

AN ABSTRACT OF THE THESIS OF

Maralee L. Wernz for the degree of Master of Arts in Applied Anthropology  
presented on June 4, 2001. Title: A Study of Acculturation: ORMU57, Portland's  
Old Chinatown, ca. 1870-1920.

Redacted for privacy

Abstract approved: \_\_\_\_\_

David Brauner

This archaeological based research uses ceramics in the study of acculturation from a site excavated by an urban archaeology contract firm, and utilizes the theories of consumer choice, ethnicity and acculturation. Artifact analysis took place in the form of minimum vessel counts, artifact relative frequencies, and Chinese artifact values, as well as various mapping strategies in attempts to indicate and evaluate counts and distribution patterns for the assessment of levels of acculturation within a portion of the Chinese community of Old Chinatown in Portland, Oregon. Field methodology inconsistencies only allowed for minimal conclusions, however archaeological and historical evidence indicated that very low levels of acculturation did occur among those living within the study area. This research also allowed for investigations into urban contract archaeology field methods. It was found that if future researchers wish to study the area of acculturation based on archaeological evidence, consistency and thoroughness will have to be a priority within field methods of sites excavated.

©Copyright by Maralee L. Wernz  
June 4, 2001  
All Rights Reserved

A Study of Acculturation: ORMU57, Portland's Old Chinatown, ca. 1870-1920

by

Maralee L. Wernz

A THESIS

submitted to

Oregon State University

in partial fulfillment of  
the requirements for the  
degree of

Master of Arts

Presented June 4, 2001  
Commencement June 2002

Master of Arts thesis of Maralee L. Wernz presented on June 4, 2001

APPROVED:

Redacted for privacy

---

Major Professor, representing Applied Anthropology

Redacted for privacy

---

Chair of Department of Anthropology

Redacted for privacy

---

Dean of Graduate School

I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Redacted for privacy

---

Maralee L. Wernz, Author



## ACKNOWLEDGMENT

There are many people whose support and encouragement deserves mention, actually too many to include all here. I would like to express great appreciation to Dr. David Brauner for encouraging me to apply to the graduate program, for his endurance of a person who obsessed about a thesis topic before ever being accepted to the program, and for his input and advice while, at the same time, leaving room for me to clear my own path in the process of writing. My thanks also goes to the other members of my committee for their advice, input, and guidance, and to the staff of the Department of Anthropology who gave their time and energy in assisting me to further my education through finding funding for me and through giving me unerring support. To my parents, who also became two of my closest friends during this time, who never once questioned my plunge into the zen of square holes into the past that began almost ten years ago, and whose faith in my intelligence and ability never failed, thank you. The support and friendship of those in the program with me, and of those with whom I worked at the OSU Bookstore helped more than anyone could know. And, finally, to the one person who knows me best and continues to challenge me to get to know myself better, who has given me unconditional support and unlimited sanity checks, and who has always been here in spirit even though he could not be here in person, my deepest heartfelt thanks.

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
HISTORICAL BACKGROUND OF PORTLAND .....	6
Early Townsite .....	6
Arrival of Chinese in Portland .....	8
Growth of a Chinese Community .....	16
Historical Occupational Development of Hamilton Block and Lot 4 .....	16
Chinese Occupational Development of Hamilton Block and Lot 4 .....	24
Chinese Social and Cultural Associations .....	28
ARCHAEOLOGY OF ORMU57: THEORETICAL BASIS .....	31
Consumer Choice Theory .....	31
Ethnic Groups and Ethnicity .....	33
Acculturation .....	34
Phases of Acculturation .....	34
Ethnic Groups and Ethnicity in Acculturation .....	36
ARCHAEOLOGY OF ORMU57: FIELD AND LAB METHODS .....	38
AINW Field Methodology .....	38
Overburden Removal, Site Organization, and Surface Collections .....	38
Archaeological Excavations .....	41
AINW Lab Methodology .....	44
Artifact Inventory .....	44
Ceramic Analysis .....	45
OSU Department of Anthropology Lab Methodology .....	49

## TABLE OF CONTENTS (Continued)

Ceramic Cleaning and Cataloging.....	49
Ceramic Crossmending.....	50
Ceramic Analysis.....	50
Typology.....	50
Database.....	55
Methods of Ceramic Distribution Mapping.....	56
ARCHAEOLOGICAL CONSIDERATIONS OF ORMU57.....	59
Operation 1.....	59
EU and Feature Summary.....	59
Interpretation.....	71
Operation 2.....	74
EU and Feature Summary.....	75
Interpretation.....	85
Operation 3.....	87
EU and Feature Summary.....	87
Interpretation.....	94
CHINESE CERAMICS.....	96
ORMU57 Chinese Ceramic Assemblage.....	96
Table Settings.....	96
Shipping Containers and Food Preparation.....	100
Recreation.....	108
Analytical Techniques.....	111
Artifact Relative Frequencies.....	111
Values of Artifacts and Minimum Vessel Counts.....	112
Table Setting MVCs.....	113
Shipping Container and Food Preparation MVCs.....	114
Recreational Usage MVCs.....	116

## TABLE OF CONTENTS (Continued)

EURO-AMERICAN CERAMICS.....	118
ORMU57 Euro-American Ceramic Assemblage.....	118
Analytical Techniques.....	119
Minimum Vessel Counts.....	120
Table Setting MVCs .....	120
Food Preparation MVCs.....	121
CONCLUSIONS AND COMMENTS.....	122
Conclusions.....	122
Archaeological Evidence of Acculturation .....	122
Historical Documentary Evidence of Acculturation .....	124
Comments.....	127
Influences of Contract Archaeology .....	127
Suggestions for Future Contract Archaeology.....	129
Summary.....	130
BIBLIOGRAPHY .....	132
APPENDIX .....	CD ROM

## LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Location of ORMU57, the U. S. Courthouse Site, and the revised plat area in downtown Portland (in solid black line) (Adapted from AINW Report #42, Figure 1) .....	7
2. Top: C. E. Watkins 1867 panoramic of Portland, Oregon, showing the original plat and the area of old Chinatown (OHS negative 21589); Bottom: Southwest Front St., Portland, Oregon, ca. 1868 showing the northernmost section of the original 1845 plat area (OHS negative 35994).....	9
3. 1879 lithograph showing the early boundaries of Chinatown (in solid black line), and the ORMU57 site area (indicated by arrow) adapted from 1879 lithograph published by E. S. Glover, A. L. Bancroft & Co. (Library of Congress G4294.P6A3 1879. G6) .....	17
4. 1879 lithograph close-up showing Block 24 (in solid black line) and Lot 4 (indicated by arrow), the area of ORMU57, adapted from 1879 lithograph published by E. S. Glover, A. L. Bancroft & Co. (Library of Congress G4294.P6A3 1879.G6).....	19
5. D. P. Thompson Memorial Statue and Fountain ca. 1910 with a view of the Chinese laundry on Main St. in the background (indicated by arrow) (OHS negative 9550).....	26
6. Ceramics from ORMU57 (Researcher's photograph) .....	33
7. Operation (boundaries indicated by dashed lines) and Excavation areas of ORMU57 (Adapted from AINW Report #42, Figure 14).....	39
8. Exposure of the 1920s surface using a backhoe (AINW negative C137CH2 F7 93-137) .....	40
9. Top: Monitoring Feature 2 exposed (AINW negative 0300 F18 94-187); Bottom: Monitoring Feature 2 excavated (AINW negative 0287 F15 94-190).....	43
10. Ceramic crossmending in progress at the Historic Lab, Department of Anthropology, Oregon State University (Researcher's photograph).....	51

## LIST OF FIGURES (continued)

<u>Figure</u>	<u>Page</u>
11. Crossmended vessels (Researcher's photograph).....	52
12. Left: 1879, and Right: 1886 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).....	60
13. Left: 1889, and Right: 1898 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).....	60
14. Left: 1901, and Right: 1908 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).....	61
15. 1909 Sanborn Fire Insurance Map superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS) .....	61
16. Stratum percentages within Operation 1.....	74
17. Stratum percentages within Operation 2.....	86
18. Stratum percentages within Operation 3.....	95
19. ORMU57 Celadon ware. Top: wine bowls; Bottom: bowl, wine bowl, and spoon fragments (Researcher's photograph).....	97
20. Top: ORMU57 Four Seasons ware serving bowl showing character mark on the base; Bottom: ORMU57 Four Seasons wine bowl, spoon and dish fragment (Researcher's photographs).....	99
21. ORMU57 Bamboo ware rice bowls. Top: showing bamboo portion of design; Bottom: showing Three circles and a dragonfly portion of design (Researcher's photograph).....	100
22. Top: ORMU57 Small wide-mouthed shouldered jar; Bottom: ORMU57 Lids for small and large wide-mouthed shouldered jars (Researcher's photographs).....	102
23. ORMU57 Large wide-mouthed shouldered jar fragments (Researcher's photograph).....	103

LIST OF FIGURES (continued)

<u>Figure</u>	<u>Page</u>
24. ORMU57 Straight-sided jar (Researcher's photograph).....	104
25. ORMU57 Ginger jar with white wash treatment (Researcher's photograph) .....	105
26. ORMU57 Spouted jar (Researcher's photograph).....	106
27. ORMU57 Liquor bottle (Researcher's photograph).....	107
28. ORMU57 Ceramic pan (Researcher's photograph).....	108
29. ORMU57 "Fan" and opium pipe bowl fragments (Researcher's photograph) .....	110
30. ORMU57 Wine pot fragment (Researcher's photograph) .....	111
31. ORMU57 MVC Liquor bottle base showing the embossed character mark on the base (Researcher's photographs).....	116

## LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Lot 4 (Operation 1) occupant chronology.....	20
2. Lot 4 (Operation 2) occupant chronology.....	21
3. Lot 4 (Operation 3) occupant chronology.....	22
4. Typology devised for ceramics from ORMU57.....	53
5. Operation 1--Ceramics from excavation units which crossmend to ceramics within the same excavation unit.....	72
6. Operation 2--Ceramics from excavation units which crossmend to ceramics within the same excavation unit.....	86
7. Minimum vessel count of Chinese vessels within ORMU57.....	115
8. Minimum vessel count of Euro-American vessels within ORMU57.....	121



## DEDICATION

To my parents who made every experience a learning experience allowing my inquisitiveness and thirst for knowledge to grow. To Gloria Nelson, Cherie McClain, Ed McClain, Governor Daddy Dort, "Bonzai" Bob Cornell, Michael Weiss, Dr. Ross Cotroneo and to all the other teachers and educators who encouraged me to learn in my own time, and in my own way. To Jerry and Heather Franklin for introducing me to PIT projects, and to Grady Caulk, Rick McClure, Cheryl Mack, and Bob Hawke for sharing their varied insight and knowledge with me.

## INTRODUCTION

Excavations of ORMU57, the U.S. Courthouse site, occurred as a result of plans to build a new federal courthouse on Block 24, otherwise known as Hamilton Block, in Portland, Oregon, thus requiring compliance with Section 106 of the National Historic Preservation Act. The courthouse site was situated on land which had been part of Portland's Chinese community between ca. 1870-1920. These excavations were completed in March 1993 by Archaeological Investigations Northwest, Inc. (AINW), and the artifacts are currently being curated at Oregon State University's Department of Anthropology, with selected artifacts on display within the new federal courthouse building.

While numerous sites in the western United States (such as those in Drakes Bay, Sacramento, Ventura, and San Francisco, California; Jacksonville, OR; Fort Vancouver, WA; Idaho City and Boise, Idaho; and Lovelock, NV) have included or have yielded Chinese artifacts, existing research does not apply many interpretive theories conducive to a thorough understanding of the role of material goods and consumer choice within the context of a group's adaptation to relocation in new environments. With the exception of LaLande (1981), no archaeological research to date evaluates the manner in which material goods contribute to such a group's

becoming integrated into, or excluded from, American society, either by choice or design. It must be noted, however, that LaLande's research utilizes rural Chinese mining sites rather than a component of an urban site such as ORMU57. Current research limits itself to examining occurrences of material goods within sites as representative only of depositional patterns and self-sufficiency of a community within an industrial or mining area, rather than thoroughly examining its pertinence towards acculturation solely as a cultural group (Staski 1993). For example, Longenecker and Stapp (1993) focus on meat consumption as an indicator of the means by which meat products were obtained, prepared, and consumed by Pierce City, Idaho, Chinese. Gust (1993) focuses on the characteristics of animal bone assemblages from historic urban sites of the West and Southwest as an indicator of Chinese ethnicity. Furthermore, in examining the role of ceramics within Chinese immigrant society (the scope of this thesis), literature mainly consists of descriptive text. Sando and Felton (1993) analyzed records from a nineteenth century Chinese store in California in order to broaden a research base for Chinese ceramic design and value that had, to that time, been largely limited. Wylie and Fike's (1993) extensive article on opium smoking techniques and paraphernalia has also created a valuable research base. Although ceramics have been identified as being used for a certain function within a household or business, there is no indication within existing literature as to a relationship between ceramic vessel function and the cultures' view about themselves or their attempts to maintain their culture (Van der Porten 1972). Other research (Greenwood 1996; Lister

and Lister 1989) have valuable descriptive portions to their research but do not fully examine ceramic vessel function or form within a Chinese site.

Furthermore, Lister and Lister (1989) specifically examine Chinese goods as a means of studying overseas Chinese culture, namely the traditional organizations of Guomindang and Chee Kung Tong in Tucson, Arizona.

However, there is no mention of American goods as an explicatory part of the process of acculturation. The proposed research will examine the relationship between cultural maintenance and acculturation through the analysis of ceramics present within the site, and the motivation of their purchase or acquisition.

The consumer choice approach used in this study will build on the established idea that material goods are a means of "promoting and maintaining cultural cohesion, pride, and resistance" (Orser 1995: 12). When examining the issue of acculturation, one would find that goods of differing quality or worth would be selected as a reflection of either a maintained separation as an ethnic group or as a movement towards acculturation (Staski 1993: 127; Spencer-Wood 1987: 16). Furthermore, cultures have been acknowledged as being the products of unique sequences of development with diffusion being a major influence. It has also been proposed that one of the primary functions of culture is as a mechanism of survival and adaptation of a society (Trigger 1989: 265). From these three statements it follows that within the early Chinese community of Portland those elements most important to the culture for cultural survival would be conserved or preserved through the

intentional purchase of material items that best represent the culture and reinforce their beliefs.

Through this working hypothesis it is expected that there will be a pattern found when examining the ceramic collection from the site. Primarily, artifact distribution and provenience would be expected to reflect the known historical evidence of Chinese and non-Chinese occupations of the site. Secondly, a move towards acculturation would be expected to be observed through a lack of archaeological evidence of material goods (ceramics) that indicate conservation and/or preservation of elements important to cultural survival of the Chinese community. Furthermore, an examination of consumer choice within the Chinese community would indicate facilitation of the intentional purchasing of material goods (ceramics) in order to best represent the ethnic identity and reinforce their beliefs or movement into the non-Chinese society. If an acculturative process were to have occurred one would expect to recognize and define temporal changes in use and discard of material goods within specific features that include Chinese-associated fill. It is these patternings that will be closely scrutinized to determine whether consumer choice for the preservation of ethnic identity was present, or whether acculturation processes were at the forefront.

The proposed research will contribute greatly to the various aforementioned theoretical topics by examining the material culture of the Portland Hamilton Block Chinese occupation. Furthermore, while it is known that the western development of North America was accompanied by a great

influx of Chinese immigrants who established themselves as independent businessmen or laborers within these Chinatown developments, very little is yet known about the impact this exposure to non-Chinese culture had on Chinese immigrants and their cultural elements. Through the analysis of ceramics (an important material aspect of Chinese cultures) found during excavations it may be possible to determine the role these goods had in acculturation or cultural maintenance processes. In this context, such research will contribute not only to the archaeological record, but also to the Chinese community and the public in better understanding the reasons and methods behind acculturation, the reasons and methods of resisting acculturation, the impacts that one culture can have on another, and the importance of archaeology in better understanding such issues.

## HISTORICAL BACKGROUND OF PORTLAND

### Early Townsite

Portland, Oregon, is situated on the site of a joint claim filed by William Overton and Asa Lovejoy in late 1843. The future town site sat in a convenient clearing, previously used as a rest stop for fur traders and American Indians, located on the west bank of the Willamette River, halfway between Fort Vancouver and Oregon City, the population hubs of the region at that time. In 1845, Lovejoy and Francis Pettygrove (purchaser of William Overton's claim share) platted the future city on a plan consisting of sixteen 200-foot square blocks, each including eight 50-foot wide and 100-foot deep lots (MacColl and Stein 1988: 5-8). After the townsite was initially cleared around what is now the foot of Washington Street, Lovejoy sold his share to Benjamin Stark in late 1845. The original plat was then amended by Pettygrove and Stark to include an additional 19 blocks. Site ORMU57 is located on Lot 4 of Block 24 of that amended plat (Roulette et.al 1994: 11) (Figure 1).

In 1848, 64 lots had been sold with the town population at 100. It was at this time that Pettygrove sold the remaining townsite to Daniel Lowndale, who then sold large portions of the town claim to Stephen Coffman and William Chapman (MacColl and Stein 1988: 11, 14-17).

By 1850, Portland had a population of about 300, but continued to grow through that decade. Growth was stimulated by demand for Oregon lumber and wheat during the 1849 California goldrush, and secondarily from the growth of

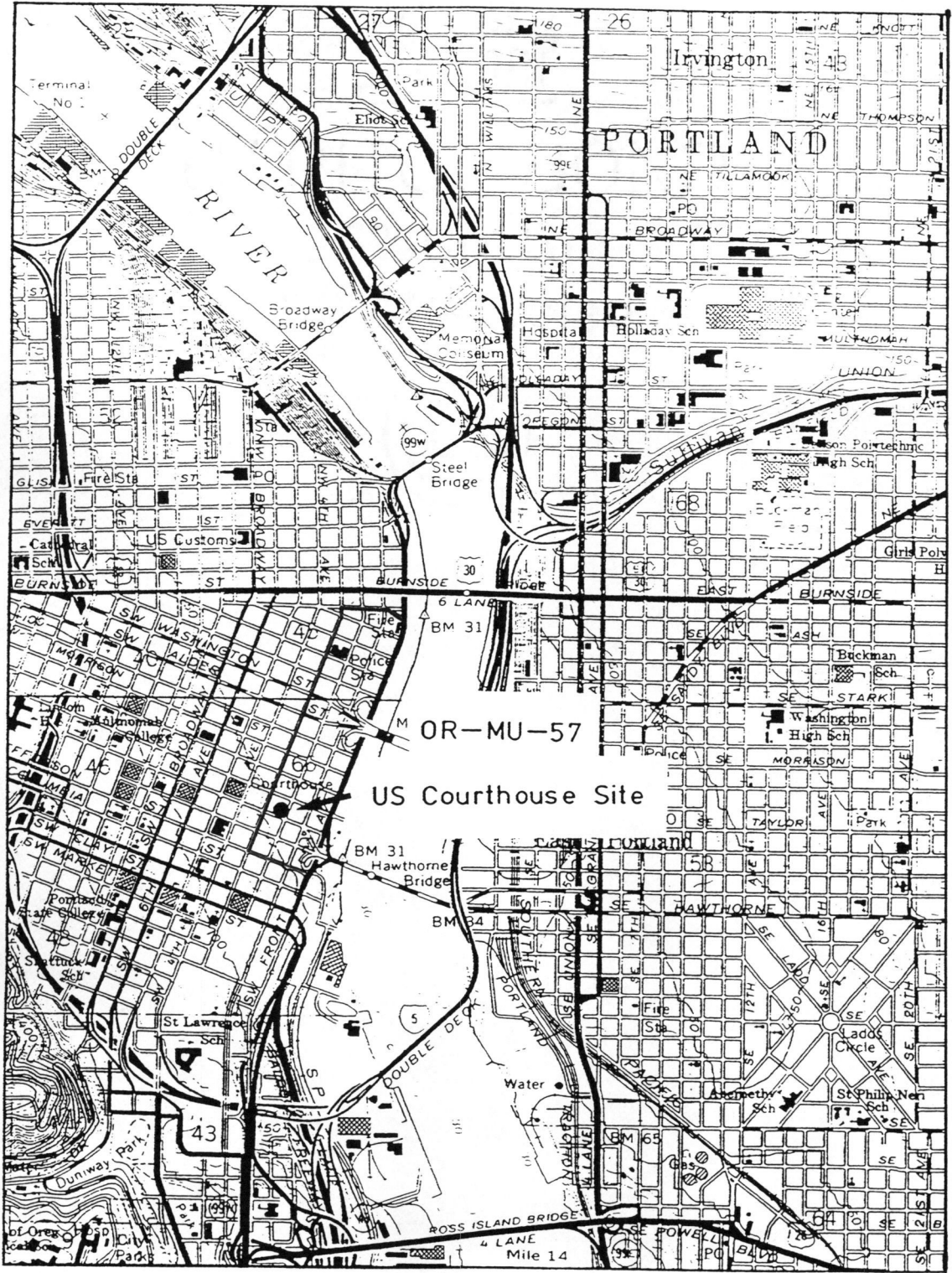


Figure 1. Location of ORMU57, the U. S. Courthouse Site, and the revised 1845 plat area in downtown Portland (in solid black line) (Adapted from AINW Figure 1).



the agriculture in the Willamette Valley. During the 1850s, commercial development of Portland was limited to Front Street. During the early 1860s, gold rushes in eastern Oregon and Idaho stimulated another period of major economic growth for Portland. Supplies for mines and their associated communities flowed up the Columbia River from Portland. In turn, local interests, such as transportation, mercantiles, and banking greatly benefited from the trade (MacColl and Stein 1988: 143).

