suggested, the use of dismasted and/or housed-over hulks in Britain in prisons and in Canton and Hong Kong as opium warehouses, probably provided the template, particularly considering that merchants familiar with Canton and Hong Kong were among the capitalists developing San Francisco. Merchants and speculators converted more than 200 ships into floating buildings between 1849 and 1851, turning most into warehouses, or storeships, while others became hotels, offices, prisons and a church.

It was the use of these ships as buildings that served as yet another decisive factor in rapidly transforming San Francisco from a village into a working port and major city. The idling of so many vessels was a fortuitous circumstance that provided much needed warehouses and other protected spaces and enclaves. Not only was there a floating population; so too was much of the town's infrastructure and real estate. This made San Francisco unique in the annals of frontier settlement, not only in the United States, but also along the entire Pacific Rim.

No other frontier port was ever so water-oriented in its structure and role, a fact not overlooked by one Chilean visitor from Valparaíso, and hence well versed in the role of an entrepôt, who sagaciously commented that the city was a "Venice." He was not

alone; French Argonaut Etienne Derbec, in a letter home on December 1, 1850, wrote that while San Francisco was growing on all sides, "it is especially in the neighbourhood of the port that the city's developments have been the most extensive...the city has expanded over the water in regular sections, and one day San Francisco, like Venice, will see its streets plowed by innumerable boats, and ships of all sizes will be able to unload their cargoes at its stores" (as cited in Nasatir 1964:164).

As merchants and consortiums hastily erected wharves along the waterfront, some merchants quickly acquired storeships to moor alongside the wharf to serve as an instant building. On August 31, 1849, for example, the San Francisco *Daily Alta California* reported that the owners of the wharf at Clark's Point (at the base of Telegraph Hill) had laid the bark *Janet* alongside the wharf, and incoming vessels were invited to lay alongside the storeship and discharge their cargo "as well as at any pier in New York." Not to be outdone, the developers of nearby J.H. Merrill's pier advertised that they had chartered a vessel to serve as a dockside storeship and to "greatly increase the facilities for discharging cargo" (San Francisco *Daily Alta California*, August 31, 1849).

Historical accounts are few, but photographs of the waterfront and a few drawings suggest that the conversion of a ship to storeship was often a temporary affair that required little modification to the vessel. The owners would down-rig a vessel, removing the sails, much of the running rigging, and occasionally the topmasts and other spars. On other ships, the yards were simply cockbilled to provide clearance for passing vessels and to serve as booms for shifting cargo into and out of holds. Moored in the stream off the city front these storeships were accessible to small boats and lighters (barges), but more

significantly to other vessels that could moor alongside and discharge directly into the storeship's hold.

Of the hundreds of vessels converted to storeship use during the Gold Rush, the majority were largely left unaltered and simply swung at anchor for a couple of years. After 1851, as the pace of Gold Rush arrivals by sea abated to a steadier pace, a number of storeships returned to sea duty. On May 4, 1851, the San Francisco *Daily Alta California* reflected this in an advertisement for the sale of two storeships, the bark *Damariscotta* and the brig *Sussex*. *Damariscotta*, "4500 barrels capacity...is well found and can be sent to sea without expense" while *Sussex* "180 tons burthen, 4 years old, is a good sailer and a large carrier...and is in good order for sea."

However, other ships never cleared for sea. The practice of converting ships to buildings, while invented and employed elsewhere, continued to expand at an unparalleled scale in Gold Rush San Francisco. A speculator could buy a ship, anchor it in the shallows or the mud, take down the masts, house over the decks, and quickly link the ship to shore by a small pier without having to spend large sums on landfill. The result of this work to create "ship-buildings" and rapid erection of wharves and piers was a commercial district described by Chilean visitor Benjamín Vicuña Mackenna as

> A Venice built of pine instead of marble. It is a city of ships, piers, and tides. Large ships with railings, a good distance from the shore, served as residences, stores, and restaurants. I saw places where the tide had flowed down the street, turning the interior of houses into lakes. The whole central part of the city swayed noticeably because it was built on piles the size of ship's masts driven down into the mud (as quoted in Beilharz and López 1976:194).

As well, other ships, hemmed in by the rapid pace of wharf construction and landfill, but not built upon or housed over, were nonetheless trapped on a changing cityscape. These ships remained part of the waterfront scene in San Francisco through the mid-1850s.

There is no consensus on the timing of the first "conversion" of a ship to a storeship. Chilean Argonaut Vincente Perez Rosales claimed that a countryman was "one of the first to transform his ship into a home ashore" by beaching an "old and useless" bark on the mudflats at high tide and then laying "his masts and spars to form a bridge across the mud" (as quoted in Beilharz and Lopez 1976:66). An 1882 reminiscent account of the Gold Rush waterfront, however, stated that two San Francisco merchants "inaugurated the storage of good afloat" in the British bark *Lindsay*, a June 1849 arrival in town. The first advertisement in the *Daily Alta California* for a storeship confirms the reminiscence and provides their names; Francis Gray and Anthony Easterby, the latter an English merchant who had sailed to San Francisco to take advantage of the trade. On November 8, 1849, they advertised their

> BONDED STORE SHIP...having obtained a Bonded License, they are prepared to store goods on board the bark *Lindsays* [sic] on reasonable terms, and having a great number of lighters, they can discharge vessels with great dispatch (San Francisco *Daily Alta California*, November 8, 1849).

The storeship was a success. On January 14, 1850, Easterby wrote to his brother in London that

> we are still storing in the *Lindsay*, but our business has increased so much that we are in truly for a larger vessel if we can raise funds to purchase. We shall then place her hard & fast aground and build a wharf round her....We have this day bought a water lot for the ship (Easterby 1850).

However, while *Lindsay* was the first storeship, by the time Gray & Easterby prepared to beach her, another vessel was already up on the mudflats.

Niantic

The first recorded ship hauled ashore and housed over to become a storeship was the July 1849 arrival *Niantic*, whose crew quickly deserted her. On August 2, ship's master Henry Cleaveland, advertised that the ship and outfit was for sale. An advertisement in the San Francisco *Daily Alta California* on August 9 reported "she is a fast sailer and ready for any voyage; she will be sold at a bargain if applied immediately, together with a large quantity of merchandise suitable for this market." Instead of returning to sea, however, *Niantic* became a storeship. Entrepreneurs had already turned a few other ships into floating warehouses, but businessmen Sam Ward, Charles Mersch, and Adolphe Maillard, along with James Whitehead, Elbert P. Jones, Alfred Godeffroy and William Sillem (the latter three all silent partners) decided to try something different. Godeffroy was the California representative of J.C. Godeffroy and Co. of Hamburg, Ward's personal bankers.

They purchased *Niantic* and hired a Captain Noyes to beach her on the mud flats directly off the center of the town. Waiting until high tide, Noyes towed *Niantic* into position on lot #129 at the foot of Clay Street. Pulling out the masts and removing the ballast, Noyes and the labourers he hired beached the ship in the shallows, as close to shore as possible, so that at high tide the water surrounding the ship lay only a few feet deep. This is evidenced by the fact that the wharf which surrounded the ship was only two and a half-feet above sea level, close to the turn of the bilge (where the hull curved

up from the bottom to form the sides) of *Niantic*. This meant that at low tide the ship was essentially high and dry in the wet mud (Delgado 1983:326). Colonel James J. Ayers, encountering the sailors hired to do the job, described how they "told me they were working for Captain Noyes, who had taken the contract to work float the old whaling bark *Niantic* over the mud flat and place her on a corner water lot"

> A temporary foot-bridge had been laid from Montgomery street to the vessel, and passing over it, we climbed on board the *Niantic*. The hulk was snugly in place, at the northeast corner of Clay and Sansome streets. My friends told me all about how they had floated the *Niantic* over the shallow flat. They lashed the empty oil casks, with which she was abundantly supplied, to her bottom and thus floated her by slow stages when the tide was high into the berth she was destined to occupy. (Ayers 1922:32-33).

Niantic was farthest ashore of all of the hulks on the waterfront and was soon surrounded by construction.

Workers hemmed and supported the ship with pilings driven alongside, some of them reportedly the ship's masts, and built a stage to surround the ship on the port side and at the stern. They also built a large wooden "barn" to cover the weather deck, with a low-pitched plank roof leading to the elevated offices erected on the poop deck. Two large doors cut into the sides provided access by both pedestrians and carts on the wharf, and by lighters and boats on the open water (starboard) side. In January 28, 1850, the *Daily Alta California* advertised "STORAGE – in the *Niantic* Warehouses, foot of Clay Street." The advertisement went on to report

> the owners of the ship *Niantic* announce to the public...that said vessel is now ready to receive storage upon the most favorable terms. From the facilities offered of receiving and delivering goods, both afloat and on

> shore, with security against rain and fire, they confidently recommend these warehouses to the mercantile community (*ibid.*)

The rates for storage were one dollar per month for a 196-lb barrel, and ten dollars per month per ton of 40 cubic ft.

The partners offered "For Rent – on the *Niantic* Wharf – one store, 40x40 feet," as they expanded their business (San Francisco *Daily Alta California*, May 4, 1850). In a letter dated July 16, 1850, Charles Mersch wrote to Sam Ward, who had just sold his interest in *Niantic*,

> The city is advancing rapidly on the mud flats and will continue to advance until she arrives in deep water... the value of the *Niantic* property must increase considerably as a result. It is true that before this day comes the vessel and all the improvements could fall prey to flames and make us all suffer a considerable loss (Mersch 1850).

Mersch reported that an artesian well next to the ship provided water for the storeship and for sale. "We have sold 10,000 gallons on two consecutive days" (*ibid.*). The water flowed out of *Niantic*'s own pump log, which when hammered into the mud as a piling had struck the well in the "midst of the sea," as Mersch reported.

Mersch ended by telling Ward that the upper deck rented at $1,100 per month, and that a small warehouse [probably the 40 by 40 foot store] built on the wharf next to the ship was bringing in $600. If another $300 a month in water sales were made, then that $2,000, when joined by the approximate $1,500 in lower deck rentals would provide $3,500 a month, or $42,000 a year. A receipt in the Gibb papers at the California Historical Society records a bill paid to Whitehead, Ward & Co. by Daniel Gibb "for rent of two rooms under the poop deck of the *Niantic* Storeship from 17 June until 17th of July

1850" (Gibb 1850). On June 18, Gibb advertised that he had taken "temporarily, an office in the *Niantic* store ship... where he offers for sale" a variety of cargo from the Dutch schooner *Trekvogel*, "just arrived from Valparaiso" (San Francisco *Daily Alta California*, June 18, 1850). Gibb was the San Francisco representative of his family's Valparaíso commission merchant firm, and a friend of one of the *Niantic* partners, James Whitehead, another Chilean.

Whitehead, Ward & Co. were commission merchants and the San Francisco branch of a Valparaíso firm, in this case Waddington, Templeman y Cía, founded in Valparaíso in 1817 by Josué Waddington, an English expatriate. They were investors in the storeship along with Ward, Mersch and Maillard, Godeffroy and Sillem, as a January 31, 1850 advertisement for *Niantic*, signed by "the owners of the ship" was signed Whitehead, Ward & Co. (San Francisco *Daily Alta California*, January 31, 1850).

The partners used *Niantic* for their various enterprises; Godeffroy & Sillem moved from the Sacramento Street offices they had occupied in September 1849 (San Francisco *Daily Alta California*, September 6, 1849) to new quarters on *Niantic*'s poop deck, to either join Ward, Mersch and Maillard as partners in the storeship or perhaps managing it for them. On July 4, 1850, they advertised that their parent firm in Hamburg was about to dispatch packet ships to San Francisco, presumably full of cargo, and that "persons residing in California, who wish their friends to come to San Francisco, can secure their passage by applying" on board *Niantic*. A month later, they advertised the sale of a large stock of lumber (San Francisco *Daily Alta California*, August 6, 1850). A few weeks later, Moorhead, Whitehead & Waddington, from their offices in the "Yellow House, *Niantic* wharf," advertised the impending sailing of the packet ship *Virginia* to

Valparaiso. They also advertised the "Chile and California Flour Co...for a regular supply of Chile Flour for this market" (San Francisco *Daily Alta California*, August 28, 1850).

In September 1850, Godeffroy & Sillem advertised the sale of a lot of cargo "received by late arrivals" that they were storing in *Niantic*

> 30 tons square and flat bar iron; white, blue, and red Mackinaw blankets; silk handkerchiefs, tin plates refined loaf sugar, champagne, assorted liquors, best Irish whiskey, Madeira and sherry wine in cases, fruit, syrups, biscuits and crackers in tins, preserved fruits and vegetables, pickles, superior furniture, one piano, printing and writing paper, ravens duck, iron and brass bedsteads, For sale by GODEFFROY, SILLEM & Co. *Niantic* wharf (San Francisco *Daily Alta California*, September 28, 1850).

In addition to goods on storage, and their own merchandise, the partners rented offices (such as Gibb's) to other merchants. In July 1850 merchants Plummer & Brewster announced they had "removed to the Niantic Warehouse, foot of Clay street, up stairs, where they will continue their business" (San Francisco *Daily Alta California*, July 30, 1850). Another firm in the hulk, Hussey, Bond & Hale, "sole Agents of the Patentee, *Niantic* warehouses," advertised in August 1850 that they had "fire proof paint" for sale (San Francisco *Daily Alta California*, August 13, 1850). The *Niantic* partners may have also rented rooms in the storeship to lodgers. One apocryphal San Francisco tale claims that the legend "Rest for the Weary and Storage for Trunks" greeted visitors as they approached *Niantic*'s doors (Scherer 1925:84).

Other business names and advertisements also covered the hull according to one contemporary account. William Kelly, writing about a March 1850 visit to *Niantic*, recounted a visit to Godeffroy and William Sillem. Kelly's is the most detailed written

description of *Niantic*'s appearance yet found other than the Mersch letter, and it corroborates Mersch's comments about the financial success of the venture to beach and convert the ship

> On inquiring where my friend, Mr. S[illem], was located, I was told that I could be landed at a stair-foot leading right to it; and was not a little surprised when we pulled alongside a huge dismantled hulk, surrounded by a strong and spacious stage, connected to the street by a substantial wharf, to find the counting house on the deck of the *Niantic*, a fine vessel of a thousand tons, no longer a buoyant ship, surmounted by lofty spars and streamers waving in the wind, but a tenement anchored in the mud, covered with a shingle roof, subdivided into stores and offices and painted over with signs and showboards of the various occupants. To this base use was my friend obliged to convert her rather than let her rot at anchor, there being no possibility of getting a crew to send her to sea. Her hull was divided into warehouses, entered by spacious doorways on the sides, and her bulwarks were raised about eight feet, affording a range of excellent offices on the deck, at the level of which a wide balcony was carried around, surmounted by a veranda, approached by a broad, handsome stairway. Both stores and offices found tenants at higher rates than tenements of similar dimensions on shore would, and returned a larger and steadier income, than the ship would have earned if afloat. The office of my friend stood abaft, over where the cabin used to be, with windows of three sides, and, as I remarked to him, only suited a person of essentially mercantile mind, unleavened by the slightest tinge of poetry or romance, as no one else could sit down poring over ponderous account-books, while his desk commanded a series of most splendid views (Kelly 1950:147).

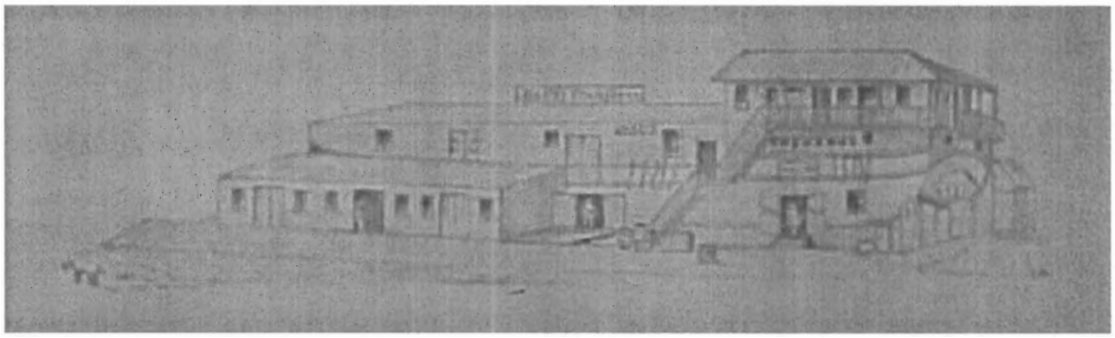
In addition to the storeship, the partners constructed a series of smaller structures on pilings around *Niantic*. This included the "Sullivan House," occupied by the commission merchant firm of Danforth B. Besse, Kingsbury Root and George T. Sullivan, who advertised that from their warehouse "at the foot of Clay Street, on the *Niantic* Wharf," they "will give their attention to the selling of vessels and cargoes, merchandise of all descriptions, real estate, etc" (San Francisco *Daily Alta California*, February 2, 1850). A week later Besse sold out to Sullivan and Root, who advertised their services as "auction

and commission merchants" on February 21, noting they paid "particular attention" to selling cargoes (San Francisco *Daily Alta California*, February 21, 1850).

The *Niantic* partners also owned a "30 x 40 lot on Clay Street...between the ship and Roach-Woodworth" (Delgado 1983:326). Roach and Woodworth were prominent San Francisco commission merchants. In 1849, they built a large warehouse on pilings some fifty feet offshore of the Clay Street Wharf between Clay and Washington streets near *Niantic*. Roach and Woodworth advertised that they were connected to the Clay Street Wharf by a private wharf, "and the two together offer greatly increased facilities for landing merchandise" (San Francisco *Daily Alta California* August 31, 1849). Others followed Roach and Woodworth's example to be close to the storeship; commission merchants Simmons, Hutchinson & Co. advertised in February 1850 "they have removed to their new Iron Store, foot of Clay street, near the *Niantic* warehouses" (San Francisco *Daily Alta California*, February 9, 1850). Several months later, merchant Fred Leppien advertised in October that he

> has removed to foot of Clay street wharf, next to the *Niantic*, and offers for sale woollen and cotton hosiery, blankets, woollen and cotton undershirts, drawers, and other clothings [sic], also Philadelphia bottled ale and porter, claret in boxes, Havana cigars, assorted pickles, &c (San Francisco *Daily Alta California*, October 9, 1849).

Figure 3: **1850 drawing of the *Niantic* Storeship. Comparison of the features of the drawing with the "forest of masts" image and an 1850 letter from one of the storeship's owners confirms its accuracy. San Francisco Maritime National Historic Park, SAFR 10399, J. Porter Shaw Library, !2.8,702n.**



Other Storeships on a Changing Waterfront

As Sillem explained to Kelly during his visit to *Niantic*, "Others were not slow in following his example, while those who could not get waterlots to purchase let out their ships, as they swung at anchor as marine stores and boarding-houses" (Kelly 1950:147). Perhaps after watching *Niantic*'s conversion, commission merchants Starkey, Janion & Co. had advertised in August 1849 for "a vessel of about 500 tons, for a storeship" (San Francisco *Daily Alta California*, August 24, 1849). An entrepreneurial ship owner (or captain) advertised in November 1849 that he was "in possession of a vessel, perfectly tight and holding 200 tons, which he will let, to be used as a store ship, together with his services as a storekeeper, if required, at a very moderate rate...the vessel may be moored to suit the convenience of the persons hiring her" (San Francisco *Daily Alta California*, November 7, 1849).

In early December, Finley, Johnson & Co. on Clay Street advertised they were taking goods on storage "at equitable terms, on board the ship *Salem*" and selling the

ship's equipment and caboose [deckhouse] (San Francisco *Daily Alta California*, December 10, 1849). On December 21, John Redmond advertised he was taking goods for storage on board the brig *Talca*, "lying about a cable's length off the foot of Washington Street. This vessel is in excellent condition for storing goods of all sorts."

By early 1850, with a large number of laid up vessels crowding the waterfront, incapable of a quick return to sea, their owners or agents advertised them for sale as storeships. The advertisements emphasized storage capacity, not their sailing qualities. In August 1850, the ship *Ganges'* owner, Leonidas Haskell, offered her for sale; "Will make an excellent storeship, or can be sent to sea with small expense" (San Francisco *Daily Alta California*, August 24, 1850). Advertisements also claimed that storeships, moored away from the downtown core's frequent fires, provided security from fire and theft, as well as ready access to and from them by water, particularly for active vessels. Others advertised inexpensive rates occasioned by the relatively minor cost of storeship conversion as opposed to warehouse construction. On November 4, 1850, Markwald Caspari & Co., for example, advertised "STORAGE AT REDUCED PRICES...on the well known storeship *Thomas Bennett*...Goods, received or delivered, either ashore or afloat, free of expense."

A variety of storeships appears in the newspapers with increasing frequency throughout 1850. On January 11, 1850, William Greene and A. Lothrop advertised they had leased the barque *Janet* and moored her next to Clark's wharf, where they were "prepared to receive storage...on the most favourable terms." Ten days later, on January 21, Macondray & Co. advertised they were ready to receive and insure goods aboard the storeship *Panama*.

On January 30, the newly fitted storeship *Georgian*, "at the foot of Jackson street...ready to receive cargo... [with] excellent accommodations for a large number of persons" was offered for sale. March 9, the owners of the "large and substantial ship *Ganges*, lying off Central Wharf," noted she "will be kept hereafter as a storeship, for all kinds of merchandise free of custom house duties." Two days later, Captain Ayshford of the "Iron Ship *Antelope*, 1200 tons burthen, in 5 compartments" lying near the Fremont Hotel, would take in storage "at $4 per ton of 490 cubic feet per month" (San Francisco *Daily Alta California*, March 11, 1850). On May 9, the "bonded storeship *Zuid Pool*, lying off Clark's Point," offered storage "as low as any warehouse or any storeship in the harbour" (San Francisco *Daily Alta California*, May 9, 1850).

Not to be outdone, Peter Le Guevel opened a hotel on board an unnamed vessel, known only by his advertisement for carpenters to build "a house on" the "hulk known as 'Bay Hotel,' below Clark's Point" (San Francisco Daily *Alta California*, July 30, 1850). On August 20, 1850, commission and mercantile agents Wildes T. Thompson, Edward W. Griffin, and J. Davis Hawks advertised that their new firm of Thompson, Griffin & Co.,

> corner of Jackson and Front streets, are prepared to take charge of cargoes and consignments, and will keep constantly on hand a general assortment of goods as are wanted in the country trade. Storage taken on board the storeship *Globe*, lying at the wharf, where vessels of large class can discharge and load at all times (San Francisco *Daily Alta California* August 20, 1850).

On October 1, C.E. Hunter & Co. advertised their storeship, *Morrison*, "built entirely of live oak, and...one of the strongest vessels in port."

An advertisement in the *Alta* on October 4 1850 offered storage for "Merchandise of all kinds, and Baggage, will be stored in the ship *Tahmaroo*, at the lowest rates, Apply on board, near Agnew's point" (San Francisco *Daily Alta California*, October 4, 1850). However, not all entrepreneurs wanting to cash in on the need for storage space could duplicate *Niantic*'s success. The next development was to acquire larger numbers of storeships for a cheap price and make profits through large volumes of storage.

By late 1850 dozens of storeships lay off San Francisco's waterfront, with others hauled in close and housed over. On October 23, 1850, the San Francisco *Picayune*, noting "City Improvements," commented on the "numerous floating depots for the storage of merchandise." The large number of available vessels, often at fire-sale prices, and the profits to be made inspired some merchants to acquire as many vessels as they could for storeship use. On January 9, 1851, Moorhead, Whitehead & Waddington, still aboard the *Niantic* Storeship, advertised that they wished "to purchase a number of good strong vessels for storeships" (San Francisco *Daily Alta California*, January 9, 1851).

However, as Sillem told Kelly, the availability and then the cost of finding a suitable waterlot with sufficient access, laying out the cash for beaching and conversion, and then filling the ship's hold with goods from paying customers required a significant outlay of cash in a speculative market. Some of those who bought into the storeship business quickly backed out. On November 7, S.A. and J.G. Thayer offered their storeship *Calumet*, for sale with her "full inventory, besides considerable storage, which will be transferred along with the ship." On November 5, 1850, a partner in another, unnamed storeship offered his "one-third interest in a store-ship, scow, boats &c. together with a like interest in a water lot on Front street...The storage and lighterage business

will be continued by the other owners" (San Francisco *Daily Alta California*, November 5, 1850). It was not a game for the meek or for those who did not already possess the means. If you were not a commission merchant, such an endeavour was difficult, as the owners of the ship *Apollo* discovered.

Apollo

The conversion of *Niantic* into a storeship inspired the beaching of another vessel. The next pulled ashore was the ship *Apollo*, a September 18, 1849 arrival. The goods aboard *Apollo* were offered for sale, although access to the ship and them was difficult. An advertisement in the *Daily Alta California* nine days after her arrival noted, "The Ship *Apollo* from New York, having on board a well assorted cargo, now lies in the harbour off the foot of Sacramento Street" (San Francisco *Daily Alta California*, September 27, 1849). On October 11, 1850, the cargo was advertised for sale, but the goods moved slowly, and plans to take the ship up to Sacramento or to return to New York to pick up other passengers and cargo slowly died over the next few months.

On November 8, 1849, *Apollo*, abandoned by most of her crew, was offered "for sale, freight or charter, ready for sea, or any other service" (San Francisco *Daily Alta California* November 8, 1849). The ship did not sell. Her agent and son of the ship's owner, Henry Day Beach, hauled *Apollo* onto a waterlot close to *Niantic*. Through December 1849, workers stripped the ship's ballast, masts and rigging. Beached in the mud off the foot of Sacramento Street on lot #171, *Apollo* faced west, her bow facing Sansome Street, while her stern was close up against what would become Battery Street.

Piles driven alongside the ship kept her in place, but free to move up and down with the tide (Delgado 1986).

An advertisement for "wharfing and carpenter work" for the newly beached storeship on January 2, 1850 was followed by another advertisement just sixteen days later that announced that the storeship's proprietors were "prepared to receive good upon moderate rates of storage" aboard *Apollo* (San Francisco *Daily Alta California*, January 18, 1850). The ship was described as "adjoining Central Wharf...and approachable from nearly all tides; it is believed that contemplated improvements will render this ship the most commodious, spacious, and safe storage warehouse in this port" (*ibid.*). The same ad offered for sale the rigging and gear stripped off the ship during her conversion: "standing and running rigging, blocks, refuse iron, etc." They did not sell immediately.

An advertisement in the *Alta* on February 7 offered *Apollo*'s "water casks, three lower masts, bower, stream and kedge anchors, chains, cordage, etc. for sale at the *Apollo* warehouses."

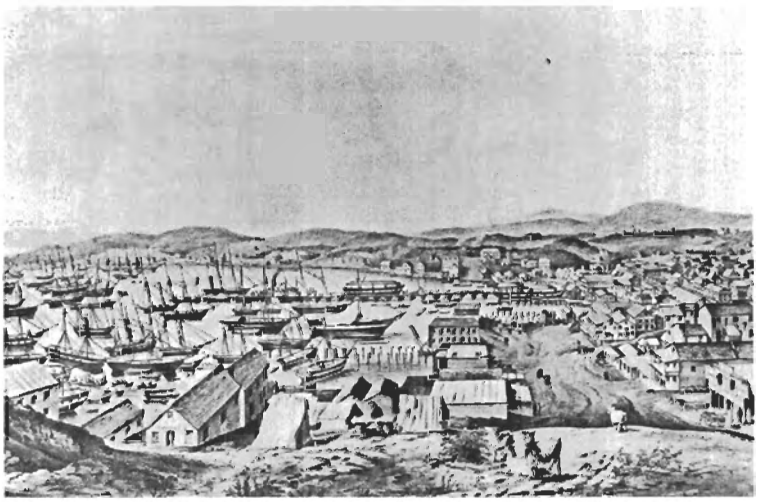
A lithographed broadsheet advertised the *Apollo* Warehouses and the services provided aboard

> Advantageously located at the foot of Sacramento Street, and connected by strong bridges to the well-known Central Wharf. *The Apollo Warehouses* offer uncommon advantages for storage of all descriptions. They are approachable for lighters at nearly all tides, while for commodiousness, business convenience and safety from fire and all other risks, they are truly unsurpassed. Storage of nearly every description taken upon the most moderate terms. Trunks and Chests safely stored; Lumber stored; Goods received and delivered on Central Wharf, when desired. Liberal advances made on all kinds of saleable merchandise. Goods received on consignment. Ships discharged, and prompt attention to orders for lighterage. Open Policies for the Insurance of Merchandise, when desired (Apollo Warehouses, 1850).

An advertisement toward the end of February 1850 reminded prospective clients that *Apollo* was "fitted expressly for storage purposes, and possessing the most spacious accommodations." Thanks to its wharf connection and easy access to shore, it lay in a location that is "unsurpassed in this port" (San Francisco *Daily Alta California*, February 21, 1850).

In March 1850, Henry Day Beach's desperation is apparent in an ad in which he threatened to sell cases and a barrel left in the ship at auction "unless the charges of freight, lighterage and storage upon them are paid" (San Francisco *Daily Alta California*, March 15, 1850). By summer's end 1850, Henry Day Beach relinquished day-to-day operation of the storeship, leasing it to the firm of Reese & Blakely, who announced in the *Evening Picayune* of August 29, 1850 that they had control of the ship and were ready to receive items for storage.

Figure 4: ***Apollo* (left) and *Niantic* (right) on the waterfront in April 1850, detail from a lithograph view of the city from Telegraph Hill, based on a sketch by William B. McMurtrie and published as a lithograph in 1851 by Nathaniel Currier. The crowded town has advanced to the beachfront at Montgomery Street and Central Wharf is stretching out across the water. San Francisco Maritime National Historic Park, J. Porter Shaw Library A11.15693n.**



The ship did not prosper as a storage depot, perhaps because it was being hemmed in and it could not compete with the dozens of other storeships that still had open water access for customers. Unlike *Niantic*, *Apollo* did not host a variety of tenants, nor did it serve as a holding warehouse for a single merchant or a consortium that would not have to pay rent for their own premises. The decline of Reese & Blakeley's business is evident as early as December 12, 1850, when they advertised "STORAGE! STORAGE! At $2 per ton" (San Francisco *Daily Herald*, December 12, 1850) and then, just three months later, further dropped their price with "Light goods stored at $1.50 per month" (San Francisco *Daily Herald*, March 31, 1851).

However, *Apollo* did become famous because of a small structure built on the wharf directly beneath its transom. Operated by shipping agent Charles K. Wise and his business partner "Mr. Leonard" it also served as the "Apollo Saloon," a coffee house and eatery ostensibly run by Leonard. The name of the *Apollo* Saloon outlasted the storeship for a few years after *Apollo* burned in the May 4, 1851 fire, but the saloon's fame lasted a great deal longer, and would stir romantic memory when the hulk was rediscovered in the twentieth century.

General Harrison

A third vessel hauled close to shore and converted into a storeship was the ship *General Harrison*, a February 1850 arrival. The vessel was consigned to E. Mickle & Co., Chilean-American commission merchants who had been in business in San Francisco since January 1849. Etting Mickle and his business partner William Tillinghast operated their store just below the northeast corner of Montgomery and Clay

Streets. From this vantage point, the partners must have watched, with interest, the late 1849 conversion of *Niantic* and *Apollo* into beached storeships, *Niantic* in particular directly in front of them and *Apollo* looming up from the shallows just two blocks to the southeast.

Work on the two beached storeships ended in January 1850; with *Apollo* advertised ready to receive goods on Friday, January 18 and *Niantic* ten days later on Monday January 28. Perhaps realizing that the large ship would have difficulty clearing San Francisco, and probably delayed in offloading the cargo, or acting on previously issued instructions from the ship's owners, Mickle & Co. advertised *General Harrison* for sale on February 23, just twenty days later. Mickle & Co. purchased *General Harrison* for themselves on March 7, and prepared to beach her on a water lot they owned just beyond *Niantic*.

Mickle & Co.'s decision to go with *General Harrison* as their own storeship may have been influenced by the fact the *Niantic* Storeship was a going concern, earning $2,600 a month in rent – a fact that may have been passed on by the friends from Valparaíso who owned and managed the ship; or it may have been through directly observing *Niantic* at work, directly in front of their own office. The initial decision to buy the ship may have also been with the intention of returning to sea, since the ship's new registry, granted on March 7, 1850 in San Francisco, was filled out as if that was the case (*General Harrison* registry 1850).