Front, First, Second, and Third Streets are shown in photographs of Portland from 1852 and 1854. Front Street is shown lined with frame and a few brick commercial buildings (Figure 2), and First Street is shown with an assortment of residences and businesses. Second Street contained residences and a few churches, while Third Street contained cleared land and a few scattered residences. The area beyond Third Street was characterized by woodlands (MacColl and Stein 1988: Figures 1.8 and 2.10; Stein et al. 1980: 16, 18).

### Arrival of Chinese in Portland

"Sojourners", the term used for those Chinese who came to the United States with the intent of earning money to send home to China, made up the majority of Chinese emigrants. The Taiping Rebellion (1848-1865), the cause of rural dissent and depression in China, and the California gold rush of 1848 prompted a rush of Chinese immigrants to the west. The mining districts were



Figure 2. Top: C. E. Watkins 1867 panoramic of Portland, Oregon, showing the original plat area (OHS negative 21589); Bottom: Southwest Front St., Portland, Oregon, ca. 1868 showing the northernmost section of the original 1845 plat area (OHS negative 35994).

the areas most likely to hire Chinese laborers, since there was demand for laborers in the cities. As a result, the mining districts of southwestern Oregon saw the most Chinese emigrants, with only a few laborers and entrepreneurs

moving in to established cities like Portland (Clark 1978: 1-3; Ho 1978: 4-5; Merriam 1971: 67-68). An 1851 Portland newspaper advertisement was the first official notice of Chinese in Portland. The Oregonian advertised the opening of the Tong Sung House, a boarding House and restaurant operated by a Chinese businessman in 1851 (Oregonian, November 15). This limited influx of Chinese into Portland is a likely indicator of anti-Chinese sentiment and legislative activity through the 1850s. The Oregon Constitution (1858: Article 15, Sec. 8) prohibited any Chinese not a resident of the United States at the time of the adoption of the constitution from owning mining claims or real estate (Carey, 1926: 371). It also denied right to suffrage for any Chinese, as well as negroes and mulattos (Oregonian Supplement, October 3, 1857).

By 1860, Portland's Chinese population numbered 27, less than one percent of the city's total population, and by 1865, was still only 200, approximately three percent of the city's population. Although population increase was limited in the early 1860s, attempts, however unsuccessful, on the part of Portland's City Council in 1863 and 1865 to impose taxes on Chinese laundries exhibited still-rising anti-Chinese sentiment. Whatever their attempts, it was apparent by the 1865 city directory listings of Chinese-oriented services (numbering 20) that there was a small Chinese community established in Portland (Clark 1978: 1-5; MacColl and Stein 1988: 167).

By the late 1860s, the first major increase in Portland's Asian population had occurred partly due to the Burlingame Treaty which allowed unrestricted immigration to the United States, on the part of the Ch'ing government as well

as the United States, and provided reciprocal rights for citizens of the United States and China, making it easier for Chinese to immigrate directly to Portland, rather than having to come through San Francisco and then travel north. Also, a demand for Willamette Valley railroad construction led to the need for laborers, often brought directly from Hong Kong by Chinese labor contractors. The Oregon Central Railroad requested assistance for recruiting from the Wa Kee & Company, a labor contractor from Portland, and within a week it became well known that Oregon Central was willing to pay \$36 a month per person, thus instigating the contract labor system in Oregon. In the spring of 1868 the Central Pacific and Union Pacific had joined, and by 1870 four more rail lines were under construction in Oregon drawing in Chinese laborers from California and China (Clark 1978: 9; Ho 1978: 7, 9; Tsai 1983: 24).

As this type of growth continued in the Pacific Northwest, the 1870s saw a greater influx of Chinese laborers. Railroad construction, salmon canneries, and public works (such as canals and road construction) created the greatest demand, and in the Portland area iron, paper, and textile mills employed Chinese laborers, and many worked as domestic servants, wood cutters, and itinerant laborers (Clark 1978: 8-11; Ho 1978: 7-8).

In 1870, the census listed 3,326 Chinese in Oregon with 487 (15%) residing in Portland. In 1880, the Portland population had risen to 1,668, and by 1890 it was at 4,438, constituting over one quarter of all of Portland's foreign-born residents (the largest foreign-born group in Portland), and approximately 10% of the city's inhabitants. This Portland population growth was in part due to

the declining need for laborers outside of urban areas. By the 1870s, the Oregon mining boom was, in large part, over, and by the mid-1880s, railroad construction's building peak had come and gone. Within the same time frame, larger numbers of Chinese workers began to be employed in salmon canneries (many of which got their start on the Columbia River as early as 1866) during the fishing season. However this did not offset the declining need for labor (Fagan 1993: 215; Merriam 1971: 68; 1979: 67). Chinese immigrants had to make a choice to either remain in the United States or return to China. For many, the reasons for not returning to China were simple--they could not afford the fare home or, if they could afford the fare, that alone would consume all the money that they had made, thereby leaving them penniless upon arrival home. The fact that the Chinese were beginning to be seen as an important and reliable labor source for local industries in the United States was further incentive to stay (Ho 1878: 8).

By 1900, Portland's Chinese population had risen to 6,943 (or, by Manchester's count, 7,841 [1978: Table II]) constituting 74% of the State's Chinese population, making it the second largest of any U.S. city (Manchester 1978: Table II; Merriam 1979: Tables 3 and 4). Although the trend appears as a fairly steady increase, the Chinese population in Portland, compared to Portland's total population, was actually decreasing (from 9.5% in 1880 to 8.7% in 1900) as reflected in the decline of Chinese businesses from 1895 to 1900. This decline is also reflected in national Chinese immigration populations. The immigration numbers in the 1870s peaked at over 123,000, then dropping

below 62,000 in the 1880s and even further to 15,000 in the 1890s. The 1890 total U.S. Chinese population was at 107,488, dropping to 61,639 in 1920, representing a 43% decrease in a 30 year period (Lee 1960: Table 1). These decreases were due, in large part, to exclusionary legislation of the 1880s and 1890s such as the Exclusion Act of 1882, the Scott Act of 1888, and the Geary Act of 1892, all of which imposed severe immigration restrictions on the Chinese, therefore, relative to increases in non-Chinese populations within Portland and the United States, Chinese populations were decreasing (Tsai 1983: 67, 91, 96).

These periods of Chinese population decline within the city of Portland were also indications of growing anti-Chinese sentiment throughout Portland and the state of Oregon. The prevailing attitude against Chinese in the Portland area was a reflection of perceived competition in the job market among caucasians. Although recognition was given to Chinese for their ability and reliability, that recognition was limited to those who performed menial tasks. When competition mounted for common laborer positions such as street building and repair, protest mounted. The late 1850s brought complaints and raids on Chinese brothels which continued through the 1860s and 1870s. Although there were just as many non-Chinese brothels in Portland, Chinese prostitute arrests numbered higher than those of non-Chinese prostitutes (Ho 1978: 14; MacColl and Stein 1988: 167, 238-241). The Oregon Constitution (1858) prohibited Chinese from owning mines and real estate, but the Fourteenth Amendment to the U.S. Constitution nullified it in 1864. The 1860s,

1870s, and 1880s saw many attempts at controlling the Chinese population in Portland and the state. Chinese washhouses had a tax placed on them by the city council in 1863 and 1865, however the first was found unconstitutional by the Multnomah County Circuit Court, and the second was vetoed as discriminatory by the city mayor. A bill was approved by the Oregon Legislature in 1868 that prohibited employing Chinese within public works, but this was vetoed by the governor. Further restrictions were placed on the Chinese which included an 1869 quarantine on all arriving Chinese suspected of carrying smallpox, and an 1873 ordinance which prohibited employment of Chinese laborers for city contracts. As with many other such ordinances, this was vetoed on the basis of conflict with federal law and treaties. Early ordinances against Chinese brothels had failed, however, in 1871 such an ordinance was successfully passed. Efforts such as these increased on the part of the Legislature, and in 1882 the Federal Exclusion Act severely restricted Chinese immigration into the United States. This lasted for almost 60 years. However, even with this restriction, members of the Portland Board of Trade meeting in 1884 attempted to insert a charter provision which would effectively restrict areas in the city in which Chinese could live. This provision was effectively defeated by other members of the board (Ho 1978: 14; MacColl and Stein 1988: 167, 238-241; Merriam 1971: 68-69, 71-73, 77-78).

The late 1880s brought increasing violence against local Chinese communities, leading to forced relocations of Chinese in Seattle, Tacoma, and Portland. Within Portland incidences ranged from the sicking of a dog on a

Chinese man to organized ousting attempts on the Chinese community. Similar attempts, with some successes, had occurred in Seattle, Tacoma and San Francisco, and on February 22, 1886, an organized group of men and boys gathered and shipped 160 Chinese from Oregon City to Portland for public display. On March 4 up to 200 Chinese were driven from East Portland and Mount Tabor into Chinatown, at that time located from Front to Third Streets (the east-west boundaries) and from Ash to Salmon Streets (the north-south boundaries). With the continuation of such organized moves against the Chinese, militia was brought in and federal indictments were brought against the leaders of the attacks (Ho 1978: 13-14; MacColl and Stein 1988: 238-240; Merriam 1971: 69). The outsider's view of Chinese as nonconformant in appearance, language, religion, and culture was, in large part, the basis for these attacks, and were often supported by the Chinese view of themselves as transient workers in the U.S., with little desire to become assimilated into American culture. The early 1880s not only brought thousands more Chinese to Portland, but also lost several hundred Chinese returning to home to visit or retire, since they had a responsibility to repay those at home who had supported their endeavor by returning and showing their new found wealth, although not all returned wealthy. Native language, diet, and clothing was often retained by the immigrants, as well as the viewpoint of themselves as extensions of kin units from their homeland, and those Chinese merchants that offered Chinese goods were often patronized, leading to a very slow integration into American culture (Ho 1978: 2, 10; Merriam 1971: 74-76).



These aspects of the Portland Chinese community were greatly reflected in the types and locations of Chinese businesses. Early in the existence of Chinatown, businesses were generally limited to laundries and restaurants catering to the needs of whites, since, at that time, most laborers were hired elsewhere in the state to work in mines and on railroads. However, by the 1880s, as Chinese began moving into the urban area of Chinatown, more stores appeared providing foods, medicines, clothing, and other wares for the local Chinese population. This was also partly due to the establishment of the Chinese Exclusion Act (1882) by which some Chinese laborers found it necessary to change their laborer status to that of merchant by owning, managing and operating various businesses (Lee 1960: 79). These businesses spread out from a central core located at southwest Second and Alder, then known as Chinatown, now as "old" Chinatown. The extent of Chinatown reached from southwest Front Avenue, west to southwest Third Avenue, and from southwest Ash Street on the north to southwest Salmon Street on the south (Ho 1978: 10, 13) (Figure 3).

### Growth of a Chinese Community

#### *Historical Occupational Development of Hamilton Block and Lot 4*

Hamilton Block, also referred to as Block 24, sits on the west side of the Willamette River, with southwest Second and Third Avenues as its east and west boundaries, and southwest Main and Salmon Streets as its south and



Figure 3. 1879 lithograph showing the early boundaries of Chinatown (in solid black line), and the ORMU57 site area (indicated by arrow) adapted from 1879 lithograph published by E. S. Glover, A. L. Bancroft & Co. (Library of Congress G4294.P6A3 1879.G6).

north boundaries. Lot 4, the area of investigation, is located on the corner of Second Avenue and Main Street, the southeast corner of the block. An historical photographic panorama from 1867 provides a good picture of Hamilton Block, showing a probable residence in the middle of the Main Street side of the block, and a possible cluster of buildings or a single structure on Lot 4. This photograph by Carleton Watkins most plainly shows the amount of open area still remaining on the block at that time (see Figure 2). By 1870, however, six 1 1/2 storied, gable-roofed, frame structures with common walls (probably functioning as commercial buildings) occupied the southern two-thirds of Second Avenue, which included Lot 4 (Figure 4) (Roulette et al. 1994: 15-16).

During this time, the character of the block was largely middle-class with professionals listed in the city directory as occupying portions of Hamilton Block and of Lot 4. Dr. Charles Pfyffer (physician) and his wife, James Bruce (engineer) and his wife, and J. W. Coleyer (engineer) and his wife and son were residents at 47 Main Street (within Lot 4) in 1879 (Table 1), and Dr. J. R. Cardwell (dentist) occupied 235 Second Street (within Lot 4) that same year until 1880 (Roulette et.al 1994: 35, 39) (Table 2). However, by 1875, residents of the block were mostly workers and artisans, such as carpenters, roofers, clerks, printers, dressmakers, etc. This continued through the early 1900s. For example, within Lot 4 Bayer and Stauch (metal roofers) occupied 235 Second Avenue (within Lot 4) in 1883 (Table 3), and L. M. Dyer (blacksmith and wagonmaker) occupied the same address from 1884-1887 (see Table 2). This address (changed to 237 Second Avenue between 1886 and 1889) was

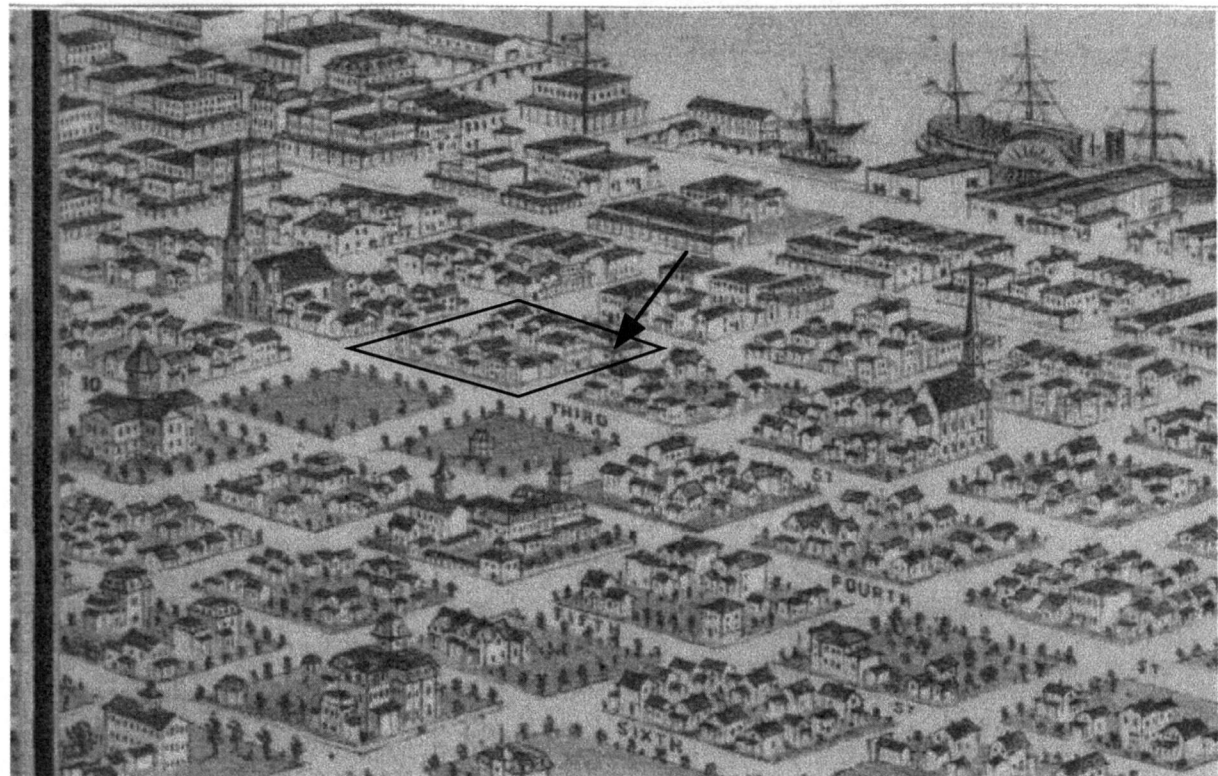


Figure 4. 1879 lithograph close-up showing Block 24 (in solid black line) and Lot 4 (indicated by arrow), the area of ORMU57, adapted from 1879 lithograph published by E. S. Glover, A. L. Bancroft & Co. (Library of Congress G4294.P6A3 1879.G6).

	<b>47 Main St.</b>
1879	Dr. Charles Pfyffer (physician), wife C.; James Bruce (engineer), wife Elizabeth; J.W. Coleyer (engineer), wife M.E. (dress-maker), wife's son
1880-1884	no information
1884	Sung Lee laundry
1886	Sung Lee laundry (until 1888)
	<b>47 Main St. (formerly 45 and 47 Main St.)</b>
1889	Chinese washhouse with drying on roof
1888-1891	no business proprietor named in directory
	<b>247 Main St. (formerly 47 Main St.)</b>
1892-1896	Cum Sing laundry
1897	On Sing laundry (until 1914)
1898	Chinese laundry with drying platform on roof
1900	Sing Lee, head of household; 42 boarders and lodgers (China-born Chinese, except for two Oregonians with China-born parents); number included 19 laundrymen, 24 day laborers, ages 18-51 years
1901	Chinese laundry with drying platform on roof; 43 boarders, lodgers, and owner
1908	Chinese laundry with drying platform on roof
1909	Chinese laundry
1910	On Sing proprietor; 10 boarders (China-born males, all but three single); laundrymen, ages 20-36 years

Table 1. Lot 4 (Operation 1) occupant chronology.

	<b>43 Main St.</b>	<b>41 Main St.</b>
1879	no information	no information
	<b>235 Second St. (formerly 43 and 41 Main St.)</b>	
1879-1880	Dr. J.R. Cardwell (dentist)	
1883-1884	Bayer & Stauch metal roofing	
1884-1887	L.M. Dyer blacksmith/wagonmaker; Chinese lodger on 2nd floor (1886)	
1886	building replaced	
1887	P.E. Skibbe blacksmith shop (until 1904)	
	<b>237 Second St. (formerly 235 Second St.)</b>	
1889	P.E. Skibbe blacksmith shop; Chinese lodger on 2nd floor	
1898	P.E. Skibbe blacksmith shop; Chinese lodger on 2nd floor	
1901	P.E. Skibbe & partner Porter blacksmith shop; Chinese lodger on 2nd floor	
1905-1908	Daniel Helbock carriage trimming business (blacksmith indicated on Sanborn map)	
1909	no business listed in directory (store indicated on Sanborn map)	
1924	Central Garage	

Table 2. Lot 4 (Operation 2) occupant chronology.

	<b>233 Second St.</b>
1879	no information
1880-1885	occupied by four single white males, two with occupations as ropers, two listed as proprietors of Bayer & Stauch metal roofing; ages 22-30 years
	<b>235 Second St. (formerly 233 Second St.)</b>
1886	building replaced, no directory listings (machine shop indicated on Sanborn map)
1886-1889	no directory listings
1889	Carpenter shop
1890	Brocks & Ebenezer working and living; Weiler & Jacobs contracting firm
1891-1894	no directory listings
1895-1897	A.C. Lohnmire horseshoeing
1898	Howland, Long, & Co. Horseshoeing; L.M. Dyer & partner Loven Hall blacksmiths (unknown date)
1900	John J. Richardson carpentry shop; Sam McCann boarder; teamster, age 38 years
1902-1909	no directory listings
1908	carpentry shop
1909	J.A. Melton, proprietor, carpentry shop
1910-1923	no directory listings

Table 3. Lot 4 (Operation 3) occupant chronology.

takenover by P. E. Skibbe (blacksmith) from 1887-1904, and subsequently occupied by Daniel Helbock (carriage trimming) from 1905-1908 (Roulette et al. 1994: 39, 40) (see Table 2). The years of 1880, 1886, 1889, 1898, 1900, 1908, and 1909 saw listings of ropers, a machine shop, and a horseshoer and blacksmith, and two carpentry shops (1889; 1900, 1908, 1909), respectively (Roulette et al. 1994: 40-43) (see Table 3).

Throughout this time dwellings appeared to have been deteriorating, as indicated by 1879 Sanborn Map labels of "OLD" on one building in Lot 4, and

"Tenem't" on another, and an 1889 notation of "DILAPIDATED" across the entire area of Lot 4 (Sanborn Map & Publishing Company 1879, 1889). These changes could be attributed to several factors, the most obvious of which was a lack of mixing of residential, commercial, and industrial properties on one block. Travel had originally been on foot and by horse, requiring homes of those who worked in local businesses to be concentrated in the area of the commercial and industrial center. However, with the advent of horse-drawn streetcar lines in the early 1880s and electric streetcar networks in the early 1890s a residential movement into suburban areas occurred (MacColl and Stein 1988: 260, 268-269). Residential areas outside of commercial and industrial areas became more prominent by the turn of the century (Roulette et.al 1994: 18). Therefore, less importance was placed on aesthetic attributes of properties within the commercial and industrial areas of the city.

By 1900, 217 people lived on Hamilton Block, dispersed between 15 different addresses, and by 1908-1909 two frame structures on Lot 4 facing Second Avenue were abandoned. By the mid-1920s commercial buildings completely covered Hamilton Block: the Baldwin/Sonoma building, the Lownsdale Hotel, the Holman undertaking building, the Hamilton Hotel and the Central Garage. This latter structure was constructed on Lot 4 around 1923 and subsequently demolished in 1969 (Roulette et al. 1994: 19, 20).



*Chinese Occupational Development of Hamilton Block and Lot 4*

Chinese immigrants often moved to the U.S. to escape political or personal conflict at home, such as the Taiping Rebellion from 1851-1864. Commonly, these immigrants were from the Taishan District in Guangdong (Kwangtung) province in southern China, many from the same clans and villages. Transport to the U.S. was often sponsored by family members already located in the U.S. or by international labor brokers. Furthermore, newly arrived immigrants were often supported upon arrival in the form of lodging and storage space, and, occasionally, funding. This support by clan or family associations (such as the Chinese Consolidated Benevolent Association, established in the U.S. in the late 1800s) allowed for group cohesion to develop, in turn allowing for cultural maintenance, and the formulation of Chinatowns. Within Portland, this type of formulation originally centered around southwest Front and First Avenues from Taylor to Stark Streets. This center had moved to southwest Second Avenue between Ash and Taylor Streets by the mid-1870s and was thereafter known as Chinatown (Roulette et al. 1994: 22).

The first documented evidence of Chinese on Hamilton Block came from the 1875 directory listing of Is Sing, a clothing manufacturer, on the south side of Salmon Street between Second and Third Avenues. It has been deemed likely that Is Sing's clothing factory produced clothing for Chinese residents of the area (Roulette et al. 1994: 16-17, 22). There are no further existing records of Chinese on the block until 1884 when the city directory lists the Sung Lee washing and ironing business as occupying 47 Main Street (within Lot 4), which

was labeled as "Tenem't" in 1879 (Roulette et al. 1994: 23; Sanborn Map & Publishing Company 1879) (Figure 5).

In 1886, the Tung Kee laundry joined the Is Sing business by locating itself at 46 Salmon Street. At the time, Sanborn Maps identified two other structures on the block as Chinese: 1) the building adjacent to the Is Sing laundry, 49 Main Street; 2) a structure adjacent to 46 Salmon Street, 50 Salmon Street. This latter structure was identified in the 1885 city directory as being occupied by Git Leon, who ran an employment agency at that address. In addition, the 1886 directory listed the blacksmith shop at 235 Second Avenue (within Lot 4) as having a Chinese lodger on the second floor (Roulette et al. 1994: 23).

The 1889 Sanborn map identifies 47 Main Street as a "Chinese Wash Ho.", and both 49 Main Street and 50 Salmon Street as "Chinese D[welling]"s. Furthermore, a "Chinese D[welling]" was also identified at 233 Second Avenue (Sanborn Map & Publishing Company 1889). Between 1892 and 1896, city directories note three other Chinese businesses on the block 1) the Cum Sing laundry at 247 (formerly 47) Main Street; 2) the John Sing laundry at 246 Salmon Street; and 3) the Fat Young lodging house at 249 Main Street. Sanborn maps from 1886, 1889, and 1898 duplicate this distribution (Roulette et al. 1994: 23, 29-31).

By 1900, two-thirds (n=146) of the 217 people living on Hamilton Block were Chinese who were fairly evenly distributed between the following four addresses: 1) 43 at the 247 Main Street laundry; 2) 37 at the 246 Salmon



Figure 5. D. P. Thompson Memorial Statue and Fountain ca. 1910 with a view of the Chinese laundry on Main St. in the background (indicated by arrow) (OHS negative 9550).

Street laundry; 3) 36 at the 249 Main Street lodging house; and 4) 30 at the 248 Salmon Street lodging house. The Chinese residents were men, most of whom had emigrated from China in the late 1870s and 1880s (Roulette et al. 1994: 24), with those native-born to Oregon or California only constituting 8% (n=11) of the total. Few of the residents were in their teens and twenties; most were in their thirties and forties, with the mean age for residents on the block at about 40 years. Occupations listed in the city directory were day laborer, garden laborer, cook, domestic, laundry man, and vegetable peddler (Roulette et al. 1994: 24).

A general decline of Chinese residents on Hamilton Block was seen from 1900 to 1915, however, ownership changes on the block between 1905 and

1907 created a short-term reversal of this trend. Three lots of the block were purchased by Moy Back Hin (also spelled May Back Hin and Moy Bok Hin) and his Oriental Interest Company in 1907 (Roulette et al. 1994: 19). By this time he was one of the first Chinese millionaires in the region, and in 1906 he was the first Chinese consul in Portland (Ho 1978: 17). Moy Back Hin moved his company (the Twin Wo Company) to the Baldwin Building (just north of Lot 4), just after he purchased his lots in 1907. It remained in this locale until 1924 (Roulette et al. 1994: 19). Documentation shows that the 249 Main Street lodging house was standing vacant by 1909, a probable indicator of occupancy of the rest of the block. This was confirmed by the 1910 census records which indicate that despite Moy Back Hin's entrance with his company into the area the Chinese population of the block dropped from 146 in 1900 to 30 (2/3 of the block's total population to 1/5), dispersed between three locations: 1) the household of Moy Back Hin, residing in one of the commercial spaces of the Baldwin Building; 2) nine Chinese men living in a commercial space adjacent to the Moy household; and 3) the laundry owner and 10 laundry workers residing at 247 Main Street (Roulette et al. 1994: 20). However, 1915 city directory listings note that the laundry was gone by that year. There is no documentary evidence of any Chinese businesses residing at this location between 1915 and the construction of the parking garage in 1924 (Roulette et al. 1994: 25).

### *Chinese Social and Cultural Associations*

Immigrants often moved to the United States to escape political or personal conflict at home, a prime example being the Taiping Rebellion from 1851-1864. Transportation was often sponsored by family members already located in the United States and by the previously mentioned recruitment by international labor brokers. Furthermore, newly arrived immigrants were supported by family or clan groups in the United States in the form of lodging and storage space. This, itself, assisted in the formulation of Portland's Chinatown and in the formulation of various associations, the most prominent of which is the Chinese Consolidated Benevolent Association (CCBA) or Chung Wah Hui Gwoon. Shortly after the Exclusion Act of 1882 the CCBA was developed, and initiated nationwide, as a means of maintaining a comfortable space within Chinese communities for initial immigration and community businesses and activities. The CCBA includes many traditional philosophies within its varied divisions of trade association, recreation association, tongs, regional association, dialectic association, and political association (Ho 1978: 22-26).

Four other associations were transplanted from Southern China to Portland. Although their bases were traditional, they were somewhat altered for the new conditions encountered within the Portland Chinatown. The first of these associations was the Clan (Family) association with origins from lineage communities of the Kwantung Province of China. In the traditional sense, males of this association are specifically bound to each other through their descent

from common ancestors, but the altered specifications simply require that males have the same family name. The aim of the Clan association was to provide necessary assistance in various issues, enforce rules of propriety, and resolve disputes within the clan itself (Ho 1978: 22).

The Hui-Kuan (District) association traditionally consisted of people who spoke a common dialect or who came from the same district in China. The hierarchy of the overseas district association in Portland's Chinatown was much less complex than that of the homeland mainly because many of the immigrants came from one district within Kwangtung. The purpose of the Hui-Kuan association was to act as a guide for employment, legal and financial services (Ho 1978: 22).

Tongs (Secret Societies) are the most well known of Chinese organizations, and, generally speaking, originated as a response to the exclusivity of the other organizations. Members of Chinatown who found themselves either not eligible to be a member or not totally agreeing with the principles of the other associations turned their attention to the tongs, which could be ranked based on their political, criminal, and benevolent aims. The tongs of Portland, however, appeared to align themselves with the social elite, and with the criminal element (Ho 1978: 22-23).

The final association is that of the Hui (Rotation Credit) Association which allowed Chinese to acquire capital for businesses as well as for other purposes. If there was a need by an individual to raise money to open a business, that individual would establish an agreement with friends or relatives

by which they would pay an agreed sum of money into a common pool. The person who organized the Hui would get first usage of the entire sum of money, and then a month later the Hui would meet again, contribute, and, this time, elect a member that would receive the entire sum. This would occur on a monthly basis until each Hui member received use of the total sum of money. Because of the "friend and family" nature of the Hui, membership in the other associations would contribute a great deal to election of individuals to receive money (Ho 1978: 23-24).

## ARCHAEOLOGY OF ORMU57: THEORETICAL BASIS

While it is generally known that the overseas Chinese maintained aspects of their lifeways and beliefs, the depth of this maintenance, as well as the reasons for it, require the application of various relevant theoretical and cultural premises. The theoretical frameworks on which this thesis topic is based are those of Consumer Choice, ethnic groups and ethnicity, and acculturation.

### Consumer Choice Theory

The first framework, that of Consumer Choice theory, has its foundations in consumer behavior theory which is “concerned with the complex interaction of economic, cultural, social, and psychological factors involved in the process of consumer decisions to acquire one particular item rather than another” (Spencer-Wood 1987: 10). The archaeological premise of Consumer Choice theory comes from the knowledge that material goods are placed into the archaeological record through selective discard or loss. Although these material goods are subjected to cultural and non-cultural formation processes, it is the recovery and analysis of these goods that lays the groundwork for this theory. Consumer Choice theory uses archaeological depositional patterns to examine variables factoring into the selection and disposal of goods of varying worth (either in quality or price) and the relation of these selections to socioeconomic status. Although archaeology itself cannot fully reconstruct



these variables, artifacts within the archaeological record have the potential to reveal certain aspects of residents of domestic households, such as socioeconomic standing, and cultural and social proclivity (Garrow 1987: 217; Shephard 1987: 165; Spencer-Wood 1987: 9, 10, 12, 13).

Household, for these purposes, is defined as all of "the residents of a domestic structure that could have created primary deposits of artifacts in the house yard in one time period" (Spencer-Wood 1987: 2). The household has been deemed the principle unit of study for Consumer Choice theory because it is the unit most conducive to the application of site-specific archaeological and documentary data available to archaeologists (Spencer-Wood 1987: 8).

Ceramics are the most popular material group used in Consumer Choice studies, and are the basis of study within this thesis, primarily because they are abundant and durable, but also because they reflect household consumer biases through their cost, form, function, style, usage, breakage, and selective discard or loss (Deetz 1977: 68; Spencer-Wood 1987: 13; Spencer-Wood and Heberling 1987: 56, 60) (Figure 6). Furthermore, within an archaeological site, ceramic patterning may be indicative of a change of socioeconomic, cultural, or social status within a household. Garrow (1987) points out that ceramics "could have been functionally replaced by goods of greater or lesser cost without affecting the survival potential of the household" (217), thus reflected in the archaeological record through depositional patterning of ceramics occurring as single items or as clusters.



Figure 6. Ceramics from ORMU57 (Researcher's photograph).

### Ethnic Groups and Ethnicity

The cultural framework of this thesis deals with ethnic groups (namely the Chinese) and ethnicity, which also factors into Consumer Choice theory. Fagan (1995) has defined an ethnic group as “an assemblage of people who share enough common physical and cultural characteristics to define themselves as a group perceived as different from others” (274), and ethnicity as those characteristics which an ethnic group accepts as applicable to themselves. It has been hypothesized (Henry 1987: 361) that by its definition, a household can be looked on in a larger framework as a member of a larger group (ethnic group, neighborhood, or social class) to which its residents belong. Therefore,

ethnicity within a household would be reflected by archaeological patterns and the types of material goods deposited into the archaeological record (LeeDecker et al. 1987: 237; Spencer-Wood and Heberling 1987: 58). It has been further posited that ethnicity would also indicate urban migration processes, ethnic ties, income strategies, and buying patterns of residents of a given household (Clark 1987: 385; LeeDecker et al. 1987: 237; Spencer-Wood 1987: 56).

Knowledge that the majority of residents within Lot 4 of Block 24 over time were Chinese, or of Chinese descent, requires the recognition and examination of the above-mentioned factors as they pertain to the archaeological record. Once again, ceramics are useful in this type of analysis because they reflect consumer biases, which may allow for assessments in the maintenance of ethnicity through consumer choice.

### Acculturation

#### *Phases of Acculturation*

Acculturation has been defined as a series of phenomena that occur as a result of continuous first-hand contact between groups of individuals of different cultures. This series of phenomena produces subsequent alterations in the cultural patterns of one or both groups. However, included within this definition was the idea that assimilation was a phase of acculturation (Herskovits 1958: 10). Since that time acculturation theories still adhere to the premise that

acculturation is a process in which adaptation to an unfamiliar cultural context occurs (resulting in the elimination or modification of particular behavioral patterns belonging to those included or excluded from the ethnic population) as a result of the contact between two distinct cultures (Eriksen 1993: 19; Gans 1997: 877; Lee 1960: 405; Tang and Dion 1999: 18). However, current definitions postulate that acculturation is a process of assimilation (in short, the relinquishing of cultural identity to become a member of the larger society), rather than the earlier theory of the opposite, although not necessarily leading to assimilation (Eriksen 1993: 19; Ferrante 2000: 300; Gans 1999: 875; Padilla 1980: 10; Staski 1993: 129).

To clarify, the nature of acculturation requires that at least two self-defining cultural groups come into contact with one of the two going under change as the result of the contact (Padilla 1980: 10). Because one group is a dominating force it will then contribute more cultural elements to the process, thus, more often than not, creating a process that is difficult, reactive, and conflictual (Cheng 1955: 34-35; Padilla 1980: 10).

Research has identified three separate phases of acculturation which consist of contact, conflict, and adaptation. Contact is necessary for the advent of acculturation and may occur accidentally, and as a mutually desired event, or it may be relatively short-lived. Under those circumstances acculturation would take place at minimal levels. Higher levels of acculturation will take place in cases of deliberate dominance (for example, takeovers) of one culture group over another, or of skills or beliefs through education or evangelization that are

brought about by settlement or other contact over long periods of time. In a contact situation the likelihood of conflict is high due to the fact that groups do not often give up valued features of their culture without resistance. The final phase of acculturation, that of adaptation, occurs in a variety of ways in order to reduce or stabilize a conflict situation. These varieties (or modes) are comprised of adjustment (reduction of conflict by making cultural and behavioral modifications to become similar to the host society, or assimilation), reaction (attempt at reduction of conflict by retaliation against the source of the conflict), and withdrawal (voluntary removal of one group or individual element from the conflict area) (Padilla 1980: 11-12). There has also been identified an additional aspect of the adaptation phase, that of marginality. Marginality is a peculiar form of adaptation in that it reduces conflict by the giving up of aspects of traditional culture without interest in, or adoption of, traits of the host culture (Keefe 1980: 86; Tang and Dion 1999: 18).

### *Ethnic Groups and Ethnicity in Acculturation*

Ethnicity and ethnic groups factor greatly into acculturative studies by the simple fact that ethnic groups are generally the minority and, as established by Padilla (1980), the majority group contributes more to the influx of cultural traits which then allows for the evaluation of acculturative phases. It has been established that ethnic groups, by their very nature, help facilitate the adaptation process by providing a comfort zone of exclusive and ascriptive traditions, values, and social ties, thus allowing primary relationships and social ties to be

confined to that group, in turn creating an environment of unity against a host society (the reactive mode of the adaptation phase of acculturation) (DeCunzo 1987: 268; Padilla 1980: 12; Staski 1993: 128). By extension ethnicity is the designation of oneself as belonging to the ethnic group and relating to and maintaining those aspects of the comfort zone (DeCunzo 1987: 268; Staski 1993: 128). It follows, then, that aspects of an ethnic groups' self-identification and alterations, as well as levels of ethnicity, can be studied as a reflection of acculturative processes.

## ARCHAEOLOGY OF ORMU57: FIELD AND LAB METHODS

Although historical documentation, most commonly in the form of newspaper accounts, land use and fire insurance maps, census records, city directories, and land transfer records, sheds some light on the presence and absence of the Chinese community in Portland, Oregon, such documentation more often than not gives only a limited view of the city and its occupants. The excavation of archaeological sites such as this one, and their subsequent interpretation, can allow for augmentation of historical interpretations, and expand the current knowledge of the everyday citizens of Chinatown.

Four areas designated as Operations were established (one of which was designated as Trench 3) and excavated revealing twenty-nine features, ranging from utility trenches to privy, shaft, and/or refuse deposits. Two other trenches were also excavated, as well as seven monitoring units (Figure 7).

### AINW Field Methodology

#### *Overburden Removal, Site Organization, and Surface Collections*

Excavations by AINW began with the exposure of the 1920s surface through removal of asphalt and the underlying concrete slab of the contemporary parking lot and the earlier Central Parking Garage. This process was completed with a backhoe (Figure 8), and, although successful in exposing the 1920s surface, it also disturbed deposits. As a result, loose rubble was

Second Street  
Sidewalk

Op 3

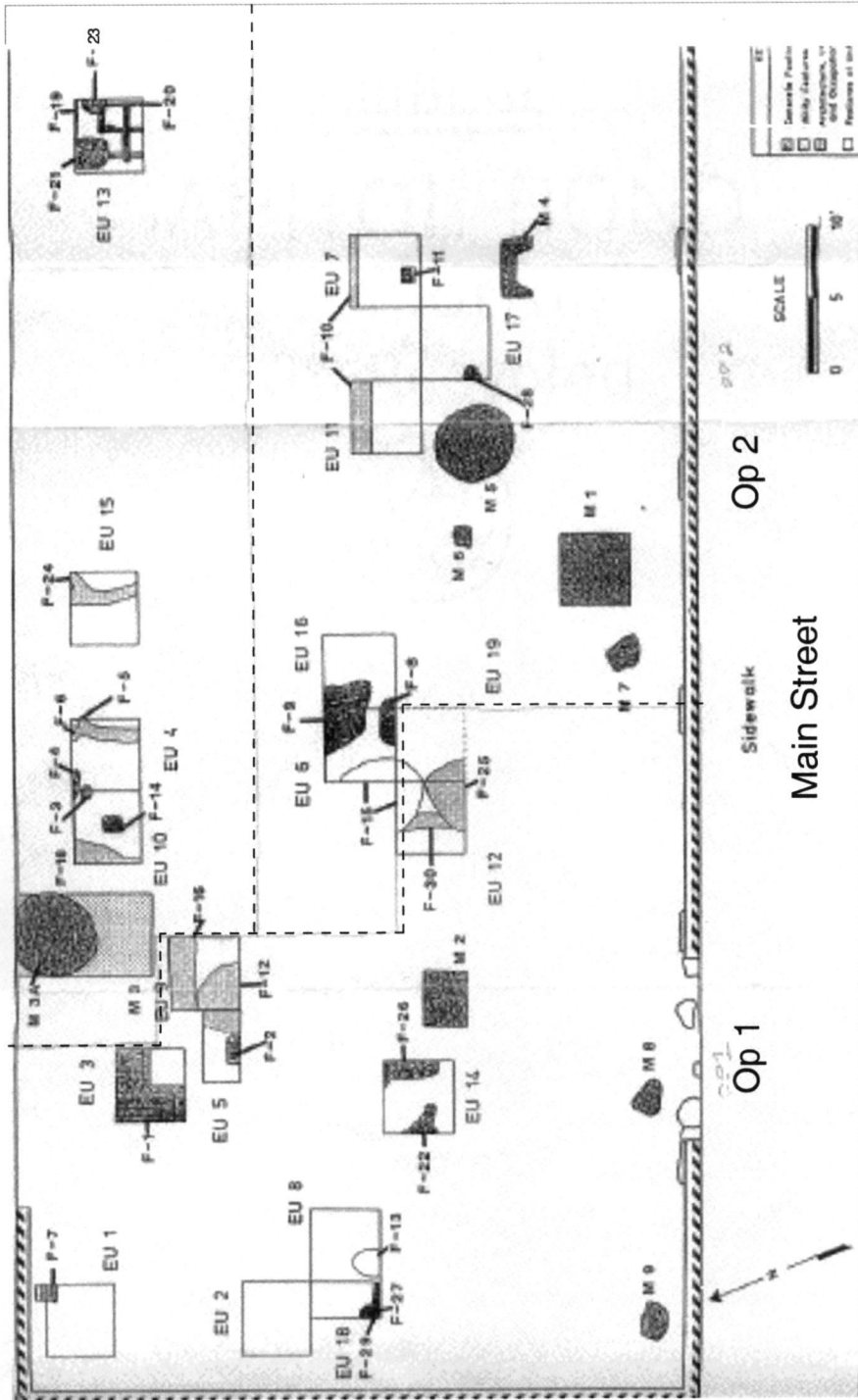


Figure 7. Operation (boundaries indicated by dashed lines) and Excavation areas of ORMU57 (Adapted from AINW Report #42, Figure 14).





Figure 8. Exposure of the 1920s surface using a backhoe (AINW negative C137CH2 F7 93-137).

cleaned from the lot with a shovel and rake. After exposing the 1920s surface, boundaries of sublots were determined using the east wall of the still standing Hamilton Hotel, the south edge of the lot, and dimensions of historic maps as reference points. These sublots each were designated as operational areas with each referred to as an "Operation" within the scope of the data recovery report written by AINW. Four operations were defined: Operation 1, at the historical address of 247 Main Street; Operation 2 at 237 Second Avenue; Operation 3 at 235 Second Avenue; and Operation 4, a four-foot-wide trench mechanically excavated across the rear of Operations 2 and 3 (Roulette et al. 1994: 46).

Prior to the laying out of excavation units, AINW conducted surface collections from each subplot. Artifact that were found partially embedded in the

ground surface were left in place for inclusion within excavation unit data. Excavation units themselves were initially placed along the sides and rears of sublots in those areas expected to contain shaft features and yard deposits. Units were later established in the interiors of the sublots in those areas that had been open previously or had been beneath or adjacent to structures. During excavation, the placement of excavation units within historical spaces was confirmed by the exposure of features, and by landmarks that appear on historical maps and within the site itself (Roulette et al. 1994: 46).