Instead, Mickle & Co. converted *General Harrison* into a storeship, and moored her on the alignment of the Clay Street Wharf on lot #141 in the spring of 1850. The lot had been auctioned off on January 18, 1850, when Mickle had presumably purchased it

(The San Francisco *Daily Alta California* of December 14, 1849 announced the impending sale). Workers lightened, dismasted and housed over the ship to convert it into a storeship, and then hemmed her in with pilings at her final moorage. At the end of May, the company advertised *General Harrison*'s new career:

> This fine and commodious vessel being now permanently stationed at the corner of Clay and Battery streets, and in readiness to receive stores of any description, offers a rare inducement to holders of goods. Terms exceedingly moderate and the proprietors are determined to afford every satisfaction to those friends who may avail of the facilities presented. Apply to E. Mickle & Company, Clay Street Wharf (San Francisco *Daily Alta California*, May 30, 1850).

The conversion of the ship to storeship coincided with a burst of construction in the spring of 1850 that pushed the city's waterfront out onto the waterlots. Even a major fire that burned out three square blocks and destroyed some 300 buildings on May 4, 1850 barely interrupted the pace. On May 11, the *Alta*'s editors remarked, "it is really surprising to see the rapidity with which the burnt district is being built over again. In a few days more it will be entirely closed in."

On July 23, Mickle advertised "to let – the basement of our warehouse on Clay street wharf, suitable for offices or a general merchandise store." A few days later, the partners placed a prominent advertisement for the firm and on the 26th offered "for rent their warehouse, the *General Harrison*, foot of Clay street wharf, or they will receive therein goods for storage" (San Francisco *Daily Alta California* July 26, 1850). There were some takers for the ship's rentable spaces. J. McElwain, advertising that he was renting a house on Prospect Street, invited people to apply to him in the "basement of E. Mickle & Co., foot of Clay Street."

Mickle & Co. did very well with their new storeship. In early August 1850, the newly founded San Francisco Chamber of Commerce set rates and commissions, thus providing a detailed look at what could be made by Mickle & Co. The rates allowed them to assess a 10 percent commission on the sale of merchandise, a 10 percent commission on goods received on consignment, 5 percent for purchase or sale of vessels, procuring freight, collecting freight, flat fees of $200 for receiving and clearing vessels from foreign ports, and $100 for the same service for vessels from United States ports. Rates for storage were also set at $4 per ton of 40 cubic feet, and $3 per ton of 2240 pounds per month, "consignee to have the option of charging by weight or measurement" (San Francisco *Daily Alta California*, August 14, 1850). There were also fees for freight and delivery of merchandise. From the time a vessel arrived, and Mickle's firm cleared it with the government officials, landed the goods, stowed them in *General Harrison* for a month or two, sold them, and then delivered the sold goods to the buyer, the same crate or barrel had earned them more than a few dollars.

At this stage, the firm was well established in town. Mickle and Tillinghast were prominent members of the community, Tillinghast serving as treasurer for the First California Guards, a privately organized paramilitary group established to promote law and order in the town (San Francisco *Daily Alta California*, January 28, 1850). The organization was a precursor to the later, more famous Committees of Vigilance, and like them, membership was an indication of social and business stature in town. In 1851, both Mickle and Tillinghast were members of the Committee of Vigilance, which was headed by fellow commission merchant William Tell Coleman. Tillinghast later served with the second Committee of Vigilance in 1856 (Williams 1919, Scherer 1939).

The day to day business of the storeship is not recorded in detail. However, Mickle & Co.'s advertisements in the *Daily Alta California* provide a sense of the goods that moved in and out of *General Harrison* after her conversion. Based on those advertisements, it is clear that auction sales generally occurred on a monthly basis. In this fashion, the ship continued in business through the Spring of 1851. Continued construction on the waterfront had gradually hemmed in the storeships closest to the shore, including *General Harrison.* In January 1851, crowded shipping boxed in the ship, and the Battery street wharf and its fill were approaching from the south. On April 12, 1851, a story in the *Daily Alta California* commented on *General Harrison* and her neighbors *Niantic* and *Apollo*

> It looks very curious in passing along some of the streets bordering on the water to see the stern of a ship with her name and the place from which she hails painted upon it, and her stern posts staring at you directly on the street. These ships, now high and dry, were hauled in about a year since as storeships, before the building was carried on in that section of the city in so rapid a manner, and now find themselves out of their natural element and a part of the streets of a great city.

The Waterfront, 1850-1851

Apollo, Niantic and *General Harrison*, hemmed in and surrounded by development on the rapidly expanding waterfront, formed the core of the rapidly redeveloped commercial centre of the city. This was the heart of the entrepôt, transformed from a mudflat to a series of wharves, storeships and piling-supported structures in a space of a year. The storeships and their neighbourhood elicited much comment. In late 1850, one visitor, English author and artist Francis Marryat, commented that

> the front of the city is expanding rapidly into the sea...this has left many of the old ships, which were a year ago beached as storehouses, in a curious position; for the filled in space that surrounds them has been built upon for some distance, and new streets run between them and sea, so that a stranger puzzles himself for some time to ascertain how the *Apollo* and *Niantic* became perched in the middle of the street (Marryat 1952: 48).

The hemming in came because the waterfront neighborhood was profitable and highly desirable, as the earlier advertisements had stated. For example, in May 1850, merchant William Reynolds advertised for any "ground floor, capable of being used as an auction store, to be situated on Montgomery street, as near Clay and Washington streets as possible" (San Francisco *Daily Alta California*, May 15, 1850).

The storeships and the wharves had shifted the mercantile district to exactly where Reynolds wanted to go. However, it was about to move farther east from Montgomery street and the beach. On June 28, Gillespie & Co., real estate magnates and developers, advertised "Warehouse Lots on California street, between Sansome and Battery streets. Also, for Sansome street, between California and Pine." In early July, the editors of the *Alta* commented, "the proprietors of the water lots are piling their property with the view of building upon it, and wharves are constructed in every direction" (San Francisco *Daily Alta California*, July 9, 1850).

Just a month later, on August 10, the editors noted that these "desirable water lots" were in "sections of the city that are rapidly improving, being at the foot of Pacific street and Sacramento street, and at the end of Howison's Railroad wharf, upon the latter we observe that there rests a large storeship, already placed, which greatly enhances the value of the lot." In early August, Messrs. Stevenson and Parker, old hands who had

bought many of the lots in the area, had advertised them as "desirable business locations for sale or lease – Water lots on Sacramento, Front, and Davis streets, substantially piled and capped ready for erection of stores, having free use of wharf in front and rear, besides water communication" (San Francisco *Daily Alta California*, August 3, 1850). Three weeks later, most of the lots had sold, and Stevenson and Parker's attorney Henry Gordon, was down to offering just one

> prized and capital water-lot, on the corner of Front and Sacramento streets, with one hundred and eight foot frontage, 64 feet on Sacramento street, 60 feet on Front street and 60 feet on Central wharf basin, having deep water and substantial free wharf on each of its fronts...For a large mercantile establishment or a first class hotel this lot presents unusual advantages. Vessels of 200 tons can discharge alongside, and lighters find access to its 3 fronts at all sides (San Francisco *Daily Alta California*, August 23, 1850).

This last lot sold quickly because submerged land was highly desirable in this new mercantile core.

On September 27, the editors of the *Alta* commented that the extension of Battery street from Market to California street was progressing rapidly. "The completion of this work will greatly enhance the value of real estate in the vicinity, and give access to a large number of water lots" (San Francisco *Daily Alta California*, September 27, 1850). By November, the new mercantile district and its wharves were noted as true signs of progress because of the

> vast amount of business transacted....A great deal of labor and money has been expended...and we are happy to find that their enterprising proprietors are likely to reap most grateful rewards for their energy, while every facility thus given the commercial interests of our harbour and the state, add to the credit and wealth of the city...and the permanent good of commerce in its widest range (San Francisco *Daily Alta California*, November 1, 1850).

In a marked departure from Reynolds' May advertisement for a storefront on Montgomery, another, unnamed entrepreneur advertised in November for any "corner water lot...between California, Washington, Battery and Montgomery streets," by then the most desirable property in town (San Francisco *Daily Alta California*, November 3, 1850). This waterfront entrepôt, with its "strange spectacle" of three hemmed in and surrounded storeships, remained the centre of San Francisco's mercantile activity. Consequently, it was also the most desirable real estate in town and the focus of intense real estate speculation and construction activity until it was destroyed by the May 4, 1851 fire.

The Changing Waterfront

On May 4, 1851, fire claimed much of what had been built on and around the old waterline and beach, including *Niantic*, *Apollo*, and *General Harrison*. One letter writer noted, "at eight o'clock in the morning the flames were still raging on Clark's Point, Long, Sacramento, Clay, Washington, Jackson and Pacific-street wharfs, and nearly all the wharfs along the whole frontage were destroyed. Besides these, three store-ships loaded with goods" (quoted in Gerstaeker 1949:114). The area was quickly rebuilt, this time not on pilings but on landfill, and the waterfront advanced farther east, into what had been deeper water. The commercial heart shifted with it, and the addition of flat, dry land provided more room for the mercantile community to construct more solid, brick and ostensibly more fireproof buildings on it. The city and its port was changing, becoming more permanent. Yet the storeships persevered for a while.

In November 1851, the deputy harbormaster of San Francisco counted 148 storeships alone on the city waterfront, while another thirty lay off the river port of Sacramento and a dozen others were moored off the smaller ports of Benicia and Stockton (San Francisco *Daily Alta California*, November 1, 1851). The use of storeships was then in decline. By late 1851, the waterfront was bulk headed, streets paved, and construction of permanent brick warehouses ashore provided more commodious drier storage facilities. Yet even as early as January 1851, advertisements announced "Storage at Reduced Rates" aboard a variety of storeships, including the ship *Noble*, which promised the "lowest rates" (San Francisco *Daily Alta California*, January 9, 1851). Around the same time, other advertisements offered "Store Ships – A hull of a ship 325 tons, storage capacity 750 tons, price $1000. A brig of 200 tons, well found, 600 tons storage capacity, price $800" (San Francisco *Daily Herald*, February 20, 1851).

A year later, the storeships were beginning to be nuisances. In January, the harbormaster listed the vessels in the harbor as "not moored in accordance with the regulations of the port . . . thereby endangering themselves and others, near them, besides risking the loss or damage of their cargoes." He then listed 45 offending vessels, most of them storeships (San Francisco *Daily Alta California*, January 9, 1852). In the summer of 1852, the *Daily Alta California* commented that

> We are glad to see the movement commenced of hauling away hulks that are being surrounded by buildings. Many... will be great annoyances in a few months. One was hauled away yesterday, and we notice the places of several others vacant (San Francisco *Daily Alta California*, July 17, 1852).

On July 10, 1852, the editors of the *Alta* commented on the changes the waterfront had witnessed and the demise of the storeships.

> We believe the hulk which, if standing now, would be farthest up among the houses, was the old *Niantic*. We can hardly realize ourselves that, before she was burned in one of the conflagrations, she was standing...on the corner of Clay and Sansome streets. The fourth of May fire destroyed a large number of hulks, which would otherwise have been a nuisance, surrounded by filled-in lots, and far up in the city. A conflagration was one way to get rid of them.

The account went on to comment on a number of ships that had been hauled away "before they were hopelessly aground" and "burned" at Rincon Point, but "we notice that there are several so completely surrounded by houses it is impossible to draw them away" (San Francisco *Daily Alta California*, July 10, 1852).

On July 19, 1852, the *Alta* noted that a removed hulk was about to be burned off Rincon Point. "She will be placed that no danger be apprehended from fire, and we mention the fact that an alarm not be raised." Despite the fact that storeships were no longer editorialized as a desirable aspect of the waterfront, the July 31, 1852 edition of the *Alta* listed 164 storeships in San Francisco – by name and with a general location of where they lay. After 1852, many older storeships were shifted south of Market Street, away from the active business core, to lie off Rincon Point, the haven of the ship breakers. A daguerreotype panorama of the city taken in late 1852 shows a number of vessels lying at haphazard abandonment, including one hulk with the legend "storage" painted on her bulwarks next to another vessel with a housed-over "barn" on her deck (Harmon 1964).

Those ships that could not be shifted because they were blocked in by landfill or construction were broken up where they lay. On February 9, 1853, an article in the San

Francisco *Prices Current and Shipping List* remarked on the dismantling of the storeship *Thomas Bennett*

> In March 1850, the *Thomas Bennett* was hauled on the flats near what is now the corner of Sacramento and Front streets, but which at that time was in the harbor, beyond the end of Long Wharf. A pier was built to the ship, and she was covered and built around with stores, the whole being known as *the Thomas Bennett* Dock and Warehouse. Since then great changes have taken place...and a block of brick buildings has been put up below and on each side of the *Thomas Bennett*. In these circumstances, the ship, after a careful survey, being considered no longer land worthy, was sold, and is now being broken up. The *Thomas Bennett* was substantially built of live oak and cedar, well fastened throughout, and every part of her appears as sound and perfect as when first put together. The breast hooks, transoms, and lower deck frames, were extra heavy, and most of the deck stanchions butted the floor timbers. It is to be regretted that such a ship should have to be broken up, as she would have been a good vessel for many years, and worth at home at least $20,000.

At this time, so-called "hulk undertakers" purposely scuttled a number of former storeships to establish title to certain water lots.

Despite these efforts to clear out the hulks, some storeships remained in use on the waterfront at least until 1856. Photographs of the last unfilled portion of Yerba Buena Cove from that year show two storeships lying along the alignment of Steuart Street (Fardon 1856: Plate 22). An 1855 advertisement noted that the "Store-Ship *Ilzaide*...has taken a permanent berth alongside Mission street wharf," a location well outside the commercial heart near the expanding industrial area of the city (San Francisco *Daily Herald*, February 2, 1855).

By 1857, the removal of the last hulks on the waterfront began in earnest. Ship breakers dismantled a number of storeships, but the majority of the former storeships were already gone, outfitted for sea and returned to service. The demise of the storeships

in San Francisco removed the last tangible visible traces of the 1849 migration by sea to the city they had spawned. In their place was a modern port city, its old waterfront vanished beneath landfill, bulkheaded and fringed by wharves crowded with shipping, the graves of its buried ships and old bay bottom marked by multi-storied brick warehouses, stores and offices, paved streets, gas-lit street lamps, and an active maritime trade.

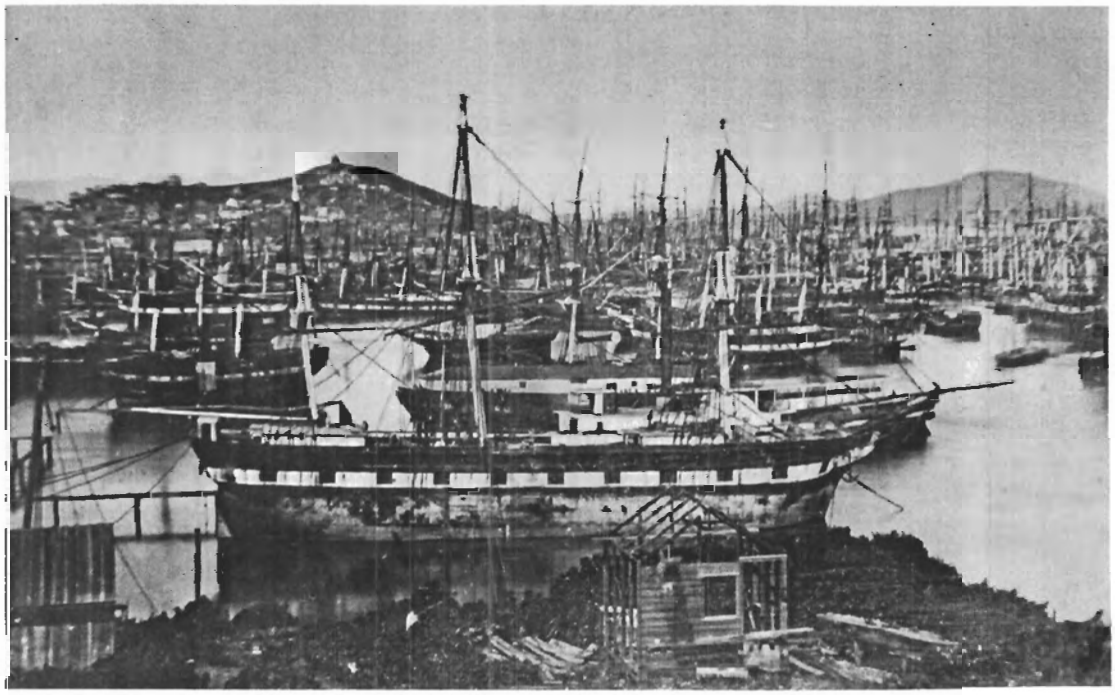
The Dream Achieved: America's Port on the Pacific

By 1860, San Francisco was the 12th largest urban center in North America, and America's principal port on the Pacific. A bulkheaded waterfront with a massive seawall to enclose the acres of loose sand fill bristled with dozens of piers. Ships connected San Francisco with an active coastal and Pacific trade, including a growing trade with Australia, then experiencing a Gold Rush of its own, the Pacific Northwest, which would also blossom thanks to trade in lumber and the discovery of Gold in British Columbia in 1858. San Francisco of 1860-1869 and its port was the culmination of the efforts of global maritime capitalists and entrepreneurs who had built up the city from nothing, at great expense and through economic hardships and fires.

The development of the San Francisco waterfront during the Gold Rush fits within the overall development of European and American economic interest in the Pacific as the world system used maritime trade to incorporate this peripheral zone. While aided by the Gold Rush, San Francisco's development, in the context of the *longue durée*, was a critical phase in that longstanding process of incorporation. The waterfront of San Francisco was an interrelated system of waterlots, piers, and structures that

included storeships. Even the storeships, when seen through the context of the *longue durée* are a later iteration of a European – especially British – mode of incorporation.

Figure 5: **This view of Gold Rush ships about to be scrapped at Rincon Point dates to 1853 and is part of a larger panorama by William Shew. Of particular interest is the storeship behind the hulk in the foreground. The weather deck supports a single story barn much like *General Harrison*'s. San Francisco Maritime National Historic Park, J. Porter Shaw Library A11.4, 528-c n.**



The storeships and the waterfront they sat on are artifacts of the process of incorporation of San Francisco into the world system. The nature of this waterfront, which is now an assemblage of archaeological sites, represent massive development and change which occurred within a tight temporal framework of 1849-1851. It is that which makes the Gold Rush waterfront of San Francisco a good model to assess *événements*, events, individuals and individual time. The next chapter focuses on the economic

players who undertook this massive development, San Francisco's commission merchants.

CHAPTER FIVE:
THE COMMISSION MERCHANTS

Adopting Braudel's concept of the *longue durée*, I have assessed the centuries-long integration of the Pacific into the world system through maritime trade and commerce. At the conclusion of Chapter 3, I explained how the China Trade, the North West Coast's maritime fur trade, and the California hide and tallow trade were part of that process, and how various commercial entrepôts dominated by European interests such as Hong Kong, Sydney, and Valparaíso fit into the system. In Braudel's view, the three scales of history are the *longue durée*, *conjunctures* and *événements*. Like the last chapter, I turn to the *événements* in this chapter to assess events, individuals, and individual time. This will be done by examining the commission merchants of San Francisco, specifically those who operated the storeship *General Harrison*. Their role in the creation of San Francisco is representative of the forces at play in this global event, in terms of their participation in the world maritime system and their role in creating the infrastructure.

San Francisco's rise as a port was fuelled by maritime trade abetted by a variety of global partners with commercial interests. These players in the world maritime system, linked to Europe, the Pacific Rim and the eastern seaboard of the United States, integrated San Francisco into their system through maritime trade and commerce. What was a commission merchant and how did they work? A commission merchant is essentially an agent, a *négociant* who handled the freight, transfers and insurance of

goods shipped from one point to another. As such, they were agents of the world system, a point stressed by Wallerstein (1980:234), because they were players who controlled the flow of commodities as peripheral zones were added to the core.

Commission merchants on the American frontier in the trans-Mississippi West played a critical role in building that frontier between 1820-1860 because the frontier's economic life was built "around the collecting and processing of raw products and the exchange of these for manufactured goods in distant markets" (Atherton 1971:133), or a process in which the trans-Mississippi peripheral zone was added to the core economy on the eastern seaboard. The success of Mississippi Valley commission merchants was based on their use of the Mississippi River as their primary means of transport, and can be seen as a template for San Francisco's commission merchant system.

> They were fully acquainted with the organization of transportation. These firms also owned warehouses in which goods consigned to their care could be stored until shipping arrangements were complete. Furthermore, they maintained connections with similar companies in other cities, which assured them of a share in the business passing through their own city. Companies in different towns consigned goods to their associates' care, a practice that contributed to the more efficient handling of shipments (*ibid.*:134)

In addition to handling such transactions, "men who had such connections were also well equipped to carry out commissions," selling daily to merchants who made regular visits to their warehouses to see goods for sale. But of equal significance, these "forwarders" with space for storage and "acquainted with conditions in other markets," became merchandisers on their own account (*ibid.*).

In the case of Mickle & Co., a representative example of a San Francisco commission merchant, the firm was fully acquainted with the organization of

transportation by sea. Founded by a former ship's captain engaged in South American coastal trade, Edward Mickle, the firm had traded in and out of Ecuador, Peru and Chile for several years before the Gold Rush. They owned at least one vessel, the clipper ship *Ann McKim*, and chartered other vessels. They obviously maintained regular communication by sea between San Francisco and Valparaíso, as indicated by regular shipments between the two ports. They probably had connections with commission merchants in other cities, as goods were dispatched to their care from New York and Baltimore, and vessels touching at Valparaíso from these ports as well as London and Canton had goods added to them for shipment to San Francisco care of Mickle & Co. Edward Mickle had immigrated from Baltimore to Valparaíso, and his parents and brother Robert, a banker, remained prominent residents there.

While Mickle & Co. never advertised their various overseas connections save the office in Valparaíso, other commission merchants in San Francisco advertised business relationships with commission merchants in Hawaii, China, Chile, Panama, New York and London and to banking houses in London, Paris, New York and most every major port city on the East Coast of the United States. Advertisements for some of the city's Gold Rush commission merchants illustrate their widespread networks. Commission merchants Joseph E. Dall and H.S. Austin listed partners in Canton, New York, Boston, Baltimore, Philadelphia and New Orleans, for example, while commission merchants William Jewell and Charles Melhado advertised connections to Panama, London, New York, Philadelphia, Boston, Baltimore, Norfolk and Richmond, Virginia, New Orleans and Portland, Maine (San Francisco *Daily Alta California*, October 29, 1849).

One key aspect to their success was the facility and speed of communication by sea. In 1848, New York was only three weeks sail from London (Albion 1939:331). San Francisco's distance from New York, via overland travel or communication was several months. However, in January 1848 the New York *Herald* advertised the latest dates of newspapers and correspondence received from foreign ports, with news from Pacific ports only a few months old. Sydney, Australia's news dated from August 13th, while San Francisco's was September 18th, the same date as Manila in the Philippines, Valparaíso's was October 26th (New York *Herald*, January 11, 1848) The fourth month gap between New York and San Francisco closed dramatically during the Gold Rush. In April 1852, the *Herald* advertised latest news from San Francisco dated March 17th, and Valparaíso on February 26th, while Sydney's news was from December 15th (New York *Herald*, April 14, 1852). By 1851, a commission merchant in San Francisco could regularly dispatch orders for goods by ship to New York, where goods arriving direct from London could be transhipped and the return cargo would arrive in San Francisco approximately three to four months after the order was placed in 1851, with an even faster return from a closer port such as Valparaiso, which was a month's sail from California.

The commission merchants of San Francisco were an important, if not dominant class. The secondary title of "commission merchant" was adopted by some 31% of businessmen listed in an 1850 San Francisco business directory (Hattori and Kosta 1990: 93). By means of comparison, the San Francisco City Directory of 1850 (Kimball 1850) lists 12 commission merchants out of 34 businesses centred in a two block radius of Central Wharf. This area was the heart of maritime mercantile activity in Gold Rush San

Francisco. Commission merchants, active in the creation of the entrepôt and its infrastructure, had been key partners in building Central Wharf, and some of the most prominent waterfront warehouses (like Cross, Hobson & Co.) as well as the beaching and conversion of the *Niantic* storeship, the city's first "permanently moored" ship-building. Active, too, in civic politics, commission merchants dominated public life, including the notable leadership of the committees of vigilance in 1851 and 1856 by commission merchant William Tell Coleman (Scherer 1939).

I have previously argued that the rise of the commission merchants in Gold Rush San Francisco was in response to haphazard and chaotic conditions surrounding the influx of cargoes (Delgado 1990:89) because of the glut of certain commodities

> The cost of storage being greater than their actual or prospective value, they could be turned to no greater use than fillage. Thus entire lines of sidewalks were constructed of expensive merchandise in bales and boxes (Scherer 1939:81)

The glut of commodities was an inevitable consequence of the world market's response to the Gold Rush. The commission merchants of San Francisco, especially those established at the beginning and those who came in the first year of the rush, could not control the influx of ships, but could act to try to control the flows of commodities (e.g. Wallerstein 1980:238).

But that control was not absolute, nor could it be. As much as the maritime system provided a regular influx of goods in response to market conditions advertised months earlier, it could not always foresee local fluctuations in the market. In the larger scale, the world system advanced by industrial Europe and the United States at times overwhelmed the local market economy. The archaeological record reflects this not only

in discarded or unsold commodities, but also through the study of the *Niantic* and *General Harrison* storeships, the quintessential artifacts of Gold Rush San Francisco's waterfront as tools used by commission merchants to regulate the flow of commodities.

A key element to success for a commission merchant was warehousing the goods as they came in, not only to safely stow and arrange them for sale, or to store them for consigners, but also to hold goods that were perhaps too widely available until demand drove up potential profits. In a booming city with valuable real estate and expensive construction costs, an expedient means to warehouse, as previously noted, was a storeship. Mickle & Co. initially owned a store with limited storage space in San Francisco, but in May 1850 the firm acquired the ship *General Harrison* to serve as warehouse in which goods consigned to their care could be stored until shipping arrangements were complete or the goods were sold at auction.

This was abetted by the company's *modus operandi* in which they not only sold goods on commission but also on their own account, in their case most probably the goods shipped directly from Valparaíso. This was their homeport and headquarters. The main office would purchase and ships goods to them in their own chartered vessels as well as added-on cargo for ships passing through with other goods consigned to the office in San Francisco. In short, like the successful forwarders and commission merchants of the trans-Mississippi frontier, Mickle and other commission merchants in California, acquainted with other markets and well supplied with goods, became merchandisers on their own account thanks to their business connections, their use of ships as freighters and the use of a ship as a warehouse where goods were easily offloaded, transhipped, stored and sold.

The Chilean Connection

I selected Mickle & Co. as a sample based on their ultimate ownership of the storeship *General Harrison* and its subsequent archaeological excavation. Mickle & Co. in particular represent San Francisco's linkage to the earlier Pacific entrepôt of Valparaíso, Chile. Mickle & Co. were just one of several Chilean firms who carried on a regular trade between Valparaíso and San Francisco during the Gold Rush. Chileans were among the first commercial interests to arrive in San Francisco and key players in developing the port. Their activities pre-dated the arrival of the majority of fortune seekers by several months. In December 1848, Cross, Hobson & Co. of Valparaíso, merchants with longstanding maritime interests on the coast advertised in *The Neighbor* that they had established in San Francisco and Valparaiso "houses for the transaction of commission business." They then note that the firm and potential customers would benefit from the "many years experience of the several members of the firm in the trade of the Pacific" (Valparaíso *The Neighbor*, December 1, 1848). They were soon joined in San Francisco by Mickle & Co., Alsop & Co., Loring, Sartori & Co., Waddington, Whitehead & Co., Daniel Gibb & Co., and A. Hemenway & Co, all Valparaíso commission merchants (Cornejo 1930:51-52).

Most of these Chilean firms were founded by commission merchants with longstanding family and business ties to the United States and Europe. Alejandro Cross and William Hobson, the first of Valparaíso's commission merchants to establish an office in San Francisco, had been residents of Chile since the late 1830s and were tied to Glasgow. The Hobson family included G.L., who served as United States Consul. Elishu Loring, member of a prominent New York and Connecticut banking family, arrived in

the 1830s to work as a shipping agent. This was in part reflective of a shipping business strategy to send partners, relatives, or junior employees to establish a foreign office and handle the business at other ports "and thus keep all the profits and commissions under control" (Albion 1939:237). In this fashion, ostensibly to expand the business of a firm, and a port, in the larger scale this practice expanded the world maritime system.

Valparaíso's mercantile houses played a significant role in the development of San Francisco's mercantile community, and Chile was one of Gold Rush San Francisco's major trading partners, establishing fortunes that outlived the Gold Rush. These merchants were described in May 1851, by Canadian Argonaut and merchant, William Perkins, with a mixture of praise and condemnation

> Men of all classes have come from there; for Chile is not only a seaboard country, but its people are infinitely more enterprising than any other of the Spanish Republics of South America; and they have a very respectable marine. It has consequently been no difficult manner for Chilenos, of even the lower class, to make their way to California. The lower orders are sturdy miners, and the better classes, sharp merchants. The latter class is seldom seen at hard work, but have made large fortunes in commerce (Morgan and Scobie 1964:222).

Valparaíso was the first foreign port to learn about the California gold discovery because of regular sailings to and from it to Yerba Buena, Monterey and San Diego.

The Chilean bark *J.R.S.* brought the first gold to Chile when she arrived at Valparaíso, and although the shipment was not cause for much comment in the press, among the city's merchants it undoubtedly was. By the spring of 1848, the news had spread out into the community, and the initial sailings of Chileans for California had commenced along with shipments of some cargoes in response to the needs of California's market. The pace picked up in the fall of 1848; from September 12, 1848 and

January 19, 1849, between 511 to 736 Chileans (the statistic varied from the number of official passports issued and the unofficial tally of a waterfront shipping merchant) sailed to San Francisco in response to the gold discovery (Valparaíso *The Neighbor*, January 29, 1849). That number would swell within the next year to the thousands. Chilean historians later estimated 30,000 Chileans made their way to California during the Gold Rush (Cornejo 1930).

By late February 1849, Valparaíso's English-language paper, *The Neighbor*, reported

> California affairs appear to absorb almost all interest and attention from other branches of business, and the greater part of our commercial activity...The tonnage of vessels sailed for that destination ascends to 3597 tons register, and mostly with full cargoes –and there are about 3000 tons on the beach loading. The gold imported within this month amounts to about half a million, and nearly an equal amount of specie arrived on the steamer. Our money market is overflowing for exportation...Our bay has been and is now covered with shipping from all parts (Valparaíso *The Neighbor*, March 1, 1849).

By the early summer, the full impact of the rush to California was apparent in Valparaíso. "The opening of California has brought to the Pacific the presence of the United States...Chile is the country which has felt this contact most of all; her speculations have been aroused; her productions have found exportation, and their returns in gold have rapidly created fortunes" (Valparaíso *The Neighbor*, June 29, 1849). This no doubt caught the attention of Edward Mickle, a Valparaíso commission merchant in the firm of Mickle y Compañía.

Mickle was an American immigrant from Baltimore who had married the daughter of General Ramón Herrera Rodado (1799-1882), a veteran of South America's

wars of independence from Spain. Mickle was engaged in maritime trade by the mid-1840s. His activities were more than local or regional. In August 1844, Denmark named Mickle its Consul for Guayaquil (Ministerio de Relaciones Exteriores 2005). The posting was to promote and encourage trade between the Denmark and Ecuador, and is reflective of the interest in South American trade that Europeans as well as Americans had. In 1847, the Valparaíso newspapers mentioned Mickle as master of the Ecuadorian brig *Eduardo*. Sometime that year, he also went into business as a shipping agent and founded a firm that first appears in the Valparaíso newspapers as Mickle and Polhemus. By 1848 Polhemus had started his own firm. Mickle's new partner was his father-in-law, General Herrera. As Mickle y Compañía they traded out of Valparaíso, Guayaquil, and Panama. In 1848, the firm established a San Francisco office with Etting Mickle in charge. The precise nature of their family relationship is unknown.

Mickle and Company's Operations, 1848-1850

Etting Mickle's San Francisco business partner was William H. Tillinghast, a 25-year old native of Pennsylvania and another Yankee who had settled in Valparaíso who now had come to California. Mickle apparently joined one of the first groups of Chileans to sail from Valparaíso to San Francisco in the summer of 1848, for by November the firm was in business with the barque *Tasso* already bound for Valparaíso, having been dispatched from San Francisco in late September. In late November, the *Neighbor* advertised that she would make a return voyage to San Francisco as soon as she arrived (Valparaíso *The Neighbor*, November 29, 1848). On December 5, *Tasso* arrived at

Valparaíso from San Francisco, via San Diego, 66 days out with a cargo listed as "talloco and 3968 ounces gold" (Valparaíso The *Neighbor*, December 5, 1849).