### *Archaeological Excavations*

Data recovery within Operations 1 through 3 consisted of the following excavation methods. Excavation units measured 5x5 ft. or 2.5x5 ft., with each excavation unit excavated in cultural or natural layers, except for those stratigraphic units that measured greater than 10 cm thick, which were subsequently excavated in 10 cm levels. Each of these stratigraphic units were given an individual number as they were encountered. Dry screening with 1/4 inch hardware cloth was used for all excavated sediment except for excavation units 1-10 which used 1/8 inch hardware cloth as well. Upon removal of artifacts from an excavation unit, they were bagged by individual stratigraphic unit within their excavation unit designation (Roulette et al. 1994: 46).

Standardized level excavation forms were used each of which included soil colour and texture descriptions as well as descriptions of natural and cultural inclusions. Each stratigraphic unit was also plan mapped, showing

shape and boundaries within the excavation unit. Profile drawings were made of at least one wall of each excavation unit. A site plan map was prepared and photographic records (black and white prints and colour slides) were maintained documenting each step of the project (Roulette et al. 1994: 46).

Monitoring of construction excavations took place as the final step in General Services Administration compliance with Section 106 of the National Historic Preservation Act. The specific intent of this monitoring was to locate unusual or unexpected artifacts, features, or complexes thereof, that were unlike those of data recovery excavations. The location of potentially significant deposits was attempted through supervision by an archaeologist of the removal of two to three feet of soil from across Lot 4. Between one-half and one foot of sediment was removed by a track-hoe with a smooth bucket and the exposed surface was then examined for soil stains or artifact concentrations (Figure 9). Once removed, the bucket-load of soil was scattered on the ground and inspected for artifacts. Upon encountering soil stains or concentrations of artifacts, hand tools were used for further investigation. At the minimum, location of each deposit was plotted on a site map, and most were also photographed and drawn to scale. Initial attempts were made to define horizontal and vertical boundaries for each deposit, as well as to determine physical integrity. If the depth of a hand excavated deposit during monitoring extended greater than four feet, then the track-hoe was used to bisect the feature. Afterwards, hand-sampling continued. Significance of deposits were then determined. If they were determined to lack significance, mechanical



Figure 9. Top: Monitoring Feature 2 exposed (AINW negative 0300 F18 94-187); Bottom: Monitoring Feature 2 excavated (AINW negative 0287 F15 94-190).

excavations resumed until native subsoil was reached. This entire process was repeated until native subsoil was encountered within the entire monitoring scope of work (Roulette et al. 1994: 46-47).

## AINW Lab Methodology

### *Artifact Inventory*

As artifacts were recovered from each excavation unit they were returned to the AINW lab for cleaning and inventory. Artifacts with stable surfaces were cleaned in water and dried. Lot and specimen numbers were assigned to artifacts from each unit, with Lot numbers being specific to discrete proveniences which included individual stratigraphic units or levels within stratigraphic units. Individual bags from the stratigraphic units were given specimen numbers. As a result, AINW artifact inventory is organized by Lot and Specimens within functional groups and material classes (Roulette et al. 1994: 48).

After cataloging, artifacts were sorted into artifact groups as a basis for artifact pattern analysis based on a procedure developed by Stanley South (1977). This is a functionally based procedure which places artifact types into groups and classes based on inferred function of the artifacts. Groups defined by South and used by AINW include the following:

Kitchen--artifacts related to meal preparation and consumption including use and storage of alcohol, as well as medicinal and proprietary medicine products.

Bone--includes bone and shellfish remains that represent meal waste.

Personal--"personables" including such things as coins, keys, jewelry, mirrors, eye glasses, slate tablets and pencils, watch keys, and tweezers.

Activities--related to work, play, and recreational activities.

Children's toys and opium paraphernalia are also included.

Firearms--bullet casings and bullets.

Clothing--artifacts related to the manufacture and use of clothing, such as buttons and other fasteners, thimbles, sewing needles, and textiles.

Furniture--consists of furniture hardware.

Tobacco--items related to the consumption of tobacco products.

Architecture--include window glass, nails, door lock parts, and construction hardware.

While in South's scheme each group contains one or more classes within which are types, AINW simplified this to suit their needs by using the class designation to organize the groups into material classes that could then be ordered into types (Roulette et al. 1994: 48).

### *Ceramic Analysis*

Within the scope of ceramic analysis, AINW conducted specialized analysis on Chinese and non-Chinese ceramic artifacts from the Kitchen functional group. Types were identified based on decorative treatment and ware type, vessel form was identified, when possible, and minimum vessel

counts were calculated. The classification system of George Miller (1980, 1991) was used for identification of non-Chinese ceramic types. Based on this system wares were classified as porcelain, printed, dipped, redware, yellowware, stoneware, and CC ware (undecorated white earthenware). AINW used the term ironstone rather than Miller's term of White Granite ware, and created an "other decorated earthenware" category for those decorated fragments that could not be placed into any other type category. They also created an "unidentified" category for those fragments that could not be identified as belonging to any of the categories (Roulette et al. 1994: 50).

Using a set of objective criteria, two lab personnel analyzed all of the fragments. In order to differentiate between CC ware and ironstone fragments, each fragment was examined under a set of criteria for thickness, colour, fabric texture, amount of crazing, and break pattern based on criteria devised by Linda Worthy (1982). However, results based on these criteria were not satisfactory due to the observation that even those fragments that contained maker's marks indicating that they were ironstone were also heavily crazed, varied in colour from light blue to white, and had irregular breakage patterns. These characteristics are more indicative of earthenware rather than ironstone (Roulette et al. 1994: 50).

Attempts were made to chronologically isolate different periods of site occupation and refuse deposition of non-Chinese kitchen ceramics by examining and identifying maker's marks on such ceramics. Collector's guides for ceramics and historical archaeology reports, such as those produced by



Godden (1964), Lehner (1988), and Praetzellis et al. (1983), were used for this aspect of research.

A minimum vessel count for each stratigraphic unit was calculated, but it was soon realized that a reliable minimum vessel count could not be established in this manner due to the small size of the provenience of each stratigraphic unit. Further, limited time and space prevented the ideal process of cross-mending for a more accurate minimum vessel count. It was also recognized that a conventional approach to a minimum vessel count would have produced a greatly inflated count. Therefore, the approach utilized was that of using complete bases, incomplete bases with complete or nearly complete maker's marks, and large fragments approximating one-half vessels to establish a minimum vessel count. The process differed for minimum vessel counts of Chinese ceramics in the effort to produce a more reliable vessel count. In this process, in which tableware and utility ware were distinguished, the excavation unit was used as the analytical unit and cross-mends within each excavation unit, curvature and thickness of body sherds, variety of surface decorations, colour of body fabric, presence or absence of interior glazing, and the number of different glazes were characteristics observed to arrive at a minimum vessel count (Roulette et al. 1994: 50).

During analysis of Chinese ceramics, Chinese vessel classes consisted of whiskey bottles, lids/pans, lids, soy sauce jars, and small, medium or large storage jars. The three size categories were distinguished by body fragment thickness, and degree of curvature of rim and body fragment. Further, large



storage jars would have held a volume of one to two gallons, medium jars would have held one to two quarts, and small jars approximately one pint. These vessels were also identified as being globular, shouldered, or barrel-shaped (Roulette et al. 1994: 50).

Intrasite comparisons of artifact collections from sublots were facilitated by those artifact assemblages that were determined to be discrete to a single subplot. To determine the actual discreteness (degree of mixing) of these artifact assemblages, stratification of each excavation unit and houselot was analyzed, which, in turn, would identify origin and context of deposits within each unit and across each subplot. Three main categories related to major site formation processes existed for classification of stratigraphic units: construction, occupation, and demolition. There was a fourth category devised for those miscellaneous strata that could not be assigned to one of the three site formation processes. Determining factors for assignment into one of the categories were artifact content, strata morphology, and stratigraphic position. During the process, it was noted that artifacts found in demolition and construction layers could be of mixed deposits originating in other parts of the site or off-site (Roulette et al. 1994: 52).

## OSU Department of Anthropology Lab Methodology

### *Ceramic Cleaning and Cataloging*

Upon receipt, ceramics in the care of the Department of Anthropology curational facility were brought into a laboratory where they were cleaned and dried. Cataloging consisted of the previously assigned site number, followed by the AINW designated Lot number and the "number" artifact they were within the original bag received. For example, the site number assigned is ORMU57. If a bag brought into the laboratory was marked as belonging to Lot 24, that would be the next number to occur as the artifact number. If there were three fragments within the bag, then each fragment was numbered individually, 1, 2, and 3. Therefore, final individual ceramic artifact numbers for ceramics from this bag would be ORMU57-24-1, ORMU57-24-2, ORMU57-24-3.

As artifacts were labeled they were entered into a collections catalogue. All information that was included on the bags received from AINW was transferred into the catalogue which contained the following information fields: Lot number, Typology, Catalogue number (artifact number), Coordinates (S, E), Elevation, Level, Feature, Notes (often specimen number, unit type, and unit number), and recorder's name and date.

During a review of field notes, a Lot Key was discovered, and the catalogue was further divided into Lots within Excavation Unit divisions so that all artifacts recovered within any and all Excavation Units would be grouped

together in the catalogue but separated by Stratigraphic Units and their differing Lot numbers.

### *Ceramic Crossmending*

After cataloging of the ceramic fragments were completed staff began the crossmending process. Ceramics were sorted by Lot number and placed into shallow boxes or flat trays for viewing (Figure 10). A plan map of the site and Lot-number-excavation-unit-number association lists were used as a reference during crossmending procedures. Once sorted and laid for viewing, the boxes and trays were organized on tabletops according to excavation unit association. That is, boxes containing ceramics with Lot numbers highly associated with specific excavation units were grouped closely together so that fragments that might crossmend would be easier, or more likely, located. When fragments to crossmend were located, they were glued using HMG B72 Acrylic Adhesive (Figure 11).

### Ceramic Analysis

#### *Typology*

Once ceramics were catalogued and crossmended the process of analysis began by devising a typology (Table 4) based on that used by AINW, but modified for the more particular purposes of the scope of this thesis topic--



Figure 10. Ceramic crossmending in progress at the Historic Lab, Department of Anthropology, Oregon State University (Researcher's photograph).

use of ceramic analysis as an indicator of the presence or absence of acculturation within an archaeological site.

The category of Functional Group, while modeled after those used by AINW, was modified somewhat to suit current study purposes. The kitchen group included fragments related to meal preparation, consumption, and storage, including the use and storage of alcohol. The personal utilitarian group contained fragments related to personal hygiene, function, and/or maintenance and includes medicinal and proprietary medicine products and



Figure 11. Crossmended vessels (Researcher's photograph).

toiletries. Ceramics related to play and recreational activities, including children's toys and opium/tobacco paraphernalia, belonged to the activities group. Those fragments that fell into the architecture group were related to the basis of the structure of a building, upkeep and maintenance of the structure, and the decorative emphasis of the structure. This group also included insulators and doorknobs. The decorative group consisted of ceramics of non-architectural use that were determined to have been utilized by occupants in the personal decoration of a structure. Vases and flower pots were included within this group. The final category is the unknown category which included those fragments that could not be determined as belonging to any of the other categories.

Functional Group	Ware Type	Vessel Type	Decoration Type	Finish Type
K (kitchen)	SF (stoneware fine)	D (dish)	overglaze	C (Celadon)
PU (personal utilitarian)	SC (stoneware coarse)	SD (serving dish)	underglaze	glazed (clear, lead, cobalt, salt)
D (decorative)	I (ironstone)	C (cup)	molded	unglazed
AR (architecture)	ME (miscellaneous earthenware)	W (wine cup)	plain	slip (Albany, tan buff, grey, brown exterior, interior)
AC (activities)	Y (yellowware)	B (bowl)	incised	
U (unknown)	P (porcelain)	RB (rice bowl)	impressed	
	PW (parian ware)	SB (serving bowl)	gilded	
	PL (pearlware)	CSP (ceramic spoon)	scalloped	
	CC (cream coloured ware)	SJ (spouted jar)	shell edge (feather edge)	
	TC (terra cotta)	GJ (globular/ginger jar)	hand-painted	
	CG (clay grey)	BJ (barrel jar)	sponge	
	CT (clay tan)	TP (tea pot)	spatter	
	CW (clay white)	WP (wine pot)	lined	
	CR (clay red)	J (jar)	transfer print	
	WFE (white fabric earthenware)	WB (waste bowl Chinese/Japanese)	cottage (Gaudy Dutch)	
	R (redware)	L (lid)	decal	
		PD (platter dish)	flow blue	
		WMSJ (wide-mouthed shouldered jar)	FS (Four Seasons)	
		T (tea cup)	B (Bamboo)	
		TB (tea bowl Chinese/Japanese)	DH (Double Happiness)	
		SP (soup plate)	U (unknown)	
		S (saucer)		
		ST (soup/sauce tureen)		
		PI (pitcher)		
		P (plate)		
		SSJ (straight-sided jar)		
		PN (pan)		
		CP (chamber pot)		
		SHJ (shouldered jar)		
		JG (jug)		
		LB (liquor bottle)		
		CB (ceramic bottle)		
		CR (crock)		
		M (miscellaneous)		
		U (unknown)		

Table 4. Typology devised for ceramics from ORMU57.

Within the category of Ware type, miscellaneous earthenware was used for heavy duty vessels that were possible ironstones, but that proved to be non-vitreous, and white fabric earthenware was used for those wares that were not solidly attributable to any Ware type including miscellaneous earthenware. Also within this category clay grey, clay tan, clay white, and clay red were used specifically for smoking paraphernalia, with the exception of opium servers which were porcelain.

Within the Decoration type category, Four Seasons is of Chinese manufacture and includes a design of four flowers attributable to the four seasons and indicative of Taoist concepts. These include peony, spring, good fortune; chrysanthemum, fall, pleasure; lotus, summer, purity; plum, winter, courage; and a centerpiece of either a flower medallion or a peach (Lister and Lister 1989: 51). The Double Happiness design is also of Chinese manufacture and includes the Double Happiness symbols hand-painted in underglaze blue, most commonly with double line borders just below the rim and at the juncture of the foot and body. Bamboo, a third of Chinese manufacture within this site, is also more commonly known as Three Circles and a Dragonfly due to its decorative pattern. In addition to the base decoration, there is also commonly a blue line where the foot joins the body, as well as a blue line at the rim and one on the interior, and a comma-like mark in the center of the interior base of the vessel (Greenwood 1996: 70-71).

Celadon, the fourth design of Chinese manufacture from this site, is not included within the category of Decoration type, but is included in the Finish

type category due to the fact that the winter green colour of Celadon is applied as a glaze rather than as a solitary decoration that is placed over or under a glaze.

### *Database*

After a typology had been devised and defined, a database was established using FileMaker Pro 4.0 for MacOS by Claris. Two separate databases were devised--one entitled "ORMU57", for ceramic analysis, and the other entitled "Provenience", as a reference for fields within database ORMU57. The fields established for database ORMU57 were Artifact number, Unit, Level, Feature, Stratigraphic Unit, Country of Origin, Producer, Product Label, Date Ranges, Functional Group, Ware type, Vessel type, Decoration type, Finish, Crossmended Y/N, and Comments. Each field was used only if applicable or determined. The crossmending field was used as a determinant field (Yes or No) as well as a record of to what other artifact numbers a piece was crossmended. For example, if artifact number ORMU57-160-2 was crossmended to ORMU57-160-1 and an uncatalogued piece (a common occurrence, which also meant that there was no provenience for that piece), then data entry into the crossmending field would be "Y see 160-1 and one uncatalogued piece". Comments entered into the comments field would include whether the ceramic features included rim, body, base, footring, as well as fabric or paste colour, reference citations, and further needed explanations for that specific piece. This field would also indicate whether a ceramic would be



included in the Minimum Vessel Count, with precaution taken not to double count, if that piece were crossmended. Database Provenience fields were Lot, Unit, Vertical (Level), Feature, Elevation (cm), and Stratigraphic Unit.

Information within this database was gleaned from field notes from AINW excavations. The intent of this database was to build a quick crossreferencing tool for information input into database ORMU57. Simply from having an artifact number, the lot number from that artifact number could be placed into a search field within the database Provenience, thus pulling up the base information for that artifact.

#### Methods of Ceramic Distribution Mapping

Two separate ceramic distribution mapping sets were compiled in an attempt to discern horizontal and vertical distribution as an indicator of ceramic deposition over time and space. The first set consisted of horizontal mapping in which the base excavation unit maps (which included excavation unit features) provided by AINW were redrawn using a ClarisDraw program for Macintosh. Utilizing the AINW base maps and field maps, horizontal stratigraphic boundaries for each level within each excavation unit were also drawn, creating a multiple layer map set for each excavation unit. Upon completion of the map set, transparency xeroxes were made, and ceramic distribution was mapped using provenience and elevation information compiled in the ORMU57 and Provenience databases.

The second set consisted of vertical mapping in which stratigraphic profile maps of each excavation unit from the AINW final report were multiply xeroxed and utilized. Descriptions of each strata as defined within the AINW final report were briefly noted within their respective strata areas on a first set of xeroxes for each excavation unit. Databases ORMU57 and Provenience were then used to crossreference excavation units, features, and/or stratigraphic units within ORMU57 with those of Provenience in an attempt to recover specific elevations on non-Chinese/Japanese and Chinese/Japanese manufactured ceramics to decipher distribution over time. The following key and guidelines were established for this set of maps KEY--black dot (unattributed), purple dot (attributed), green dot (Chinese/Japanese). "Unattributed" was defined as those ceramic fragments that could not be identified to a specific manufacturer or country of manufacture, while "attributed" was defined as those that could be identified to a specific manufacturer or country of manufacture other than China or Japan. Ceramic count numbers were written above the dots. If a ceramic fragment was shown within the database to be crossmended, then it and its crossmending counterparts within the same excavation units or lots were counted as single. For example, ORMU57-267-9 is noted as crossmended "Y see 160-64, 160-53, 160-29, 269-1, 109-1, 267-31, 160-45, two uncatalogued pieces", therefore a count of one was noted for the three crossmending matches because they were in the same lot (the ORMU57-267 artifacts) or within the same excavation unit (the ORMU57-269 artifact). The four ceramic fragments from Lot 160, and the one from Lot 109 were not counted until mapping began

on the excavation units associated with those lots. While this can skew specific counts, it was adequate for a visual of numbers coming from individual excavation units. Furthermore, it must be noted that since not all ceramics from an EU were able to be mapped, due to the fact that stratigraphy varies within EUs, this mapping procedure can only be referred to as a representative sample for discussion.

## ARCHAEOLOGICAL CONSIDERATIONS OF ORMU57

Operation 1

Operation 1 (see Figure 7) corresponds to Lot 4 of Block 24, the Chinese laundry and its surrounding evolutionary alley area and staircase. This structure was built in the southwest corner of Lot 4. Excavation units 1-3, 5, 8, 9, 12, 14, 18, and 19 are located within this operation, as well as Features 1, 2, 7, 12, 13, 15, 16, 22, 25, 26, 27, 29, and 30. Trench #1 was excavated in a north/south line through the center of the operation. The western portion of Trench #2 also intrudes into this operation on an east/west axis.

*EU and Feature Summary*

As indicated on the 1879 Sanborn map (Figure 12) the structure at that time was classified as a tenement which had a large alley between it and two other buildings not associated with Operation 1. According to an 1886 Sanborn map the structure expanded, and later maps (1889, 1898, 1901, 1908, 1909) (Figures 12, 13, 14, and 15) also show minor structural changes to the expansion. However, these changes mostly occurred in the area encompassing Excavation units 3, 5, and 9. All maps from 1886 on indicate the structure to be used as a Chinese laundry.

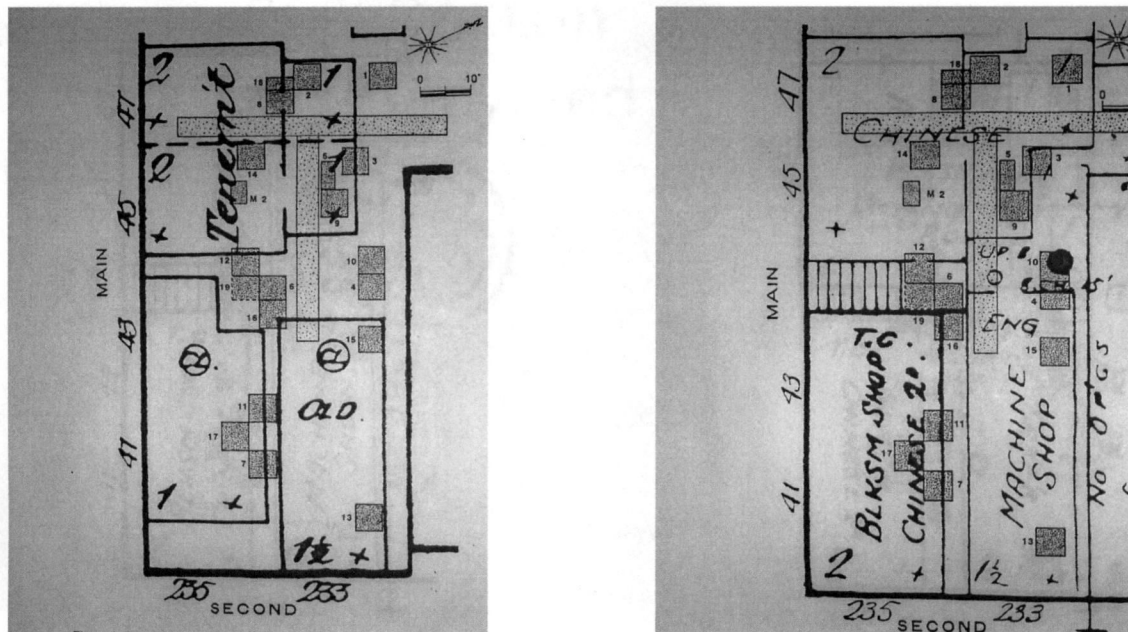


Figure 12. Left: 1879, and Right: 1886 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).