On December 3, 1848, Mickle y Cía dispatched the clipper *Ann McKim* to San Francisco via Guayaquil (Valparaíso The *Neighbor*, December 3, 1848). The clipper was part of a regular series of sailings sent and received by Mickle as *Tasso* arrived two days later on the 5th. On the 21st the company dispatched the schooner brig *Progreso*, which sailed with a large cargo and passengers (*ibid.*, December 5 and 21, 1848). The following month, Mickle y Cía dispatched the schooner *Dominga* with an assorted cargo to Guayaquil, maintaining their earlier maritime supply line with the Ecuadorian port. Throughout the firm's California enterprise, the cargoes shipped to and sold in San Francisco included Ecuadorian products as well as Peruvian, Chilean and European goods (*ibid.*: March 23, April 29, June 29, 1849).

The *Daily Alta California* of January 25, 1849, announced that Mickle and Tillinghast "have this day established themselves in this place for the transaction of a general agency and commission business under the firm of E. Mickle & Co." Operating out of Sherman & Ruckle's warehouse at the corner of Clay and Montgomery streets, the partners advertised on February 8 that they had just received "A large and excellent assortment of Carre & Goods" from *Ann McKim*, just arrived from Valparaíso after a January 9 departure from Chile (San Francisco *Daily Alta California*, February 8, 1849). The connection between Valparaiso and San Francisco was working well, with regular dispatches by a fleet of vessels contracted to or owned by Mickle that avoided the problems of crew desertion and vessel lay-ups that were already plaguing American ships arriving in San Francisco.

On February 13, *The Neighbor* reported that the ship *Huntress* had arrived a week earlier, 60 days out of San Francisco, in ballast (empty) but carrying a consignment of $100,000 in "gold dust and grains" for Mickle y Cía (Valparaíso *The Neighbor*, February 13, 1849). Mickle quickly loaded *Huntress* and returned her to San Francisco; the ship cleared Valparaiso on March 19 with a cargo of "assorted goods" consigned to Mickle & Co. The next return from San Francisco, brought with *Ann McKim* on April 15, was $80,000 in gold. Business was good in California; *McKim* also brought news that prices were "still exorbitantly high," with lumber selling "as high as $350 and even $400 a thousand" (Valparaíso *The Neighbor*, April 29, 1849).

As for Mickle & Co. in California, on March 22, 1849, they advertised in the *Alta* as "Importers and Commission Merchants" in both San Francisco and "Benicia City." On April 12, they again advertised their "new and superb goods," which were a "great attraction at Benicia" as they landed cargoes from *Tasso* and *Progreso*, "just arrived from Valparaíso." They advertised that

> To accommodate purchasers from the interior, the most extensive arrangements have been made for the conveyance of goods from Benicia to Sacramento City, Stockton and other points, at *one half* the rate of freights now charged from San Francisco on goods destined for the same places (San Francisco *Daily Alta California*, April 12, 1849).

Regular connection with Mickle y Cía in Valparaíso maintained the home office's fortunes and kept the San Francisco partners stocked with goods. Summarizing these shipments, a pattern emerges in which Mickle & Co. imported little in the way of "luxuries" and instead focused on the commodities required for a growing city and the camps in the hinterland, namely food, clothing, building supplies, hardware and

equipment, coal, furniture, furnishings and other domestic items such as blankets and soap (Table 1).

The only problem was keeping the supply line open. The demand for Chilean vessels to carry cargoes to San Francisco was great. In June 1849, *The Neighbor* reported that the Gold Rush was overwhelming Valparaíso

> In one day passports for a hundred persons have been asked. Persons from the interior are continually coming to take passage. Every vessel that touches here from America has crowding applications. Ships are scarce for the demand. Freights have risen to 40 and even 45 dollars a ton, for this to San Francisco. It is calculated that about three thousands and five hundred [persons] have sailed from this port alone (Valparaíso *The Neighbor*, June 29, 1849).

The conditions and the need to keep the San Francisco partners supplied led the firm to send goods on foreign vessels bound for San Francisco that had stopped in Valparaíso for rest, provisions, or repairs, as well as signing on as agents to sell the rest of that vessel's cargo, on consignment, once they arrived in California.

An example of a cargo from other ports that the partners sold as agents for more distant owners was that of the ship *Montreal* in August 1849. Owned by Henry Peirce and James Hunnewell, *Montreal* was a veteran of Pacific and China trade, now sent to California by her owners to participate in the Gold Rush. Two receipts in the papers of Josiah Belden, from the auction on August 8, show that Belden bought three dozen "silk hose" and one dozen "straw hats," as well as a crate containing 33 muslin dresses at $4.25 each, for a total of $140.25, all of it presumably from *Montreal*'s cargo (Belden 1849).

Table 1: Commodities Imported by Mickle & Co., 1849-1851

Food	Alcohol	Hardware and Equipment	Building Supplies	Misc.	Clothing and Footwear	Domestic Items
Barley	Ale	Axes	Boiled oil	Beads	Bluchers	Baskets
Beans	Anisette	Bolts	Bricks	Cigars	Boots, gaiter	Bedsteads
Beef (Mess)	Arrak	Brooms	Cement	Coal	Boots, winter	Blankets
Butter	Bitters	Brushes	Iron houses	Combs	Brogans	Books
Candies	Brandy	Canteens	Lumber	Hay	Domestics	Bookcases
Cheese	Cherry Brandy	Carpenter's tools	Nails	Launches	Drawers	Boxes
Chocolate	Claret	Copper	Paint	Medicine	Fabric	Candles
Coffee	Cognac	Fire engines	Planks	Paper	Flannels	Carpeting
Currants	Champagne	Furnaces	Rope	Powder	Handkerchiefs	Ceramics
Dried Fruit	Cordials	Harness	Shingles	Tobacco	Sashes	Chairs
Eggs	Frontignan	Hinges	Tacks		Shoes	Couches
Flour	Gin	Iron, bar	Tents		Silks	Curtains
Fruit Cake	Hock	Knives	White lead		Shawls	Cutlery
Ginger	Madeira	Locks	Window glass		Shirts, cotton	Earthenware
Hams	Marsalla	Oars	Wood houses		Straw hats	Glasses
Lard	Port	Screws	Zinc		Undershirts	Hangings
Macaroni	Porter	Stills				Lamps
Meal	Rum	Stoves				Laquerware
Molasses	Sherry	Tin, plates				Matting
Olives	Stout	Tinware				Mattresses
Oranges	Whiskey	Wagons				Oilcloth
Oysters	Wine					Piano
Pickles						Pictures
Pork						Prints
Potatoes						Settees
Preserves						Side Tables
Raisins						Soap
Rice						Straw Mats
Sardines						Tables
Sauces						Trunks
Sausages						Tumblers
Spices						
Sugar						
Sweetmeats						
Syrup						
Tea						
Vinegar						
Walnuts						

By that time, Mickle & Co. had relocated from Sherman & Ruckle's warehouse to their own on the Clay street wharf. The waterfront location was choice, as shown by their *Alta* advertisement selling a lot with "a large and commodious store, with a good dwelling house in the rear" on Kearney street near the corner of Sacramento. While a

good piece of property, it had less value to them than their lot on the wharf. There, at the water's edge, in a rapidly developing commercial district of wharves, warehouses, and auction houses, they were in the thick of the action and the potential for profit. A lot farther up the street, closer to the plaza, did not provide that opportunity.

They remained busy. On August 23, they advertised goods from *Ann McKim*, *Norman*, *Connecticut*, *Ocean* and *Montreal* as well as "other vessels" in what soon were a series of regular advertisements in the *Alta*. On September 13, they advertised in Spanish that the Chilean barque *Carmen* would sail for Valparaíso and Talcahuano in two days. On November 1, they advertised the sale of "sawed pine lumber" from the British bark *Ennerdale*, from Auckland, New Zealand. Five weeks later, they advertised passage and freight on *Ennerdale*, now bound for Callao. On November 8, they were selling fresh flour and barley "just arrived" from Valparaíso in the ships *Bingham* and *Ann Smith*, as well as dry goods, clothing, food, "scales and weights, 1,500 canteens, 20 large tents...also 2 excellent frame houses, complete, size 25x35 and 15x35 feet" from the ship *Francis Ann* "from Boston and Valparaíso." On December 6, they were selling sugar, lumber, and barley from four vessels just arrived from Buenos Ayres and Talcahuano. They also advertised the impending sailing of *Ennerdale* for Callao. Despite their Chilean connection to the parent company, the partners also handled ships bound for other ports; on November 15, they advertised freight and passage on the Dutch bark *Drie Gebroeders*, bound for Hong Kong and Manila.

The ship *Probus*, which arrived on December 9 from New York and Valparaíso, brought Mickle & Co. a cargo of prefabricated iron houses, stoves, furnaces, tin ware and

lumber, which they advertised for sale on December 15. On December 24, they offered "passage or freight" in the British bark *St. George*, bound for Valparaíso. On January 7, 1850, they advertised passage to Valparaíso on the Chilean bark *Fanny*, "100 tons dead weight, freight free." It was a busy month for the firm; on January 28, they offered five separate advertisements for goods, and the next day informed the *Alta*'s readers that they "wanted to purchase" a fast sailing schooner or brigantine even as they advertised someone else's ship, in this case the bark *E.H. Chapin*, for "freight or charter." In February they advertised their dispatch of the bark *Hamburg* "for freight, (merchandise or treasure) or passage" (San Francisco *Daily Alta California* February 18, 1850).

The ship *General Harrison*, 185 days from Boston, and 58 days out of Valparaiso arrived on February 4 (San Francisco *Daily Alta California*, February 5, 1849). This ship, its cargo consigned to Mickle & Co., represented a turning point in the company's affairs. It took nearly three weeks before Mickle & Co., who had taken on the ship's cargo on commission, could begin landing *General Harrison*'s cargo. On February 23, the firm advertised the sale of the ship's cargo in the *Alta*, along with cargo from the Chilean ship *Carolina*, just in from Valparaíso, and the cargo of the ship *Nathaniel Hooper*, just in from New York.

Mickle & Co. also advertised the sale of *General Harrison*; "500 tons, well found and in complete order" (San Francisco *Daily Alta California*, February 23, 1850). The market was not good for ship sales at that time, however. An advertisement for the storeship *Georgian*, moored off the foot of Jackson Street, praised that vessel's 450 tons of storage capacity and "excellent accommodations for a large number of persons" but noted the owners were willing to sell the ship on terms of "half cash, and the balance at

60 days" (San Francisco *Daily Alta California*, January 31, 1850). On these terms, the ship did sell, and remained in business as a storeship through the May 4, 1851 fire.

Mickle & Co.'s regular advertisements in the *Alta* provide a sense of the goods that moved in and out of *General Harrison* after her conversion. These are summarized in the appendix. The first cargo to be landed, stowed in the storeship and then sold was probably the goods from the ship *Pacific*, which had arrived from Valparaiso. The goods from *Pacific* had been offloaded by August 7, when Mickle & Co. advertised her for the return voyage to Valparaíso. They then offered goods from the ship *Sir George Pollock*, a July 31 arrival from Hong Kong with "silks, satins, crepe shawls, superior sweetmeats, trunks and teas." They repeated and augmented the ad on the 16th

> white embroidered crape shawls, col'd do., assorted damask do, do scarfs, crimson cord sashes, silks, satins and saranets of ass'd colors and styles, figured camlet, check'd and satin gauzes, black silk and satin hdkfs, figured and checked do, black Levantine do, preserved ginger, oranges, & c. teas, superior, in 5 and 10 lbs. caddies. Also, an assortment of lacquered ware, table and hanging solar lamps (San Francisco *Daily Alta California*, August 16, 1850).

The auction attracted the positive attention of the editors of the *Alta*, always eager to promote the business of the town and the larger goal of transpacific trade with Asia. In May, an *Alta* story had noted, "the rage for China Goods seems to be on the increase...the avidity with which these curiosities are brought up on the occasion of public sales, has given an impetus to this particular trade" (San Francisco *Daily Alta California*, May 16, 1850). In regard to the auction of *Sir George Pollock* 's cargo, "the sale of Chinese goods, at the warehouse of E. Mickle & Co., Clay street wharf, deserves the attention of all desirous of purchasing this description of goods. The assortment has

been well selected, and comprises some of the richest descriptions ever imported into this market. The sale will commence at ten o'clock this morning" (San Francisco *Daily Alta California*, August 5, 1850).

Auction sales generally occurred on a monthly basis. On September 19, the firm offered goods that were not identified as any specific ship's cargo, but rather appear to be unsold merchandise from *Pacific*, *Sir George Pollock* and perhaps even earlier arrivals. Having a storeship meant that unsold goods, while occupying space that might otherwise be rented out, nonetheless could be held and sold later if the market and the prices were not right when a ship arrived with a cargo consigned to Mickle.

Space was still at a premium and Mickle & Co. was anxious not to pack *General Harrison* full of unsold or stored goods. An economic downturn in the city that started in September continued through the fall; one bank, Naglee & Company, closed after a run on it (Soulé *et al.* 1854:289). The extension of credit for unproductive property included merchandise – a "glut of goods...coming in faster than it could be sold except at a loss," held in warehouses and storeships on credit in a cash-strapped market (Johnson 1964:41).

Not surprisingly, therefore, on September 21, Mickle & Co. advertised to tell consignees of the ship *John Marshall* "the ship is ready to discharge her cargo, and they are requested to call at our office, pay the freight, and receive orders for their goods without delay" (San Francisco *Daily Alta California*, September 21, 1850). Mickle & Co. advertised the cargo of *John Marshall* again on September 29, October 5 and the 7th. Mickle's ad exhorted consignees of some of the goods on *John Marshall*, namely lumber and shingles shipped for Smith & Bennett and lumber, shingles and boxes shipped to John A. Sheaf, to pay for them before they were sold at auction for freight and charges.

On October 20th, Mickle & Co. advertised a variety of goods "per late arrivals" as they tried to clear unsold merchandise. The push to sell those items may have come from the knowledge of an impending arrival, that of the barque *Equator*, a regular sailor from Valparaíso, which came in a week later. A month after *Equator*'s arrival, on November 25, Mickle advertised goods "which will be sold low to close invoice," from the recently arrived three-masted schooner *Spray* from Paita, Peru and the ship *Powhattan* from Baltimore, which included the usual assortment of goods from South and Central America such as 360 bags of Chile beans and four cases of straw hats – but also a variety of cigars and wines and liquor. On December 9, they advertised even more "segars" and tobacco, "just received, per *Baltic*," and on the 19th, more goods from Valparaíso landed by *Justine*. At the end of the year, they advertised for freight or charter the ship *Lady Amherst*, a November 19 arrival from London via the Falklands that had sailed into town with 50 coffins, 40 casks of porter, 3 iron houses, 2 wooden houses, 27,000 bricks, 1000 casks of ale and 40 bales of dry goods (San Francisco *Daily Alta California*, November 19, 1850).

The town and its businesses quickly recovered from the slight depression of the fall. By year-end, 1850, Mickle & Co. were listed as some of the millionaires of San Francisco based on their city taxes. Paying $750, Mickle & Co. was in the middle ranks of the city's "wealthiest portion" (San Francisco *Daily Alta California*, December 14, 1850). In the New Year, though, Tillinghast left the firm to begin a new career as a banker. On January 3, Mickle announced in the *Alta* "the term of co-partnership of the firm of E. Mickle & Co., commission merchants, having expired this day, Mr. Wm. H. Tillinghast has retired from said firm, and J.M. de Satrustegui has joined the new co-

partnership, commencing from this date. The business of the house will be conducted as hitherto, and under the same style, San Francisco, Jan. 1, 1851."

The new year of 1851 also started with an advertisement that Mickle & Co. had "just received an invoice of China goods" (San Francisco *Daily Alta California*, January 1, 1851). On the 10th, Mickle advertised goods from two arrivals, the ship *Oscar* from China and the brig *Erato* from Callao. Mickle was not alone in selling goods from *Oscar*. Commission merchants Macondray & Co. advertised three different types of tea, while Mickle advertised a larger and more diverse sale of coffee, tea, eggs, pork, "Manila segars," furniture, rope, oars, oil cloth table covers, matting, silks and satins, rice, molasses, wine, spices, preserves, Collins's axes, trunks, and gunny bags. The goods from *Erato* were the usual shipments of sherry, cognac, Chile flour, chocolate and sugar, as well as "looking glasses, undershirts, drawers, hose, towels, oilcloths, segar paper, hock &c &c" (San Francisco *Daily Alta California, January* 10, 1851).

On February 8, they advertised a variety of goods without citing a specific ship's cargo. While some of them are leftovers from the recently arrived ship *Oscar*'s cargo, such as "China goods, furniture & c." and "20 casks Tennent's draught ale," the list of most of the items reflects a consistent pattern in the company's advertisements and hence their regular shipments from South America. While cargoes taken on consignment for absent owners were handled and sold by Mickle, the firm was also relaying orders to Valparaíso for regular shipments of goods that were selling in San Francisco, like the alcohol, tobacco, and food staples advertised on the 8th: port wine in casks, sherry, "superior wine in cases," "spirits in demijohns," "Havana and Esmerelda segars," and "Peruvian and Chile chocolate." Another indication of regular connections to Valparaíso

was an advertisement in the February 10 and March 1 editions of the *Alta*, announcing that the ship *Pacific*, which had previously arrived in 1850, had returned from another voyage, to Valparaíso, and "consignees of cargo are requested to call without delay at the office of the undersigned, pay freight, and receive orders for their goods."

March was a busy month for the firm. On March 7, they joined Daniel Gibb in selling goods from the ship *Huntress*, just arrived from Valparaíso. They were not the agent for the ship, however, handling only a portion of the the cargo. On March 25, another commission merchant, Sage & Smith, advertised that *Huntress* was ready to discharge cargo and consignees were to call, pay freight, and "get an order for delivery" (San Francisco *Daily Alta California*, March 25, 1851).

The same day Mickle & Co. advertised the same for the ship *Emily*, just arrived from Valparaíso, and the following day, on the 26th, advertised that another vessel in their care, the schooner *Holder Borden*, was ready to discharge. The *Alta* reported the schooner as being 60 days from Valparaíso, with a cargo of 50 barrels of mess beef, 356 kegs of lard, 40 barrels of rum, 1,119 bags of Brazil sugar, and 690 bags of flour. On March 29, Mickle advertised the sale of the mess beef, and 63 bales of Virginia tobacco, all that were apparently left from the 100 bales brought in by *Huntress*. They also offered "dried fruits and potatoes, Claret in cases, and a variety of desirable goods."

On April 5, Mickle advertised the availability of goods from the brig *Jackin*. The cargo was listed in the *Alta* after her April 3 arrival, 130 days from Sundsvall, Sweden, via Valparaíso (53 days out) under the command of Captain Lidquist, as "21,200 lbs bolt iron, 16,000 bricks, 2 kegs cognac, rope, wine, flour, sherry, straw mats and barley."

Mickle's advertisement on April 5, even before the cargo was unloaded, was more specific

> 21,000 lbs. Swedish bolt iron, from ½ " to 1"; 16,000 bricks; 33 doz Arrak punch; 100 doz 3 inch planks, boat spars, spare timber; 80 cases sherry wine; 50 cases Paxarere (sweet sherry;) 25 cases Frontignan; 100 kegs sherry wine; 9 gals ea; 300 half sacks flour; 187 bags beans, 49 bags barley &c &c (San Francisco Daily Alta California, April 5, 1851).

The cargo of *Jackin* was the last to be offloaded into *General Harrison*. The fire of May 4, 1851 destroyed the storeship.

Mickle & Co. remained in business. On May 6, they advertised in the *Alta* that they would "commence business in a few days upon their Clay street property; until a building can be run up, they will be found at Edmund Scott's, Dupont st, near Sacramento st." The next day, they advertised "100 doz. Straw mats, good for bedding; 275 hf bags Chile flour; 44 cases sherry wine; 25 cases sweet wine; 25 casks sherry wine; 33 doz arrak punch; 18,000 lbs. round Swedish bolt iron; 600 lbs copper bolts; 18,000 segars, Panama hats, &c." (San Francisco *Daily Alta California* May 7, 1851) Some of the items offered for sale were from *Jackin*'s cargo, which survived the fire, perhaps because not all of it had been offloaded into *General Harrison*.

On May 24, they advertised "E. Mickle & Co. have rebuilt their house on Clay st. wharf and resumed business. They offer for sale – iron, Panama hats, domestics, drills, carpeting, Havana segars, first quality; port and sherry in casks,; champagne, cherry cordial, lard, flour &c. &c (San Francisco *Daily Alta California*, May 24, 1851). There was a concerted effort to get the business back on its feet. Just a few days earlier, the firm had advertised the impending departure "For Hong Kong – To sail on the 24th May,

the new Swedish clipper brig JACKIN, 260 tons. For Freight or Passage apply to E. Mickle & Co" (San Francisco *Daily Alta California*, May 20, 1851).

The loss of *General Harrison* in the May 4, 1851 fire was a major blow to the fortunes of E. Mickle & Co. They remained close to their original location, listed at 144 Clay in Parker's 1852-1853 directory and at 146 Clay in A.W. Morgan & Co.'s 1852 directory. However, the firm is not listed in the city directories after this. The firm may have over-capitalized with the purchase of a waterlot, and the purchase and modification of *General Harrison* into a storeship. While the influx of funds was substantial, as reflected by the recorded remittances of gold to the parent office in Valparaíso, Mickle & Co. apparently did not have the means or the desire to capitalize a new warehouse on the San Francisco waterfront subsequently.

Etting Mickle retained property in nearby Benicia, which was not liquidated until the mid-1850s, and Edward Mickle emigrated to San Francisco. He remained active in local affairs, and was an officer in San Francisco's Spring Valley Water Works until his death in 1865. The Mickles did not go bankrupt, but they dropped out of the commission merchant business. Nonetheless, the career of E. Mickle & Co., as reconstructed through their newspaper advertisements, offers a detailed example of commodity flow and how the maritime system worked through commission merchants to create the entrepôt of San Francisco.

Analyzing Mickle & Co.'s Business

Mickle & Co. remained active as commission merchants in San Francisco for more than three years between September 1848 and early 1852. The total amount of their

profits are unknown as the company's business records have not been located. They did well enough, by the end of 1850, to be listed as some of the millionaires of San Francisco (San Francisco *Daily Alta California*, December 14, 1850). The pattern of shipping and commodities offers another indication of their relative success and of how they conducted their business. Commencing at the juncture of 1848 and 1849, the firm dispatched at least two vessels between Valparaíso and San Francisco each month, on an alternating schedule.

For example, on December 5, 1848, the company's chartered barque *Tasso* arrived in Valparaiso, and on December 21 they sent the schooner *Progreso* to San Francisco. As *Progreso* sailed north, the company's brig *Huntress* was heading south for Valparaiso, having cleared San Francisco on December 13, 1848. Just before *Progreso*'s arrival, on January 9, 1849 Mickle dispatched the ship *Ann McKim* to San Francisco. Over the next two years, gradually declining after mid 1850, eleven separate vessels were advertised by Mickle, some like *Huntress*, *Progreso, Virginia* and *Tasso* with multiple sailings, and *Ann McKim* regularly through September 1851.

This regular pace of sailings of company-owned or chartered vessels brought for the most part gold dust back to Chile and carried basic Chilean commodities like barley, butter, flour, beans, wine, and fresh and dried fruit to California along with diverse goods that had come to Valparaiso from other Latin American countries such as tobacco from Cuba and Ecuador, sugar from Brazil, coffee from Ecuador, chocolate from Peru and straw hats from Panama and Ecuador. Also shipped on the company's vessels were items from Europe, Asia and America that like the Latin-American goods had probably initially come to Valparaíso in the Chilean port's role as the southern Pacific's most active

entrepôt. What this suggests is that in response to regular communication from Mickle & Co. in San Francisco, Mickle y Cía in Valparaíso were diverting goods arriving from abroad at their Chilean entrepôt to the local (California) market instead of transhipping to other South American ports, Australia or China.

The other pattern suggested by the Mickle advertisements is that the company extended their business beyond their own ships and their home port of Valparaíso to vessels from foreign ports. In these cases, as forwarding and commission merchants they handled the sale of both the entire cargo or as the ads indicate, a portion of a ship's cargo in tandem with other commission merchants. Mickle was not alone in advertising goods from some vessels evidenced in their sharing in *Oscar*'s cargo with Macondray & Co. and part of *Huntress*'s cargo with fellow Chilean commission merchant Daniel Gibb.

Between January 1849 and May 1851, a period of 28 months, Mickle & Co. handled cargoes from 23 vessels from New York, Canton, Australia, Baltimore, and London. Only seven (33%) of these vessels sailed to San Francisco via Valparaíso, where Mickle y Cía loaded goods on them. This is probably indicative of Mickle's global connections. These vessels and their owners and masters had either made previous arrangements with Mickle, or the deal was negotiated in Valparaíso after their arrival. In one case, that of the Danish ship *Cecrops*, it is possible, given Edward Mickle's previous role in Ecuador as the Danish consul, that this was a prior arrangement based on a longstanding relationship. The others may be the result of successful hustling on the Valparaíso waterfront, but the fact that the other 14 vessels that Mickle advertised in San Francisco came direct from other ports, and yet were consigned directly to Mickle & Co.,

suggests that the world maritime system was at work through Mickle's global business relationships.

The commodities shipped in these vessels are also suggestive of Mickle's communication to foreign partners of market conditions and requirements. The booming community required building materials, so *Cecrops* arrived with a cargo that included 75,000 feet pine boards and window glass, the British bark *Ennerdale*, from Auckland, New Zealand, brought "sawed pine lumber," and *Probus*, brought Mickle & Co. a cargo of prefabricated iron houses, stoves, furnaces, tin ware and lumber. *John Marshall* brought, among with other items, 50,000 shingles, 140 boxes of stoves, 50,000 bricks, and 130,000 feet of lumber. *Lady Amherst* brought 3 iron houses, 2 wooden houses, and 27,000 bricks. *General Harrison*, solely handled by Mickle, came to San Francisco with 250,000 ft of "superior planed and matched pine boards, of all sizes; 100,000 best shaved shingles; 10 two story frame houses, 20x20, complete; 1 do 18x28 do; 1 do 15x32 do; 75,000 bricks; 1500 fire bricks; 200 bbls. Extra cement, metallic paint, nails, carpenter's tools, boil'd oil, brushes, etc." all for building, as well as "25 tons Lackawanna coal," a much needed commodity and "3 new and superior launches, well adapted to the river trade, with masts, sails and rigging complete," perfect and highly saleable craft to work the trade between San Francisco and Sacramento.

These cargoes reflect an important aspect of Mickle's role in the San Francisco economy and its relationship to the regional and global processes in the world as they impacted on the city's market economy. The global nature of the maritime system meant that cargoes from all over the world – Swedish steel, French and German wine, Spanish raisins, Belgian carpets, Peruvian chocolate, Cuban cigars, French tinned sardines,

preserved eggs from China, spices from Indonesia, were being shipped from smaller ports like Sundsval, Marseille, Callao, Havana, Malaga, Antwerp, Nantes, and Canton to larger ports (entrepôts) like London and New York, and from there to Valparaíso and San Francisco. These were luxury items intended for the gold-glutted market of San Francisco, which was described in 1855

> I have seen purer liquors, better segars, finer tobacco, truer guns and pistols, larger dirks and bowie knives and prettier courtesans here than in any other place I have ever visited; and it is my unbiased opinion that California can and does furnish the best bad things that are obtainable in America (Helper 1855:68)

But there was more to this market than the luxury goods being sent in response to the gold.

The advertisements reveal consistent shipments of commodities that were more suited to the actual needs of the growing city and region than to world perceptions of a gold-frenzied market of conspicuous consumers. While such items were shipped and sold, such as the alcohol and cigars, the majority of shipments to Mickle were not luxury items but staples and basic commodities that spoke to the need for food, shelter and clothing, as well as industry. A comparison of Mickle's advertised cargoes with summaries of other advertised cargoes for the period November 1850-November 1851 shows, for example, more arrivals for goods such as 32 cargoes with barley (Rasmussen 1966:360) and 44 cargoes with bricks (*ibid.*:361) as opposed to four cargoes with perfume (*ibid.*:372).

Conclusion: The Commission Merchants as Agents of the World System

The industrialized world (system) was creating mass-produced goods – machine cut nails, bricks, milled wood, steel tools, machinery, and even prefabricated houses and other buildings, and shipping them to build San Francisco. These, as well as the other bulk commodities required to feed the city, are evidenced in Mickle's advertisements. The regular shipments of beans, barley, coffee, butter, hams and mess beef from Chile and other centres formed, with alcohol, the mainstays of Mickle's shipments. The local economy could not and did not provide these items, which like building materials had to be shipped from elsewhere. These are the significant aspects of the *événements* represented in Mickle's advertisements, and they fit with Wallerstein's (1974:42) observation that in flows of commodities, "in the long run, staples account for more of man's economic thrusts than luxuries." This was recognized by Mickle and his fellow commission merchants, as well as their consignees and partners around the world, as the goods that would sell for maximum profit.

The commission merchants of San Francisco were situated on the waterfront at a critical junction and from there they could control the flow of commodities. From a central point where ships were docked, goods unloaded for transhipment to the interior and the mines, or for sale into the city's market, the merchants not only controlled the movement of commodities but also to some extent market conditions through warehousing in large facilities dockside such as piling-supported buildings or storeships.

As a result of regular and relatively quick communication to their international network of other commission agents and partners in other ports, as evidenced by Mickle & Co.'s patterns of shipments of commodities from Valparaíso, they could respond to the

ebbs and flows of the city and region's commerce. Mickle, for example, imported Indian trade beads in 1849 (San Francisco *Daily Alta California*, April 5, 1849), which apparently did not sell and were never again imported or advertised. What probably represents that unsold shipment of beads was excavated in 2001 from the *General Harrison* storeship where it had been stowed two years after its arrival. The storeship was Mickle's response to handling unsaleable merchandise as well as slow-moving goods.

Goods in high demand commanded high prices until the market was glutted, and then their value dropped. This occurred with flour and lumber on more than one occasion. Commission merchant Joshua Norton attempted to corner the market on rice, over-capitalized by borrowing and investing all he had in successive cargoes which he stowed aboard his storeship (McGloin 1978:84). Norton was ruined when several cargoes of rice arrived at once that drove down the price. Bankrupt and insane, he re-emerged in public life as a pitied and tolerated beggar with delusions of grandeur, the self-styled "Norton I, Emperor of the United States and Protector of Mexico" until his death in 1880.

Not every commission merchant gambled or over-extended to Norton's extent. But others did run the risk of losing their heavy investment in one of the city's frequent fires, especially if their inventories, including goods belonging to others, were situated in one locale. Mickle & Co. were, after a two and half year period of success, finally caught in this trap, as were others. But while individual merchants faltered, failed and withdrew, others thrived. Investing their profits in more shipborne cargoes, but also in real estate and more permanent infrastructure, they continued to capitalize San Francisco as an entrepôt and as a growing urban centre. This enhanced not only the city but also the

world system's expansion into the Pacific. The outward flow of gold and the inward flow of the industrialized output of the eastern United States and Europe, integrated San Francisco as a semi-periphery and then into the core of the world system.

By the late nineteenth century, San Francisco was a principal player in the process of incorporation of the broader Pacific as a peripheral zone, importing resources such as copra, rubber and oil, and the goods of the China trade from across the Pacific. From San Francisco these goods headed to the east by rail or to Europe by ships. This was the legacy of the Gold Rush commission merchants who despite individual travails persisted as a cohesive force to overcome the risks and occasional disasters such as the fires to develop a permanent base for trade that would in time control more than the flow of commodities in and out of California's gold mines, towns and cities, but the flow of commodities throughout the Pacific Rim.

CHAPTER SIX:
THE ARCHAEOLOGY OF GOLD RUSH SAN FRANCISCO'S WATERFRONT

This chapter provides a historical overview of the development of historical archaeology in San Francisco, specifically where sites associated with the city's maritime origins and buried waterfront are concerned. It is critical to understanding the impacts of ongoing urban development in discovering, impacting and at times destroying some sites while also highlighting the potential for archaeology. In this chapter, I also introduce other waterfront sites germane to this dissertation.

The rapid pace of change and the massive amount of physical redevelopment of Yerba Buena into San Francisco completely erased most traces of the Gold Rush city. Several catastrophic fires, as well as the dumping of 22 million cubic yards of landfill (Dow 1973:47-48) to create a new waterfront over the burnt remains of the city's first working port left a massive archaeological assemblage beneath the downtown core. This assemblage has been both filtered and scrambled by subsequent urban redevelopment. While these activities have adversely impacted the archaeological record, they also illustrated the archaeological research potential of the assemblage which ultimately inspired and led to protective legislation and archaeological mitigation.

The earliest recorded adverse impacts were in the last quarter of the nineteenth century with the unearthing of the remains of the storeship *Niantic*. Burned in the May 4,

1851 fire, *Niantic* yielded some of the cargo stowed in the hold when excavated in 1872, and again in 1907 (Bullen 1979, Delgado 1979, Smith 1981). The storeship *Apollo*, also burned in the fire, and was exposed and excavated in 1901, 1921 and 1925 (Delgado 1986). No other major site associated with the May 4 fire assemblage was encountered until urban renewal and major construction projects in the 1960s. By this time, the adverse impacts on the buried waterfront were substantial, as this chapter will discuss. Beginning in 1978, a series of exposures of sites and excavations coincided with the passage of protective laws and the development of historical archaeology on the old waterfront (Table 2). This work, which I summarize subsequently, has yielded a more comprehensive understanding of the Gold Rush waterfront, particularly from those sites excavated after 1978.

Table 2: Gold Rush Sites Excavated on the San Francisco Waterfront, 1872-2001

Name	Date(s) of excavation	% of site excavated	References
Niantic Storeship	1872, 1907, 1978	68 percent	Smith 1981
William Gray (hulk)	1980	5 percent	Pastron and Prichett 1979
Hoff's Store	1986	100 percent	Pastron and Hattori 1990
General Harrison	2001	70 percent	Archeo-Tec, in press

Unearthing of *Niantic* and Other Buried Ships, 1872-1900

Even during the height of the Gold Rush, the citizens of San Francisco were aware that the rapid pace of growth, land filling, and the effects of the numerous conflagrations were leaving an archaeological record beneath the city's streets

> At some future period, when the site of San Francisco *may be* explored by a generation ignorant of its history, it will take its place by the side of Herculaneum and Pompeii, and furnish many valuable relics to perplex the prying Antiquarian. Buried in the streets, from six to ten feet beneath the surface, there is already a stratum of artificial productions which the entombed cities of Italy cannot exhibit. Knives, forks, spoons, chisels, files, and hardware of every description, gathered from the places of several conflagrations. Masses of nails exhibiting *volcanic* indications, stove plates and tin ware, empty bottles by the cart-load and hundreds of other miscellanies, lie quietly and deeply interred in Sacramento street, and perhaps will be carefully exhumed in days to come, and be distributed over the world as precious relics! (San Francisco *Evening Picayune*, September 30, 1850)

Forty-Niner Howard C. Gardiner (1970:116), referring to the burning and burial of the ship *Niantic* remarked, "it may that long years hence, when the early history of San Francisco shall be forgotten, some future generation shall unearth her timbers and the archaeologists vainly endeavor to form a reasonable hypothesis to account for their presence."

In August 1872, demolition of the Niantic Hotel at the corner of Clay and Sansome streets unearthed the hull of *Niantic*, which formed the foundation of the building (San Francisco *Daily Alta California*, August 2, 1872). San Franciscans T.A. Barry and B.A. Patten (1878) recalled in their reminiscent *Men and Memories of San Francisco in the Spring of 1850* that the demolition uncovered the lower hull of the ship and 35 "baskets of champagne" identified as Jacquesson Fils, "a superior wine, very popular in California." When excavated it was found to effervesce "slightly on uncorking, and was of very fair flavour" (Barry and Patten 1878:135-136). Champagne tasting at an end, construction soon buried *Niantic* again.

In May 1882, the San Francisco *Daily Alta California* offered a three-part reminiscence of "the Pioneer Storeships," and the "Old Hulks and Storeships." Among the vessels remembered was the "Old Ship" *Arkansas*. Partly broken up and then "scuttled and sunk...if we mistake not, the quarterdeck and other portions of her are still there" (San Francisco *Daily Alta California* May 22, 1882). The *Alta* continued, noting, "a brig on the corner of Battery and California streets was closed in, and our new-comers will be astonished on passing over that spot to reflect that there is A VESSEL BURIED BENEATH THEM."

A week later, the *Alta* continued to note the fate of the old ships, explaining how the ship *Globe* was scuttled with the hull resting beneath Davis Street, while another ship, whose name was not known, lay to the west of *Globe*. Beneath the southeast corner of Battery and Green streets lay a brig on whose deck the Bay Hotel had been built. Landfilling had trapped and then buried the brig (San Francisco *Daily Alta California* May 22, 1882). A week later, at the series' conclusion, other buried ships mentioned included the buried *Almandralina* buried at the corner of Pacific and Front streets, the landfilled hulk of *Elmira* at the corner of Pacific and Davis streets, and *Inez*, an old New Bedford whaler sunk and then filled over on Drumm Street (San Francisco *Daily Alta California* May 29, 1882).

In 1886, historian Hubert Howe Bancroft, in his seven-volume history of California, commented that "As late as Jan '57 old hulks still obstructed the harbor while others had been overtaken by the bayward march of the city front and formed basements or cellars to tenements built on their decks. Even now remains of the vessels are found under the filled foundations of houses" (Bancroft 1886:168). A discovery in June 1890

underscored Bancroft's comment. Workers excavating along Pacific Street, between Battery and Front streets hit a buried hulk.

> Even in its decay sufficient of the wreck remains to give a fair idea of what it was once like. Part of the main deck was exposed to view, as well as the beams...A CHRONICLE reporter came across the queer old relic, and after inspecting the worm-eaten timbers and the rusted and bent chain bolts, set about to find out something of the identity and history of the ancient craft (San Francisco *Chronicle*, June 9, 1890).

The discovery set off a spate of letters to the editor in which old-timers familiar with the forgotten vessel explained it was the "old ship" *Arkansas*. The exposure of the buried ships along the former waterfront inevitably inspired a romantic recollection of the city's Gold Rush past, even though the remains of the ships were cut up, hauled out or reburied.

The Early Twentieth Century Unearthing of the Storeships *Niantic*, Apollo and *General Harrison*

The Niantic Building, completed in 1873, was badly damaged by an earthquake on April 18, 1906, when an earthquake and fire badly damaged it. Redevelopment of the site took place in 1907 and once more the buried remains of *Niantic* were exposed in construction. The next discovery came with a 1912 construction project that encountered a ship that ultimately proved to be the storeship *General Harrison*, though details of the discovery are not available and the buried vessel was misidentified as another ship (San Francisco *Bulletin*, May 5, 1912). The discovery of these buried ships, while only briefly noted in the newspapers of the time and observed as an antiquarian curiosity, was seen as hindrances to progress and the construction of modern high-rises.

Perhaps the most illustrative case of one of the buried ships being a hindrance is that of the storeship *Apollo*, which as previously noted was one of the three working storeships to burn and then be sepulchred in the May 1851 fire. The encounters with *Apollo*'s remains in 1901, 1921 and 1925 is illustrative of the longstanding view that discoveries were romantic encounters for pioneer reminiscences and relic hunting.

Apollo was subsequently exposed in 1921, as workers excavated for the Federal Reserve Bank which remains on the site. At that time the bottom of the hull as well as the burned-off pilings from the wharves that once surrounded the ship were encountered. According to the San Francisco *Chronicle*, *Apollo* had once before [1901] been located, when an elevator shaft was installed in the building that formerly occupied the corner of Battery and Clay. At that time "part of the old ship was cut away to permit the excavation of the shaft" (*ibid.*). The 1921 exposure of the hull recorded it as 30 ft beneath street level and lying upright in the mud, bow pointing west. It was described as "much rotted, although the stem is in fair preservation" (*ibid.*). The *Chronicle* misidentified the hulk as *Euphemia*, San Francisco's Gold Rush jail, which had been moored next to *Apollo* in 1849-1850 but later shifted to North Beach and ultimately hulked and buried there (Delgado 1981).

Notwithstanding the 1921 misidentification of the hulk, according to the *Chronicle*'s story

> from the size of the stem, some three or four feet of which remain intact, and the slope of her sides it is evident that she must have been eighty or ninety feet in length...A number of bronze spikes, once used to hold the timber of the hull, have been recovered from the mud. The spikes are about six inches long and in perfect preservation. A large copper spike, more than a foot in length and an inch and half through still held fast in the stem when the remains of the vessel were unearthed.

In later years, San Francisco *Chronicle* reporter William Martin Camp reminisced about the discovery and how the ship had been identified in 1921

> The new bank building needed an especially deep foundation, and the steam shovel had worked its way to a considerable depth when it hit a snag. Workmen tried every means of removing the obstacle before they discovered they were digging into the stem piece of a ship. They went to work with pick and shovel and finally uncovered the entire keel and a considerable part of the planking and flooring of the ship. When the timber was sawed up it was found to be as sweet and hard as the day it entered the water...The discovery sent a thrill through the scores of idle watchers who stood around the protective railing surrounding the excavation (Camp 1948:77).

Despite the construction and the hacking and sawing reported in 1921, portions of *Apollo*'s hull and Gold Rush material culture associated with it remained beneath the Federal Reserve Bank.

In 1925, excavation for an underground garage behind the bank again hit the hulk. On May 5, 1925, the San Francisco *Bulletin* reported that "a treasure ship" of "the days of old that sailed during the craze for gold in the days of '49 was unearthed...below the ground at Sacramento and Sansome streets today." The excavation exposed *Apollo*'s rudder. According to the *Bulletin*

> among the rotting timbers were coins of 1840, an American penny of 1825, a British penny of 1797, a large nugget, a sextant, ship's fittings and pieces that are a delight to those rare things. The treasure is now in charge of Captain John P. Healy, head of the Federal Reserve guard forces, who remembers when, several years ago, huge beams believed to have belonged to this same ship were unearthed when the bank foundation was being laid (San Francisco *Bulletin* May 5, 1925).

Bank officials displayed these artifacts in a glass cabinet mounted atop a copper clad section of the ship's sternpost, apparently cut free of the exposed stern in 1925. Also

placed in the cabinet were souvenir wooden forks and spoons carved from the ship's timbers by a bank officer. In 1980, when the bank relocated to another building, Federal Reserve officials donated these artifacts to the National Maritime Museum, San Francisco (Delgado 1984).

The *Apollo* assemblage, a very limited sample from what must have been excavated in 1921 and 1925, is now comprised of 28 artifacts, some of which are displayed at the Museum. They include items from the ship's construction, navigational instruments, tools, personal effects and one culinary item. The items relating to the ship are the small section of the copper-sheathed and fastened stern post, two fragments of copper drifts used to fasten large timbers, four yellow metal spikes, and five small boat nails. One nearly intact sextant, and two fragments of another sextant, comprise the navigational instruments. The tools are the metal bit of an auger, the wooden handles for two small awls, and a pair of scissors. The personal items are a small brass cross, all that remains from what was apparently an ornate crucifix, a small round brass box, perhaps for pills, and a small ceramic pipe bowl, with the legend "—A—COGHILL" on one side and "GLASGOW" on the other. As well, a partially melted American eagle brass cap badge, possibly Mexican War-issue but too badly obscured to identify it conclusively, is also present. A single brass cup weight, from a gold scale completes the small assemblage of personal items. A single culinary item, a burnt brass label for a box of sardines, has the surviving legend "J. COLIN A NANTES – SARDINES J COBO HUILE – RUE DES SAR-R-S NO. 9." This type of label was originally attached to a tin container for these sardines packed in oil.

This small group of artifacts offers a hint of what would have been a diverse and rich archaeological site. While it is unfortunate that they are not an archaeologically documented assemblage, and are the result of a very selective process of recovery, these constitute the largest group of artifacts left from any of the chance exposures of the buried Gold Rush fleet until the 1970s.

From Bottle Digs to Urban Archaeology, 1963-1977

Despite the 1948-1949 Gold Rush centennial, Gold Rush discoveries and urban archaeology did not take place in San Francisco. Commemoration and site development at State Parks were nevertheless underway, specifically Coloma, site of the January 1848 gold discovery (Heizer 1947, Neasham 1947 and Fenenga 1967), Sutter's Fort (Gebhardt 1955, Olsen 1959a and 1959b, 1961, and Payen 1960, 1961) Old Sacramento (Landberg 1967, Schulz and Rivers 1980, Praetzellis *et al.* 1980 and Honeysett and Schulz 1990) and in the mining districts of the Mother Lode (Heizer 1948, Payen *et. al.* 1969 and Ritter 1970). In the 1960s San Francisco entered a period of urban redevelopment characterized by several large projects including the downtown excavation of the Bay Area Rapid Transit (BART) system and the Municipal Railway (MUNI) system, the demolition of many older structures and the construction of high-rise hotels and offices such as the Golden Gateway, the Embarcadero Center complex, and the Transamerica Pyramid.

This redevelopment was instrumental in transforming the old downtown into the Financial District. The consequences of construction also provided a boom time for Bay Area bottle collectors

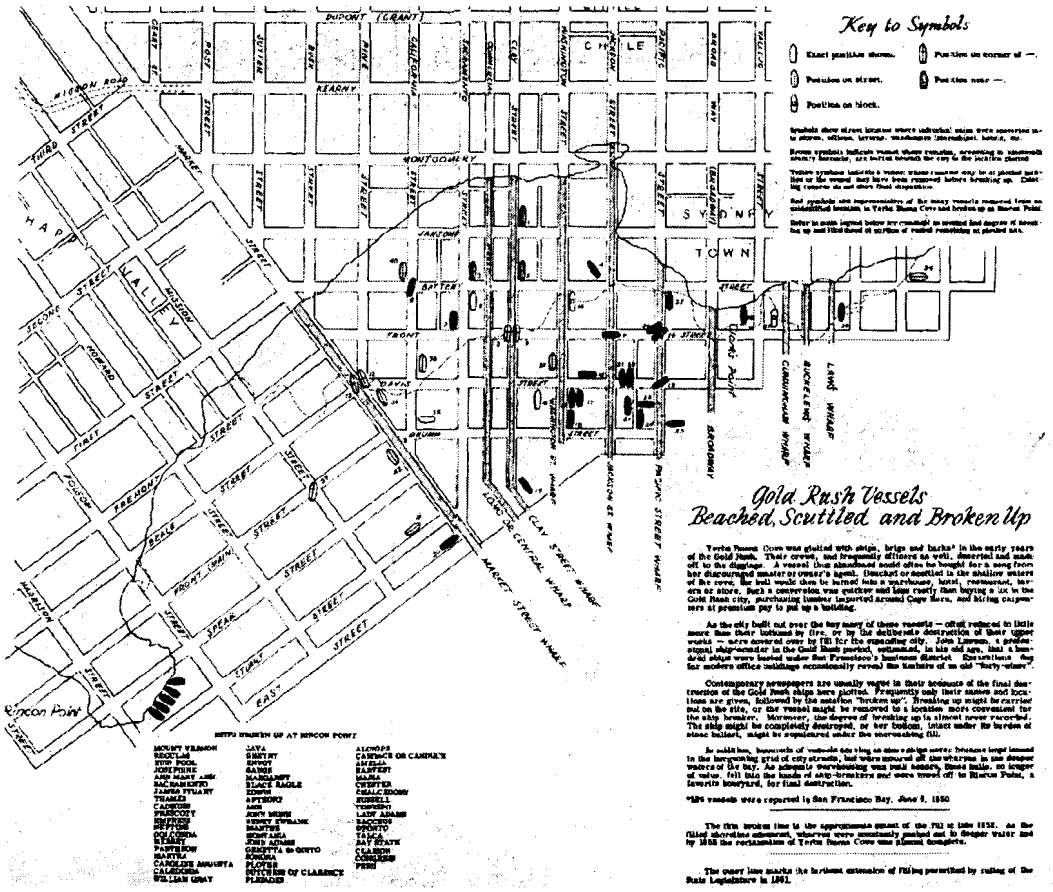
> Digging in downtown San Francisco was a bottle diggers, coin and relic hunter's dream come true in the mid 1960s though the late 1970s. The Great Bottle Rush got its start in the Golden Gateway Redevelopment project [which commenced around 1965]...The major excavations started in the areas of Drumm, Sacramento and Clay, Davis, Sansome, Front and Battery Streets (Whited 2004).

As these construction projects transformed the physical landscape to create the Financial District, they unearthed considerable buried remains of the Gold Rush city, much of it unfortunately without any archaeological control or documentation. In addition to the "relics" there were a large number of burnt-off pilings exposed during the 3.5 million square foot Golden Gateway excavation in 1967 (Whited 2004). Had these been mapped they would have provided a physical outline of the piling supported streets and buildings of the waterfront destroyed in the May 1851.

In 1963, San Francisco Maritime Museum librarian Albert Harmon, curator Harlan Soeten, and director Karl Kortum prepared a detailed map of downtown San Francisco documenting the historically cited locations of forty-two "Gold Rush Vessels Beached, Scuttled and Broken Up" and some of the major wharves (Fig. 6). Of that number, the museum's research indicated that as many as 40 of the ships potentially still lay buried beneath the modern city. The Maritime Museum map, an excellent interpretive tool and the first comprehensive effort to locate the probable locations of the City's buried hulks, served as the basis for subsequent maps and as a tool to predict future exposures due to construction. This was not always the case, however. In 1967, there was much anticipation that the BART tunnel being cut along Market Street might hit a buried ship but excavation revealed only bottles and ceramics in landfill (Soeten, personal communication,1979).

Excavations for the foundation for the Transamerica Pyramid at Clay and Montgomery streets in December 1969 reached 15.75 meters down into the old shoreline. While finding no ships, a broken spar from a ship and Gold Rush artifacts were encountered (*ibid.*). One find was a seaman or 49er's trunk, intact and complete with its belongings. The contents were donated to the Maritime Museum from the Transamerica Pyramid construction site by Thomas Thormahlen, where they are now on display (*ibid.*). These specimens include gold scales, a fragmentary sextant manufactured by James

Figure 6: Detail of Map showing the positions of known storeships and buried vessels on the old San Francisco waterfront, prepared by the San Francisco Maritime Museum in 1963 (Harmon *et al.*) Courtesy of San Francisco Maritime National Historic Park Association, J. Porter Shaw Library.



Bassnett of Liverpool, navigation instruments, including the remains of a parallel ruler, a "pepperbox" pistol, powder flask and bullet mould, and a chronometer manufactured by Bliss & Creighton of New York. Former Maritime Museum Curator Harlan Soeten (personal communication, 1979) identified these as the "surviving contents of a sea chest stored in the hold of one of the storeships known to have been moored in this area." Soeten also believed that the spar – the broken end of a yard– might have been discarded during the conversion of the ship *Niantic* into a storeship in1849 due to the find's proximity to the site (*ibid.*).

The Maritime Museum enlisted the aid of the California Historical Society and bottle hunters to rescue what it could from the construction of the Embarcadero Center Three complex in 1972-1973. No archaeologist was present, but the bottle hunters, according to the Santa Rosa *Press Democrat* of August 20, 1972, had recovered more than 2,500 items, including "hundreds of bottles, a ship's sextant, a chronometer dated 1841, a derringer, silverware, remains of muskets, lanterns, ship gear and myriad other items lost or purposely thrown into the bay during the early 1850s."

The *Press Democrat*'s account also noted that cranes were pulling out "hundreds of pilings, some of them 70 feet long" that had once supported Central, or Long Wharf. While the excavation did not disclose any buried ships, a fragment of a dismantled Gold Rush vessel was exposed and taken to the Maritime Museum, where it is still on display. The identity of this ship remains unknown.

The *Niantic* Rediscovery of 1978 and the Emergence of Professional Urban Archaeology in San Francisco

The continued redevelopment of the old waterfront in the 1970s meant that it was only a matter of time before excavations encountered a buried hulk. In May 1978, historians Roger and Nancy Olmsted, working with archaeologist Allen Pastron, reviewed the *Alt California*'s list of 164 storeships published in the July 31, 1852 edition of the paper. They consequently noted that "not half of them are accounted for by vessels known or believed to have been left in place, burned or dismantled by the already active ship-breakers at Rincon Point, or refitted for sea" (Olmsted *et. al.* 1978:39). They estimated that between 25 to 75 ships lay buried beneath downtown San Francisco. As they wrote their report, construction excavation at 505 Sansome, at the northwest corner of Clay and Sansome, unearthed the remains of the *Niantic* storeship.

The unanticipated discovery of *Niantic* caught the government and the historic preservation community off guard. The City of San Francisco's Landmarks Advisory Board, and the Department of City Planning assumed that 1872 and 1906 construction activities at the site had completely destroyed the vessel's remains (Smith 1981:1). Under the provisions of Federal and State historic preservation laws, a pre-construction review of the possibility of archaeological remains at the site was assessed as part of an Environmental Impact Report (EIR) prepared in early 1978 (San Francisco Department of City Planning 1978).

The preservation laws, particularly the California Environmental Quality Act of 1970, the National Historic Preservation Act of 1966, and the Archaeological and Historic Preservation Act of 1974, were enacted in response to an increasing public

demand for preservation of historical and archaeological resources in the wake of the destruction of standing historic structures and the similar destruction of buried archaeological features (King 2004). The new laws required the preparation of Environmental Impact Reports and a variety of mitigative measures that could be applied if an adverse impact to significant resources was expected. However, the level of mitigation could be limited and ineffective if the project in question did not involve government lands, funding, or participation. While government agencies, especially Federal agencies, operated under more stringent guidelines, private lands and developers for the most part, faced limited responsibilities, primarily the preparation of an Environmental Impact Report. Any mitigation that followed for the most part depended upon the good will of the developer. The *Niantic* discovery clearly demonstrated this.

The report for 505 Sansome sidestepped whether *Niantic*'s remains were present at the site (Smith 1981:1) and recommended

> if any material of potential archaeological or historical importance should be found...the contractor would be legally bound to stop construction to permit professional evaluation of the find. The San Francisco Maritime Museum would be notified regarding excavation dates and specific excavation plans in order that a qualified historian or archaeologist could be present if necessary (San Francisco Department of City Planning 1978).

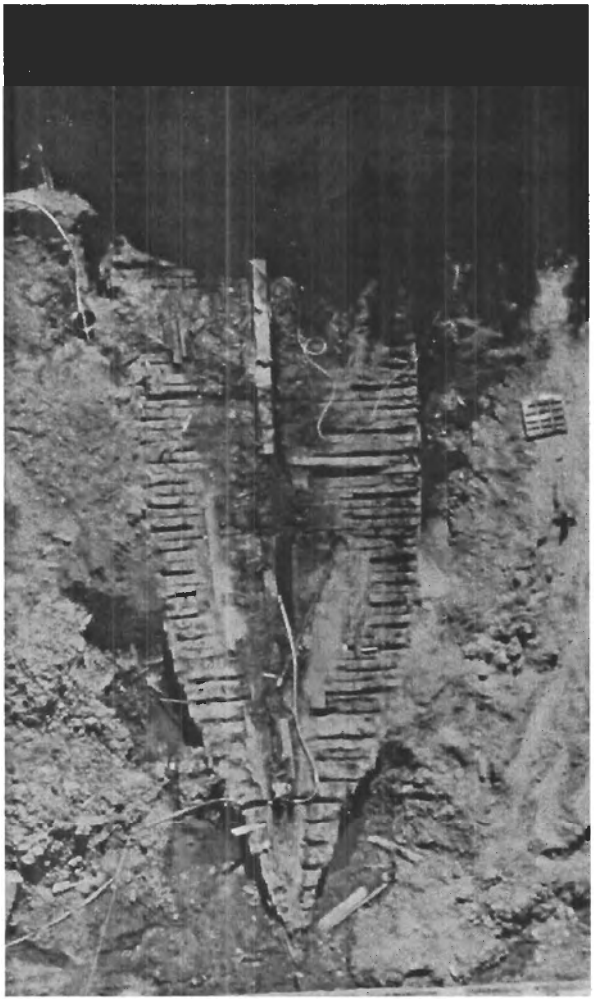
This was a reactionary response, and despite the obligation to stop construction, the contractor and developer were not legally obligated to do anything other than to notify the maritime museum. The museum would then conduct the vaguely worded professional evaluation, and develop an excavation plan without regulatory requirement for a minimum amount of time or an adequate amount of funding (*ibid.*). Nor was any standard for a principal investigator established, leaving the evaluation and excavation, if

it were to occur, to what the Environmental Impact Report stipulated should be a qualified historian or archaeologist who would be present if necessary. As to whom determined necessity was left undetermined. The Environmental Impact Report placed the San Francisco Maritime Museum, which had pursued its historical interest in the city's Gold Rush past and the buried hulks with a particular passion, in a difficult situation.

Following demolition of the buildings on the site in April 1978, excavation of a 1019.28 m^2 area for the foundations of the new structure encountered the remains of the ship late on April 27 or on the morning of April 28, 1978 (Mahoney 1978). Work continued to clear the surrounding area to a level equal to that of the top of the exposed hull. The developer, J. Patrick Mahoney, then delivered a letter to Karl Kortum, Director of the San Francisco Maritime Museum, as required by the Environmental Impact Report (Mahoney 1978). On May 3, museum staff members including curator Soeten and the museum's photographic archivist, Isabel Bullen, were allowed on the site to examine the vessel. Construction work continued but at a slower pace, and the contractor's workmen had cleared almost all the mud and sand deposits above and in the hull except for a small area at the west end of the site. Here the remaining two feet of fill over the floor of the vessel reached to the top of the ribs. This fill extended about 5.45 m from the west end of the site (Bullen 1979:326). At that time 25 m of the lower hull, which extended some 2.13 m down, lay exposed on a bed of bay mud with the bottom of the keel lying some 5.8 m below the street grade (Smith 1981: 4, 20) (Fig. 7). The remains were parallel to Clay Street with the stern at Sansome Street and the bow apparently under the Transamerica Building's Redwood Park to the west (Bullen 1979:326). It was later

determined that 11.43 m of the forward hull remained buried beneath the park, where it remains to this day. The site is now listed in the National Register of Historic Places (Delgado 1987).

Figure 7: **Elevated view of *Niantic* as exposed in May 1978. The pointed end of the hull is the stern; the bow is buried beneath the adjacent Redwood Park. San Francisco Maritime National Historical Park, National Park Service *Niantic* Excavation photographs, P88-032 and P84-008.**



The vessel remains examined on May 3, 1978, represented the exposed outline of 68 percent of the original hull length. For a majority of the vessel, "all that

remained... was the bottom of her hull – keel, frames (ribs), bottom planking with copper sheathing, partial ceiling (inner planking) and part of her keelson" (Bullen 1979:326).

The interior of the excavated hull was empty of artifacts, and much of the interior planking and portions of the keelson had been removed. The building contractor indicated that other than removal of the sand fill, the workers had not encountered anything else in this area of the hull. This was later explained as the probable result of the impact of the 1872 and 1906 exposures; an 1878 reference to the 1872 exposure commented that the hull had been "dug out" to allow for the construction of the Niantic Block to proceed (Hittell 1878:166). There is no other reference to the 1872 and 1907 exposures that provides any detail on the nature and level of the impacts to the site. It was impossible to determine how much of the site had been exposed at each time in the past and how much had been removed. What was known was that artifacts and ship timbers had been removed in 1872, 1907, and in 1978 by construction workers, despite assurances to the contrary (Smith 1981:19).

The undisturbed western portion of the site had survived with some level of archaeological integrity because the earlier construction had occurred on lots that covered only "73 ft" or 22.25 m on Clay Street, leaving "a substantial portion of the storeship's remaining length of 14.17 m [that] extended beneath adjacent lots" (Smith 1981:20). Based on these calculations, 2.74 m was "newly exposed along the east-west axis" (*ibid.*). Bullen's report that some 5.49 m of hull contained undisturbed cultural materials (1978b:6) suggested the building(s) located in this area lacked basement(s) or foundation(s) deep enough to affect the *Niantic* remains (Smith 1981:20). The undisturbed cultural materials subsequently excavated from this area were estimated to

represent a limited sample of 12 percent of what would have been the original archaeological matrix and assemblage after May 4, 1851 and prior to 1872 (Smith 1981:207).

On May 4, excavation of the interior of the hull commenced under the supervision of Bullen with the support of Museum staff and volunteers (Fig. 8). The dig began on the late afternoon of a Thursday after construction work ended for the day and it continued through the weekend with a deadline for completion of Monday, May 8 (Bullen 1979:328, 330, Thomsen 1978). The *Niantic* excavation was marred by late-night raids of relic seekers who removed an unknown quantity of artifacts, including an intact wooden crate of champagne bottles that was broken into and demolished for its contents (*ibid.*). Meanwhile, government representatives, the developer, and museum officials met to decide the fate of the ship and artifacts. The cost estimates for removing the hull remains intact ran to $630,000 – including the costs of shoring up the unstable mud and sand fill that surrounded the site, and reimbursing the developer for construction delays at $16,000 per day (Mulhern 1978). Despite public appeals, the money was not forthcoming. On May 10, working with a grant from the National Trust for Historic Preservation, Kendiah Jeyapalan of Fresno State University measured the exposed hull with photogrammetric stereo photography (Rosato 1978).

On May 11, construction resumed as workers cut away a cross-section of the midships portion of the hull with jackhammers and lifted it on a flatbed truck for transportation to the maritime museum. The developer donated the equipment and labour, and then, after the remaining hull was cleared away by bulldozers, also pulled the intact stern and rudder from the mud and donated them to the museum. Bulldozers

pushed piles of broken frames and planking into dump trucks, and a crane pulled the stem and rudder free of the mud (Todd 1978).

Figure 8: Volunteers and staff from the San Francisco Maritime Museum excavate the interior of *Niantic*, May 5, 1978. The section of the hull with the ceiling planking intact yielded the majority of the assemblage; the area aft of it, identified by the exposed frames, had been previously exposed and salvaged in 1878 and 1907. San Francisco Maritime National Historical Park, National Park Service *Niantic* Excavation photographs, P88-032 and P84-008.

All of this work occurred without formal excavation or a study of the area immediately outside the hull for artifacts, for portions of the ship that had fallen during the fire, or for evidence of the surrounding wharf or piling supported structures. Nor was any opportunity accorded for ongoing archaeological monitoring as construction

continued on the site. The bow, however, survives intact, as the hull structure continued beneath the retaining wall into Redwood Park.

Following excavation and curation of the *Niantic* collection by the Maritime Museum, Mary Smith, a graduate student at San Francisco State University, received permission to carry out analysis as part of her MA thesis project (Smith 1981). The National Maritime Museum Association, who assisted in financing activities for the museum, and the National Trust for Historic Preservation, assisted Smith's work through a grant for the project. Smith's research, after initial cataloguing, focused on a series of questions about the ship, its construction and modification into a floating building, and the function and use of the storeship. She then expanded her goals to look at *Niantic*'s role in San Francisco's overall mercantile and trade patterns. The *Niantic* assemblage represented the use of the storeship as a warehouse, in some cases holding goods for established San Francisco businesses, as well as what may have been personal storage along the lines of today's storage locker business. The majority of the goods could be ascribed to specific businesses – a wine and liquor merchant, a crockery merchant, a merchant who dealt in furnishings and a stationary and office supply merchant (Smith 1981:210-212).

The stationary supplies represented goods from a variety of sources – William C. Rose, a New York stationary supplier and bookbinder's bound journals and daybooks (Fig. 9), lead pencils manufactured by William Munroe of Concord, Massachusetts, E. Wolff & Son of London, and A.W. Faber of Germany (Fig. 10), and brass pen nibs manufactured by Richard Mosley & Co. of London, as well as English ink bottles and printed paper items (Smith 1981:83-100).

The wine and liquor merchant's goods illustrated a diverse international market. The majority of items recovered were cases of champagne, specifically identified as the Jacquesson et Fils brand from Reims (Barry and Patten 1878:135-136, Delgado *et al.* 1979b, Smith 1981:146-147). Other bottles contained what was most probably Porter from the Bristol Porter Brewery in England (Smith 1981:152). Madeira, and "Old Xeres" or Spanish sherry came from *Jerez de la Frontera* (*ibid.*:155). A German "Hock" or Riesling bottle, with a lead foil cap identifying it as the product of "Gerowoth" winery, also was present in the assemblage (Whited 2004).

The crockery, recovered in fragmentary form, was not as diagnostic in terms of backstamps or other marks, but the transfer-printed patterns appeared to Smith to be of possible British manufacture. One fragmentary base sherd contained a backstamp of Joseph Genella, a San Francisco merchant whose company remained in business on nearby Broadway Street. In the 1852 San Francisco City Directory, he was identified as a "wholesale and retail dealer in China, Glass and Britannia Wares, cutlery, lamps, etc." (Smith 1981:175). The implications of the assemblage were clear – San Francisco was not an isolated frontier town.