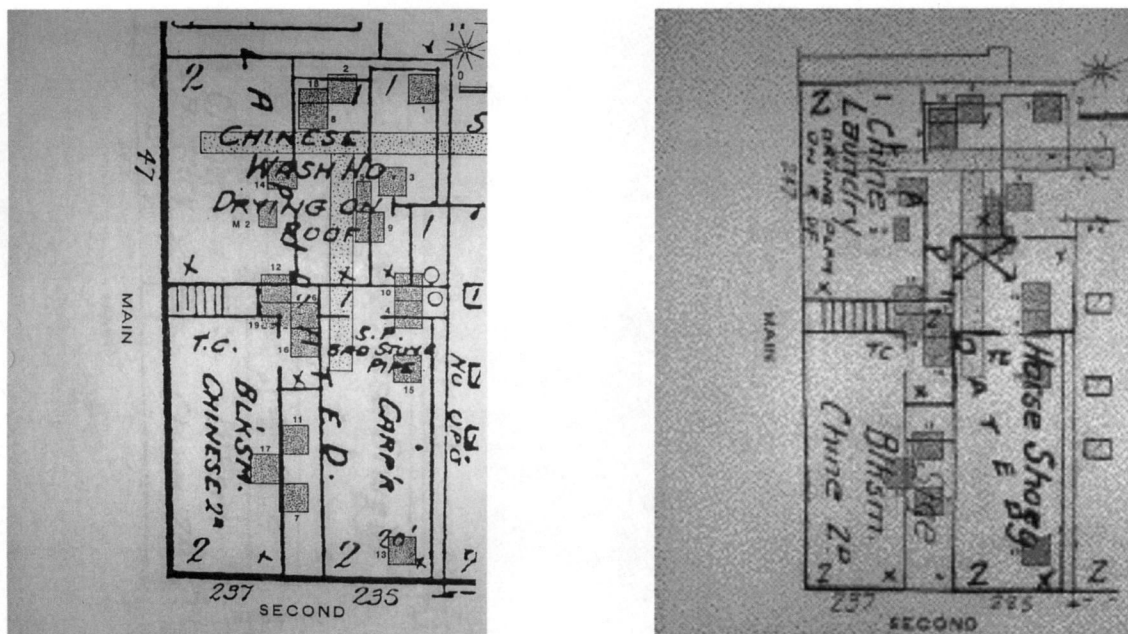


Figure 13. Left: 1889, and Right: 1898 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).

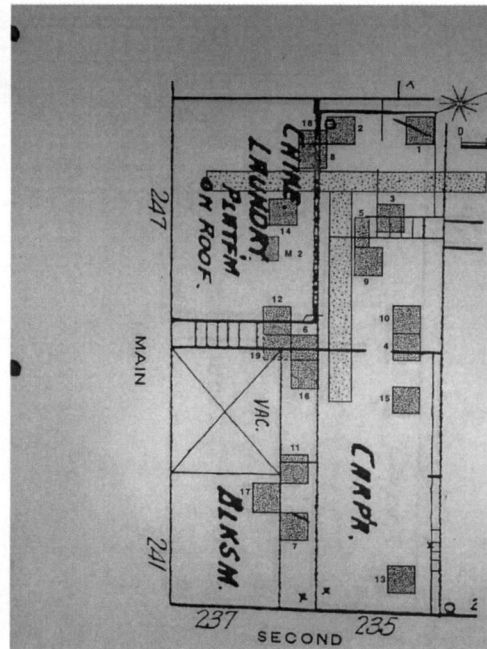
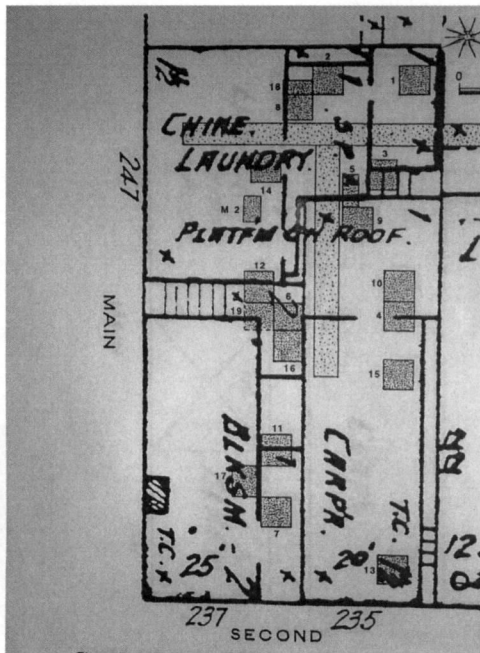


Figure 14. Left: 1901, and Right: 1908 Sanborn Fire Insurance Maps superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).

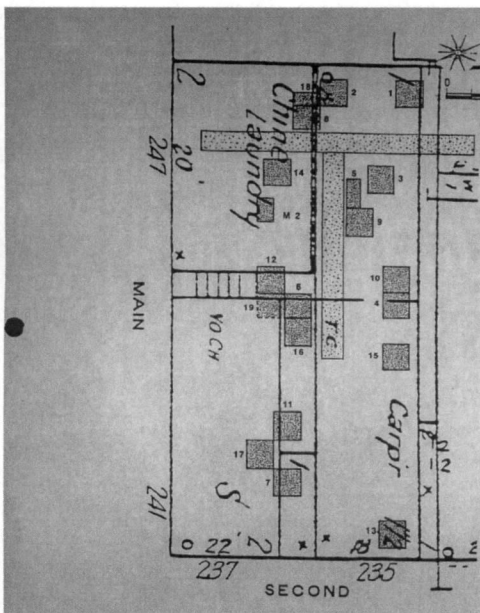


Figure 15. 1909 Sanborn Fire Insurance Map superimposed over ORMU57 site area (adapted by AINW from maps on file at OHS).

**EU 1** The non-feature area of Excavation Unit 1 consisted of a majority of unattributed artifacts found in the upper and lower stratigraphic units. The upper stratigraphic units were determined to have been demolition-related, while the lower stratum was determined to be construction-related containing wood and wood fiber (Roulette et al. 1994: 59). Ware types consisted of fine stoneware, ironstone, miscellaneous earthenware, and porcelain, with the majority being fine stoneware. Of attributed ceramics, the majority were of Chinese manufacture (with date ranges of 1644-1911) which were retrieved out of the uppermost stratum, and of which none crossmended.

**Feature 7**, located in the northeast corner of Excavation Unit 1, was classified as a pre-1908 posthole (Roulette et al. 1994: 56). Examination of Sanborn maps indicate that the posthole could be related to the expansion of the structure occurring sometime after 1879. Three non-crossmending ceramics were recovered from this feature, all of which were retrieved from a lower stratigraphic unit. Of the three, two were unattributed as to manufacture and one was a clay pipe bowl fragment likely manufactured in the United States in the 19th century.

**EU 2** Unattributed ceramics made up the majority retrieved from the non-feature area of Excavation Unit 2 with ware types distributed fairly evenly throughout the stratigraphic units. Ware types included ironstone, miscellaneous earthenware, coarse and fine stoneware, porcelain, yellowware, and white fabric earthenware. The upper stratigraphic units were occupation-related stratum, while the lower were construction-related stratum (Roulette et

al. 1994: 62). It was noted that the area beneath the addition accumulated most of the trash deposits, while the open area adjacent to the structure appears to have remained relatively free of refuse deposition (Roulette et al. 1994: 61), which corresponds to the number of ceramics found in the occupation-related stratum which was located underneath the area of the structural addition. Attributed artifacts consisted of porcelain, coarse and fine stoneware, ironstone, yellowware, and white clay with English, United States and Chinese manufacturers. Date ranges of manufacture were 1644-1911, 1820s-1890s, and ca. 1850-1870. No features were located within this EU.

**EU 3** Ceramics retrieved from the non-feature area of Excavation Unit 3 were unattributed and consisted of a majority of coarse stoneware and one fragment of yellowware with a date range of 1820s-1890s.

**Feature 1** of this Excavation Unit included a large portion of the unit and was classified as a probable cesspool, ca. 1884-1914. It consisted of segments of two brick walls with an area of brick pavement and two sides of a concrete box (Roulette et al. 1994: 56, 70). No ceramics were recovered from this feature.

**EU 5** A majority of artifacts from the non-feature portion of Excavation Unit 5 were unattributed and consisted of miscellaneous earthenware, ironstone, white fabric earthenware, and yellowware, which were retrieved in equal numbers from upper and lower stratigraphic units. The upper stratigraphic unit was determined to be a construction-related stratum due to its proximity to an area known to have contained bricks (Roulette et al. 1994: 70)



while the lower stratigraphic unit was identified as an occupation-related stratum. This lower SU had either gathered around Feature 2 of the excavation unit or it had at one time been removed so that bricks apparent in the feature could be laid out (Roulette et al. 1994: 68).

**Feature 2** of Excavation Unit 5 was located in the south center portion of the excavation unit. The western portion of the feature contained clay capped bricks, but the feature itself was classified as an unknown feature with no known date (Roulette et al. 1994: 56, 68-71). However, it is likely a post-1884 intrusion, as indicated by its stratigraphic position. Only one ceramic sherd was recovered from this feature. It dates ca. 1825-1891, but was popular in the 1840s, and consisted of white fabric earthenware with the impressed "chicken foot" design.

**Feature 12** was located in the eastern two-thirds of Excavation Unit 5, and intruded into Excavation Unit 9. It was classified as a post-1884 utility trench with the possibility that it was a trench dug into an earlier existing pit (Roulette et al. 1994: 56, 68). It is possible that the western edge of this feature is contiguous with structural changes occurring after 1898. No ceramics were recovered from this feature.

**EU 8** The majority of ceramics from the non-feature area of Excavation Unit 8 were attributed with the vast bulk of these being of Chinese manufacture. The remaining number of these ceramics were of English, Scottish and United states manufacture with date ranges of 1810-1967, 1863, and 1883-1913. Ware types consisted of porcelain, coarse and fine stoneware, ironstone, white

clay, tan clay, and white fabric earthenware. The majority of porcelains and stonewares were of Chinese manufacture, with date ranges of 1644-1911. Most ceramics were retrieved from upper stratigraphic units, which contained concentrations of mortar and plaster, with the uppermost stratigraphic unit also containing broken glass. Given the nearly unchanging status of that portion of the structure for the majority of its years, this mixture of structural material with material goods is likely from the drastic expansion of the Operation 3 structure into Operation 1 structural space, the south wall of which cut directly across the northern third of the excavation unit. Unattributed ceramics consisted of porcelains, coarse and fine stoneware, miscellaneous earthenware, white fabric earthenware, and ironstone. Of these, the majority were also from the upper stratigraphic units.

**Feature 13** of Excavation Unit 8 was located in the southwest corner of this EU and was classified as a shallow pit, post-dating 1884 (Roulette et al. 1994: 56, 63). No ceramics were recovered from this feature.

**EU 9** Of non-feature area ceramics of Excavation Unit 9, the majority were unattributed and consisted of fragments mainly retrieved from an upper stratigraphic unit, considered to be both an occupation- and construction-related stratum (Roulette et al. 1994: 69). Ware types consisted of ironstone, miscellaneous earthenware, coarse and fine stoneware, and porcelain. The porcelain retrieved was a doll fragment. Attributed ceramics consisted of coarse and fine stoneware, ironstone and porcelain. Manufacturers were of English, United States and Chinese origin, with most fragments of Chinese origin

coming from a lower stratigraphic unit. Aside from the standard Chinese date ranges of 1644-1911, dates were determined to be mid-1800s and ca. 1879.

**Feature 12** of Excavation Unit 9 was located in the western half of the excavation unit, and continued on into Excavation Unit 5 (discussed above). It was classified as a post-1884 utility trench with the possibility that it was a trench dug into an earlier existing pit (Roulette et al. 1994: 56, 68). It's stratigraphic profile indicates that this is a trench dug in conjunction with the 1901 expansion of the carpentry shop located within this Operation. During excavation this feature was noted to contain occupational refuse as a mixed fill (Roulette et al. 1994: 68). Twelve non-crossmending ceramics were recovered from this feature. Most of these were unattributed as to manufacture and consisted of coarse and fine stoneware, ironstone and porcelain. Of the three that were attributable, two were of Chinese manufacture and one of probable United States origin. The Chinese ceramics were made of coarse stoneware and porcelain with date ranges of 1644-1911, while the remaining ceramic was a pipe bowl fragment of white clay dating to the 19th century.

**Feature 16** of Excavation Unit 9 was located along the length of the northern half of the excavation unit. It was classified as a post-1890 utility trench, with a six-inch diameter clay pipe located at the base of the trench (Roulette et al. 1994: 56, 70). It is probable that the trench was excavated for use upon the first expansion of the structure from Operation 3 in post-1879 years, since that is when it is likely that that area would have been first exposed for such excavation. Following years' maps show the structure to have been

unchanged after that original expansion, thus preventing trench excavations from taking place.

Of the twenty ceramics recovered from this feature, all of which came from a single upper stratum, none crossmended. Unattributed ceramics were the majority and consisted of ironstone, porcelain, and miscellaneous earthenware. Attributed ceramics consisted of coarse and fine stoneware, ironstone, and miscellaneous earthenware, with manufacturers of English, United States and Chinese origin. Date ranges were 1644-1911, 1851, 1860-1894, and post-1865.

**EU 12** A majority of the area of Excavation Unit 12 was taken up by feature areas, with a little under one-half of ceramics from this excavation unit retrieved from non-feature areas. Unattributed ceramics made up the majority of those retrieved from the non-feature area, with the largest amount coming from the uppermost stratum, considered to be a fill unit. Ware types included miscellaneous earthenware, coarse and fine stoneware, ironstone, white fabric earthenware, and porcelain. Most attributed ceramics were also retrieved from the uppermost stratum and consisted of coarse and fine stoneware, the majority of which were of Chinese manufacture, porcelain (all of which was of Chinese manufacture), ironstone, and white fabric earthenware. Those of Chinese manufacture had date ranges of 1644-1911. Other manufacturers were of English, Scottish, and United States origin with date ranges of manufacture including 1830-1845, 1840-1850, and 1853-1871.

**Feature 15**, located in the northeastern quarter of Excavation Unit 12, was classified as a shaft dating ca. 1884-1887, possibly operating as a privy, but with no evidence of human waste (Roulette et al. 1994: 56, 72, 73). Nineteen ceramics were recovered from this portion of the feature, which extended into adjacent Excavation Units 6 and 19. Of that number, ten were uncatalogued or came from unknown proveniences. From this feature's location it is entirely probable that it is associated with the structure from Operation 1.

A fairly even number of unattributed and attributed ceramics were retrieved from this feature, however no record of stratigraphic reference could be found for most of these fragments. Ware types of unattributed ceramics consisted of miscellaneous earthenware, white fabric earthenware, coarse and fine stoneware, ironstone and porcelain, with date ranges of 1825-1891, and the early and late 19th century. Attributed ceramic ware types were coarse and fine stoneware, a majority of which were of Chinese manufacture (with date ranges of 1644-1911), and porcelain. One fine stoneware fragment was of United States or European origin. Some attributed ceramics were retrieved from a stratigraphic unit which was a portion of feature fill. It was noted that the bottom portion of this feature was intentionally filled with fill containing ceramics associated with the Chinese occupants of Lot 4 (Roulette et al. 1994: 73).

**Feature 25** is located in the southeastern quarter of Excavation Unit 12 and was classified as a utility pit, evidenced by a large pipe at its base, dating

ca. 1887-1889. It was noted to combine with Feature 30 of this same excavation unit to form a single large utility-related feature which was determined to service Operation 1. The main source for refuse within this feature area was the Chinese laundry (Roulette et al. 1994: 56, 72-75, 77). Of ceramics recovered from this section of the feature, which extends into Excavation Unit 19, approximately one-half were unattributed, consisting of coarse and fine stoneware, ironstone, miscellaneous earthenware, porcelain, white fabric earthenware and yellowware. As with Feature 15, no stratum reference could be found for attributed ceramics as well as unattributed ceramics. Attributed ceramics consisted of a large amount of porcelain and fine stoneware both of Chinese manufacture, coarse stoneware, most of which was of Chinese manufacture, white fabric earthenware, miscellaneous earthenware, ironstone, yellowware, and white clay. Date ranges for those ceramics of Chinese origin were 1644-1911. Other manufacturers were of English, Scottish, and United States origin with date ranges of ca. 1820-1840, ca. 1826-20th century, ca. 1830-1845, ca. 1840-1850, 1843-1855, post-1850s, 1851, 1860-1894, and 1876-1878.

**Feature 30** runs on a north/south axis through the center of this Excavation Unit 12. Classified as a utility trench ca. 1887-1889, it combines with Feature 25, as noted above, to service Operation 1 (Roulette et al. 1994: 56, 72-75). No ceramics were recovered from this feature.

**EU 14** Ceramics that were retrieved from the non-feature area of Excavation Unit 14 were mainly attributed, most of which came from demolition-

related and occupation-related stratum. Ware types included coarse and fine stoneware and porcelain, mainly comprised of Chinese origin, white fabric earthenware, miscellaneous earthenware, and yellowware. Date ranges were 1644-1911, 1820s-1890s, and ca. 1840-1850. Unattributed ceramics were retrieved mainly from one stratigraphic unit and consisted of coarse and fine stoneware, white fabric earthenware, porcelain, ironstone, miscellaneous earthenware, and white clay with date ranges of ca. 1840s, and the late 19th century-1930.

**Feature 22**, located in the western half of Excavation Unit 14, is classified as a shallow pre-1879 pit that may have been a construction-related feature associated with original developments within the subplot (Roulette et al. 1994: 56, 77). Three unattributed ceramics were recovered from this feature, which consisted of two ironstone fragments and a coarse stoneware lid.

**Feature 26** of Excavation Unit 14 is a pre-1879 brick footing within a trench that was on an east/west alignment with Feature 27 of Excavation Unit 18. It is located in the northeastern half of the excavation unit. This and Feature 22 are believed to be support piers for the rear wall of the structure of Operation 1 or as floor joist supports (Roulette et al. 1994: 56, 77). Two non-crossmending ceramics were recovered from this feature. One was a miscellaneous earthenware of unattributable origin, and the other was white fabric earthenware of probable English manufacture, ca. 1830-1845.

**EU 18** Ceramics recovered from the non-feature area of Excavation Unit 18 included five of Chinese manufacture consisting of coarse and fine

stoneware, none of which crossmended. Most came from the occupation-related stratum, which appeared to the north and east of Feature 29. Development of this stratum is likely congruent with refuse resultant of expansion and occupation of the structure as a laundry sometime between 1879 and 1886 (the earliest being 1884 when the first known Chinese occupied Lot 4). One other coarse stoneware fragment was of United States origin, and an unattributable miscellaneous earthenware fragment was retrieved from the basal construction-related stratum for this Excavation Unit.

**Feature 27**, located along the southern edge of the Excavation Unit 18, is classified as a pre-1879 brick footing in association with Feature 26 of Excavation Unit 14 (noted above). Both features are thought to be support piers for the rear wall of the structure of Operation 1 or as floor joist supports (Roulette et al. 1994: 56, 77). No ceramics were recovered from this feature.

**Feature 29** is a post-1884 post hole (Roulette et al. 1994: 56). No ceramics were recovered from this feature.

**EU 19** This EU was placed adjacent to Excavation Unit 12 in order to further expose Feature 25 of that excavation unit. Only the portion that exposed the feature was excavated. No ceramics were recovered from this portion of the feature.

### *Interpretation*

Stratigraphic units within this Operation consist of construction, demolition, and occupation-related strata. Depths of occupational layers



conform across this operation, generally reaching a depth of four inches. While disturbance is apparent, mainly within Excavation Units 2, 5, and 9, such disturbance does conform to structural changes indicated on Sanborn maps. This is somewhat evidenced by the crossmending of ceramics. Ninety-six percent (96%) of ceramics from Excavation Unit 2 crossmend to others from within that excavation unit indicating little depositional disturbance as a result of the area being reasonably consistently unexposed for periods of time (Table 5). Any disturbance that did occur was likely from the razing of the area for the 1924 parking lot. Excavation Units 5 and 9 show that 94% of ceramics that crossmended did so within their own Excavation Unit areas (see Table 5).

Excavation Unit (EU)	% Crossmended Within	Actual #'s Crossmended	Total # in the EU
1	85	17	20
2	96	45	47
3	100	7	7
5	94	16	17
8	86	130	152
9	94	58	62
12	86	307	358
14	88	73	83
18	82	14	17
19	0	0	2
<b>TOTAL</b>	<b>82</b>	<b>667</b>	<b>765</b>
	<b>(Average)</b>		

Table 5. Operation 1 -- Ceramics from excavation units which crossmend to ceramics within the same excavation unit.

This lack of disturbance is likely due to consistent coverage of the area over time by the structure. Excavation Unit 1 is greatly differentiated from other excavation units in this operation, and also conforms to its location indicated as outside of the structure located on Sanborn maps and its early and maintained post-1879 coverage by that structure. Eighty-five percent (85%) of ceramics from this Excavation Unit crossmended to other ceramics from within the excavation unit, an amount that is about average for the remaining Excavation Units from this Operation and commensurate with the knowlege of structural changes throughout this Operation (see Table 5).

Most Excavation Units of this operation show no indication of ceramic preferences over time. With the highest percentage (48%) (Figure 16) of strata belonging to the construction category, although not far ahead of the occupation category of 44%, the fact that just under one-half of all strata within this operation is construction-related greatly restricts accurate assessments regarding acculturation processes that may or may not be evident.

Excavation Units 5 and 9 showed some patterning, however limited. Construction-related strata contained only one Chinese ceramic, and the post-1884 occupation-related strata within Excavation Unit 5 contained only undecorated ceramics of non-Chinese manufacture. Since it is known that Chinese occupation within this Operation began, at the latest, in 1884 with the Sung Lee laundry, it is likely that selection of ceramics was based on functionality and availability rather than traditionality, aesthetics or cost.

Excavation Unit 8 also shows a distinct increase in Chinese-

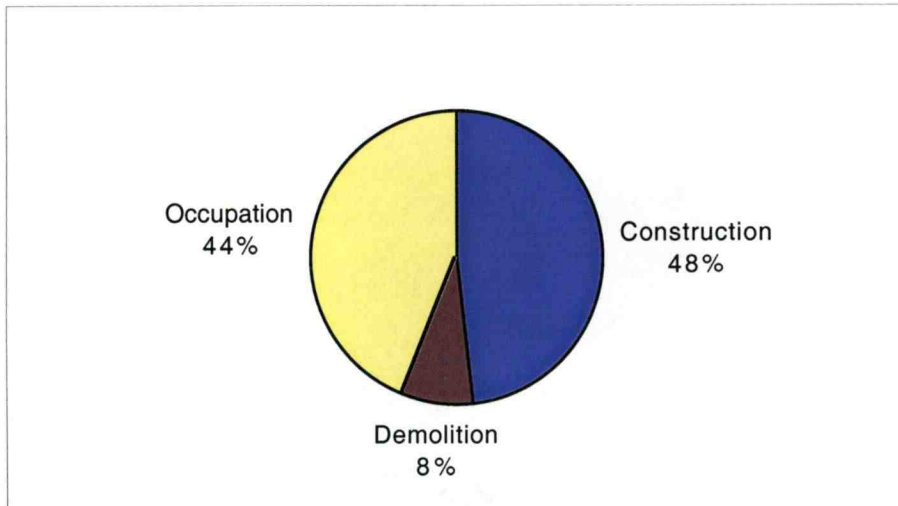


Figure 16. Stratum percentages within Operation 1.

manufactured ceramic fragments. The occupation-related stratigraphic units of this excavation unit show an increase of Chinese-manufactured ceramics over time. From 21 Chinese-manufactured ceramic fragments from the post-1884 stratum of this excavation unit to 59 in a stratigraphic unit likely dating from 1900-1901, the indication would be that occupants of this Operation intentionally continued usage of Chinese-manufactured items. It must be noted, however, that at least from 1898-1908 there were more than forty lodgers at any one time within the same structure that housed the Chinese laundry. This alone could account for the increase in numbers.

### Operation 2

This Operation (see Figure 7) is positioned in the southeast corner of Lot 4 and contained a structure that, in the majority of its lifespan, functioned as a

blacksmith shop (1884-1904). The Operation also included a portion of the open area between the structures of Operation 1 and Operation 2 that contained an alley and eventual staircase. Excavation units within this Operation consisted of EUs 6, 7, 11, 16, and 17, and features were Features 8, 9, 10, 11, 15, and 28. A portion of the eastern half of Trench #2 crossed on the north side of the Excavation Units within this Operation.

### *EU and Feature Summary*

**EU 6** A majority of ceramics from the non-feature area of Excavation Unit 6 were unattributable with the largest amount having been retrieved from a mid-range stratigraphic unit. This stratigraphic unit was a construction-related stratum that also contained occupational refuse. It was later determined that it was a fill layer of local yard deposits already present when the fill occurred or debris that was incorporated into the fill at the time of filling (Roulette et al. 1994: 88, 91). Ware types of the unattributed ceramics consisted of white fabric earthenware, miscellaneous earthenware, ironstone, yellowware, porcelain, coarse and fine stoneware, and terra cotta. Some dates obtained from ceramic fragments included ca. 1800-1840s, ca. 1825-1891, and the early 19th century. The second highest count of ceramics came from the uppermost stratigraphic unit. It was concluded that this stratum was deposited after removal of the addition in this operation when the excavation unit would have been within an open area (Roulette et al. 1994: 91). Approximate equal numbers of attributed ceramics were retrieved from the mid-range and lower stratigraphic units. The

lower stratigraphic unit is the basal stratum of this excavation unit that is likely a result of initial improvements to the subplot (Roulette et al. 1994: 88). Ware types included white fabric earthenware, coarse and fine stoneware, porcelain, parian ware, yellowware, miscellaneous earthenware, and white clay with manufacturers consisting of English, Scottish, United States, and Chinese origin. Chinese ceramics were distributed throughout the various stratigraphic units, while those ceramics of other origins were mainly distributed in the lower stratigraphic units. Date ranges of 1644-1911, 1820s-1890s, ca. 1820-1840, ca. 1830-1845, ca. 1832-20th century, ca. 1840-1850, 1843-1855, ca. 1851, 1853-1858, and 1860-1894 were determined.

**Feature 8** is described as a refuse pit with dates ca. 1884-1889. It is located in the southeast corner of the Excavation Unit 6 and extends into the southwest corner of adjacent Excavation Unit 16. The north edge of the pit appeared to have been lined by decayed wood, and there were two layers of fill within the pit. It was concluded that the pit may be the result of a house-cleaning event or a disposal of broken stock, with the feature dating to the late 19th century (Roulette et al. 1994: 91). Due to the nature of contents and proximity to the surface, it is likely that this feature is a deposit of later origin, possibly associated with a 1909 store (indicated on a 1908 Sanborn Insurance map) (see Figure 14). A majority of ceramic fragments that crossmended within this feature are unattributable, consisting of miscellaneous earthenware, ironstone, porcelain, and coarse stoneware. Those that are attributable are mainly of English manufacture with dates ca. 1851, 1860-1894, 1862-1871,

1862-1891, 1865, 1865-1877, and 1880-1887. These consisted of ironstone, miscellaneous earthenware, and white fabric earthenware vessel fragments. Two were of Chinese manufacture and were made of coarse and fine stoneware with date ranges of 1644-1911.

**Feature 9** of Excavation Unit 6 is a post-1886 pit that was located in the northeast corner of the Excavation Unit and extended into the northwest corner of adjacent Excavation Unit 16. Through the course of excavation, it was determined that this feature consisted of a single deposit within a back-filled down-cut area which had become incorporated into a general fill area through back filling of the graded area of the Lot (Roulette et al. 1994: 56, 88). A majority of ceramics from this feature were unattributed, and most were recovered from an upper stratigraphic unit. Ware types consisted of miscellaneous earthenware, ironstone, porcelain, and coarse stoneware. Attributable ceramics consisted of white fabric earthenware and white clay of English and United States origin, respectively, with date ranges of ca. 1820-1840, and the 19th century, and one fragment each of coarse and fine stoneware of Chinese origin with date ranges of 1644-1911.

**Feature 15** of Excavation Unit 6 was a shaft feature, ca. 1884-1887 (Roulette et al. 1994: 56), which was located in the western portion of the Excavation Unit and extended into adjacent Excavation Units 12 and 19, discussed in the Operation 1 section above. Due to the fact that there are no ceramics of Chinese manufacture in the lower stratigraphic units (those reaching elevations from 60 cm to 181 cm) it is possible that the shaft originated

as early as 1879, prior to known Chinese occupation of the site. Of ceramics that crossmended to others within this feature a slight majority were of unattributed manufacture and consisted of miscellaneous earthenware, white fabric earthenware, ironstone and coarse stoneware. Of attributed ceramics, the majority were of United States manufacture of yellowware, ca. 1820-20th century, and coarse and fine stoneware sewer tiles. The remaining attributed ceramics consisted of a majority of Chinese manufactured opium pipe bowls, fine stoneware and porcelain, and an English yellowware, ca. 1825-1850.

**Feature 17** was later voided as a Feature, but was still described as a feature of a decaying wooden plank or board originally found laying flat at the base of a lower stratigraphic unit of Excavation Unit 6. It was later found to continue near the base of the fill of adjacent Excavation Unit 16, possibly as construction-related debris (Roulette et al. 1994: 88). No date was determined for this feature. With only non-Chinese ceramics recovered from this feature (an ironstone fragment and a white fabric earthenware fragment of English manufacture dating ca. 1830-1845, both from an upper stratigraphic unit), it is possible that it is a pre-, or just post-, 1879 feature associated with the building of the structure at that time.

**EU 7** The majority of ceramics retrieved from the non-feature area of Excavation Unit 7 were unattributable as to manufacture and included ironstone, miscellaneous earthenware, white fabric earthenware, coarse and fine stoneware, porcelain, and white clay. Date ranges were determined which included ca. 1825-1891, the 1840s, and the mid-late 19th century. A majority of

these unattributed ceramics were retrieved from a construction-related stratigraphic unit, determined to be the basal cultural stratum made up of a general fill placed in a graded or down-cut area of the Operation. The next highest count of unattributed ceramics came from a lower stratigraphic unit, an occupation-related stratum which consisted of a black cinder deposit (Roulette et al. 1994: 93). The majority of attributed ceramics came from basal stratum as well, and consisted mainly of English, European, and United States manufacturers. Some possible dates of manufacture for these ceramics included 1820s-1890s, ca. 1830-1845, ca. 1833-present, post-1837, ca. 1845, ca. 1865, and the late 1800s. Mid-range stratigraphic units also included attributed ceramics with dates ca. 1820s-1890s, ca. 1862-1891, ca. 1856-1867, and ca. 1865. A minimal amount of Chinese ceramics were recovered and included porcelain, and coarse and fine stoneware with date ranges of 1644-1911.

**Feature 10** is in the northern portion of Excavation Unit 7 and is classified as a utility trench dating from ca. 1884-1886. More specifically, it was identified as a wood-lined pipe trench, containing a vertically laid board along the southern edge of the trench, which contained two lead pipes found underneath a terra cotta pipe (Roulette et al. 1994: 56, 93). This trench feature extends into Excavation Unit 11 and conforms to the rear wall placement as shown on 1879 and 1886 Sanborn maps (see Figure 12). Ceramics recovered from this feature included white fabric earthenware, ironstone, miscellaneous earthenware, and fine stoneware, none of which were attributed.



**Feature 11** is located in the southern central portion of Excavation Unit 7 and is classified as a posthole, dating ca. 1879-1886, which measured one foot square (Roulette et al. 1994: 56, 93). Two non-crossmending ceramics were recovered from a lower stratigraphic unit of this feature, one of which was Chinese fine stoneware with a date range of 1644-1911. The other was pearlware dating ca. 1780-1820.

**EU 11** The majority of ceramics from the non-feature area of Excavation Unit 11 were unattributed, with the majority of those coming from the same construction-related stratum that was designated as the basal cultural stratum in Excavation Unit 7. Ware types included coarse and fine stoneware, white fabric earthenware, miscellaneous earthenware, and ironstone. The number of attributed ceramics was split between those of Chinese manufacture and those of United States, English or other European manufacture. The Chinese manufactured ceramics included coarse and fine stoneware and porcelain, while those manufactured elsewhere included white fabric earthenware, white clay, and ironstone. Date ranges of manufacture included 1644-1911, ca. 1816-1835, ca. 1820-1840, ca. 1833-1847, and ca. 1845-1851. A majority of these ceramics were retrieved from the basal construction-related stratum, which included some of Chinese manufacture. However, two of the upper stratigraphic units revealed only Chinese ceramics. The uppermost is a demolition-related stratum while the remaining is the same occupation-related black cinder deposit stratum identified in Excavation Unit 7 (Roulette et al. 1994: 93, 95, 96).

**Feature 10** of Excavation Unit 11 is a utility trench, ca. 1884-1886, that extends into Excavation Unit 7 (Roulette et al. 1994: 56), as discussed above. While only Feature 10 is mentioned in the final AINW report, a Feature 11A was designated within field notes. For purposes within this section, it is assumed that the two are actually one in the same, but they will be addressed separately. A majority of ceramics from Feature 10 were unattributed and consisted of ironstone, white fabric earthenware, and miscellaneous earthenware. Remaining ceramics that were attributed and consisted of ironstone, coarse stoneware, and white fabric earthenware. Only one fragment was of Chinese manufacture, that of the coarse stoneware, with a date range of 1644-1911. Others were of Scottish, English or United States manufacture, with date ranges ca. 1803-1874, ca. 1816-1835, 1820-1840, 1820s-1890s, ca. 1830-1845, ca. 1845-1851, and 1857. As with the designated Feature 10, Feature 11A had a majority of ceramics that were unattributed. These included miscellaneous earthenware, ironstone, white fabric earthenware, fine stoneware, and white clay. Of attributed ceramics, a majority were of United States, Scottish, English or other European manufacture and included fine stoneware, white fabric earthenware, yellowware, and white clay. Ceramics of Chinese manufacture were of coarse stoneware. Date ranges consisted of 1644-1911, 1820s-early 20th century, ca. 1820-1840, ca. 1840-1850, ca. 1843-1853, and ca. 1845-1851.

**EU 16** Non-feature ceramics from Excavation Unit 16 consisted of a majority of unattributed fragments, with the greatest concentration retrieved from

a mid-range stratigraphic unit. This stratigraphic unit was fill from a down-cut area that consisted of occupation-related refuse and construction-related artifacts (Roulette et al. 1994: 88). Ceramics included ironstone, miscellaneous earthenware, coarse stoneware, white fabric earthenware, pearlware, cream coloured ware, and porcelain, of which three pieces were doll parts. Dates range from ca. 1780-1820s ca. 1800-1840s, 1820-1880, and ca. 1825-1891. Attributed ceramics included ironstone, miscellaneous earthenware, porcelain, white fabric earthenware, coarse and fine stoneware, and yellowware. The largest amount of Chinese manufactured ceramics (with date ranges of 1644-1911) came from upper stratigraphic units. Other manufacturers were of English or United States origins, with date ranges ca. 1793-1887, ca. 1820-1840, ca. 1830-1845, ca. 1843-1871, 1845-1851, 1856-1867, and 1862-1891.

**Feature 8**, as noted above in the Excavation Unit 6 discussion, is classified as a refuse pit, ca. 1884-1889 (Roulette et al. 1994: 56). Of the vast amount of unattributed ceramics that came from this feature, a majority were retrieved from the uppermost stratigraphic unit and consisted of miscellaneous earthenware, ironstone, porcelain, white fabric earthenware, and fine stoneware. The lower stratigraphic unit of this feature contained far fewer numbers of the same wares. The same was true for attributed ceramics. Ironstone comprised the highest numbers retrieved out of the uppermost stratigraphic unit, with the only other ware type from this stratigraphic unit being miscellaneous earthenware. Date ranges were 1849-74, 1853-71, 1860-1894, 1862-1871, 1865-1877, and 1876-1878, with all manufacturers being of English

origin. Wares from the lower stratigraphic unit also included porcelain, one of which was Chinese in origin, dating 1644-1911, and white fabric earthenware. All others were of English manufacture with date ranges of ca. 1820-1840, 1845-1851, and 1862-1891.

**Feature 9** of Excavation Unit 16, also discussed above, is a post-1886 pit, likely ca. 1886-1901 based upon type and counts of ceramics in relation to known occupants. Compared to Feature 8 of this excavation unit, a small amount of ceramics were recovered from this portion of the feature. Unattributed ceramics are the majority and consisted of ironstone, miscellaneous earthenware, white fabric earthenware, and porcelain. These ceramics were retrieved from a non-classified strata. More unattributed ceramics were recovered, but were not assignable to any one stratigraphic unit. These consisted of ironstone, porcelain, miscellaneous earthenware, white fabric earthenware, gray clay, and coarse and fine stoneware. None were noted to have crossmended. The same stratigraphic unit application was apparent for attributed ceramics which included ironstone, white fabric earthenware, fine stoneware, and yellowware with English manufacturers, with the exception of the fine stoneware which was of Chinese manufacture. Date ranges were 1644-1911, ca. 1820-1840, 1825-1850, 1838-post 1872, and 1863. Those ceramics unassignable to any one stratigraphic unit consisted of the same wares with the addition of porcelain, coarse stoneware, and white clay. Manufacturers were of English, United States, Chinese and Japanese origin with date ranges of 1644-1911, 1830-1845, 1860-1894, and 1865-1877.

**EU 17** Of the unattributed ceramics from the non-feature area of Excavation Unit 17, the majority were retrieved from the basal cultural stratum for this excavation unit. Ceramic ware types from this stratigraphic unit consisted of miscellaneous earthenware, ironstone, white fabric earthenware, fine stoneware and porcelain. The remaining unattributed ceramics were found to be divided evenly between the mid-range stratigraphic units. They consisted of ironstone, yellowware, porcelain, coarse stoneware, and miscellaneous earthenware. The situation was much the same for attributed ceramics, with ceramics from the basal cultural stratum being of English, Scottish, other European, United States and Chinese manufacture. Date ranges were 1644-1911, 1820s-20th century, ca. 1830-1845, ca. 1840-1850, and 1863-1890. Ware types were fine stoneware, white fabric earthenware, and yellowware. Of those ceramics from the mid-range stratigraphic units manufacturers were of English, United States and Chinese origin with date ranges from 1644-1911, 1843-1855, and 1863-1890.

**Feature 28**, within Excavation Unit 17, is classified as a posthole dating ca. 1879-1886 (Roulette et al. 1994: 56). The ceramics from this feature were equally distributed between unattributed and attributed classes. Those that were unattributed were ironstone and miscellaneous earthenware, while those that were attributed were porcelain, fine stoneware, and yellowware and were of United States manufacture dating to the latter 19th century.

### *Interpretation*

Excavation Units within this Operation also consist of construction, demolition, and occupation-related strata. There is a consistency of occupational layer depth for Excavation Units 7, 11, and 17 to approximately nine inches, and disturbance of the strata within these excavation units and the presence of bricks is consistent throughout. The excavation units present (EUs 6, 12, 16, and 19) in the "open yard" area of this operation, also the area that in post-1879 years consisted of the construction of a stair well, consistently show few occupational layers, but mainly privy or shaft features. This is consistent with many open yard areas of urban communities of close quarters. Furthermore, of ceramics that crossmended from Excavation Units 6 and 16 there was an average of approximately 80% for each that crossmended to ceramics within these excavation units (Table 6). This could be partly due to their central location within Lot 4 and the fact that corners of two different structures invaded the areas directly, rather than simply wall construction over the area.

The excavation units of this Operation give no solid indication of ceramic preferences over time. An extraordinary high percentage (70%) (Figure 17) of the strata within this operation are construction-related, likely in association with the large shaft or privy features of EUs 6 and 16. With only eight percent of ceramics recovered being of Chinese-manufacture it is likely that these features were utilized by occupants from Operations 2 and 3, of which there were only

Excavation Unit (EU)	% Crossmended Within	Actual #'s Crossmended	Total # in the EU
6	80	202	256
7	83	79	95
11	83	130	156
16	79	248	314
17	91	107	117
<b>TOTAL</b>	<b>82</b> (Average)	<b>766</b>	<b>936</b>

Table 6. Operation 2 -- Ceramics from excavation units which crossmend to ceramics within the same excavation unit.

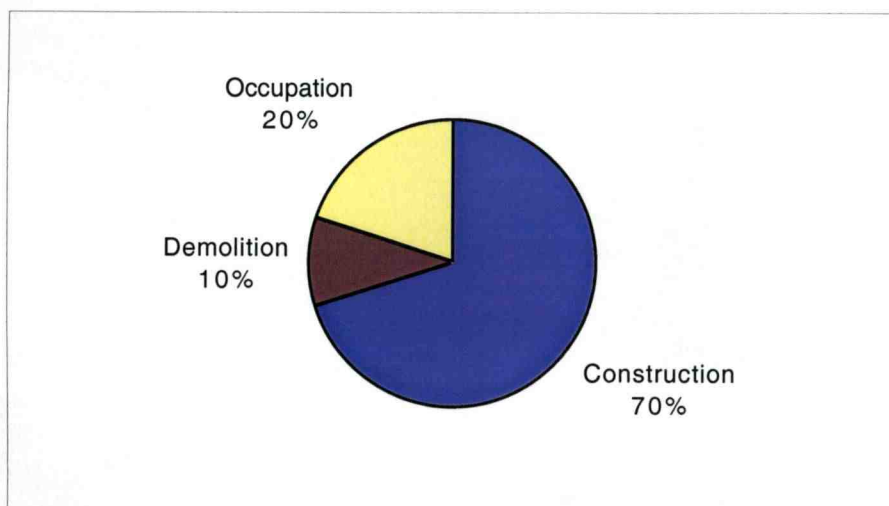


Figure 17. Stratum percentages within Operation 2.

three instances of recorded Chinese occupants. Of mention is Feature 8 shared by Excavation Units 6 and 16. This ca. 1884-1889 refuse pit is likely associated with the Operation 2 structure labelled "S" for store on the 1909 Sanborn map. Over 70% of the ceramic recovered from this feature crossmend within the

feature itself, and only three of the 108 ceramics recovered are of Chinese-manufacture.

### Operation 3

Operation 3 (see Figure 7) is located in the northeast corner of Lot 4 and for most of its years, it was known to contain a carpentry shop, but was also known to contain a metal roofing business, a machine shop, and a horseshoer. It is also known that the structure located in this Operation housed lodgers in two separate years (Roulette et al. 1994: 98). Excavation units within this Operation are 4, a portion of 9, 10, 13, and 15, and Features are 3, 4, 5, 6, 14, 16, 18, 19, 20, 21, 23, and 24. The mid-section of Trench #2 was also located in the western portion of this Operation.