Figure 9: Leather ledger binding marked "William C. Rose, New York," from the Niantic Assemblage, San Francisco Maritime National Historical Park catalogue # SAFR 10414.

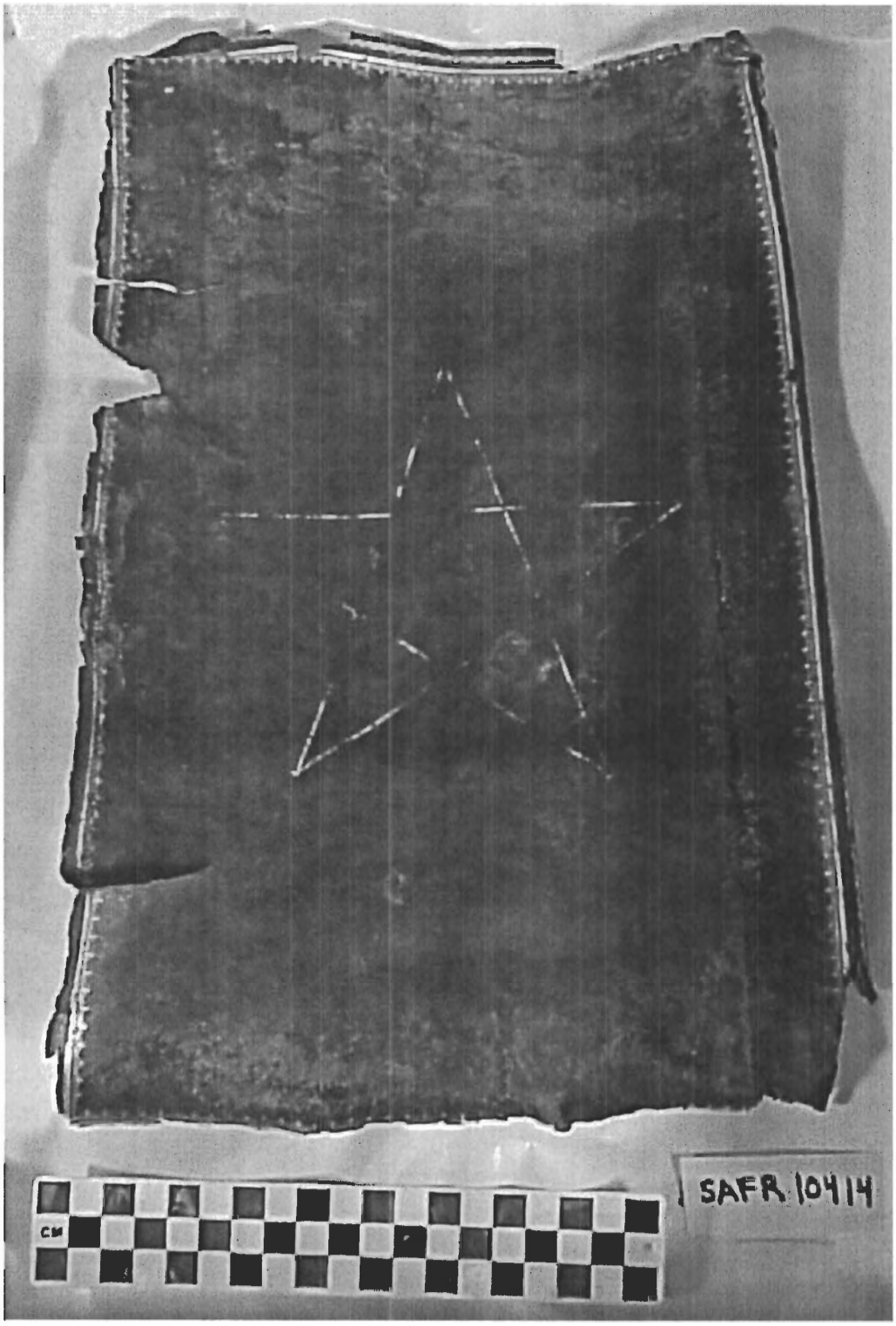
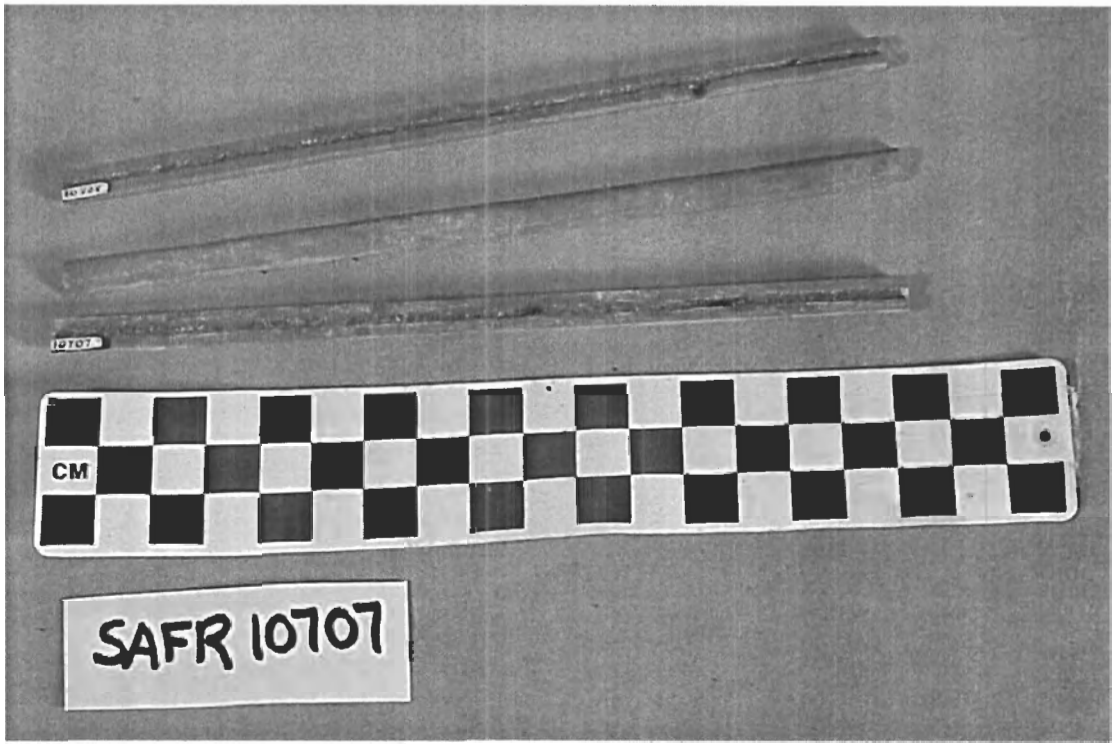


Figure 10: Wooden pencils marked "Faber" and "E. Wolff & Son," from the *Niantic* Assemblage, San Francisco Maritime National Historical Park catalogue # SAFR 10707.



In summarizing the *Niantic* site, Smith argued that the storeship was an important individual site. However, she agreed with Hickman (1977:270-272) that "significance be assigned on the basis of a property's representativeness of a particular historical pattern during a particular time period" (Smith 1981:204). The value of the *Niantic* site was that it was likely representative of San Francisco's Gold Rush market and economy in May 1851, following Brown's (1980:33) assertion that "with regard to urban historic archaeology, an individual site, to the extent that it is both representative and approached with well-defined research goals, can provide generalizations about a city as a whole" (Smith 1981:204).

Smith's work was important not only for her analysis of the *Niantic* but also for her recognition of the wider context in which it occurred. This was in line with the shift in urban historical archaeological practice from archaeology in the city to an "archaeology of the city" (Staske 1978). Her work provides a background for future Gold Rush archaeological work, although some archaeologists have questioned the *Niantic* assemblage's value for comparative studies "due to the limited area of the storeship available for sampling...and the severely limited time available for archaeological investigation" (McDougall 1990:72).

Others have stressed that despite the obvious issues surrounding the recovery, the *Niantic* assemblage "is of particular relevance" (Pastron 1990:14) for interpretation, both in the case of the Hoff Store site and other Gold Rush sites, and subsequently in the interpretation of the *General Harrison* assemblage (Archeo-Tec, in press). The remains of *Niantic*'s hull and an analysis of the construction techniques employed has also provided useful comparative data for other Gold Rush hulks and wrecks in San Francisco and in the Sacramento River (James 1986, Smith *et al.* 1988, Pastron and Delgado 1990, Self 1996, Archeo-Tec, in press).

The Modern Era of Archaeology in San Francisco

The *Niantic* episode combined with newly passed local and state laws, led the Federal government to inaugurate the modern era of archaeological resource management in San Francisco, one requiring pre-construction site assessment, archaeological testing, and monitoring of construction sites in the historic core. This was demonstrated in the three-year San Francisco Wastewater program of large-scale sewer construction along the

San Francisco waterfront (Olmsted *et. al.* 1978, Pastron *et. al.* 1981). Much of the archaeological work was accomplished by Archeo-Tec, a consulting firm of archaeologists led by Allen Pastron. Miles of sewer trenches and borings led to the recording of hundreds of sites and made the project the most extensive archaeological monitoring project yet undertaken in San Francisco. A wide array of features were recorded that ranged from various phases of wood and stone bulkhead construction to a single buried ship. The sewer alignment ran from the end of Berry Channel, which now bisects largely filled Mission Bay, along the Embarcadero, and thence along North Beach to the boundary of the Presidio of San Francisco at the Marina (*ibid.*).

In June 1978 and February 1979, excavation for new construction uncovered two more buried ships. The first was the 1906-sepulchred hulk of the abandoned whaler *Lydia*, discovered when workers cut a sewer trench through it at King Street as part of the sewer project (Olmsted *et al.* 1981). The second was a Gold Rush storeship hulked and buried to form a wharf in the 1850s in the lee of Telegraph Hill. The latter ship was discovered as the result of pre-construction historical assessment and archaeological testing for the construction of an office complex. The largely intact hulk, however, was not fully cleared nor fully documented, as complete excavation was not necessary to allow construction to proceed. The exposure of the starboard bow, a portion of the deck, and historical research identified the ship as *William Gray*, a Gold Rush storeship subsequently filled with rock and scuttled to form the base of a dock (Pastron and Pritchett 1979). This research was later synthesized and a National Register of Historic Places nomination form was prepared for the buried vessel (Delgado 1987).

Another Archeo-Tec project of importance and one in which I was involved is the 1988 excavation of Hare's shipbreaking yard near Rincon Point that yielded the remains of several Gold Rush hulks (Delgado 1981, Pastron and Delgado 1990). Charles Hare, an English-born shipbreaker, worked with San Francisco's Chinese community between 1851 and 1857 to scrap and salvage nearly 100 vessels that had arrived in the harbour during the Gold Rush (*ibid.*) More than 100 hardwood timbers were found at the site of his shipbreaking yard. They represented various structural elements, fastenings, a small anchor, rigging elements, copper sheathing and what may have been the bedplate of a Gold Rush steamship. The excavation of the shipbreaking yard site was particularly instructive for reconstructing the age and size of the last vessels broken up at the site, presumably in or around 1857 (Pastron and Delgado 1991).

As excavations unearthed remnants of the Gold Rush waterfront through the 1970s and early 1980s, their heritage value was finally recognized by San Francisco's Department of City Planning and the State Historic Preservation Office. As Pastron emphasized, the archaeological potential of the buried hulks was as a macro-artifact that could provide the means for "archaeology on a grand scale along San Francisco's waterfront" (Pastron 1980). However, it was not until 1993 that another opportunity for archaeological study of a buried Gold Rush hulk occurred when *Rome*, an intact sepulchred hulk, filled with rock and purposely scuttled on a waterlot in the early 1850s, was encountered during an underground tunnelling project to extend MUNI (Allan 1995, Self 1996). Archaeologists documented a portion of the hulk as the tunnel project burrowed through the hull near the bow, leaving much of the vessel buried beneath the city's Embarcadero (*ibid.*).

In 2001, another storeship, *General Harrison*, was excavated by Archeo-Tec. This will be discussed later. Finally, in 2005, the stern section of another of the vessels broken up at Hare's Rincon Point shipbreaking yard was discovered. This hulk, documented by the same team involved in the *Rome* project, has been identified as the barque *Candace*, a vessel known to have been broken up by Hare at the site in 1857 (Self, in press).

The Hoff's Store Site

During the 1980s archaeological monitoring and excavation encountered a series of Gold Rush sites but no new ships. This work, much of it performed by the consultant firm Archeo-Tec, revealed one exceptionally artifact-rich site. This was a piling-supported two-story wood frame building that had burned and collapsed into the bay during the May 4, 1851 fire at Battery and Sacramento streets. This site was directly adjacent to the *Apollo* storeship and a block away from the site of *General Harrison* (Pastron and Hattori 1986) (Fig. 11). Known as Hoff's Store, it included a large assemblage of materials and features. It added much to an understanding of the nature or the development of waterfront infrastructure as well as the diversity of material goods – especially Asian trade goods and the strong role of maritime trade and commerce in the emerging city. I was the consulting maritime archaeologist for the project participating in the excavation and analysis of the site (Delgado 1990a).

Figure 11: Unit 3S, Hoff Store Site, February 4, 1986. Water excavation has just exposed two collapsed barrels of Prime Mess (salted) Pork, round-point shovels, and broken crates. © James P. Delgado.

The Hoff's Store site was identified as a potentially significant resource during the initial impact assessment before construction. A number of Gold Rush sites had been found in the 1970s -1980s, but "relatively few of these deposits are characterized by a high degree of stratigraphic and/or contextual integrity," as was the case with Hoff's Store (Pastron 1990:6). As well, it was one of a few sites on lots then untouched by the rapid pace of urban redevelopment that had severely eroded the database of Gold Rush area sites in San Francisco. The value of the site's material record was in "obtaining new data and/or supplementing or correcting the archival record," since it represented a brief temporal span (1848-1851) related to the Gold Rush period's massive change in San Francisco. It further provided the possibility to assess the city's multinational and

multicultural character through the material record. And, as Pastron summarized in his argument for central themes for San Francisco's emerging urban archaeology, it reflected the "rapid transformation from boomtown to urban center," with sub-themes focusing on the chronology of urban development throughout the Gold Rush, social conditions, trade and economy, and sociocultural change (Pastron 1990:11). Finally, and most significant from the perspective of this dissertation

> While a number of residential deposits from the Gold Rush era have been encountered in San Francisco, the Hoff Store site is unusual in that it contains the remnants of a commercial establishment ruined by a single day's catastrophe. Accordingly, this deposit provides a unique opportunity for archaeologists to view the Gold Rush phenomenon from a singular perspective of a mid-19th century merchant and entrepreneur (*ibid.*:6).

The occupants of this piling-supported building were the city's harbourmaster, the government official responsible for maintaining order on the waterfront, and ship chandler William C. Hoff, a merchant with a maritime-based business linked to the ongoing activities and success of the port.

The Hoff's Store excavation resulted in over 5,800 artifacts reflective of Hoff's business, supplying ships with goods, provisions, and equipment (Pastron and Hattori 1990). The materials recovered from the Hoff's Store site are significant because the store and its owners' activities underscored the crucial role of both

> maritime commerce and ship chandlers in provisioning the Gold Rush and in bringing about San Francisco's rapid transformation from a small village to a great city. Supplies of consumer goods... were almost entirely dependent upon the arrival of ship-borne goods at San Francisco, a port which functioned as the primary commercial emporium and depot of the Gold Rush (Delgado 1990a:25).

Hoff's Store was then tied to the global system, insofar as "the trade networks which developed [during the Gold Rush] were world-wide, and California's affect upon the international economy was substantial" (Pastron and Hattori 1990:13).

The Hoff's Store assemblage was compared with a contemporary catalogue of a San Francisco ship chandler, Folger and Tubbs, and reconciled against a detailed advertisement of Hoff from 1852 (Delgado 1990a:31-33). This comparison of the material and archival record "reflected the basic nature of supply by ship in Gold Rush California... [and]...points to an actual booming port and maritime activity that responded to economic and social dynamics demanding regular supply, available only by ship" (*ibid.*) As well

> nearly every imaginable item could be found aboard a merchant vessel of the mid-19th century – as indicated by the catalogue of Folger and Tubbs...and the assemblage from the Hoff Store site....the goods sold by Hoff...provide a unique opportunity to assess the social and economic aspects of a maritime subculture in a city that depended upon the sea for its existence (*ibid.*:33).

However, viewing the site as maritime because of the nature of Hoff's business resulted in too narrow a focus and missed what in hindsight seems to be the more significant aspect of the site -- how its assemblage underscores the nascent entrepôt's participation through maritime trade in the extension and modification of the world system then coming into play in the Pacific.

This global nature of the city's maritime supply is readily apparent in the analysis of the Hoff assemblage's bottled goods. This included primarily bottled medicinal supplies, bottled condiments and alcoholic beverages significantly reflecting a range of origins from the eastern United States through Europe. The bottles

> seem to reflect the desires of the more affluent or sedentary population of San Francisco....in addition, the bottled preserved foods strongly reflect an Anglo-Saxon taste preference...in this respect, the Hoff Store bottle assemblage is similar to the collection of bottled goods recovered from the storeship *Niantic*" (McDougall 1990:72)

The same diversity of supply held true for other foodstuffs from the site. Included are barrels of salted pork, tinned oysters, barrels of hardtack biscuit, packages of individually paper wrapped cakes, a variety of fruit seeds, nuts, dried beans, peas, rice, coffee, wheat tea and stoneware pots of butter. Potential sources of manufacture and supply for these foodstuffs were identified as China, India, Central and South America, Germany, Australia, Peru, Brazil, Tahiti, Hawai'i, Mexico, Chile, and Holland, apart from the known eastern United States suppliers (*ibid.*).

Maritime trade, particularly with China, was explicit in the analysis of Chinese export porcelain from Hoff's Store and an adjacent store at the site. The porcelain assemblage "appear[s] to represent a new dimension of the West Coast China trade – a trade that was already well established in California prior to 1849, but which increased dramatically in the years following the discovery of gold" (Terrey and Pastron 1990:81). The Chinese porcelain assemblage also suggests that the site, rather than being one store (Hoff's), was a mixed array of various stores adjacent to the *Apollo* storeship occupied by various commission merchants.

The Hoff's Store site demonstrates "direct connection with suppliers on the eastern seaboard of the United States, Britain, China and possibly France and Germany...[in a] frontier outpost whose prime commerce revolved around transhipment to and from ocean going vessels and river boats" (Pastron, Hattori, Walsh and Delgado

1990:104). Left unsaid in the final conclusion of the report and analyses, but becoming increasingly clearer, was that the Hoff's Store site, like *Niantic*, pointed directly at this area of the waterfront as the centre of a rapidly built entrepôt dominated by the activities of commission merchants. While this hypothesis was not specifically articulated, it began to germinate as a concept that would ultimately be tested and proved with the excavation of the nearby storeship *General Harrison*.

The *General Harrison* Site, 2001

When the development of the corner of Clay and Battery streets, site of the buried *General Harrison* storeship, occurred in 2001, Pastron was selected as the project archaeologist. Test borings at the site in June 2000 initially failed to locate the buried hulk, but deeper drilling in August 2001 made contact with subsurface wooden remains including a section of a futtock and treenails (Archeo-Tec, in press). Another boring encountered a .33 m thick matrix of fire-affected cultural materials similar to a black layer at the Hoff's Store Site. This was interpreted as burned cargo.

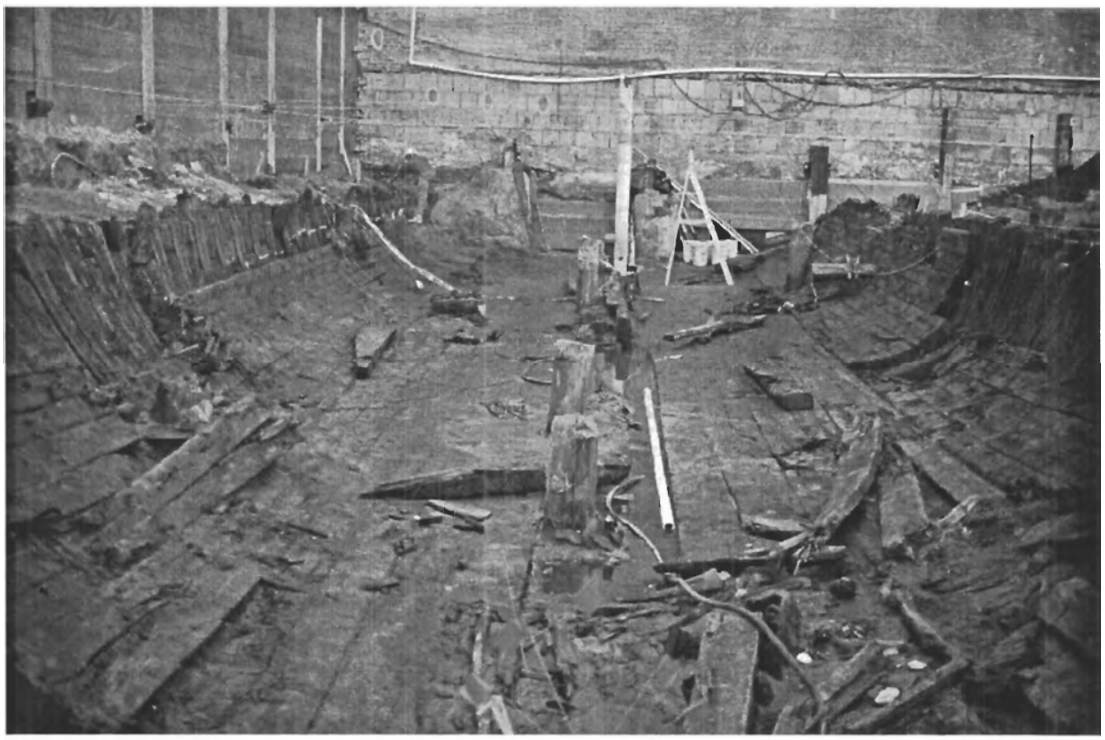
Excavation began on August 3, 2001 and continued until the vessel was completely exposed. The test borings had indicated that the interior appeared to be devoid of the burnt layer and filled with sand, which largely proved true, although some individual artifacts and features were encountered. At the southern end of the hull, the proximity of the vessel remains to the southern property line and supports for the adjacent sidewalk and Clay Street did not allow excavation. This led to the realization that discovery of burnt-off pilings or other remains associated with the Clay Street Wharf would not happen. Similarly excavation did not proceed on the western edge of the site

when it became apparent that the vessel's remains continued beyond the boundaries of the site and beneath an adjacent building (Fig. 12).

Two concentrations of artifacts were designated as Feature 2 and Feature 3 (Archeo-Tec, in press). Feature 2 was a concentration of penny pipes, iron bars or drifts, and a pile of discarded leather footwear. Feature 3 appeared to be a range of material from the 1851 fire – a mix of partially burnt rigging elements and cargo - intermixed with what appeared to be 1906 earthquake rubble, a half wooden barrel, and the badly corroded remains of a round point shovel. Further documentation of the vessel's construction by San Francisco Maritime National Historical Park, led by John Muir, took a series of measurements and offsets to create a set of profiles and body lines for the hull. This work, as well as observations from the park staff, proved invaluable in the analysis of the vessel's construction and salvage (Canright 2001).

As documentation of the hull proceeded, excavation of the area outside the hull to the north revealed the upper portion of the burnt layer. This was excavated using wet site exposure techniques with water hoses as well as wet-screening. Burnt glass, charcoal, and oxidized materials formed much of the layer's matrix, although a concentration of glass beads, textiles and seeds was recorded (Feature 1). Logistics made it impossible to excavate the entire burnt layer and a sampling strategy was devised.

Figure 12: View of *General Harrison* from below grade, looking forward. The form of the stem is apparent. Also note the pilings near the stem. These are all 1912 pilings from the building that covered the hulk. © James P. Delgado.



Horizontal trenches were backhoe excavated along the starboard side of the hull in 3m sections for a total area of 135 m^2. The trenches were four backhoe bucket widths, making them approximately 3m wide. The trenches revealed that the burnt layer deposit was a continuous layer that followed the curvature of the hull, indicating that it was related to a single event, the fire that destroyed *General Harrison* and the surrounding docks. The trenches exposed the outer hull for profiling and to expose and plot the pilings from what was now clearly a Gold Rush-era wharf that had burnt along with *General Harrison*. All material from the trenches was wet screened and sorted with diagnostic artifacts retained for analysis.

Water hose excavation of the trenches revealed a partially burnt wooden door with a wooden brass pull ring, from one of the ship's companionways or cabins (Feature 4). Beneath it lay a series of partially burnt wooden crates, one of which was a crate of intact, straw packed wine bottles with corks and liquid. Wet site excavation techniques allowed us to wash away the sand fill to reveal the entire hull and the surrounding burnt layer without disturbing its vertical profile. Analysis of the hull revealed that it had been cleared after the fire and partially salvaged. The burnt layer then was re-evaluated as the redeposited burnt remains of the storeship and its "cargo" that had been cleared out of the hold and dumped alongside during the post-fire, pre-land filling salvage project.

A variety of artifacts, including fabrics, liquid contents of intact bottles, seeds, wood, and samples of the pine resin that coated the exterior of the hull were sent to a variety of laboratories for specialized analysis. A cross-disciplinary group of experts was also consulted on other aspects of the assemblage. The results of their studies allowed the cargo associated with *General Harrison* to be fully identified. It proved to be a diverse mixture of hardware, building materials, comestibles, alcohol and clothing. These goods were traced through a series of newspaper advertisements to shipments from around the world, but with many transhipped through Valparaíso, Chile, by commission merchants E. Mickle & Co., owners of the *General Harrison* storeship. It was possible to attribute the material excavated to unsold cargo, some of it dating to a year before the fire, stored and advertised for sale by Mickle. The diversity of the material, and the opportunity to link recovered merchandise in the May 4, 1851 burnt layer to specific shipments provided an opportunity for interpretation not available with any other excavation, including Hoff's Store.

The analysis of the *General Harrison* data provides a detailed look at the vessel's architecture and its related infrastructure as a floating building (Figs. 13, 14 and 15). The level of detail available greatly augmented the sparse archaeological record for *Niantic*'s physical characteristics and filled in a number of gaps in understanding the processes of conversion into a storeship on the Gold Rush waterfront.

Figure 13: Conjectural Site Plan of the *General Harrison* Storeship, with positions of hatches, piers and the outline of the ship at the main deck, compared with the archaeological remains excavated at the site in 2001. Drawing by John McKay, © James P. Delgado 2003.

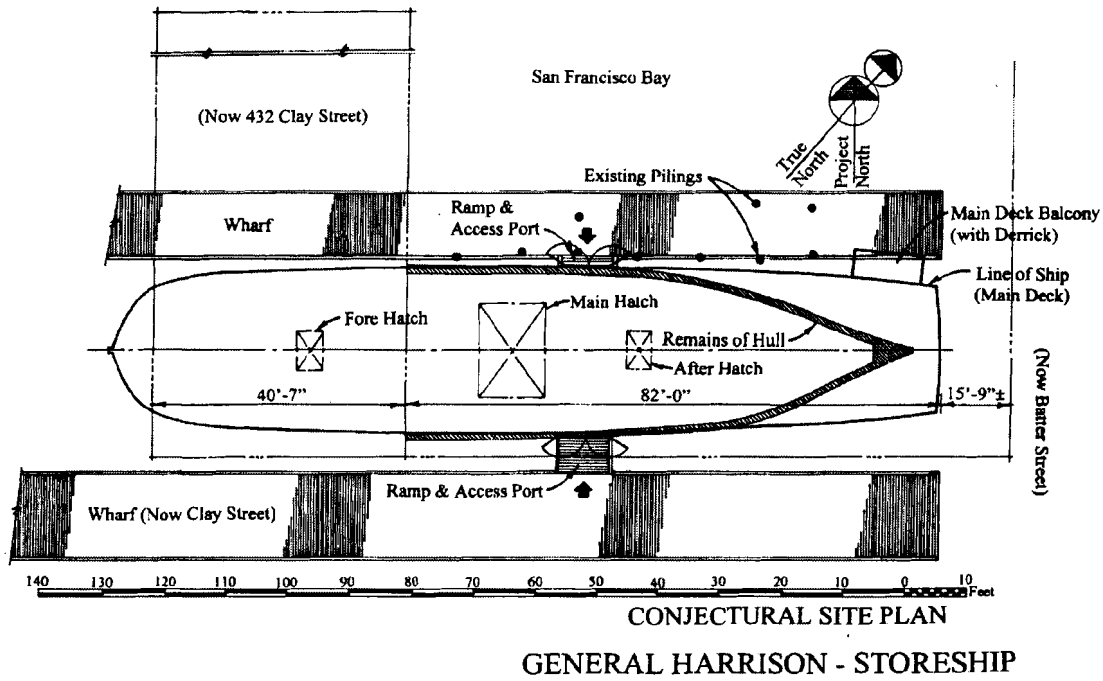


Figure 14: **Conjectural Reconstruction of the Midship Section of the *General Harrison* Storeship, showing John McKay's reconstructed depth of hold, and also showing the line of grade (harbour bottom) and pilings for the wharves that surrounded the ship. Drawing by John McKay, © James P. Delgado 2003.**

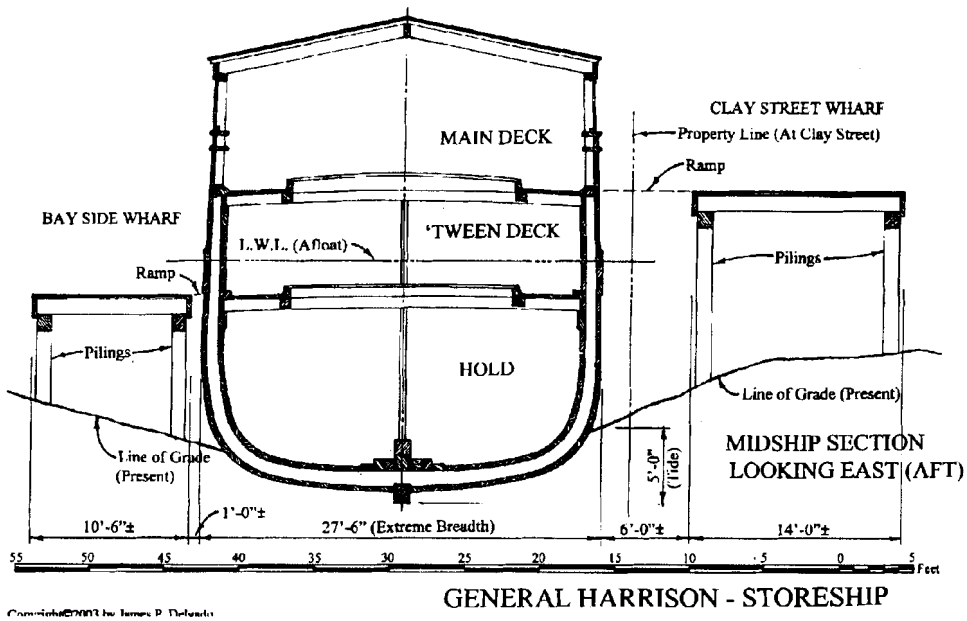
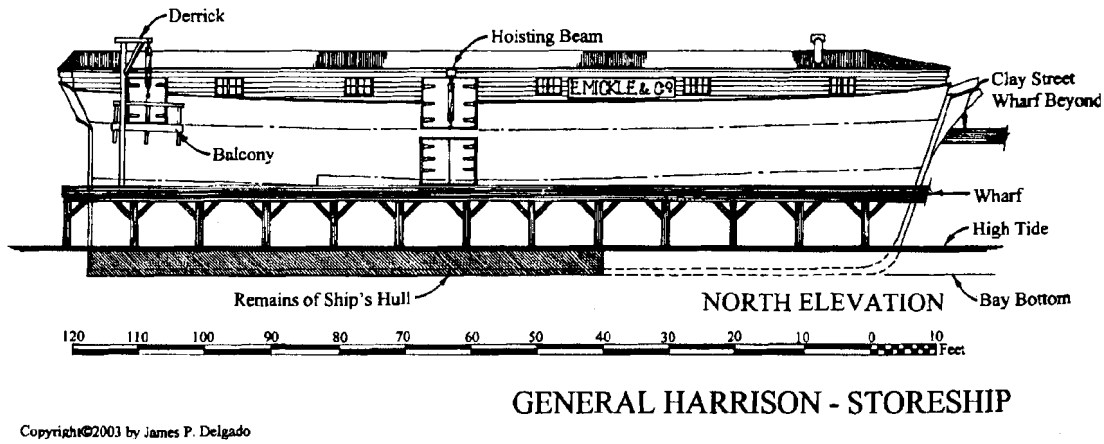


Figure 15: **Conjectural Reconstruction of the *General Harrison* Storeship, Inboard Profile (North Elevation) showing the position of the derrick, hoisting beam, and the wharf on the starboard side. The shaded area at the stern represents the profile of the remains excavated in 2001. Drawing by John McKay, © James P. Delgado 2003.**



Summary

The processes of history in San Francisco are relatively brief in the scale of global time. The interlude between the events of 1849-1851 and the twenty-first century but 150 years or so. The *événements* of the Gold Rush are linked by that brief temporal span as well as their context to those of the twentieth and the twenty-first century excavations of buried ships and the remains of the burned, collapsed waterfront of 1851. The sites discussed here are also material evidence not only of how the Gold Rush waterfront, its ships and their cargoes are *événements* in the *longue durée;* they are also evidence of how the waterfront and its elements fit into the emerging global system thanks to the maritime system. I have narrowed the focus of the dissertation from a wider perspective, that of the *longue durée* of a growing European, and then Anglo-American presence in the Pacific Rim, to the *conjunctures* and *événements* of the Gold Rush, in itself a continuation of the processes of history inherent in the *longue durée* of the Pacific's incorporation into the world system. The processes have been illustrated in more detail in the *événements* of individuals and events, namely commission merchants Mickle & Co. Finally in this chapter I have outlined a history of construction and archaeology. This provides a basis for comparison of material culture and the archival record to analyze how San Francisco is a product of the maritime system as well as an artifact of the processes of the Pacific's *longue durée.* It is to these issues that I now turn.