#### *EU and Feature Summary*

**EU 4** Within the non-feature area of Excavation Unit 4 a majority of ceramics were unattributed, the mainstay of which were retrieved from several stratigraphic units, of which one was determined to be the basal cultural stratum that was construction-related. A posthole between two of the stratigraphic units corresponds with Sanborn maps showing the excavation unit area straddling a wall section of the structure on this lot (Roulette et al. 1994: 98, 101). Ware types recovered included ironstone, miscellaneous earthenware, porcelain and



parian ware (which included doll parts), coarse and fine stoneware, yellowware, and white fabric earthenware. Attributed ceramics included coarse and fine stoneware, parian ware, ironstone, porcelain, white fabric earthenware, and white clay, most of which were recovered from the same stratigraphic unit as the unattributed ceramics. Manufacturers include those of Chinese, English, and United States origin with date ranges of 1644-1911, 1793-1887, ca. 1838-post 1872, 1845-1851, ca. 1850-1870, 1853-1858, 1853 or 1856, 1860-1894, and mid-19th century.

**Feature 3** of Excavation Unit 4, is classified as a post-1900 artifact filled pit (Roulette et al. 1994: 56, 103). No ceramics were recovered from this feature.

**Feature 4** of Excavation Unit 4 is classified as a ca. 1886 posthole. Found in the northwest corner of the excavation unit, a portion of it is also found in adjacent Excavation Unit 10. It was concluded that the post was removed from the hole at some time, rather than being left to rot in place (Roulette et al. 1994: 56, 98). One non-crossmending ceramic of Chinese origin was recovered from this feature.

**Features 5 and 6** of Excavation Unit 4 are both classified as part of a single pre-1886 utility trench that runs north/south in the eastern portion of the excavation unit. Feature 5 splits from Feature 6 in the northeast corner of the excavation unit, and appears to angle further to the northeast, whereas Feature 6 continues angling north. Feature 5 contained a one-inch lead pipe (Roulette et al. 1994: 98). Ceramics recovered from this feature were mainly attributable

with the majority being of Chinese origin with date ranges of 1644-1911. Given the presence of these ceramics and the knowledge that the structure was expanded by 1886, it is possible that this feature has a date range ca. 1884-1886. Other ceramics were of United States origin with date ranges of 1853-1858 and the 19th century. Ware types consisted of coarse and fine stoneware, miscellaneous earthenware, parian ware and porcelain, and white clay. No ceramics were recovered from Feature 6.

**EU 9** This EU was discussed in the section on Operation 1.

**EU 10** The majority of ceramics retrieved from the non-feature area of Excavation Unit 10 were attributed. Manufacturers included those of English, Scottish, Chinese and United States origin with date ranges of 1644-1911, 1793-1887, 1816-1835, 1820s-1890s, 1825-1850, 1833-1847, 1850-1870, 1852-1863, 1860-1894, and 1868. Ware types included ironstone, porcelain, coarse and fine stoneware, white fabric earthenware, yellowware, miscellaneous earthenware, and parian ware, with the majority of the wares recovered being porcelain. Most ceramics were retrieved from an occupation-related stratum with inclusions of ash and charcoal that indicated a boundary due to a physical structural barrier across that portion of the Excavation Unit (Roulette et al. 1994: 101). Unattributed ceramics were retrieved mainly from a demolition-related stratum and an occupation-related stratum and were comprised of miscellaneous earthenware, ironstone, white fabric earthenware, porcelain, and coarse and fine stoneware.

**Feature 3** of Excavation Unit 10 was discussed in the Excavation Unit 4 section. Two non-crossmending ceramics were recovered, both of English or United States manufacture. Ware types were fine stoneware and a yellowware dating from the 1820s-1890s, recovered from a construction-related stratum (Roulette et al. 1994: 100).

**Feature 14** is a post-1900 posthole positioned in the center of Excavation Unit 10. It was roughly rectangular with vertical walls and a flat base (Roulette et al. 1994: 56, 103). This feature also consisted of a majority of attributed ceramics which were recovered from the upper stratigraphic unit. These ceramics consisted of ironstone, fine stoneware and porcelain and had manufacturers of English and Chinese origin. Date ranges were 1644-1911, ca. 1850-1870 and 1860-1894. Unattributed ceramics were of ironstone and miscellaneous earthenware.

**Feature 18**, classified as a post-1900 utility trench, is located in the western half of the Excavation Unit 10 and spanned the entire length of the excavation unit (Roulette et al. 1994: 56, 103). Attributed ceramics were the majority recovered from this feature and consisted of coarse and fine stoneware, ironstone, white fabric earthenware, porcelain, and yellowware. Manufacturers were of English, Scottish, Chinese and United States origin with date ranges of 1644-1911, 1793-1887, 1820s-1890s, ca. 1840-1850, 1845-1851, ca. 1850-1870, 1865-1871, and 1865-1887. Ceramics were recovered from upper and lower stratigraphic units. The upper stratum had the greatest amount of English manufactured fragments, while the lower stratum (the

construction-related basal cultural stratum) had the greatest amount of Chinese manufactured fragments (Roulette et al. 1994: 98). A majority of unattributed ceramics from this feature were retrieved from upper stratum and were comprised of ironstone, miscellaneous earthenware, coarse and fine stoneware, and porcelain.

**EU 13** Within the non-feature area of Excavation Unit 13 unattributed ceramics made up a small majority of those recovered, with the larger amount of these retrieved from a construction-related clay fill that was the basal cultural stratum for this excavation unit (Roulette et al. 1994: 103). Ware types included ironstone, porcelain, white fabric earthenware, and incidental amounts of coarse and fine stoneware, and pearlware. Attributed ceramics were scattered among all stratigraphic units of this excavation unit with the exception of mid-range stratum. Further, ware types were scattered among various stratum with only a very few concentrations of any one ware type recovered from any one stratigraphic unit. Ware types included porcelain (only of Chinese manufacture), coarse and fine stoneware, white clay (mainly of United States manufacture), white fabric earthenware and yellowware (both only from the basal cultural stratum). Other manufacturers were of English and Scottish origins. Ceramics of white clay were recovered only from the upper range stratigraphic units. These stratigraphic units, which consist of demolition-related and construction-related stratum, have been interpreted to represent separate depositional events and are clay fills with black, charcoal stained deposits

(Roulette et al. 1994: 106). Date ranges of 1644-1911, 1810-1967, 1819-1864, ca. 1820-1840, 1820s-1890s, and 1838-post 1872 were present.

**Feature 19** of Excavation Unit 13 was classified as a post-1886 pit, which was located just inside the northeast edge of the excavation unit. This feature partially cut into the earlier pit of Feature 21 and consisted of a clay containing charcoal, decayed wood and brick fragments (Roulette et al. 1994: 56, 106). Seven non-crossmending ceramics were recovered from this feature. All were recovered from a lower construction-related stratum, and consisted of a fairly even amount of unattributed and attributed ceramics. The unattributed ceramics consisted of ironstone, coarse stoneware, and white fabric earthenware, while the attributed ceramics consisted of coarse and fine stoneware of Chinese origin.

**Feature 20** of Excavation Unit 13 was identified as a collapsed wall section, ca. 1886 (Roulette et al. 1994: 56, 105). This feature was located in the southern half of the excavation unit and consisted of three boards, approximately 2.0 ft. long, laying north/south approximately 1.5 ft. apart, and one board, approximately 3.75 ft. long, laying east/west across the three approximately 1.25 ft. from the southern edge of the excavation unit area. Ceramics were recovered from the lower stratigraphic units of this feature, with a majority of them being unattributed. Ware types consisted of ironstone, miscellaneous earthenware, white fabric earthenware, white clay, red clay, coarse stoneware, and porcelain (in the form of an opium server). Most of these, including the opium server, were recovered from a demolition-related

stratum that included black staining from cinders and charcoal as well as decayed milled wood and tree branches. Attributed ceramics were also mainly recovered from this stratigraphic unit and included porcelain of United States and Chinese manufacture, and fine stoneware of late 1800s European manufacture. A fragment of white clay was recovered with a date range of 1805-1879, manufactured in Scotland.

**Feature 21** is classified as a pre-1885 pit located in the northwest corner of the Excavation Unit 13 (Roulette et al. 1994: 56, 105). An equal amount of ironstone and white fabric earthenware were recovered from an upper and lower stratigraphic unit of this feature. The ironstone were of unattributed origin, and only one fragment of white fabric earthenware ware was attributable. It was of Scottish origin, ca. 1840-1850, and was retrieved from the lower stratigraphic unit.

**Feature 23** of Excavation Unit 13 is also classified as a pre-1885 pit (Roulette et al. 1994: 56), and is located in the northern portion of the eastern wall of the excavation unit. As mentioned above, this feature was intruded upon by Feature 19. No ceramics were recovered from this feature.

**EU 15** Unattributed ceramics make up the majority of those recovered from the non-feature area of Excavation Unit 15, with all stratigraphic units yielding ceramics. Ware types included ironstone, miscellaneous earthenware, coarse and fine stoneware, porcelain, white fabric earthenware, and yellowware. Attributed ceramics were also recovered from each stratigraphic unit with a majority of those retrieved from a demolition-related stratum, which

also yielded the highest amount of Chinese manufactured ceramics, ca. 1644-1911. Other manufacturers included England, Scotland, United States, and Japan with date ranges of 1805-1879, 1816-1835, 1825-1850, 1853-1858, 1891-1925, and 1930-1935. Ware types included ironstone, porcelain, yellowware, parian ware, coarse and fine stoneware, and white clay.

**Feature 24** of Excavation Unit 15 is classified as a utility trench with no known date (Roulette et al. 1994: 56), but is likely pre-1884 since it is intruded upon by a lower construction-related pre-1884 stratigraphic unit. The feature spans the eastern half of the excavation unit from north/south, and appears to branch at the northern wall of the EU. No ceramics were recovered from this feature.

### *Interpretation*

There is no real stratigraphic consistency among the excavation units of this Operation, however, Excavation Unit 13 does remarkably reflect business changes that occurred over time.

As with Operation 2, the excavation units from this Operation give no indication of ceramic preference over time. However, it does confirm much of the known occupancy history. That is, the very limited numbers of ceramic fragments of Chinese-manufacture, in comparison to known stratigraphy, would indicate that most were brought in with fill or were redistributed throughout the Operation by construction and/or demolition events, which comprise a total of 70% of stratum present within the Operation (Figure 18). While the lowest

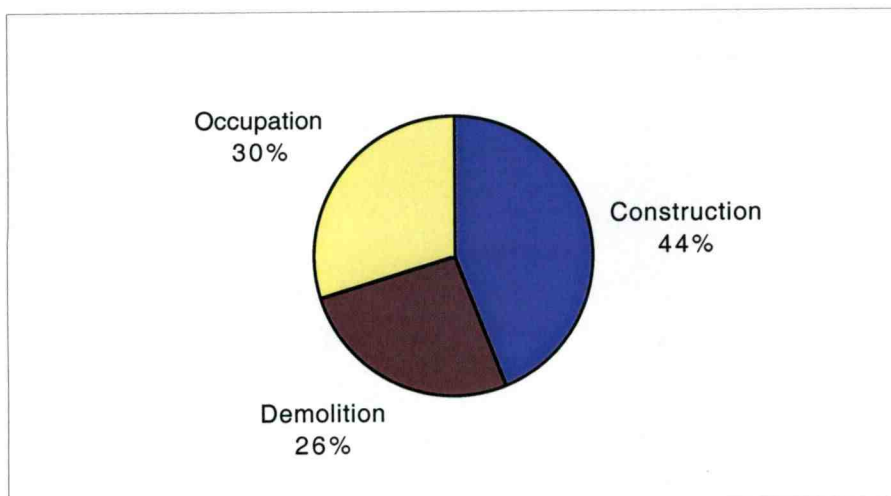


Figure 18. Stratum percentages within Operation 3.

occupation-related stratum of Excavation Unit 10 does have a larger number of Chinese-manufactured ceramic fragments, in comparison to other excavation units in this Operation, this could be attributed to the fact that from at least 1879 to 1886 Excavation Unit 10 sat in an open yard area of Lot 4, allowing deposit from households of surrounding structures.

It is interesting to note that the stratigraphy of Excavation Unit 13 can be interpreted as correlating directly with known occupancy, demolition, and construction events. Even further, soil types and content reflect that the area of this excavation unit (located at what would have been the front of the structure) was the main working area over time for the businesses that operated at this address.



## CHINESE CERAMICS

### ORMU57 Chinese Ceramic Assemblage

#### *Table Settings*

The common dinnerware for Chinese laborers generally consisted of a tea cup, saucer, rice bowl, and soup spoon. For immigrant laborers to the United States oftentimes this setting was simply reduced to a soup bowl and soup spoon (Lister and Lister 1989: 48). On occasion, however, the setting may expand to include serving bowls or flat servers, wine bowls, condiment dishes, porcelain spoons, a teapot, and a spouted pot for wine, oil or soy sauce (Greenwood 1996: 69).

Four main designs and decorations occur among Chinese table settings, each with its own form elements. The first of these is commonly called Celadon, although the elements that create its light green hue are not part of the process of creating the true Celadon of the Song Dynasty (A.D. 960-1279). In fact the Celadon ware commonly found today is under scrutiny for its possible Japanese origins based on attributes and elemental analysis (Sando and Felton 1993: 159; Stenger 1993: 321, 327-328). The glaze on these porcelain vessels is opaque and jadelike on the exterior, clear on the interior, and covers the vessel from rim to footring and base. Generally there is a Chinese character mark on the base, and the rim is often browned. Vessel forms for Celadon

seem to be of greater variety than others, encompassing rice bowls, tea bowls, wine bowls, tapered and hemispherical small bowls, and soup spoons. Within the ORMU57 collection there were five bowls, six tea bowls, and one ceramic spoon represented (Figure 19).

The second design and decoration element commonly found among Chinese sites in the United States is that known as Four Seasons, represented by its decoration of four overglaze floral patterns on white porcelain,

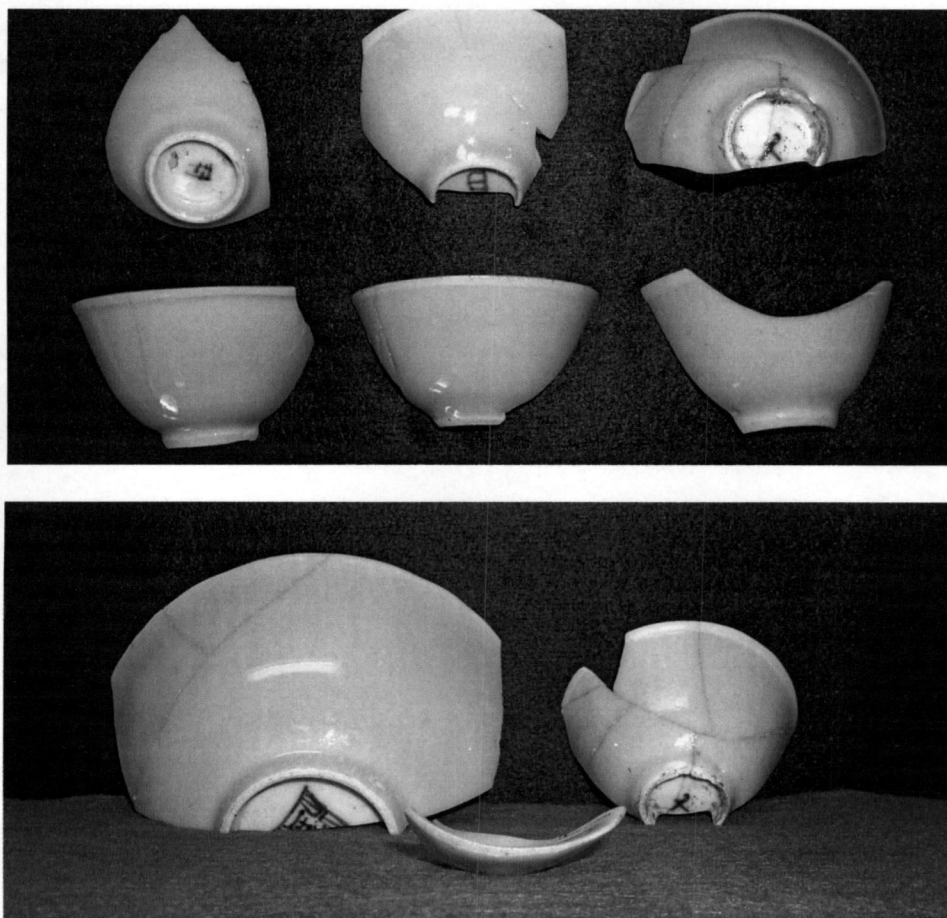


Figure 19. ORMU57 Celadon ware. Top: wine bowls; Bottom: bowl, wine bowl and spoon fragments (Researcher's photographs).

symbolizing the seasons of the year and relating to Taoist concepts. The first of these concepts is that of good fortune represented by the peony, the symbol for spring. The second concept is pleasure represented by the chrysanthemum, which is also the symbol for fall, and the third is the concept of purity, affiliated with the summer season and represented by the lotus. The final Taoist concept and seasonal representation is that of courage and winter, represented by the plum. Generally speaking, each vessel, with the occasional exception, is also decorated with a centerpiece of a flower medallion or peach which signifies longevity (Lister and Lister 1989: 50-51; Greenwood 1996: 70).

As with Celadon ware vessel forms, those of the Four Seasons design also are of greater variety, and include plates, saucers, sauce dishes, serving bowls, rice bowls, wine cups, tea cups, and spoons (Lister and Lister 1989: 50; Greenwood 1996: 70). This site yielded ten serving bowl/dish representatives, six tea bowls and five ceramic spoon representatives (Figure 20).

Wares of Bamboo design (also known as Three Circles and a Dragonfly), have been historically considered as a less desirable ware, and rarely consisted of a vessel form other than rice bowls, indicating that forms were designated more for individual use, and viewed as commonly used by the lower or laboring class of workers (Lister and Lister 1989: 49; Greenwood 1996: 70; Sando and Felton 1993: 163-164).

Bowls of this ware are made of a grayish fine-to-coarse stoneware with some vessels fired to the point of porcelaineity. Manufacture is less refined for these wares and form is much more crude. Vessels are thick walled with a stout

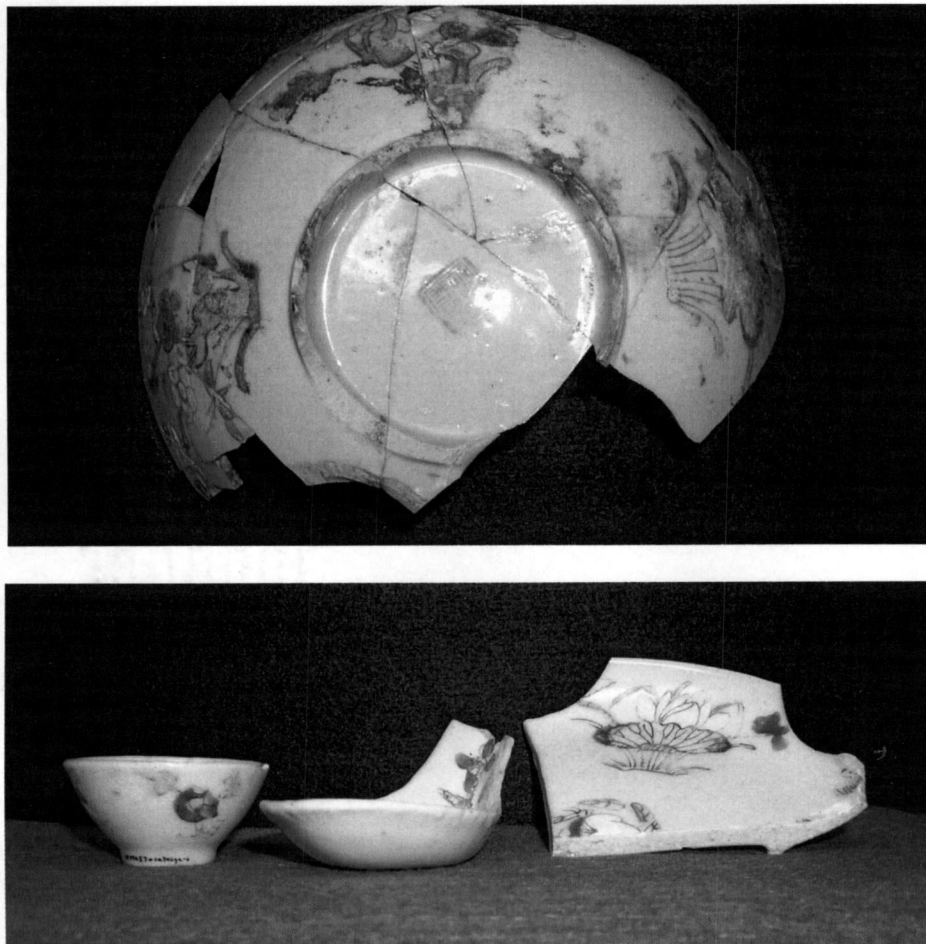


Figure 20. Top: ORMU57 Four Seasons ware serving bowl showing character mark on the base; Bottom: ORMU57 Four Seasons wine bowl, spoon and dish fragment (Researcher's photographs).

foot upon which a somewhat square shoulder rests. The rim of these vessels is rolled. Decoration consists of underglaze cobalt blue handpainted forms interpreted as being bamboo shoots, circles, and dragonflies. There is also commonly a blue line painted where the foot joins the body of the bowl, a line at the rim, and one on the interior, as well as a mark resembling a comma in the center of the interior of the bowl. ORMU57 yielded 12 rice bowls (Figure 21).



Figure 21. ORMU57 Bamboo ware rice bowls. Top: showing bamboo portion of design; Bottom: showing Three circles and a dragonfly portion of design (Researcher's photographs).