CHAPTER SEVEN:
GOLD RUSH CARGOES AS EVIDENCE OF THE WORLD MARITIME SYSTEM

If San Francisco is a product of the maritime system, then the cargoes sent to California in 1849-1851 should reflect 1) a global system of supply by sea, 2) evidence that this global system responded to the Gold Rush by sending goods specific to San Francisco and California's market needs, and ideally 3) evidence of patterns that illustrate the networks employed by the world system, such as the diversion of goods from other entrepôts in the core to the semi-periphery of San Francisco. If the intent was to create, enhance or support the rise of San Francisco as an entrepôt, these goods or commodities should reflect more than a market response to the conspicuous consumerism of a gold rush boom economy. They should also reflect meeting the needs of an urban population for food, clothing and a move toward permanence.

In this chapter, the patterns of shipping, including ports of origin, are examined through the archival record. How these patterns of shipping potentially relate to the world system and its subset, the maritime system, is assessed. The system is then examined through the types of goods and commodities being shipped, as demonstrated through an examination of both an archival data set, the advertisements of commission merchants E. Mickle & Co., and through an analysis of the material culture assemblages from the *Niantic*, Hoff's Store and *General Harrison* sites.

The maritime activities of the California Gold Rush are the mid-nineteenth century *événements* of a longer process, the world system's incorporation of the Pacific into the global economy. Maritime trade as a means to that goal introduced Europeans to the Pacific in search of expanded trade and new markets to add to the emerging world system. In the *longue durée* of Pacific history, maritime activities in the Pacific in the last five centuries can be seen to be nothing more than economic competition between Portugal, Spain, the Netherlands, France, England and the United States as each sought to dominate trade with the Orient. The voyages of exploration, the annexation of the Spice Islands, the North West Coast maritime fur trade, the establishment of entrepôts at Nagasaki, Macau, and Hong Kong were all smaller scale *évenéments* of the longer process of history playing out in the Pacific (Perry 1993, Gibson and Whitehead 1993). The same processes are evident in the flows of commodities and the control of those flows – porcelain, tea, spices, opium, silver, gold, sea otter pelts, *beché de mer*, and others.

The pace of the process was slow between the sixteenth and early nineteenth centuries. It changed rapidly in the mid-nineteenth century. The reason is the industrial age, which brought iron and steel-hulled vessels powered by steam engines, linked to ports by railroads, and mechanization that gave rise to factories that mass-produced goods. To feed the factories and the emerging global economy, steamships expanded trade and naval control into the Pacific, seeking greater quantities of goods such as tea and silk, and new commodities.

Beginning in the mid-nineteenth century, gold was another critical new commodity and a catalyst that accelerated the process of incorporation in California

(1848-1856), Australia (1852-1856), British Columbia (1858-1865) and the Klondike/Yukon (1898-1904). Viewed within this context, the rise and stabilization of San Francisco fits because in the *longue durée* it has more to do with long-standing desires for a Pacific entrepôt linked to the core in Europe and the United States than it does does with the accident of the Gold Rush. The industrial revolution abetted this process through the establishment of regular steamship lines, and ultimately a transcontinental railroad.

Cargoes for California: Patterns of Shipping Divert to San Francisco

Historical accounts mention the influx of ships from all over the world in response to the Gold Rush. William Heath Davis, a contemporary observer, described the crowded waterfront

> An immense fleet of vessels from all parts of the globe, numbering eight to nine hundred, were anchored in the bay east of the city, between Clark's Point and the Rincon, presenting a very striking picture – like an immense forest stripped of its foliage (Davis 1967:333-334).

Other accounts stress the large number of vessels involved in the Gold Rush. Goodman (1987) lists 762 vessels known to have cleared North American ports for San Francisco between December 5, 1848 and December 31, 1849. Foreign ships were said to equal the number of North American vessels, and in all, some 1,400 vessels sailed to California in the first wave of the Gold Rush between 1848 and 1850 (Delgado 1990:19, 23).

Most of those vessels carried passengers. The editors of the San Francisco *Daily Alta California*, working from the harbor master's records, tabulated that 39,888 persons

had arrived in San Francisco on 805 vessels between April 1849 and January 1850 (San Francisco *Daily Alta California*, January 31, 1850). Nearly all of these vessels also carried cargoes, as a review of vessel arrivals in the San Francisco *Daily Alta California* confirms (Delgado 1990:43-44). Excluding small amounts of goods from local suppliers, all merchandise and foodstuffs imported into California arrived in the hold of a vessel. The range of where these vessels came from demonstrates a global maritime event. Working from published *Daily Alta California* of vessel arrivals that indicate the port of origin, I have tabulated 795 arrivals in 1849. In 1849, 76 separate points of departure were listed that encompassed various European, North, Central and South American, Pacific and Asian ports.

The United States' eastern ports were the largest participants in the rush, with ships sailing from Connecticut, Louisiana, Maine, Maryland, Massachusetts, New York, Pennsylvania, Rhode Island, South Carolina, and Virginia. With 16% of the 1849 arrivals, New York dominated the sailings, followed by Boston at 6%. Smaller Canadian and other United States ports on the eastern seaboard and the south comprised 20% of the total 38% North American sailings. Central and South America comprised 32%. The dominant port was Valparaíso, followed by Panama and Mazatlan. "Country trade," a contemporary(1849) term for trade with Oregon, British Columbia, Russian Alaska, and various California coastal ports, accounted for 11% of arrivals. Pacific ports, notably Honolulu and Sydney, accounted for another 11%. Europe, led by Liverpool and London, and Asia, primarily Hong Kong, each accounted for 4% (Table 3).

Table 3: Ports of Origin for vessels arriving at San Francisco, January 1 – December 31, 1849 (collated from the San Francisco *Daily Alta California*).

Port of Origin	Arrivals	% (rounded)
Acapulco	3	.25%
Auckland	10	1.25%
Baltimore	14	1.75%
Boston	54	6%
Buenos Ayres	8	.70%
California coast	52	6.5%
Callao	22	2.8%
Columbia River	35	4.5%
Guayaquil	5	.6%
Le Havre	7	.8%
Hobart	10	1.25%
Hong Kong	17	2.75%
Honolulu	44	5.5%
Lahaina	7	.8%
Liverpool	9	1.1%
London	3	.3%
Mazatlan	35	4.40%
Nantucket	4	.4%
New Bedford	17	2.75%
New York	125	16%
Panama	44	5.5%
Philadelphia	15	1.8%
Rio de Janeiro	12	1.5%
San Blas	12	1.5%
Sitka	2	.20%
Sydney	14	1.75%
Tahiti	8	1%
Talcahuano	10	1.25%
Valparaíso	107	13.5%
Misc. Europe	15	1.8%
Misc. N. Am.	53	6.6%
Misc. C. S. Am.	13	1.5%
Misc. Pacific	6	.7%
Misc. Asia	3	.3%

The 1849 patterns of shipping suggest a consistent flow of commodities from San Francisco's closest ports, namely those on the Pacific coast from Sitka to Valparaíso,

from Hawaii, and from a large number of vessels from the eastern seaboard of the United States, primarily New York. The smallest numbers were vessels direct from Europe (4%) and Asia (4%), followed by vessels from the wider Pacific, including Australia, New Zealand, and Tahiti (in aggregate, 11%). In 1850, the San Francisco *Daily Alta California* provided a tabulation of arrivals each month divided by American (which the listing suggests was those from the eastern seaboard) and European vessels, apparently neglecting those from Central and South America and Asia (Table 4).

Table 4: San Francisco Port Statistics, 1850, "American versus European," (collated from the San Francisco *Daily Alta California*, December 26, 1850).

Month	American	%	European	%	Total
January	50	90	5	10	55
February	44	96	2	4	46
March	51	94	3	6	54
April	45	90	5	10	50
May	70	93	5	7	75
June	82	96	3	4	85
July	61	98	1	2	62
August	51	94	3	6	54
September	37	95	2	5	39
October	42	86	7	14	49
November	44	80	11	20	55
December	21	65	11	35	32
Total	598	91	58	9	656

The 1850 arrivals summarized by the *Daily Alta California* were noted as having inaccuracies "as the books from which they are compiled have at times been loosely kept" (San Francisco *Daily Alta California*, December 26, 1850). The bias of not including Latin American, Asian and transpacific arrivals may be explained by the

article's stated intent of showing that "but a very small portion of the direct arrivals have been foreign" (*ibid.*). The records are not complete, either in the newspapers or the custom house records for 1850-1851 because of the two major fires that destroyed San Francisco and its government offices, including that of the harbourmaster. Working from a variety of sources, however, a reconstruction of arrivals for 1850 is possible. It suggests a total of 800 vessels by including arrivals listed for Central and South American, Pacific, Asian and Pacific coast ports in addition to the *Daily Alta California*'s December 1850 tabulation (Table 5).

The reconstructed 1850 patterns of shipping indicate that the major flow of ships was coming from North American ports, representing 75% of the total. Central and South American, Pacific and Asian ports accounted for 18.6% of arrivals and Europe for 7.3% . The role of specific American ports in making up 75% of the total is not as easily discerned. Vessels from Pacific coast ports (i.e. "California Coast" and "Columbia River") were, as coastal traders, bound by law to be United States flag vessels, and were included in the *Daily Alta California*'s December 1850 tabulation as "American." Working from the *Daily Alta California* January-December 1850 arrival notices, which again are not complete, a total of 180 out of 244 arrivals are from United States ports, or 73%, a close match to the reconstructed statistics for the year (Table 5).

Table 5: Reconstructed Arrivals and Ports of Call, 1850, based on the San Francisco *Daily Alta California* and Rasmussen (1966).

Port	1850 Arrivals	%
Acapulco	4	.5%
Auckland	3	.4%
Callao	6	.8%
Canton	1	-
Guayaquil	1	-
Guaymas	3	.4%
Hobart	5	.6%
Hong Kong	4	.5%
Honolulu	7	.9%
Lahaina	7	.9%
Launceston	5	.6%
Macau	1	-
Manila	2	-
Mazatlan	9	1.2%
Montevideo	1	-
Paita, Peru	1	-
Panama	50	6.3%
Pernambuco	1	-
Port Adelaide	2	-
Rio de Janeiro	5	.6%
San Blas	3	.4%
Sitka	1	-
Sydney	9	1.2%
Talcahuano	2	-
Valparaíso	12	1.5%
"European"	58	7.3%
"American"	598	75%
Misc. C. S. Am.	2	-

Out of this sample (180/244), New York is the dominant port, followed by Boston, Baltimore, Charleston, and New Orleans, that group representing 51% of the United States' total. Country trade on the coast, accounted for 3.8%. New York sent a third more

ships to San Francisco in 1850 than closer proximity American ports. Comparing the 1849-1850 patterns of shipping shows a 29% increase in vessels from North American and European ports and a corresponding net drop in arrivals from Asia, the Pacific and Central and South America. The Latin American ports experience the greatest decline, 19.3% (Table 6).

Table 6: Comparison of Arriving Vessel Ports of Origin, 1849-1850

Region	1849	1850	Change
Asia	4%	.5%	-3.5%
Central and South America	32%	12.7%	-19.3%
North America including Pacific coast	49%	75%	+26%
Pacific (foreign)	11%	4.8%	-6.2%
Europe	4%	7%	+3%

The rise in North American and European sailings reflects the maritime system's response to the California Gold Rush. Another pattern is also apparent, namely the ports which sent the most ships, and by extension, the most cargoes. Those ports in the first year of the rush were New York, and Valparaíso, followed by California coastal ports, Panama, the Columbia River and Mazatlan. The two major entrepôts, New York and Valparaíso, followed closely by Pacific coastal communities, were the dominant ports sending commodities to San Francisco in 1849.

In 1850, New York took the lead position, followed by Panama and Boston, Baltimore, Valparaíso and Liverpool. New York retained its domination of the California trade, augmented by other United States ports. Ironically the latter included Panama, by then a major port in a United States financed and controlled trans-isthmian link connected by steamships on both coasts and a railroad then under construction (Kemble 1943).

After these American-dominated ports came South America's dominant port, and then one of Europe's. What then follows is the question of whether the commodities shipped to San Francisco reflect these same percentages. If there is a link between cargoes and a ship's point of origin, then it would be logical to expect that the material record would reflect a 50 to 75% ratio of United States manufactured goods compared to a 13 to 32% ratio of Central and South American goods, a 4 to 7% ratio for European goods, and a small 4 to 0.5% ratio for Asian goods.

From Cargoes to Assemblages, 1849-1851

The excavation of the San Francisco waterfront provides three assemblages from the *Niantic*, Hoff's Store and *General Harrison* sites with which to test the question of the point of origin for the flows of commodities that arrived in San Francisco. There is another data set in the San Francisco *Daily Alta California*, which enumerated the arrival of cargoes as well as the advertisements of the city's merchants. Ideally, matching these advertisements against the three assemblages would provide another source for comparison, but detailed advertisements do not exist for *Niantic* or Hoff's store. However, regular advertisements by E. Mickle & Co. provide both additional and comparative data to assess the *General Harrison* assemblage.

Like other urban sites, the San Francisco waterfront encapsulates materials that were deposited in landfill. What is unique about San Francisco is that this process occurred within a brief 24-month period between mid-1849 and May 1851. The *Niantic*, Hoff's Store and *General Harrison* assemblages, while associated with waterfront businesses destroyed on a specific day, reflect that two-year time span. The patterns of

merchandise found in San Francisco's sites could be said to be characteristic of many dry goods store sites in Western North America. The key is in assessing more than the point of manufacture, and instead looking at patterns of supply and the rapid nature of delivery by sea to San Francisco within that same brief period. The cargoes are temporally localized but they fit within the patterns of global trade's centuries-long entry into the Pacific.

The Niantic Assemblage

The 1978 *Niantic* excavation yielded 3,948 artifacts that represented a minimum of 1,509 items (Smith 1981:213). Smith broke the collections into groups based on assumed cultural uses (Table 7). Smith's analysis attributed both possible and known points of manufacture for artifacts in the assemblage. These included pencils from Germany, London and Concord, Massachusetts (*ibid.*:86), brass pen nibs from London (*ibid.*:92) a British gun and an American Hall's Model 1840 carbine (*ibid.*:110-114), a Connecticut-manufactured steel axe (*ibid.*:104), floor coverings that were either Belgian or British (*ibid.*: 130-131), French champagne from Reims (*ibid.*:145-146), Ale or Porter from Bristol, England (*ibid.*: 151), Madeira and Spanish Sherry (*ibid.*:148) ceramics from the United States and England (*ibid.*:169-176), a catsup bottle from New York (*ibid.*:155), tin-packed truffle sausages from Brittany (*ibid.*:184-185) and a spoon from Connecticut (*ibid.*:163).

The artifacts were from a number of diverse businesses who were using the vessel as a storeship, their names and businesses unknown at the time of the 1981 analysis except for one commission merchant, Van Brunt, and a crockery merchant, Genella

(*ibid.*:211). The *Niantic* storeship was "a midpoint in the mercantile continuum that starts with producers...to eventual consumers" (*ibid.*:214). The artifacts therefore represented available merchandise selected by a segment of that continuum, likely wholesalers. They were from an intentional storage of unused items prior to their eventual sale, use and discard, and thus represented "the behaviour of the merchant class and its definition of consumables" (*ibid.*:215).

Table 7: *Niantic* Generalized Artifact Categories (Smith 1981)

Activities Category (Smith 1981)	N=	%
Stationary and Printing	284	7%
Tools	70	2%
Arms	25	▶ 1%
Architectural	1006	25%
Furnishings	76	1%
Kitchen	2035	52%
Comestibles	89	2%
Storage	337	8%
Apparel	20	▶ 1%
Personal	6	▶ 1%

Smith assessed the assemblage in terms of product availability and diversity. The assemblage reflected a strongly male orientation with no ethnic or social differentiation, save a limited Anglo-Saxon cultural tradition (*ibid.*:215-216). To Smith, it reflected the middle class merchants of San Francisco, the city's "dominant cultural group," who used the ship and stored their merchandise in it, (*ibid.*:217). The storeship's assemblage represented their control over the distribution of mass-produced manufactured goods. Because of this, the merchants "exercised a more influential role than other members of

the middle class (*ibid.*:218). The goods in the assemblage suggested a flamboyant lifestyle and "even greater purchasing power than otherwise would be expected for typical consumers of the period," reflecting contemporary accounts of San Francisco's conspicuous gold-fuelled consumerism (*ibid.*:219).

What did the assemblage show? The *Niantic* assemblage did not reflect a United States domination of commodities. Out of 1,509 artifacts, the percentages of combined imports outweighed United States manufactures ten to one (31.34 % to 3.4%) (Smith 1981:226). To Smith this demonstrated San Francisco's "dependence on the maritime sphere of trading and her linkage with national and international economies" (*ibid.*:231). It also showed that San Francisco in 1851 had a "rather substantial dependence on imported manufactures," was not self-sufficient but instead "tied to foreign markets and economies" just as it had been prior to the Gold Rush (*ibid.*:228-231). In conclusion, Smith asserted that the *Niantic* assemblage was evidence that the accident of the gold discovery had served to "intensify the frontier process already in motion at this location" and represented not a radical transformation but rather "a more intense demonstration of previous beliefs and behavior patterns associated with capitalism" (*ibid.*:232-233).

The Hoff's Store Assemblage

The assemblage excavated from a group of structures surrounding the ship chandlery of William C. Hoff (n=5,806) was a larger assemblage than that from the *Niantic* site. Not every artifact could be analyzed, and not every assemblage was reported upon (Pastron *et al.* 1990:vi, 3). Those reported were firearms and other

weapons, construction hardware, tools, bottles, comestibles, Chinese export porcelain, and footwear (Table 8).

Table 8: Hoff's Store Artifact Categories (Pastron *et al.* 1990)

Activities Category	N=	%
Tools	133	2.2%
Arms	100	1.7%
Architectural	3350	57%
Alcoholic Beverages	401	6.9%
Kitchen	272	4.6%
Comestibles	202	3.4%
Footwear	1131	19.5%
Furnishings	10	.2%
Medicinal	182	3.1%
Personal	25	.4%

The tools included round-point shovels stamped and identified as the product of the Ames Co. of Oliver, Massachusetts (*ibid.*:36-46). The furnishings were ten rolls and one fragment of a printed floor cloth similar to samples recovered from the *Niantic* site. The weapons were civilian and military arms, the majority of them United States-manufactured Mexican War surplus (Delgado 1990:48). Embossed specimens of bottles included products of a Bristol, England glass factory, a Baltimore, Maryland firm, and a specimen from Altona, Germany (*ibid.*:60). As well, an intact black glass bottle, embossed "John Dove's Celebrated Ale Glasgow" was also recovered (*ibid.*:62). While the majority of wine bottles were Champagne, four Bordeaux bottles, one with a lead foil cap embossed "Nelson Dupoy/A Bordeaux" and a fragmented Hock bottle's base embossed "J. & W. Peters, Hamburg" were also recovered (*ibid.*)

Culinary bottles were dominated by specimens that contained ground black pepper, the majority of which retained a foil cap label embossed "Wells, Miller & Provost 217 Front Street New York" (*ibid.*:63-64). Another group were embossed 'Wm. Underwood & Co. Boston" (*ibid.*:64). Yet another group of fragments were not embossed with a name but instead with Baltimore, Maryland's Washington Monument, which led to an attribution of the Baltimore Glass Works. Others carried the marks of "S Wardell," a New York pickle grocer, "Wm. Bodman," a Baltimore-based pickling merchant, and "Lewis & Co., Boston" (*ibid.*:65-66). Medicinal bottles included specimens embossed "Ayer's Cherry Pectoral" or "No. 1 Shaker Syrup, Canterbury, New York" (*ibid.*:69-70). Toiletry bottles were dominated by cathedral style decorations as well as others (including the Madonna and Child) but only one bottle was embossed with a name, a small 1-oz specimen marked "Lubin Parfumeur A Paris" *(ibid.*:70). Two sherds from soda water bottles were embossed "Clarke & Co. New York" and were the only identified specimens from this group (*ibid*:71).

A minimum of five Chinese underglaze blue porcelain toiletry sets were also recovered from the Hoff's Store site. These sets included the remains of basins, water bottles, brush boxes and soap dishes (Terrey and Pastron 1990:75). The specimens matched museum examples in the Eastern United States associated with the China Trade and were identified as Chinese-manufactured export ware (*ibid.*). The toiletry sets may have been the property of an Anglo-American *négociant* or broker handling Chinese goods instead of a Chinese merchant. They probably represented a new dimension of the West Coast's China Trade, "a trade that was already well established in California prior to 1849 but which increased dramatically" with the Gold Rush (*ibid.*:8-81).

The comestibles at the Hoff's Store site included the remains of three barrels packed with salted pork, marked with the name of a New York manufacturer, paper-wrapped cake or bread embossed "T Carracas" and paper-wrapped biscuit (n=29), some of which were embossed with the name of Bent & Co., a Milton, Massachusetts firm (Hattori and Kosta 1990:82-88). Two bundles of mat-wrapped rice were recovered and attributed to China (*ibid.*:88). Fruit seeds, including peach pits and grape seeds, shells of walnuts and hazel nuts, small quantities of wheat and flour, peas, dried beans, coffee beans and ground coffee, and tea packed in lead-lined caddies were also recovered. Although no definitive linkage to a country of origin could be determined, contemporary advertisements in the San Francisco *Daily Alta California* suggested Central and South American, Tahitian, Hawaiian, German, Oregonian, and Chinese origins (*ibid.*:89-91). Three brass labels, one for a New York-manufactured oyster tin, and two from sardine tins packed in Nantes, France were also recovered (*ibid.*:91-92).

The footwear included one specimen marked "F. Dane," a Boston shoe manufacturer. Stacks of other specimens were bound, with attached leather tags marked with the name of another Boston shoe manufacturer (Huddleston and Watanabe 1990:96-97). The excavators attributed the majority of the footwear assemblage to a United States manufacture, specifically the Massachusetts area as a major shoe manufacturing centre and the region "responsible for much of the California trade" (*ibid.*:98).

The Hoff's Store assemblage demonstrated to its excavators that by mid 1851 "California was still an isolated outpost, almost entirely dependent on logistical support from outside" (Pastron *et al.* 1990:101). Hoff's Store was filled with basic commodities suited to those "frontier conditions," but on a "frontier tamed" (*ibid.*:102). In 1990, the

excavators noted that while direct attribution to other nations was possible for "a few items from the site," there was a direct connection with "suppliers on the eastern seaboard of the United States, Britain, China, and possibly France and Germany" (*ibid.*:103). The trade represented in the assemblage was also indicative of San Francisco's maritime connections and its commercial role, which "revolved around transhipment to and from ocean going vessels and river boats" (*ibid.*:104).

While there was diversity in the points or origin for the Hoff's Store assemblage, unlike that from *Niantic*, the Hoff's assemblage reflected United States domination of commodities. Out of 5,806 artifacts, the percentages of attributable United States manufactures outweighed foreign exports four to one, 1806 to 452 (Table 9). Unattributable artifacts dominate the assemblage, notably the building supplies, which may be from the United States, in which case United States manufactures would represent 88% of the assemblage. Also unknown is the total artifact count for the various seeds, nuts, beans and other commodities which might represent Latin American or Pacific products. Nor is there any quantifiable means to integrate the rice and tea, both Asian products.

Table 9: Comparative Points of Origin, Hoff's Store Assemblage

Point of Origin	N=	%
United States	1806	31%
Unattributable	3543	61%
Europe	273	4.8%
Central or South America	179	3.2%

The *General Harrison* Storeship Assemblage

Excavation of the *General Harrison* storeship in 2001 produced an assemblage totalling at least 51,271 artifacts (Archeo-Tec, in press). The assemblage is in the final stages of analysis and reporting by the consulting firm Archeo-Tec, for whom I carried out much of the work. The artifacts in the assemblage are grouped as architectural, kitchen, comestibles, storage, arms, apparel, and personal groups (Table 10). The largest number of artifacts were architectural, represented by iron tacks (n=ca. 50,000) recovered from a large mass at the site. This mass skews the analysis of the sample, and will be extracted from the percentages table. Similarly, architectural elements from the ship's construction recovered from the site (n=334) are also excluded.

Table 10: *General Harrison* Artifact Categories (Archeo-Tec, in press)

Activities Category	N=	% (rounded)
Arms	6	▶ 1%
Architectural	175	20%
Kitchen	340	38%
Comestibles	125	14%
Storage	117	13%
Apparel	5	▶ 1%
Personal	129	14%

The points of origin, as determined through analysis of the assemblage, including comparison with Mickle & Co. advertisements of vessel arrivals, cargoes and commodities for sale, could not definitively assert an attribution for half of the recovered artifacts, but the remaining artifacts were nearly equally split between United States and European commodities (Table 11).

This analysis is potentially skewed by the unknown total artifact count for barley and beans, observed in large quantities at the site but recovered only as small samples. These commodities which might represent Chilean products, but there is no quantifiable means to integrate them into the analysis. What does the assemblage suggest? The *General Harrison* assemblage nearly equally split between United States manufactured and foreign exports at its simplest level.

Table 11: Comparative Points of Origin, *General Harrison* Assemblage

Point of Origin	N=	%
United States	174	18.6%
Unattributable	491	52.4%
Europe	214	22.8%
Pacific, Central or So. America	10	▶ 1%

Like the *Niantic* and Hoff's Store assemblages it demonstrates San Francisco's dependence on maritime trading linking it to national and international economies. Like *Niantic*, it also shows that San Francisco in 1851 had a substantial dependence on imported manufactures, and was not yet self-sufficient but instead tied to foreign markets and economies.

Discussion

Comparison of the three assemblages (n=8212) in Table 12 provides the following for points of origin for each.

Comparison of artifacts versus shipping data (Table 13) implies a smaller percentage than suggested for United States commodities, and smaller percentages than

suggested for Pacific, Central and South American commodities based on shipping data alone. It is higher than suggested for European commodities, and within the range for Asian commodities.

Table 12: Points of Origin for the *Niantic*, Hoff's Store and *General Harrison* Assemblages

Point of Origin	Niantic	%	Hoff's	%	General Harrison	%	Total	%
United States	52	3.4	1806	31%	174	18.6	2032	25
Unattributable	984	65.2	3543	61%	491	52.4	5018	61
Europe	472	31.3	273	4.8%	214	22.8	959	12
Pacific, Central or So. America	1	▶ 1	179	3.2%	10	▶ 1	190	2

Table 13: Comparison between Assemblage-suggested points of origin and ship statistic suggested points of origin (ratio represents range between 1849 and 1850)

Point of Origin	Assemblage %	Ships % ratio
United States	25	50 – 75
Unattributable	61	N/A
Europe	12	4 – 7
Pacific, Central or So. America	2	13 – 32
Asian	▶ 1	4 - 0.5

There are several possible explanations. One is that the majority of the unattributable items in the assemblage are either United States, Central or South American, Asian or Pacific commodities, as has been suggested given the inability to enumerate items in the assemblages such as barley, beans, buts, fruit pits, coffee, tea, etc. There is also the fragile or consumable nature of many of the Central or South American, Asian or Pacific commodities such as these. Large amounts of flour, coffee, tea, rice, and other comestibles imported in a ship from Valparaíso, Panama, Mazatlan, or Callao

ended up being consumed and did not enter the archaeological record. The same is true for straw hats from Guayaquil, lumber from Sydney, or tobacco from Cuba. The issue of higher percentages (e.g. Europe) suggests another aspect of the maritime trade supplying San Francisco.

The nature of the maritime system was complex. Various smaller ports dispatched local commodities not only between each other but also to larger entrepôts. These entrepôts accumulated commodities and dispatched them to other entrepôts. For example, Dutch ports predominantly fed Amsterdam, Amsterdam fed London, and London fed New York (Wallerstein 1989). While there was room for the individual merchant captain or company to ship to a foreign port, the costs and risks of such ventures by the nineteenth century were increasingly managed/controlled by consortiums, companies and regulated by customs, excise and insurance regulations. Large entrepôts had the facilities and the economic power to dominate global patterns of shipping.

The above process is how steel axes from Connecticut noted in one advertisement entered Mickle's inventory. Shipped from Connecticut by rail or wagon to New York, they were loaded within a ship that took them to Canton. From there, they were selected as a more readily sold commodity for San Francisco and loaded into the ship *Oscar* and dispatched to San Francisco (San Francisco *Daily Alta California*, January 10, 1851). Perhaps not coincidently, a Collins steel axe was found in *Niantic*, two blocks way from where Mickle landed and sold them (Smith 1981:104). Mickle was not the only merchant to sell Collins axes, and his cargo and the axe from the *Niantic* assemblage

cannot be directly linked. Nevertheless, the axe in the assemblage and the means by which Mickle obtained his axes for sale illustrate the maritime system at work.

The maritime system is apparent in the data set of the Mickle & Co. advertisements. The advertisements show a wide range of goods from around the world. These include commodities specifically identified as products of Australia, Belgium, Brazil, China, Chile, Colombia, Cuba, Ecuador, England, France (specifically the regions of Bordeaux, Cognac, Champagne, Languedoc and Provence), Germany (Rheingau, specifically Hockheim), Holland, India, Indonesia, Italy (specifically Marsala in Sicily and Venice), New Zealand, Panama, Peru, the Philippines, Portugal (Madeira and the Douro), Spain (specifically Malaga and Sevilla), Sweden, the United States (specifically the states of Connecticut, Massachusetts, New York, Maryland, Pennsylvania and Virginia), and the West Indies (specific islands unknown). The adds also show that this range of points of origin does not correspond to an equal number of vessels arriving consigned to Mickle from each of these nation's ports. Mickle never handled a direct shipment from Australia, Belgium, Brazil, Cuba, France, Germany, Holland, India, Indonesia, Italy, Spain or the West Indies. To reiterate the point, the maritime system shipped the commodities from those countries to entrepôts in London, New York and Valparaíso, and from there they were shipped to Mickle. As Mickle was served by the system, so too was every other merchant in San Francisco.

As an example, by focusing on Mickle's advertisements for May 1850 to May 1851, the year *General Harrison* was in operation, a wide range of goods are listed. The advertisements list what ship the goods arrived on, and from what port the ship sailed from (Table 14). The advertised arrivals indicate a majority of arrivals came direct from

Table 14: Advertised Vessel Arrivals with Cargoes for E. Mickle & Co. during the year-long career of *General Harrison* (May 1850-May 1851), from the San Francisco *Daily Alta California*.

Ship	Date	Port of Origin	Cargo
Pacific	July 10, 1850	New York via Valparaíso	Alcohol, cigars, preserves, butter, dried fruit, barley, footwear, dry goods, building supplies
Sir George Pollock	August 5, 1850	Hong Kong	Fabric and clothing, handkerchiefs, preserved ginger, oranges, sweetmeats, trunks, tea
Virginia	August 13, 1850	Valparaíso	coal, cement, barley, fruit
John Marshall	September 19, 1850	Baltimore via Valparaíso	2 fire engines, 6 wagons, building supplies (shingles and lumber), stoves, bricks, dried fruit, hardware, shoes and boots, cement, 1 frame house, soap and candles, tea, oysters, lard, straw hats
Equator	October 25, 1850	Valparaíso	Flour, barley, coffee, dried fruit, cigars, alcohol, carpeting
Spray	November 12, 1850	Paita, Peru	flour, sweet potatoes, pumpkins, eggs, cigars, sweetmeats, beans, onions, peas and assorted goods
Lady Amherst	November 19, 1850	London via the Falkland Islands	coffins, alcohol, 3 iron houses, 2 wooden houses, bricks, dry goods
Justine	December 19, 1850	Valparaíso	Alcohol, barley, chocolate, sardines, cigars
Oscar	January 2, 1851	Hong Kong	Coffee, tea, eggs, cigars, furniture, silks and satins, preserves, sugar, spices, rice, molasses, rope, bags, oars, beef
Erato	January 10, 1850	Callao, Peru	Alcohol, clothing, chocolate, sugar, flour, looking glasses, oilcloth
Pacific	February 10, 1851	Valparaíso	Barley, beans, alcohol, cigars, dry goods, sugar, hardware
Huntress	March 7, 1851	Valparaíso	Tobacco, barley, lard, ceramics and glasses
Emily	March 25, 1851	Valparaíso	Mess beef, alcohol, tobacco, dried fruit, potatoes
Holder Borden	March 23, 1851	Valparaíso	Mess beef, lard, alcohol, sugar, flour
Jackin	April 5 1851	Sundsval, Sweden via Valparaíso	Alcohol, bricks, lumber, flour, beans, barley

Valparaíso, or on ships that had come from elsewhere via Valparaíso. Two vessels came from Hong Kong, two from Peru, and one from London. A close look at the cargoes advertised from vessels direct from Valparaíso also shows a mixture of local goods such as Chilean produce and goods manufactured elsewhere, gathered and transhipped by merchants in response to the California Gold Rush. The analysis of the Mickle-imported

cargoes also illustrates how other established entrepôts, London, Hong Kong, and New York, served as collection and redistribution points for merchandise and goods that made their way to San Francisco and into the storeship of Mickle & Co. as well as into the hands of many other merchants and consumers.

The activities of Mickle & Co. were not unique. The Valparaíso connection is, as previously noted, just one. New York was the principal entrepôt engaged in direct trade with San Francisco, dispatching 214 ships in 1849 (Albion 1939:356). New York had expanded its trade after 1815, so that by 1860 it was "handling two-thirds of all the nation's imports and one-third of its exports" (*ibid.*:386). This trend was already evident a decade earlier during the Gold Rush. At that time,

> out of well over a thousand individual items distinguished in the customs reports, New York ranked first among the American seaports in all except seven articles of domestic export and twenty-four imported commodities. In the value of its imports and exports, as well as in the volume of shipping, which entered and cleared, New York not only stood an easy first among American ports; but in all the world only London and Liverpool exceeded it (*ibid.*)

New York was the initial point of entry for a variety of goods, from other states and Europe, as well as the Caribbean, that from there were transhipped to California.

This is demonstrated by items brought to California for Mickle & Co. on the ship *Pacific* when it first arrived from New York. They included 360 fourteen-lb kegs of "choice Dutch butter," "Malaga raisins" from Spain, "8 cases English prints," "30,000 first quality Havana cigars" from Cuba, 10 cases of Port from Portugal, 1,000 cases of "Claret" from Bordeaux, France, and 400 cases of French champagne. The dominance of New York as the principal entrepôt in 1849-1850 overshadowed Liverpool and London,

the two largest (in terms of world trade) European entrepôts, which sent only 12 ships to San Francisco during the same period. However, those English entrepôts participated and profited indirectly, linked to the Gold Rush by the maritime system. They sent their goods to New York and to other ports that in turn fed the growing California market.

It was through this system that San Francisco, a peripheral zone in an intense stage of integration into the world system, was incorporated with mass-produced goods of the industrial age. Packed in the holds of hundreds of ships, these goods were shipped by the tonne in exchange for gold. The people who communicated the market's demands, ordered the cargoes, and handled their sale on arrival, were the *négociants*, or commission merchants, as represented by E. Mickle & Co. and their storeship *General Harrison*.

Like *Niantic*, *General Harrison* was a midpoint in the mercantile continuum that along with the Hoff's Store assemblage represents the behaviour of the merchant class through its definition and control of consumables. These merchants were tied to mercantile partners with a stake in the emerging Pacific market. Having staked the construction of the infrastructure of this new entrepôt, these same individuals and new partners intensively focused on the importation of goods, as demonstrated by the variety of the *General Harrison*, *Niantic* and Hoff's Store assemblages. The assemblages show in their international range a global event – but what they also show in their relationship to the pattern of supping is how the flow of those commodities were controlled and directed from entrepôt to entrepôt. Goods shipped from New York to Hong Kong, or London to Hong Kong, were in turn re-routed to San Francisco, just as goods sent to the

Chilean entrepôt of Valparaíso (such as Peruvian chocolate, Ecuadorian tobacco, Panama straw hats or lumber from Australia) were transhipped to San Francisco.

These cargoes and the assemblages reflect San Francisco's economy and its relationship to the regional and global processes in the world as they impacted on the city's market economy. The cargoes sent to California in 1849-1851 do reflect the global system of supply at sea, but in a more complex fashion than an enumeration of ships or a tabulation of artefact origin might reveal. There is also evidence in the assemblages and advertisements that the system responded by sending goods specific to San Francisco and California's market needs. This is seen in luxury items sent to accommodate the conspicuous consumption of gold dust-laden miners. Yet the majority of shipments and the dominant categories of each assemblage were more suited to the actual needs of the growing city and region than to world perceptions of a gold-frenzied market of conspicuous consumers. These were staples and basic commodities that spoke to the need for food, shelter and clothing, as well as industry (Table 15).

The consumables largely reflect mass-produced goods shipped to San Francisco from industrialized centres to build San Francisco. In each assemblage, and in the aggregate, the largest numbers of artifacts were building supplies that ranged from galvanized "zinc" plates, nails, tacks, bricks, white lead and hardware. After this group, the next largest group were essential provisions and supplies ranging from bulk goods like barley and beans, rice, coffee, tea, to provisions like hardtack, butter, salted pork and bottled preserves. Only after this come personal indulgence commodities, largely in the form of alcoholic beverages but with a few notable examples of luxury food items such as oysters and sardines (Hoff's Store) or truffle and pate sausages (*Niantic*).

Table 15: Comparative View of Commodities in the Assemblages (Luxuries Highlighted)

Commodity	*Niantic*	Hoff's Store	*General Harrison*
Malt Beverages	*	*	*
Wine	*	*	*
Bitters		*	*
Champagne	*	*	*
Madeira	*	*	
Sherry	*	*	
Port			*
Tobacco			*
Butter		*	
Dried fruits	*	*	? possibly
Preserves	*	*	*
Mess Beef	? possibly		
Salt Pork		*	
Oysters		*	
Sardines	*	*	
Barley		*	*
Beans	*	*	*
Coffee		*	
Rice		*	
Tea		*	
Footwear	*	*	*
Clothing	*		*
Carpeting	*	*	
Bricks	*		*
Nails	*	*	*
Tin plates		*	*
Tools	*	*	*
Rope	*	*	*
Ceramics	*	*	*
White Lead		*	
Firearms	*	*	*

The commerce of San Francisco and its port was less dependent on high-gain luxury items but, rather, on essential goods and building supplies. The world system's industrialized core produced these goods, the maritime system imported them to San Francisco, and the nature of these goods provided a more solid economic basis for

integration of San Francisco into the world system. The facility of the maritime system as a tool of incorporation is also seen in the rapid integration of specific goods that in the 1849-1851 period were "the latest" or the most desirable, like cast-iron prefabricated houses, tin-canned preserved foods, and wire nails. With a particularly American aspect, that system was in its critical stage of incorporating the Pacific. The Gold Rush provided the means for expansion but the maritime system provided goods for merchants intent on establishing an entrepôt that would both profit from and outlive Gold Rush consumers.

CHAPTER EIGHT:
SAN FRANCISCO AND THE NINETEENTH CENTURY WORLD MARITIME SYSTEM

San Francisco's creation and development did not occur in a cultural or economic vacuum. It was a mid-nineteenth century manifestation of the expansion of European and American capitalism and its role in creating a world economy (Wallerstein 1974, 1980). That expansion is a significant illustration of the *longue durée* of Braudel, in which "change is slow, a history of constant repetition, ever-recurring cycles" (Braudel 1972:20). European capitalism in the Pacific expanded and contracted in cycles known as Kondratieff or K-waves (Kondratieff 1979) which correlate with Braudel's *conjunctures*. K-waves reflect economic stagnation and depression followed by booms through the integration of new geographic areas and their commodities into the world system.

Kondratieff espoused three long waves or cycles. In the United States, the first cycle began to rise in 1790 and started its decline in 1814, hitting a "trough" in the wave in 1843. The California Gold Rush coincides with the next rise, that of Kondratieff's second cycle, which began in 1849 and peaked in 1864 (*ibid.*:Table 1). The Gold Rush provided surplus value in its gold that revived the core economies of Europe and the United States following decades of economic stagnation, especially in the United States following the economic depression known as the "Panic of 1837." The Gold Rush was a "resuscitating process" (Groover 2003:11) that not only counteracted the previous

decades' K-wave downswing but also allowed California to be incorporated into the world economy. This fits with Wallerstein's (1980) view of the world system's integration of new extractive areas (semi-peripheries) as the main impetus for settlement and colonization.

However, a simple application of Wallerstein does not fully address the rise of San Francisco or the actual process of integration. It also does not offer a more sophisticated view of the rationale behind that integration. A simple view of the process would characterize San Francisco as a frontier semi-periphery suddenly brought into the world system within the brief temporal span of the Gold Rush of 1848-1852. This would fit with contemporary nineteenth century views of an "instant city" and manifest destiny fulfilled, both of which are short-sighted and narrow interpretations. They also do not fit with a view in world systems theory that the incorporation of a new zone into the system takes decades not years to accomplish (Groover 2003:11).

San Francisco's process of integration had begun in the late eighteenth century when Spain established a military and religious outpost to control San Francisco Bay to counter rival, notably Russian aspirations. That process of colonization had coincided with rising European interest in the Pacific, particularly by Great Britain, and by the end of the eighteenth century by economic competition to dominate the North West Coast's (including California's) maritime fur trade. These activities were in themselves part of an older, larger process of European incorporation of China and greater Asia by dominating the trade to and from Asia.

The K-wave of expansion that witnessed this spate of activity in the Pacific beginning in the last quarter of the eighteenth century contracted after 1814, and

remained stagnant until the 1840s. In that period of stagnation, however, the beginnings of the upswing had begun with the independence of Latin America, the opening of that region to free trade, and the establishment of the region's major entrepôt at Valparaíso. Similarly, the Opium Wars and the establishment of free zones (entrepôts) at Shanghai and Hong Kong, and the rise of the Australian colonies as active traders were other manifestations of the next building K-wave. San Francisco during this period was already undergoing integration, albeit slowly, through its participation in the hide and tallow trade of the 1830s and 40s, which linked it to the industrialized shoe manufacturing centre of the United States, and also into the China Trade. When gold was discovered in 1848, the forward momentum of San Francisco's integration was propelled by the energy and capital of the resultant "rush."

The Mechanism of Integration: The Maritime System

The expansion of the world system in the last 500 years was a complex process of increased agricultural production, industrialization, the rise of extra-governmental bodies that controlled and expanded trade, the extension of military force, colonization and settlement (Wallerstein 1974, 1980). The connective link in all cases was, at its simplest, the use of ships to carry goods and people and at its most complex the establishment of ports, shipping merchants' cooperatives and companies, and the application of surpluses and industrialization to creating larger, more efficient and faster ships, large and powerful naval forces, and the development of larger port facilities where cargoes could be warehoused, loaded or off-loaded, and quickly transported intermodally to and from the port. The most effective port type was an entrepôt, or a zone of free exchange, where

goods would arrive from various other ports and be collected for transhipment. These activities, centred on ships and shipping, formed a maritime system. The maritime system is the connective link that forms a critical aspect of the expansion of the world system. The maritime system was the world system's most effective means of transporting flows of commodities to and from the core economy.

The integration of the Pacific into the world economic system was primarily accomplished by the maritime system. This included voyages of exploration and trade, the establishment of ports and fortified harbors, the creation of entrepôts where merchants (*négociants*) controlled the flow of commodities in and out of the region, and the extension of regular maritime "trades" such as the China Trade, the North West Coast Maritime Fur Trade, and the South American Trade. The maritime system was global and multinational in its reach and connections, and it was despite the pitfalls of ocean transport (such as shipwreck) an increasingly faster, safer means of communication. Time at sea was shortened by technological improvements in hull construction, propulsion, and navigation, and the ability of maritime trade to carry larger amounts of goods was expanded by these developments, especially by the late eighteenth and early nineteenth centuries' industrial revolution.

The maritime system was utilized by governments, corporations and companies, as well as individuals, as they sought to participate in the growing global economy. Specific agents of the maritime system were the merchants in key ports who established trade relationships in other ports to gain new items for trade and to control the flow of commodities. These relationships were regional, national and in time global, as evidenced by China Trade partnerships with partners and houses in New York, Boston,

and Shanghai, or in London, Calcutta and Hong Kong. They were also apparent in the expansion of houses by sending junior partners, employees or family members to ports where expansion of trade opportunities was desirable, such as the large number of American and British merchants who established themselves as commission merchants in Valparaíso following Chile's independence from Spain. In time, several of those same individuals or firms would repeat the process by extending their houses from Chile to California, like Mickle & Co.

The detailed workings of the maritime system, as explained in this dissertation, were the dominant factor in the rise of San Francisco. The process of integration of San Francisco as a semi-periphery was not only accelerated, but also in a sense hijacked by interests who saw, as a result of the Gold Rush, an opportunity to create a permanent base in the northern Pacific, a new entrepôt that could assist in the further integration of the Pacific Rim and specifically provide an American outpost for the domination of Asian trade and perhaps, in time, the entire ocean. This in itself was one of the beginning moves in the gradual shift of the world system's core from Europe to the United States as the dominant economy.

Redefining San Francisco as a Frontier

San Francisco does not fit the traditional pattern of frontier development in the United States. It is an outpost on the maritime frontier, created as an entrepôt, or zone of free movement of goods, and a manifestation of the world system's reliance on the maritime system to expand globally. This fits with the most recent theoretical evaluations of San Francisco and the "new western history." The concept of the

American frontier has undergone a series of challenges and refinements since Turner's initial thesis, most dramatically beginning in the late 1980s with works by Limerick (1987, 1991), Gibson and Whitehead (1993), Robbins (1994) and White (1991). The perspective of the new western historians is one in which the west's history was influenced by processes of "invasion, conquest, colonization, exploitation, development and expansion of the world market," the latter underlining new western historians' adoption of Wallerstein (Limerick 1991).The "new West" is a place where diverse peoples converged and interacted with each other as well as the natural environment. It is also a place of moral ambiguity, where "heroism and villainy, virtue and vice, and nobility and shoddiness appear in the same proportions as in...any other subject in human history" (Limerick 1991:87). As this dissertation asserts, it is also a place with a coast and it includes the Western ocean, a point stressed by Gibson and Whitehead (1993), who saw it as America's "maritime frontier."

San Francisco's history, originally examined by historians within the Turnerian framework, where it was the result of an inevitable progression of conquest by whites. The triumph by them over adversity (Soulé *et al.* 1855, Camp 1939) has since been re-examined within the approaches advocated by new Western historians. Rather, San Francisco has come to be seen as a maritime-inspired outpost on the coast (Reps 1981:2, Gibson and Whitehead 1993:188). It was not the result of a slow progression across the North American continent, but had leapfrogged ahead, bypassing the intervening plains, mountains and aboriginal peoples. It was a place where diverse cultures, including the native aboriginal and Hispanic cultures already in place on the coast, converged and met as the process of integration into the world economy transpired. The Gold Rush

accelerated that process, which had already been in place for over a decade. San Francisco was a cosmopolitan frontier as Steffen (1979) asserts, far more than it was an "instant city," as Lotchin and Barth argue.

Not all historians have made this connection. Frost (1991:19) agrees with Barth's view of San Francisco as an "instant city" because of its rapid development "and relative absence of historical foundation." This does not take into account how San Francisco fits within the *longue durée* of the Pacific (Jones *et al.* 1993, Perry 1994). Neither does it illustrate how the maritime system began to integrate San Francisco prior to it achieving a "critical mass" for extensive urban development as a result of the Gold Rush and the influx of population, capital and mass-produced consumer goods. New western historians have stressed that western expansion was closely linked to national and international economic systems. Robbins (1994:xi), and Gibson and Whitehead (1993) explicitly link those economic systems to maritime trade. Robbins notes that these links made San Francisco the "imperial heart of a vast trading network" that extended along the coast and into the interior (*ibid.*:173) and ultimately a peripheral center in a resource region linked by rail and sea to the manufacturing centers of the United States' eastern seaboard (*ibid.*).

San Francisco fits this historical perspective as well as the archaeological view espoused by Hardesty (1988), in itself a reflection of the world system perspective, of the mining frontier as a colony

> financed, manned, and supplied from the urban centres of America and Europe. Despite...geographical remoteness and small sizes...linked to a vast transportation, communications, demographic, and economic network on a national and international scale" (*ibid.*:1).

The key in this frontier model is the nature of the transportation and economic network that linked San Francisco to the rest of the world, and why it did so. While elsewhere in the West this was railroads, on the edge of the Pacific San Francisco had unlimited access through the ocean. This allowed commodities and labour to flow freely in and out of San Francisco, part of the interconnected processes that constituted the rise of capitalism in the nineteenth century (Wolf 1982:4).

The means of that access was the maritime system and its role within the larger world system as the mode of efficient transport of all the commodities required to build urban centres, feed, clothe and equip the miners, and transport gold to the national and international economy. From this perspective, San Francisco is not unique, but reflective of patterns and processes that fit within a larger (global) and longer context than the brief span of the Gold Rush. This same perspective is applicable to Pacific entrepôts as diverse as Seattle, Vancouver, Honolulu, Lahaina, Levuka, Sydney, Valparaíso or Hong Kong, all ports linked by the sea to the rest of the world and to each other, as an emerging semi-peripheral zone in the process of integration (Jones *et al.* 1993, Burley 2003).

The Archaeology of the San Francisco Waterfront and the Maritime System

The maritime system was and is more than an inter-connected network of rivals and collaborators engaged in the business of ships and shipping. For archaeologists, it can be a means of conceptualizing the integrated maritime activities of a region or a time period, and their relationship to the larger capitalist world system (Russell *et. al.* 2004:101). The theoretical perspective of this dissertation derives not from the

traditional, particularistic approach of maritime archaeology, but is drawn from maritime archaeology's adoption of a regional approach, the *Annales* school, and world systems theory, and the intersection of those theoretical approaches to urban and mining site historical archaeology. It also intersects with new western history.

The archaeology of the San Francisco waterfront served as a catalyst and focus to develop and illustrate this framework. The discovery of a buried ship and its assemblage was the starting point for detailed historical research that provided more data, and through these various projects, culminating with *General Harrison* between 2001 and 2005, the disparate sites merged into a single understanding as similarities, connections and an overall context emerged. Coincidently, as new Western history and historical archaeology provided a new context for the frontier, maritime archaeology underwent a theoretical shift from individual site study and particularism to a regional approach that examined wide areas and interconnectivities of groups of shipwrecks (Murphy 1997, Gould 2000).

The maritime system created globally, regionally and locally, as seen in San Francisco, a material culture reflection of integrated maritime activities. This included ships, shipyards, customhouses, storeships, outfitters, cargo and trade goods, regulations, rules, and activities of individuals or groups such as boarding-house keepers, salvagers, fishermen, and waterfront recruiters. All of these features of the Gold Rush San Francisco waterfront are represented in the archaeological and archival record. The seemingly disparate elements of that waterfront's archaeological sites, from two

storeships, partially dismantled ships, the remains of wharves, a collapsed piling-supported series of stores, and cargoes stowed in the storeships essentially form one site.

That waterfront was and is a maritime landscape, a material manifestation of the maritime system (Russell *et al.* 2004:101, Esser 1999, McCarthy 1999). The San Francisco waterfront is also an example of Hardesty's (1988) features systems. The maritime activities of Gold Rush San Francisco left material remains and activity areas that were directly related, even when several blocks or miles apart. To understand these features means not looking at them in isolation, but as separate pieces of an integrated whole (*ibid.*:9-11). That whole is the role of maritime trade and activities as the dominant factor, an interpretive approach initially suggested with Hoff's Store (Delgado 1990) and now more demonstrable with a look at other sites where comparisons were previously based on artifactual similarities in assemblages and not on the nuances of the maritime system, even though there was and is an explicit recognition that these goods were brought to California by ship.

The example of San Francisco's Gold Rush sites is applicable to assessing the concept of the maritime frontier as illustrated by this specific city/entrepôt, and provides a valid model for maritime archaeology as a method to address a wide context that focuses on the systemic behaviour responsible for the material record, namely the maritime system as a means of expanding the global economy. This framework fits with Staniforth's (2003) model of interpreting the material culture "in terms of the societies for which they were bound... [linking] maritime archaeology much more neatly to historical archaeology since it treats the transport of cargo as a single step in a wider trajectory or system of use" (*ibid.*:30-31). This dissertation initially posed the question of

what type of site(s) were under consideration; urban, mining, or maritime? The answer could be maritime, viewed within the context not just of method of transportation but the system's role in developing infrastructure, efforts to control flows of commodities through regular communication by ship, maritime partnerships and trade links, and warehousing in storeships until advantageous conditions existed for sale. It could also more correctly be viewed from the context of an integrated archaeological approach in which the role of the maritime system is acknowledged as a dominant factor in the interpretation of the site(s).

San Francisco's Gold Rush waterfront and its assemblage of cargoes are artifacts developed within the context of the worldwide development of capitalism. The commission merchants who created and managed it were the successors of those eighteenth and nineteenth century merchants who added new peripheral zones into the world system through, as Wallerstein (*ibid.*:129-130) notes, controlled production and merchandising decisions. They acted like "what the French called *négociants* as opposed to *traitants* or *commerçants*" (*ibid.*:153) to station themselves at bottlenecks of flows to adjust production to respond to market demands – or to limit flows to create demand. That is exactly what the merchants of Gold Rush San Francisco did, using their networks and their warehouses/storeships to acquire, hold and release goods.

The goods represented in the assemblages reflect that careful process of selection and commodity flow. The goal was not to make a quick profit from conspicuous consumers but instead to capitalize a city and port that would survive the inherent "boom and bust" of a mining town. Historical accounts stress the former, perhaps because of its boisterous, colourful character and its domination of contemporary accounts by

incredulous observers. The more mundane, but important business of attending to housing, warehousing, feeding and clothing and establishing a basis for industry and commerce did not often merit comment, but it is the reality reflected in the material record of the Gold Rush waterfront with assemblages dominated by nails, tin plates, bricks, beans and barley.

It is also a reality that fits the theoretical perspective of a global system utilizing maritime trade and connections – and not just by sending hundreds of ships in an uncoordinated "rush" – but rather by employing players, some with longstanding commercial maritime interests, to manage and try to control the influx of flow of these commodities, to build a successful entrepôt. The control of the flow is seen through the domination of trade into San Francisco by other key entrepôts, in 1849 New York and Valparaíso, and in 1850 primarily New York.

Not only did these ports send more ships, the ships they sent carried cargoes of commodities that had been packaged from disparate international sources assembled at New York and Valparaíso and from there transhipped to San Francisco in response to California's market conditions. At San Francisco some goods were landed for use in building and sustaining the city, others were repackaged and transhipped to the interior of California and the gold mines. In this fashion San Francisco grew into a sustainable port for ongoing trade with Asia and the wider Pacific.

San Francisco as a result of the above fits Wallerstein's definition of the critical factors for hegemony

> dominance of the spheres of commercial distribution of world trade, with correlative profits accruing both from being the entrepôt of much of world

> trade and from controlling the "invisibles" – transport, communications, and insurance. Commercial primacy in turn leads to control of the financial sectors of banking (exchange, deposit, and credit) and of investment (direct and portfolio); these superiorities are successive, but they overlap in time (Wallerstein 1980:38).

With hegemony came the ability to shift from semi-periphery to periphery to the core. San Francisco's rapid rise meant that San Francisco was successfully integrated into the core economies of Europe and the United States. The development of the port spurred the transcontinental railroad, completed in 1869, that joined the maritime system in merging San Francisco into the United States' core economy. The success of that merger played out in the late nineteenth century as American ambitions and economic interests participated with European interests to more fully integrate the Pacific Rim into the global economy with the benefit of more bases of operation, some of them entrepôts, and the output of the industrial age. That included massive steel-hulled, steam powered ships that went even faster, carried more freight and passengers, and reached hitherto isolated regions.

The material record joins the archival, when viewed from a maritime systems theoretical perspective, to show that 1849-1856 San Francisco was no accident. The city and its port were not an isolated frontier nor an instant city, but rather, another step in the Pacific's long processes of trade and the world economy, in which San Francisco played a critical role as America's principal port on the Pacific. It is a story of economic expansion that continues to evolve with maritime interests continuing to play the critical role, moving containers, bulk freight and petroleum by sea throughout the Pacific and around the world in a system that carries 90 percent of the world's goods by water even now into the twenty-first century.

Testing the Model:
Dawson City, the Klondike Gold Rush and a Failed Entrepôt

The rise of San Francisco occurred in a century marked by several gold rushes, including ones in Australia, British Columbia and in Canada's Yukon/Klondike. The Klondike provides an instructive model for assessing the role of the maritime system as a tool of integration, and how the system expands by creating entrepôts. It also fits within the collaborative framework proposed by Lawrence (2003) for assessing the archaeology of the nineteenth century, in this case in assessing an outpost of the world system in comparison with another outpost, San Francisco. While Lawrence proposed this for interrelated British Empire sites with that common global link, it is applicable here because of the global nature of the world and maritime systems.

The Klondike shared characteristics with the other nineteenth century gold rushes, and the processes at work were the same as those that had shaped the West during the past 50 years, or to the time of the California Gold Rush (Brand 2003:3). The settlement used to test the model proposed in this dissertation is Dawson City, which was located at the confluence of the Yukon and Klondike rivers at an important break in the transportation system to the Klondike mines as the head of navigation (*ibid.*:7) Dawson City, a community of 2,000 in 1897, blossomed between 1898 and 1899 into the largest city in the Pacific Northwest beyond San Francisco, and Canada's largest city west of Winnipeg with a population of 16,000 (Fetherling 1997:152, Brand 2003:271). It was a city that developed, within a two-year period, with modern amenities including running water, steam heat, electricity, telephones, large stores and government offices. In this,

the rise of the "frontier outpost" of Dawson City was not unlike San Francisco's five decades earlier.

The city was a riverine entrepôt in Canada that like Gold Rush San Francisco was dependent on the outside world for supplies that ranged from building materials, mining equipment and food. In 1897-1898, Dawson City commission merchants,

> dominated by large American mercantile firms...competed with other outfitters, wholesalers and distributors for a lasting slice of the Yukon trade. From this outfitting rush grew and enduring hinterland relationship between the Yukon and its primarily West-Coast suppliers...When these tons of goods had been redistributed by the end of the season a recognizable merchant element had emerged. Over the next season supply lines for a more stable market were established and Dawson's merchant community became more specialized and sophisticated (Archibald 1975:vii)

Dawson City thrived because of the exchange of gold for mass-produced commodities. The initial rush of 1897 by "Stampeders" saw most goods coming from Canadian sources by paddlewheeler from St. Michaels (*ibid.*). The volume of goods and the means of transport changed, however. Shipped from San Francisco, Seattle, Victoria and Vancouver, large amounts of goods and men were landed by ship on the Alaska coast, hauled into the mountains on the Chilkoot Trail, at first by mule and later by rail, to the rivers, and then run up to Dawson. The parallels with San Francisco also included the role of the merchants in discharging tonnes of commodities at Dawson, which were then re-distributed to mining camps in the interior (Archibald 1975).

Linked to the world system, and with its own maritime system in play, albeit riverine, Dawson City had ever potential for success. However, by 1905 Dawson was a "well-appointed ghost town," with its population back to 2,000, many of its stores closed

and the city's commercial life "a shadow of its former self" (*ibid.*:169). Why had Dawson City failed to achieve critical mass as an entrepôt and as a sustainable urban centre? Obviously, the situation in the Klondike was far more limiting than in California, particularly in its extreme winter conditions for 8 months of the year. Winter conditions notwithstanding, Dawson did grow and prosper- for a while. Brand (2003) argues that Dawson City and the Klondike represent a study in transience, with prospectors and miners who fit with White's (1991:193) definition of modern migration, individuals moving to temporarily obtain "property that could be transferred somewhere else" such as gold, after which they would return home. The transient community was well-served by the transportation network, and archaeological examination of the transient gold miner's district at Dawson City has documented its extent, with manufacturers of commodities identified on artifacts recorded in these assemblages located throughout eastern Canada, the United States and Europe (Brand 2003:271).

These transient miners were not the ideal population for either the government or the mercantile establishment who formed the core of the community at Dawson City and who wished to establish a permanent community. Unlike San Francisco, with weak government control, Dawson City was under more stringent government regulation. The transients were not encouraged to settle permanently, and in time the nature of the rush changed from many individual miners to smaller groups who worked for larger corporations and conglomerates (*ibid.*:272-273). This meant a shift from petty commodity to industrial production of gold, a decline in population, and a concurrent change in Dawson City from many stores and merchants, to two larger trade

corporations, and then, after 1907, to direct supply to the major gold companies, who operated company stores, bypassing the entrepôt (Archibald 1975:169).

Why did this happen to Dawson City and not to San Francisco, especially after the California Gold Rush underwent a similar transformation from a group of individual transient miners to a mechanized, industrial mining operation with large companies engaged in hydraulic extraction? The reason is that Dawson City, despite its transportation links, was far more isolated and dependent on the mining and miners than San Francisco. San Francisco's trade links shifted to a broader market after the Gold Rush; Dawson City's trade links were solely tied to its gold mines.

San Francisco, on the coast, was readily accessible to ships that connected it and its market to the rest of the world far more rapidly than Dawson City. To reach Dawson City involved an ocean voyage to Alaska, a rail trip up into the interior, and then a river voyage. The distance, and the transportation breaks were too many, and Dawson City's relative isolation from the world market and system could only be overcome by the initial demand of the individual, transient consumers and the commission merchants who provided the goods to house, clothe, feed and equip them. Once those miners left, the system retreated, leaving Dawson City "high and dry." No amount of government support or capital could or did compensate for the lack of a direct connection by sea to the world system.

San Francisco's success lay in the fact that the patterns of its incorporation had utilized the initial economic energy of the California Gold Rush, but the merchants there were backed by larger national and international interests who saw in the port a future entrepôt not for a mining-based regional trade, but rather one that could provide a basis

for larger trade networks and incorporation of even more of the Pacific Rim. The means to achieve that was the maritime system, a system that had ready access to San Francisco and only partial access to Dawson City.

The ultimate success of the maritime system meant that as the world system's principal Pacific entrepôt, San Francisco was a major player in the 1897-1900 supply system, transhipping goods north. With many opportunities to participate in a variety of trades by sea, San Francisco after 1856 had expanded its ocean trade and secured its future with trans-Pacific steamship lines to Hawaii, the Society Islands, Asia, Australia, South America, through domination of North America's Pacific Coast trade, and in global lumber, coal, sugar, wheat and oil trade, not to mention temporary but lucrative opportunities like the Klondike Rush (Wright 1911). Without those links to the rest of the world by sea, Dawson City, isolated by land at the end of a river that froze up each winter, had but one opportunity to prosper. When the business of mining changed, Dawson City as an entrepôt and as a growing concern was finished because of its inability to access the ocean and diversified trade, and hence participate in evolving global economy that continued to use the ocean as its highway and means of expansion. This underscores again that San Francisco's success, while initially fuelled by the Gold Rush, was ultimately a result of the maritime system's role, not gold's.

Conclusion

This dissertation is the summary of 28 years of occasional fieldwork, excavating the buried Gold Rush waterfront of San Francisco, analyzing assemblages, and working in the archives. This work began in 1978 with the excavation of *Niantic*, and continued

through the successive years with sites such as the buried *William Gray*, Charles Hare's shipbreaking yard and Hoff's Store. The impetus for the dissertation was the 2001 excavation of the storeship *General Harrison*.

Additional field work as a maritime archaeologist on shipwreck sites during the intervening decades also played a role, especially after participating in some of the projects and discussions with colleagues that shifted our scholarly attention from individual sites to a regional approach, a perspective adopted from historical archaeology and the precursor for some to accept and modify world systems theory as the concept of the maritime system evolved as a theoretical perspective. In recent years, the work of several colleagues has led the way in this thinking and in demonstrating its application, especially in better integrating maritime archaeology into the mainstream of historical archaeology.

The work of maritime system oriented colleagues, as well as western historical archaeologists whose world overlaps with the new western history, especially Gibson and Whitehead's maritime emphasis, helped me evolve in my thinking from a particularistic emphasis, a shift from viewing the ships as artifacts reflecting the practices and technologies inherent in their construction and operation, or the life on board, and instead seeing them as artifacts of a larger system. New western historians argue that the West should be seen a place defined by "invasion, conquest, colonization, exploitation, development and expansion of the world market," (Limerick 1991) and as a place where diverse peoples converged and interacted with each other as well as the natural environment. So, too, the oceans and the maritime world, another part of the world mythologized as horrific and heroic but in reality a place of moral ambiguity, where the

human experience in all its aspects has played out, albeit on a canvas far larger than any land mass. So, too, the view that the global span of the oceans has been a defining factor in the development of the modern world's global economy.

Analyzing the rise and success of San Francisco as a maritime landscape, as a group of interconnected features, and as a macro-artifact of the maritime system suggested the concept of the entrepôt as a model for settlement and integration on the maritime frontier. That model, I propose, has applicability to other cities and ports including not only those on ocean coasts but also on major rivers or lakes that connect to the sea like the Mississippi or the Great Lakes. The key is in viewing these sites as places not where the land meets the sea, but rather where the sea, not on obstacle but a readily travelled global highway, meets the land.

APPENDIX:

CARGO STORED AS MERCHANDISE ONBOARD THE GENERAL HARRISON STORESHIP

Cargo stored as Merchandise onboard the General Harrison Storeship, reconstructed from Mickle & Co. advertisements in the San Francisco Daily Alta California, 1849-1851

The terminology and quantities are based entirely on the San Francisco *Daily Alta California* advertisements. I have added explanatory notes identifying points of origin (of manufacture, growth, or shipment) and cross-referenced where these items are also evident in the archaeological record (as excavated in 2001) with boldfaced type. I have also compared the advertisements with the *Niantic* and Hoff's Store assemblages.

Alcohol

"200 casks Scotch ale and porter" + "352 ½ dozen Scotch ale" + "Draft Ale in Casks"[1]

India pale ale

42 cases Tennent's ale[2]

33 dozen Arrak punch[3]

Brandy + Otard brandy[4]

[1] This large grouping of beverages is the most likely source of the black glass malted beverage containers and liquid samples excavated in 2001. The 200 casks were part of the cargo of the ship *Pacific* from New York via Valparaiso and advertised on July 10, 1850.

[2] The malted beverages of John Tennent and Son of Glasgow. Part of the cargo of *Oscar* from China on January 10, 1851. This means the ale was shipped to China and then to San Francisco. On February 9, Mickle advertised "20 casks Tennent's draught ale" for sale. This was either a previously unadvertised lot of casks or the "42 cases" were a misprint for casks and more than half the shipment had sold in the past month since *Oscar*'s arrival.

[3] Arrak Punch: Also known as "Arraks Punsch Opium Drink", Swedish Punsch and Caloric Punsch, this was a liqueur made from "Batavia Arrak," a compound of rum and fermented Javanese rice, but despite the advertisement on some bottles, no opium. Part of the cargo of the brig *Jackin* on April 5, 1851.

[4] Otard Brandy: Founded by a French nobleman of Scottish ancestry in Cognac in 1795, this cognac-producing house bears the family name. Otard still produces a variety of cognacs (www.otard.com).

400 cases champagne + Champagne (x2) + "200 cases superior champagne"[5]
122 cases cherry cordial + "Cherry Cordial, in cases"
1000 cases claret wine + claret (x4) in casks and cases[6]
cognac brandy, in 18 gallon casks + cognac + 2 kegs cognac
Hock[7]
Madeira (x2)[8]
"marsalla in casks"[9]
50 cases "Paxarete (sweet sherry)"[10]
25 cases Frontignan[11]
60 cases brown Philadelphia stout [12]
Port + "port wine, in 12 gallon casks" + "Port, in casks" + "10 cases old port"[13]
Rum + 40 barrels of rum

5 The source of the bottles excavated in 2001. Then, as now, this sparkling wine came from the Champagne district of France near Reims, 90 miles (145 km) northeast of Paris (Johnson and Robinson 2001:78-79). Without labels, it is impossible to determine which *maison* the wine came from; however, a crate from the *Niantic* excavation (1978) retained a fragmentary label, which matched a contemporary mention of the wine as being from the *maison* of Jacquesson et Fils, one of the major champagne houses of Reims (Delgado *et al.* 1979, Smith 1981:145-147). The 400 cases were part of the cargo of the ship *Pacific* from New York via Valparaiso and advertised on July 10, 1850.

6 Claret is the nineteenth century term for Bordeaux's red wines. In time the term grew more generic and encompassed most of the heavier red wines (Johnson and Robinson 2001:82). The 1000 cases were part of the cargo of the ship *Pacific* from New York via Valparaiso and advertised on July 10, 1850.

7 This was the generic term for German white wines, usually Rieslings. The term comes from the Rheingau town and vineyards of Hockheim am Main (Johnson and Robinson 2001:226-227).

8 This refers to the fortified wines of the Portuguese island of Madeira. Bottle fragments marked "Old Madeira" were recovered during the *Niantic* excavation in 1978 (Smith 1981:154).

9 This refers to the fortified white wine Marsala, which while used today as a cooking wine matched Madeira and Sherry in popularity. Like those wines, Marsala was particularly popular in the United Kingdom and the United States. The wine is produced at the western tip of Sicily near the port city of Marsala (Johnson and Robinson 2001:184).

10 This is Pajarete, a sweet sherry from Spain and also made in Chile.

11 "Frontignan" refers to the Muscat de Frontignan, a sweet dessert wine produced in southern France on the Coteaux du Languedoc. Located on the coast, west of Marseille on the Golfe du Lion, the village of Frontignan has been a wine-producing centre for more than two millennia. The Muscat grape, developed into a dessert wine around 1700 by the Marquis du Lur-Saluces (according to local lore) was a botryized (from the botrytis fungus) wine initially; it is now a fortified wine (Johnson and Robinson 2001:138-139). Part of the cargo of the brig *Jackin* on April 5, 1851.

12 Another likely source of the black glass malted beverage bottles and liquid contents excavated in 2001 and despite the name, may be products of New York breweries and not from Philadelphia. The 60 cases were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

13 This fortified red wine is the product of the Portuguese Douro region near Oporto, which gives the wine its name (Johnson and Robinson 2001:207-211). An embossed bottle label was excavated in 2001. The 10 cases were part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

Sherry (x4) + 80 cases + 20 cases sherry wine + 100 kegs sherry wine, 9 gals ea[14]
"Superior Wines, in cases" [15]
"casks sweet Malaga wine"[16]
"Mason's Vegetable Bitters"[17]

Tobacco

30,000 first quality Havana cigars[18]
22,500 superior Havana cigars + 58,000 superior Havana cigars
Havana and paper segars + 2 cases paper cigars
"Havana cigars"
"108 M Manila segars"
"segar paper"
100 bales of Virginia leaf tobacco + 30 ceroons tobacco, 2 cases cut tobacco[19]
"4 cases Bracamoro cigars"[20]
228 cases chewing tobacco[21]

Processed Foodstuffs

360 14-lb. kegs "choice Dutch butter"[22]
currants[23]

[14] Another dessert wine of the nineteenth century, Sherry comes from Jerez de la Frontera on the southern coast of Spain. Served by the Port of Cadiz, Jerez has produced this white wine aperitif for centuries. The range goes from *Finos*, *Amontillados*, and *Olorosos* (Johnson and Robinson 2001:199) No known sherry bottles were excavated in 2001, but an embossed label marked "Xèrès" (the French name for Jerez) was excavated at the *Niantic* site in 1978 and may represent French sherry masquerading as Spanish wine (Smith 1981:154).

[15] This shipment is the likely source of the white wines excavated in 2001 with their liquid contents intact.

[16] Malaga, in Andalusia, was the source of what were considered the "best" raisins of the nineteenth century (see footnote 39) and rich, raisiny white dessert wines known locally as *vinos generosos*. Today the region produces Moscatel and Pedro Ximénez (Johnson and Robinson 2001:200).

[17] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. This may be the source of bitters bottles excavated in 2001.

[18] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[19] The 100 bales of Virginia leaf tobacco were part of the cargo of *Huntress* from Valparaíso on March 7, 1851. An advertisement on March 29, 1851 for 63 bales suggests the sale of 37 bales by that time.

[20] Made from South American tobacco from the Peruvian district of Jaen de Bracamoros, a centre for tobacco production since Colonial times. They were popular in the nineteenth century in Lima.

[21] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[22] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850. Two wooden cases containing six butter-filled salt-glazed stoneware crocks, sealed with wooden stoppers, were excavated from the Hoff Store Site in 1986. No manufacturer's mark or point of origin was discernable (Hattori and Kosta 1990:92) Butter from Holland was considered the best because of its quality (Tomlinson 1866, 1:262).

[23] Part of the cargo of the ship *Pacific* from Valparaíso advertised on July 10, 1850.

"Chinese preserves"[24]
35 bbls. Bordeaux wine vinegar[25]
"sausages in lard"[26]
1,109 lbs. dried apples[27]
"preserves"[28]
3 kegs of Chile butter "in bladders"[29]
American Chocolate + Spanish chocolate + Chocolate, Peruvian and Chile[30]
"dried fruits"[31]
"140 lbs superior fruit cake, in tins"
"preserved ginger"[32]
40 cases ham + "10 barrels and 40 tierces hams"[33]
580 cases fresh American lard + 356 kegs of lard + 25 cases lard + lard[34]
35 casks molasses[35]
Spanish olives
Seville olives[36]

[24] Most likely jars of preserved ginger, kumquats and citron, as advertised (by another merchant) in the San Francisco *Daily Alta California* of March 15, 1851. The cargo of the Gold Rush wrecked clipper brig *Frolic* included 100 boxes of 6 jars of preserves (with two jars of each type) sold by a Chinese merchant, "Chyloong" for $4 per box (Layton 2002:157).

[25] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[26] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. They may be Chilean.

[27] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. They may be Chilean.

[28] Part of the cargo of *Oscar* from China, January 10, 1851. See footnote 24.

[29] Pig's bladders were used (like modern sausage casings) to provide an airtight package for the shipping and long-term storage of butter in the era before refrigeration. The term "Chile butter" like the "Dutch butter" above refers to the country of origin, not a type. Part of the cargo of the ship *Pacific* from New York via Valparaíso and advertised on July 10, 1850.

[30] The "American chocolate was part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[31] Any variety of fruits could be dried, such as apples and peaches (see footnotes 27 and 37). What appeared to be boxes "of spline and glue construction" containing one scorched fig "in a desiccated condition" and fig seeds was attributed, and I concur with the analysis, to dried figs. Painted a bluish green, the crate had no identifying marks (Smith 1981:179-180).

[32] Part of the cargo of *Sir George Pollock* from China on August 20, 1850. See footnote 24.

[33] The cases and tierces of ham (a tierce is a type of packing container) were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[34] Rendered pork fat. The 580 kegs of fresh American lard were identified as part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850. The 25 cases of lard were part of the cargo of *Huntress* from Valparaíso on March 7, 1851. The simple listing of lard was part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. I hypothesize the lard was Chilean.

[35] The 35 casks of molasses were part of the cargo of *Oscar* from China on January 10, 1851.

[36] Spain continues to produce, as it has since antiquity, large green, brined-treated olives that are shipped, as they were in the nineteenth century, from Sevilla. The "Spanish olives" of Mickle's advertisement are also probably from Sevilla.

50 cases dried peaches + 147 cases dried peaches + 1458 lbs. dried peaches[37]
25 cases assorted pickles in jars[38]
"50 barrels of mess beef"
163 cans oysters[39]
"prime pork" + pork[40]
150 cases Malaga raisins + 1646 lbs raisins[41]
sardines[42]
"Superior sugar house syrup"
"superior sweetmeats"
"sugars"[43]

[37] A single, partial peach pit was recovered during the 2001 excavation. Like the "dried fruit" also advertised, these were the likely product of Chilean orchards. Fruit seeds including peach pits, presumably from dried fruit, were recovered from the Hoff's Store site in 1986 (Hattori and Kosta 1990:89-90). The 1458 lbs. of dried peaches were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. The 50 cases were part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[38] Part of the cargo of the ship *Pacific* from New York via Valparaíso and advertised on July 10, 1850. Wide-mouthed jars holding pickled foods, including olives, were recovered from the Hoff Store Site in 1986, many of them still packed in wooden cases (Hattori and Kosta 1990:90).

[39] Identified as part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. A single embossed brass label from a tin can was recovered from the Hoff Store Site in 1986. It was embossed with the legend ISAAC RECKHOW. OYSTERS 124 LIBERTY ST. NEW YORK" (Hattori and Kosta 1990:91).

[40] Packed in barrels or casks, like the Mess Beef, this was dried and salted meat. Collapsed barrels of this product were excavated at the Hoff Store site (Delgado 1990:27 and Hattori and Kosta 1990:83).

[41] These are dried European wine grapes (*Uvae Malacenses* or *Uvae passae majoris*) from Andalusia, Spain, which were dried in bunches and considered the "finest" kind of raisin in the nineteenth century. The 150 cases were part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[42] Sardines were a common Gold Rush import. The 1925 recovery of a brass label from the *Apollo* site, marked "J. COLIN A NANTES – SARDINES J COBO HUILE – RUE DES SAR-R-S NO. 9," (Delgado 1986:116) was an early reminder of an emerging global industry, the canning industry – and specifically the "sardine tin." Nantes, located on the southern coast of Brittany and Anjou, near the mouth of the Loire, gained an international market for sardines after 1824 when local confectioner Pierre-Joseph Colin invented the concept of sardine in a can. Colin's invention was inspired by the work of Parisian Nicolas Appert, who learned that cooking sealed vegetables in a tin can killed the organisms that led to spoilage, fermentation, and food poisoning (Anonymous 2003). Adopting Appert's method, Colin (1786-1848) sealed the small fish in a flat tin, packing them in olive oil. The sealed tins were then cooked in boiling water. Sealed in oil, without the air reaching them, the sealed fish had an incredibly long "shelf-life," which made it possible to ship them around the world (Fichou 2004). The first major global market for the sardine tin came with the California Gold Rush. Two sardine tin labels, embossed CHATONET JNE. FABRICT. DES CONSERVES ALIMENTAIRES SARDINES A L'HUILE QUAL. ST. NICOLAS NO. 54 LA ROCILELLE CHARPEVTIER A NANTES were excavated at the Hoff's Store site (Hattori and Kosta 1990:91-92).

[43] Part of the cargo of *Oscar* from China on January 10, 1851.

Staples

500 kegs barley + barley (x2) + 218 bags barley + 260 bags of barley + 49 bags barley[44]

130 bags Chile beans + 360 bags of Chile beans + 187 bags beans[45]

cloves[46]

coffee + 50 sacks Central American coffee + 70 bags Java coffee[47]

"103 jars eggs"[48]

263 half bags Chile flour + 401 quarter bags Chile flour + Chile flour + 690 bags of flour + 300 half sacks flour

mace[49]

nutmegs[50]

oranges[51]

[44] The 500 kegs were part of the cargo of the ship *Pacific* Valparaíso and advertised on July 10, 1850.The 260 bags were part of the cargo of *Huntress* from Valparaíso on March 7, 1851. The 49 bags were part of the cargo of *Jackin*, arriving on April 5, 1851.

[45] These are the likely source for the beans excavated in 2001. Beans of undetermined origin were excavated at the Hoff Store Site in 1986 (Hattori and Kosta 1990:90).

[46] Part of the cargo of *Oscar* from China on January 10, 1851. A product of Indonesia (Ortiz 1992:84).

[47] During this period, coffee was one of the most valuable international trade commodities in the world. Originating in Ethiopia and then introduced to Yemen, and from there via Islamic merchants and later Dutch traders to Java, and then through French traders to Martinique, the point of contact and divergence for subsequent Latin American coffees. By 1850, Brazil produced half of the world's coffee, although Caribbean and other Latin American growers also participated in international trade, they were overshadowed by European growers and Java (Topik 2003). The "Central American" coffee imported by Mickle was either from Colombia or Ecuador, and despite the identification of the other coffee as "Java" it may have not come from there but rather from Brazil or Central America because until the twentieth century most Latin American beans were designated as "Javas," "Bourbons" or "Mochas" because these early coffee producing areas' product commanded the highest price on the market (Topik 2003). That being said, "69 bags Java coffee" presumably from Java were part of the cargo of *Oscar* from China on January 10, 1851. Whole beans, ground coffee and coffee grinders were recovered from the Hoff Store Site in 1986, some in bags. No point of origin was discernable (Hattori and Kosta 1990:90).

[48] Part of the cargo of *Oscar* from China on January 10, 1851, these are likely *pidan*, or preserved Chinese eggs, a commodity still available from China. Dating to the Ming Dynasty, perhaps earlier, the practice preserved eggs by coating them in a mixture of lime, salt, charcoal and black tea which induce chemical changes that ensure the longevity of the egg. When coated with wax, eggs treated in this fashion lasted over 200 days. Other preserved eggs known as *zaodan* were pickled in a fermented grain mash. In both cases duck eggs were (and are) preferred (Hou 2005 and Blunt and Wang 1918).

[49] Part of the cargo of *Oscar* from China on January 10, 1851. See footnote 31.

[50] Both Mace and Nutmeg are the product of the evergreen nutmeg tree (*Myristica fragrans*), originally confined to the Moluccas and the other "Spice Islands." Highly prized, they were a highly valuable commodity in the sixteenth and seventeenth centuries and the cause of intense rivalry and war between Holland and England. By the eighteenth century, French and British entrepreneurs broke the Dutch monopoly. British plantations in Asia and the West Indies (notably Grenada) provided most of the British and American market demand by the mid-nineteenth century (Ortiz 1992:84, 88-89). The Mace and Nutmeg here, however, were part of the cargo of *Oscar* from China on January 10, 1851. This raises the possibility that these spices came from Indonesia via China.

[51] Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

potatoes[52]
7000 lbs rice[53]
"spices"[54]
sugar (x2) + 30 cases super loaf sugar + 25,000 lbs super loaf brown sugar + "Sugars, white and brown" + 1,119 bags of Brazil sugar[55]
249 boxes super Oolong tea + teas, superior, in 5 and 10 lbs. catties + superior black tea[56]
Vinegar in casks + 42 casks vinegar + vinegar[57]
1 box Tartaric acid[58]

Clothing and Fabrics

Silks and satins[59]
crepe shawls
white embroidered crepe shawls[60]
colored embroidered crepe shawls[61]
assorted damask embroidered crepe shawls[62]
assorted damask scarfs[63]

[52] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[53] The "7000 lbs. rice" was part of the cargo of *Oscar* from China, January 10, 1851. Fragments of two burnt "mats" of rice were excavated from the Hoff Store Site in 1986. They represented the remains of a long-grained, polished white rice, presumably from China, packaged in diagonally plaited matting, wrapped in a second layer of matting and weighing approximately 100 and 200 lbs. (fixed volumes). Rice from China dominated the Gold Rush market, as demonstrated both in contemporary references and the Hoff assemblage (Hattori and Kosta 1990:88-89).

[54] Part of the cargo of *Oscar* from China, January 10, 1851.

[55] Brazil's sugar plantations, established in the sixteenth century, were the major source of quality sugar for the rest of Latin America in the nineteenth century and was also a prized commodity for international trade. The 30 cases super[ior] loaf sugar and 25,000 lbs. of superior brown sugar were part of the cargo of *Oscar* from China on January 10, 1851.

[56] The first shipment was part of the cargo of *Oscar* from China, January 10, 1851. The second shipment of teas, superior, in 5 and 10 lbs. catties was part of the cargo of *Sir George Pollock* from China on August 20, 1850. The "superior black tea" was part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. The Hoff Store excavation of 1986 yielded chests and catties (caddies) of Chinese tea preserved by the anaerobic conditions of their muddy burial with the tea inside (Pastron and Hattori 1990).

[57] The "42 casks vinegar" were part of the cargo of *Oscar* from China, January 10, 1851.

[58] "A colorless and odorless substance used in various preparations of alimentary products. "To be treated as a foodstuff," and stowed in barrels (Gavroche 1952:269).

[59] Part of the cargo of *Oscar* from China on January 10, 1851. Layton describes the "visions of opulence" enumerated in a detailed invoice of China cargo from the *Eveline*, sold at auction on November 22-24, 1849 that included silks and satins "some in ten choices of color combinations" (Layton 2002:160).

[60] Part of the cargo of *Sir George Pollock* from China on August 20, 1850. Also listed in the *Eveline* invoice, see footnote 57.

[61] Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

[62] Part of the cargo of *Sir George Pollock* from China on August 20, 1850. Also listed in the *Eveline* invoice, see footnote 58.

[63] Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

crimson cord sashes[64]
"silks, satins and saranets of assorted colors and styles"[65]
figured camlet[66]
checked and satin gauzes[67]
black silk and satin handkerchiefs[68]
figured and checked handkerchiefs[69]
domestics, blue drills, ginghams & c.[70]
black Levantine handkerchiefs[71]
china shawls and silks
superior white satins and lute-strings[72]
dress silks[73]
saya saya[74]
floss silk[75]
silks and satins
gunny bags[76]
undershirts
drawers
hose
towels
Silks and Domestics
Panama hats, of all qualities

64 Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

65 Part of the cargo of *Sir George Pollock* from China on August 20, 1850. Also listed in the *Eveline* invoice, see footnote 58. The "saranets" are actually "sarcenet," or "sarsnet," a thin silk fabric used as a liner and in women's fashions of the period.

66 Camlet is a fine dress fabric made of silk and camel hair, or wool and goat's hair. Advertised as part of the cargo of *Sir George Pollock* from China on August 20, 1850. Also listed in the *Eveline* invoice, see footnote 58.

67 Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

68 Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

69 Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

70 These are the most likely source of the blanks excavated in 2001 and described in Chapter 10. Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

71 Advertised as part of the cargo of *Sir George Pollock* from China on August 20, 1850.

72 Advertised by Mickle & Co. as "China goods" on December 31, 1850.

73 Advertised by Mickle & Co. as "China goods" on December 31, 1850.

74 I have not been able to identify this fabric; Mickle & Co. also advertised it as "China goods" on December 31, 1850.

75 Advertised by Mickle & Co. as "China goods" on December 31, 1850.

76 One shipment of gunny bags was identified as part of the cargo of *Oscar* from China on January 10, 1851. Unused gunny bags were excavated in 2001.

200 doz. Guayaquil hats[77]
four cases of straw hats[78]

Shoes and Leather Goods

"shoes and boots"[79]
English bluchers[80]
winter boots
English pump leather[81]
5 cases brogans[82]
brogans
"2 cases gaiter boots"

Furniture and Furnishings

8 cases English prints[83]
20 cases paper hangings
camp couches[84]
"an assortment of lacquered ware"[85]
20 cases paper hangings[86]

[77] From Guayaquil, Ecuador, another source for straw hats besides Panama. Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[78] See footnote 73.

[79] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[80] The "Blucher" was a nineteenth century laced boot made famous by Prussian Field Marshal Gebhard Leberecht von Blücher, who fought at Waterloo and was second only to Wellington as a popular figure of that battle. The "blucher" was (and is) a high shoe or half boot, with the vamp and tongue made of one piece and the quarters lapping over the top of the vamp (History of Shoes 2003)

[81] Pump leathers are still manufactured and are leather gaskets for sprayers and hand-pumps of various sizes. The term refers to the fact that these were made in England. Part of the cargo of *Oscar* from China on January 10, 1851, this means they like the Tennent's Ale were shipped from the UK to China and then to San Francisco.

[82] Brogans were the ankle-high work shoes of the period. The Hoff Store Site excavation in 1986 yielded 1131 footwear fragments with a minimum number of 420 shoes or boots represented by the specimens with the toe end of the sole (Huddelson and Watanabe 1990:96). The Brogans in the assemblage were in some cases stamped "F. DANE" (location unknown) while others were potentially associated with a leather thing used to tie a stack of shoes together. The thong carried a leather tag embossed "BRAGDON BOSTON 13 ¼" which was associated with William Bragdon, a Boston "leather measurer" and presumed shoe manufacturer at 19 Shoe and Leather Street between 1846 and 1862 (*ibid.*:96-97). The cases of brogans imported by Mickle were part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850. They are presumably American manufacture, and may like the Hoff assemblage, be from Massachusetts, the nineteenth century's "major shoe manufacturing center" in the United States and "responsible for much of the California trade" (*ibid.*:98)

[83] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[84] Part of the cargo of the ship *Pacific* from New York via Valparaíso and advertised on July 10, 1850.

[85] Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

[86] Part of the cargo of the ship *Pacific* from New York via Valparaíso and advertised on July 10, 1850.

"table and hanging solar lamps"[87]
American rocking chairs[88]
prints
piano
4 bales Brussels carpeting
"furniture"
looking glasses
an assortment of book cases, counting house desks, side boards[89]
rattan couches, settees, chairs and stools[90]
extension dining tables[91]
mosquito netting bandas[92]
lacquered boxes[93]
pictures[94]
1 pair super ebony marble top tables[95]
1 pair super ebony sofas
Mosquito curtain, silk
oil cloth table covers[96]
oilcloths
Carpeting and Matting + 8 bales carpeting
straw mats
matting[97]
trunks
silk window curtains[98]

87 Part of the cargo of *Sir George Pollock* from China on August 20, 1850.

88 Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

89 Part of the cargo of *Oscar* from China on January 10, 1851.

90 Part of the cargo of *Oscar* from China on January 10, 1851. Also listed in the *Eveline* invoice, see footnote 58.

91 Part of the cargo of *Oscar* from China on January 10, 1851.

92 Part of the cargo of *Oscar* from China on January 10, 1851.

93 Part of the cargo of *Oscar* from China on January 10, 1851. Also listed in the *Eveline* invoice, see footnote 58.

94 Part of the cargo of *Oscar* from China on January 10, 1851.

95 Part of the cargo of *Oscar* from China on January 10, 1851. Also listed in the *Eveline* invoice as "Blackwood tables with marble tops," see footnote 58.

96 Part of the cargo of *Oscar* from China on January 10, 1851.

97 Part of the cargo of *Oscar* from China on January 10, 1851. The *Eveline* invoice also listed "straw table mats," see footnote 58.

98 Advertised by Mickle & Co. as "China goods" on December 31, 1850.

Building Supplies

"50,000 front and hard red bricks" + 16,000 bricks [99]
"frame houses"[100]
"iron houses"[101]
130,000 feet of lumber + 100 dozen 3 inch planks + "spare timber"
"lime and hydraulic cement"[102]
22,800 shingles + 50,000 shingles[103]
100 cases tin plates[104]
10 cases zinc + "zinc" [105]
iron (x3) + 21,000 lbs. Swedish bolt iron, from ½ " to 1"[106]

Hardware

brooms [107]
"assorted carpenters' tools"[108]
Flint glass tumblers [109]
Collins's axes [110]
"assorted hardware"
knives[111]

[99] The 16,000 bricks came from *General Harrison*'s shipment. The 50,000 bricks were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. Brick fragments found inside the in 2001 may be from these shipments.

[100] Prefabricated houses. "1 Frame house complete" was part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[101] Prefabricated houses.

[102] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. Probably packed in barrels.

[103] The 22,800 shingles were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850. A *Daily Alta California* advertisement on October 7th identified the shingles as being loaded in Baltimore.

[104] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[105] Zinc plates were galvanized plates for sheathing or shingling a building. The 10 cases were part of the cargo of the ship *Pacific* from Valparaiso and advertised on July 10, 1850.

[106] Some of the rod iron excavated in 2001 may be from this shipment from the brig *Jackin*.

[107] Part of the cargo of *Oscar* from China on January 10, 1851.

[108] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[109] Part of the cargo of *Huntress* from Valparaíso on March 7, 1851.

[110] Collins axes were manufactured by the Hartford, Connecticut firm of Collins & Co. Founded by brothers David and Samuel Collins in 1823, Collins & Co. was the first firm in the US to manufacture axes ready for use. They were considered a superior axe and highly desirable (Kauffmann 1972:41). The *Niantic* excavation of 1978 yielded one No. 3 cast steel Collins axe, marked "COLLINS & CO. HARTFORD CAST STEEL WARRENTED NO. 3" (Smith 1981:104-105). The Mickle shipment was part of the cargo of *Oscar* from China on January 10, 1851. These Connecticut-made axes were probably part of a China trade cargo imported to China and from there exported to California.

[111] Advertised by Mickle & Co. as "China goods" on December 31, 1850.

oars[112]
Rope (x2) + "coir and Manila rope of all sizes, including hawsers"[113]
Tacks + "American tacks" + 38 cases tacks[114]
50 kegs white lead[115]
locks, bolts, hinges, screws, cutlery etc.[116]
10 white porcelain dinner services[117]
wine and champagne glasses[118]

Equipment

copper stills
"1 suction fire engine complete"[119]
4 cases No. 3 cooking stoves + 140 boxes of stoves + "steel stoves"[120]
"5 wagons with double setts harness"[121]
"soda and mineral water apparatus complete"[122]

Other

"artificial flowers"[123]
"empty bags"[124]
boat spars
"drugs and medicines"[125]

[112] Part of the cargo of *Oscar* from China on January 10, 1851.

[113] Coir is fibre from the husks of dry coconuts (Gavroche 1952:93). Manila, otherwise known as Manila hemp, is *Abacá*, a textile fibre from the Philippine and East Indies banana tree (*ibid.*:27). Both were used to make rope, hence the advertisement is for rope made from both fibres. Fragments of rope excavated in 2001 may be cargo and not from the ship, as discussed in Chapter 11. The "coir and Manila rope of all sizes, including hawsers" were identified as part of the cargo of *Oscar* from China on January 10, 1851.

[114] The 38 cases were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[115] White Lead is Lead Carbonate, usually shipped in the form of a heavy paste. It was used in paint manufacture (Gavroche 1952:288). Barrels of White Lead were excavated at the Hoff Store Site in 1986 (Delgado 1990:27). Also listed in the *Eveline* invoice, see footnote 58.

[116] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[117] Part of the cargo of *Huntress* from Valparaíso on March 7, 1851.

[118] Part of the cargo of *Huntress* from Valparaíso on March 7, 1851.

[119] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[120] The No. 3 stoves were part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[121] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[122] Part of the cargo of the ship *John Marshall* from Baltimore, September 26, 1850.

[123] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[124] Part of the cargo of the ship *Pacific* from New York via Valparaiso and advertised on July 10, 1850.

[125] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

"books, 6 cases assorted"[126]
"Chinese fire crackers"
"Dry Goods"
"yellow soap and candles"[127]
48 bales pressed hay[128]
ivory and tortoise shell combs[129]
market baskets [130]
paper[131]
"Peruvian bark"[132]
fine sporting powder[133]
"1,500 canteens"
sheathing copper
whist counters[134]
writing paper
"Indian Trade Beads"[135]

[126] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[127] Part of the cargo of the ship *John Marshall* from Baltimore via Valparaíso, September 26, 1850.

[128] Part of the cargo of the ship *Pacific* from Valparaíso and advertised on July 10, 1850.

[129] Advertised by Mickle & Co. as "China goods" on December 31, 1850. Tortoiseshell is the translucent covering on the carapace of turtles. Harvested, and steamed, it becomes soft and was moulded to make ornate combs and other items. The wreck of *Frolic* yielded fragments of tortoiseshell (Layton 2002:192). Also listed in the *Eveline* invoice, see footnote 58.

[130] Part of the cargo of *Oscar* from China on January 10, 1851.

[131] Advertised by Mickle & Co. as "China goods" on December 31, 1850.

[132] "Peruvian bark," also known as "red bark," "Jesuits' powder," and "Chinchona bark," is the bark of the evergreen tree *Chinchona succirubra* and *Chinchona officinalis*. Found in the hottest climates of the world, it is widely cultivated in India. Introduced to Europe in 1640, it gained fame as a medicine in the 17th century and remains a medicinal botanical to this day. The bark has high alkaloid content and is used to make quinine (Duran-Reynolds 1946).

[133] This is gunpowder.

[134] Advertised by Mickle & Co. as "China goods" on December 31, 1850. The popular game of whist used counters or tallies made from a variety of materials ranging from ivory, wood, bone and metal.

[135] A large quantity of "trade" beads from the Gold Rush period were excavated in Old Sacramento (Motz and Schulz 1980).

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