### *Shipping Containers and Food Preparation*

Shipping containers and vessels used in food preparation on Chinese sites reinforce the already substantiated knowledge of post-1850 high-volume importation of Chinese commodities for those immigrants within the United States. Ceramic shipping containers consisted of several forms, each with a

specific shipping purpose, but likely a different use after the contents had been consumed.

Small wide-mouthed shouldered jars, with an average height of 10 cm and orifice diameter of 6.3 cm, were generally used for up to one pound of non-viscous food stuffs such as salted vegetables, dried fruits, dried mushrooms, shrimp paste and bean curd (Lister and Lister 1989: 40-41; Greenwood 1996: 80). Large wide-mouthed shouldered jars have an average height of 13.7 cm and orifice diameter of 8 cm, and were used for shipping the same foodstuffs as the small jars but in quantities of up to two pounds. Both jar types are globular in shape and high shouldered with a slightly outward rolled rim. Generally, they have a dark brown salt glaze on the exterior excluding the base. The interior often has a very thin lighter coloured slip. Coarse to fine paste was used in the manufacture of these jars, with colour varying from gray to light beige. Although the paste is generally a type of stoneware, the thinness of the vessel walls and level of firing upon manufacture allows for excess of breakage upon disposal, and likely during use. Jars were often sealed with thin disk-like lids made of a coarse clay. These lids generally had slightly upturned edges for a nesting fit in the jar orifice, and were sealed with a white clay, evidenced by the remains found on some lids. ORMU57 yielded six representatives of wide-mouthed shouldered jars, with at least one being of the small-sized variety, and nine representatives of the lids used to seal these vessels (Figures 22 and 23).

A third type of vessel are small cylindrical jars (straight-sided jars) with lids, generally measuring 6-7 cm in height, with orifice diameters of

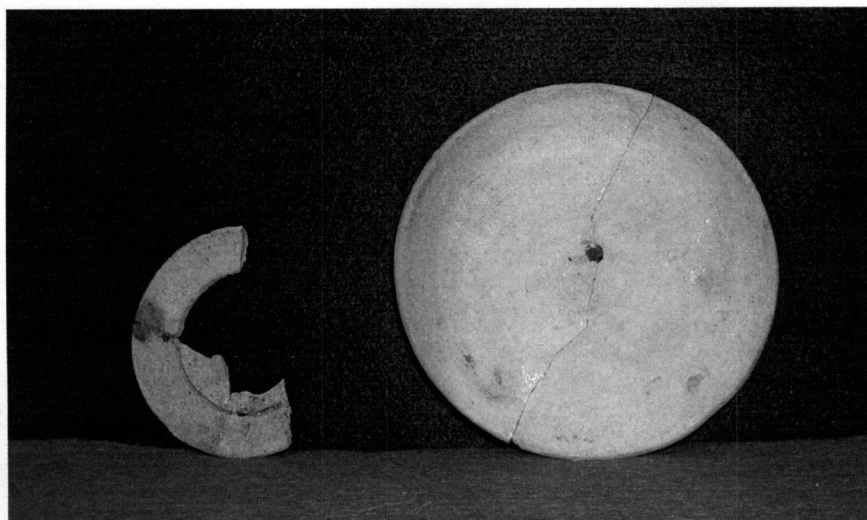


Figure 22. Top: ORMU57 Small wide-mouthed shouldered jar; Bottom: ORMU57 Lids for small and large wide-mouthed shouldered jars (Researcher's photographs).





Figure 23. ORMU57 Large wide-mouthed shouldered jar fragments (Researcher's photographs).

approximately 6.5 cm. These vessels were used for storage of candy, dried seasonings such as cilantro, fennel, anis seeds, star anise, and Sichuan peppercorns, and for the preparation of medicines (Lister and Lister 1989: 40) (Figure 24). These jars have flat bases and straight sides with straight shoulder flanges for the flat topped lid sides to rest on. Generally, they have a dark brown salt glaze on the exterior and interior, however, some do have a salt glaze of a honey colour rather than dark brown. The shoulder flanges and interiors of the lids are left unglazed. There were nine representatives of this vessel type found within ORMU57.

Ginger jars are round bodied, high shouldered jars with a straight neck or rolled rim, or hexagonal body. A flat lid would come over the rim to rest on the





Figure 24. ORMU57 Straight-sided jar (Researcher's photograph).

jar shoulder. These vessels were used to ship and store ginger root in syrup or crystallized ginger, as well as preserved onions, green plums, seaweed, gerkins, preserved fish, and chopped garlic (Lister and Lister 1989: 43-44; Greenwood 1996: 83). The glaze on ginger jars were of two main types: green drip glaze that was applied at the rim then allowed to run into the interior and over the exterior of the vessel (Greenwood 1996: 83), and a white wash glaze over green, blue, or beige pigment. Rims were generally wiped free of the glaze application, and the glaze rarely reached the base of the vessels. ORMU57 yielded 32 representatives of this type of vessel (Figure 25).

Soy sauce jars (spouted jars) are a larger globular type vessel with a protruding footring, a small folded neck rim, and an attached spout that was



Figure 25. ORMU57 Ginger jar with white wash treatment (Researcher's photograph).

formed separately from the main vessel (Figure 26). Once again, these are dark brown salt glazed vessels with the glaze on the exterior of the vessel, excluding the base. The interior glaze is generally a dark brown slip that oftentimes does not cover the entirety of the interior of the vessel. Upon exportation from China the spouts of these vessels contained clay plugs which were punched out to allow the contents to spill. Along with soy sauce, some jars may have contained black vinegar or malasses, Hoisin sauce, oyster sauce, rapeseed oil, or sesame seed oil (Lister and Lister 1989: 40-43). Five representatives of soy sauce jars were found within the ORMU57 collection.

Liquor bottles, a vessel manufactured in three pieces, consisted of a globular body, with a short neck and flaring rim, with a wood cork. Generally, the contents of these bottles were reputed to be of medicinal or tonic property.



Figure 26. ORMU57 Spouted jar (Researcher's photograph).

This three-part vessel is formed with the lower and upper body portions in half bowl shapes with a thick seam joining them on the interior. The neck and rim of the bottle are formed from the "bottom" of the upper half bowl portion. The bottles have a double glaze, the first lightly covering the entire vessel, save for the footring which is wiped dry, and the second a dark brown glaze with an iridescent tint. Generally, liquor bottles have embossed or incised marks on the base (Greenwood 1996: 80). A total of ten liquor bottles were represented by the ORMU57 collection (Figure 27).

No larger globular jars for shipping or storage were recovered or recognized as being recovered from ORMU57. Such jars are much heavier, are made of denser material, and are very rarely glazed. Many also were given handles, and in cases where those were absent bamboo covers were made for

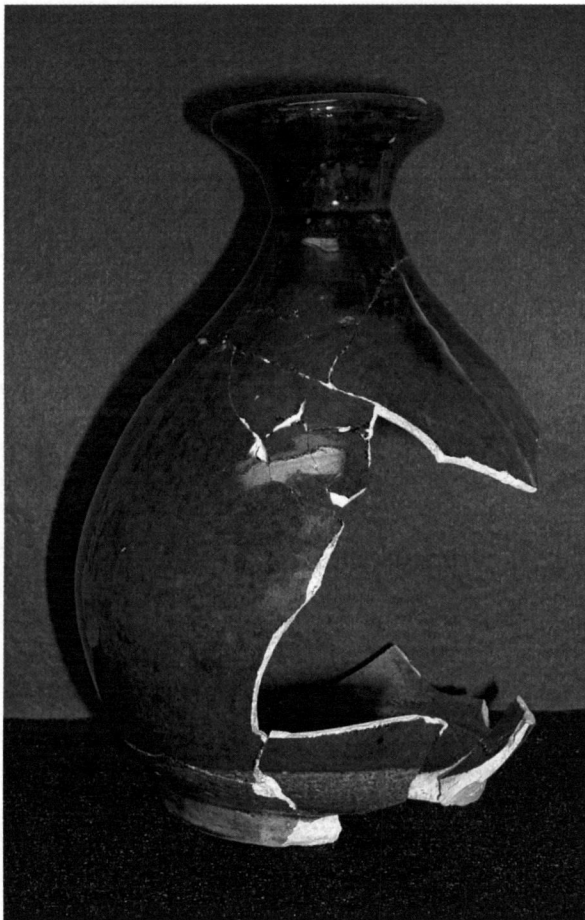


Figure 27. ORMU57 Liquor bottle (Researcher's photograph).

handling (Lister and Lister 1989: 44). For overseas export they were often filled with more valuable commodities such as pickled duck eggs, water chestnuts, or lotus root, as well as soy sauce, vinegar, and peanut oil.

Few vessels for food preparation are ceramic in nature. Other than soup and stew simmering pots that are very thick-walled, small tapered ring-footed bowls and thin ceramic pans containing an exterior body ridge are cooking ceramics occasionally found within. These smaller vessels are generally used in food preparation to store cooked dishes or to steam food. The exterior body

ridge on the pans are present for nesting of like pans (Lister and Lister 1989: 45). Six such vessels were recovered from ORMU57 (Figure 28).

### *Recreation*

The use of opium poppy has been prevalent in the medicinal field for about 4000 years, with the smoking of opium in China coming to the forefront possibly as early as the 1600s (Wylie and Fike 1993: 256). Between 1729 and 1853 the use of opium in smoking was outlawed at least six times in China, until the Treaty of Tientsin in 1858 which permitted the importation of the substance. In 1880 alone 77,196 pounds worth \$773,796 was imported into the United States (Lister and Lister 1989: 79). By 1909 the United States government established controls on opium usage for medicinal purposes, and by 1915

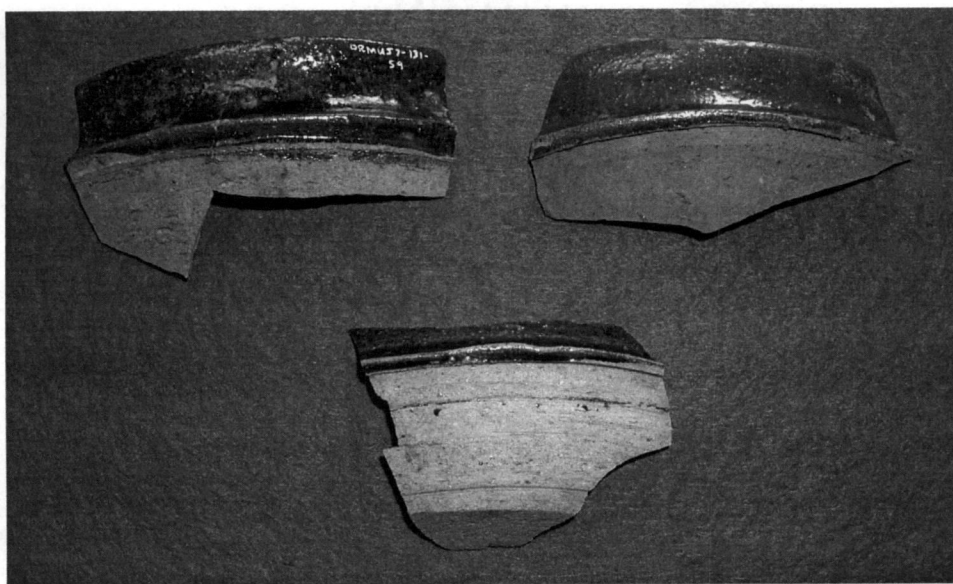


Figure 28. ORMU57 Ceramic pan (Researcher's photograph).

twenty-six states had passed anti-opium smoking laws (Wylie and Fike 1993: 259).

Wylie and Fike (1993: 262-265) have identified the typical smoking kit as containing ten parts. The first is the tray to hold the kit. Following the tray is a small container to hold the opium. Known as a "fan", this piece can be made out of shell, buffalo horn, or a folded playing card. However, more typically they are small metallic trays or ceramic disk shaped dishes referred to by Wylie and Fike as white "jade". The needle or "yen hauck" is for the picking up, cooking and manipulating of the opium, while the glass lamp is used for the actual preparation and smoking of the opium. Scissors are used for trimming the glass lamp wick, and straight and curved knives are used for cleaning the pipe bowl and needle. These items are known as "yen shee gow". A sponge is used for the cooling of the pipe between "hits" and the ash is put in a container known as the "yen tshi". The final parts, of course, are the pipe (the "pistol" or "Yen Tsiang") and the pipe bowl.

Pipe bowls are made from hard red and gray clays, with the occasional one made of porcelain or a porcelaineous stoneware. They are hollow with a smoking hole located on the top of the bulbous portion, and a neck or flange opposite the hole which is used to fit the bowl into the pipe (Wylie and Fike 1993: 265-267). There are typically five shapes of the bowl smoking surface (the are of the small smoking hole mentioned above) which are circular, octagonal, hexagonal, four-sided, and elaborate (Greenwood 1996: 96), and

bowls generally have one or more marks that are either Chinese characters, symbols or designs (Wylie and Fike 1993: 270). Four manufacturing methods have been identified and consist of a one-piece bowl that is wheel thrown, a one-piece bowl that is wheel thrown with the interior carved out, a two-piece molded bowl with a separate smoking surface that is attached with slip, and a two-piece molded bowl with a separate smoking surface attached with a coil of the same material (Greenwood 1996: 95). Two opium fans and five pipe bowls were represented within the ORMU57 collection (Figure 29).

Within the ORMU57 one wine pot fragment was also represented, consisting of the basal portion decorated in an underglaze blue and white scale-like pattern (Figure 30).

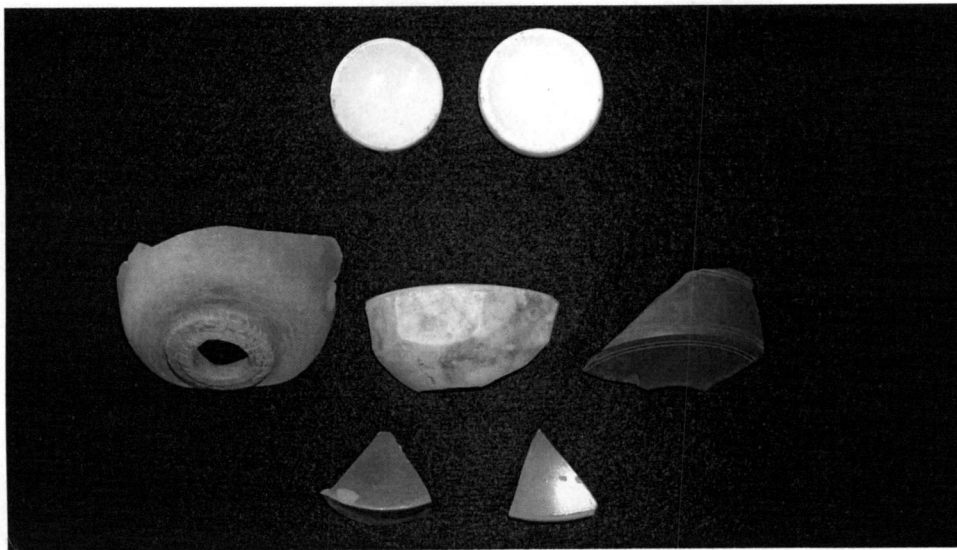


Figure 29. ORMU57 "Fan" and opium pipe bowl fragments (Researcher's photograph).



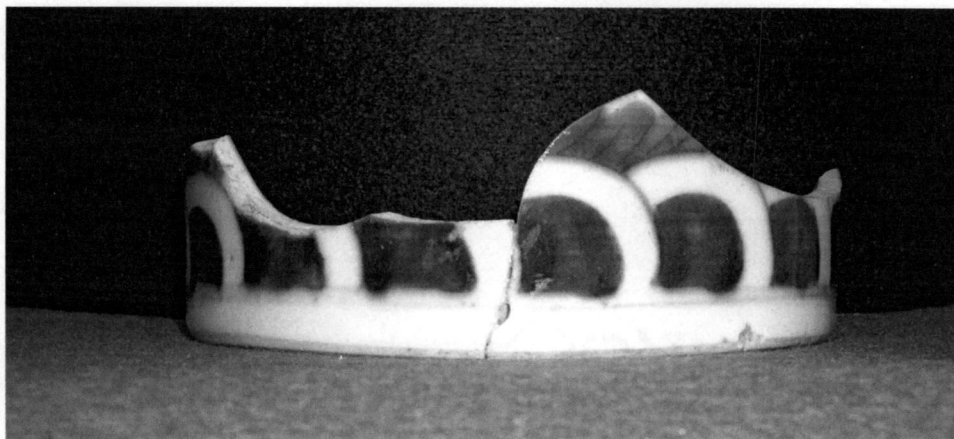


Figure 30. ORMU57 Wine pot fragment (Researcher's photograph).

### Analytical Techniques

#### *Artifact Relative Frequencies*

Artifact relative frequencies were computed for Chinese ceramics by a system devised after that of Edward Staski (1996: 138-140). Highs and lows are apparent for every time frame represented. No real trends are evident with the exception of ginger jars which show an increase and decrease over time commensurate with most Chinese ceramic deposition from the post-1884 or post-1886 time frame. This trend also corresponds with the knowledge of Chinese resident numbers associated with Operation 1, where a larger majority of these vessel types appear. The highest percentage (66%) of these vessels date ca. 1884-1886, a time frame prior to the known influx of Chinese residents into Operation 1. Conversely, straight-sided jars show a low presence (6%) also in a time frame prior to larger numbers of Chinese residents (ca. 1879-



1887). One-half of all liquor bottles recovered were recovered from a refuse privy pit and were determined to be of a post-1886 time frame, which would include the turn-of-the-century time frame in which the structure housed over 40 boarders and lodgers.

### *Values of Artifacts and Minimum Vessel Counts*

Values of artifacts were taken from the Sando and Felton (1993) documentation of inventory from the Kwong Tai Wo Company, 1871-1883. The Kwong Tai Wo Company were the operators of a store in northern California which sold goods to the Chinese residents in the area. The inventory study of these records utilized only bowl and rice bowl values since they appear to make up over one-half of the total number of vessels listed in the inventory.

It is probable that archaeological distributions are related to the cost of the ceramics and the wealth and occupations of the inhabitants. This site conforms to the trends of the above-mentioned inventory and other archaeological site patterns in its composition of Winter Green and Bamboo artifacts. Winter Green has been cited as most common on many post-1870 village and urban sites, however within ORMU57 they appear consistently throughout the site occupation.

The Minimum Vessel Count (MVC) for ORMU57 was derived by selecting and counting of ceramics which contained attributes that could be easily identified with specific ceramic types. For example, counts for table wares such as plates and bowls, or Chinese ceramic spoons were completed through

identification of footrings or bases that represented at least one-half of a vessel, while counts for other ceramics such as Chinese opium bowls were completed through identification of the flange or smoking surface that could represent one-third to one-fourth of the vessel.

Ceramics included within the MVC came from specific excavation units (EUs 6, 12, 16) which were chosen because they were known to contain occupation-related features, with one exception which was included due to its very definitive occupation-related strata (Excavation Unit 13). Therefore, features included were Features 8, 9, 15, 19, 20, 21, and 23. Further, within the site area overall, excavation units have been so greatly disturbed as to make it nearly impossible to complete an all-inclusive MVC without knowingly double counting portions of a vessel, another reason for isolating the above-mentioned excavation units for the MVC.

#### *Table Setting MVCs*

Celadon ware is also known as Winter Green, possibly a more accurate name for it as Sando and Felton (1993) found it listed as such in the vast collection of 19th century inventory records of the Kwong Tai Wo Company of California. This inventory also indicated that this ware type was among the most costly, ranging from 6.5-8.5 cents for a single bowl (Sando and Felton 1993: 163). The Minimum Vessel Count (MVC) for ORMU57 site areas included in the count revealed a minimum count of zero for all Celadon vessel forms (Table 7).

Also listed in the Kwong Tai Wo Company inventory as one of the most costly wares for purchase, ranging from 6.5-8.7 cents for a single bowl (Sando and Felton 1993: 163), the MVC of Four Seasons vessels for site areas within the count totalled one serving bowl (see Table 7; see Figure 19).

While not the least expensive within the Kwong Tai Wo Company inventory (ranging 3.5-4.5 cents), Bamboo bowls appear to create the larger portion of ceramic table settings within archaeological sites, with up to 80% collected from railroad and mining sites of the 1870s and 1880s being comprised of this decorative form (Sando and Felton 1993: 163-164), as well as 41% of rice bowls within the Los Angeles Chinatown (Greenwood 1996: 70). Within ORMU57, the MVC revealed five rice bowls of this ware and decoration (see Table 7; see Figure 20).

Double Happiness vessels appear to have been the least expensive of the four types listed in the Kwong Tai Wo Company inventory, with a price range of 1.5-4.5 cents per bowl (Sando and Felton 1993: 160, 164). The MVC for ORMU57 revealed a minimum of zero vessels of this design and decoration.

#### *Shipping Container and Food Preparation MVCs*

The Minimum Vessel Count (MVC) for site areas of ORMU57 included in the count revealed a minimum of zero of small- or large-sized wide-mouthed shouldered jars, straight-sided jars, spouted jars, large globular jars, or food preparation vessels, but revealed two ginger jars with the white wash glaze treatment, and zero of the green drip glaze treatment, as well as one liquor

<b>Vessels</b>	<b>MVC</b>
Celadon	
all vessel forms	0
Four Seasons	
Serving bowls	1
all other vessel forms	0
Bamboo	
rice bowls	5
all other vessel forms	0
Double Happiness	
all vessel forms	0
small wide-mouthed shouldered jars	0
medium wide-mouthed shouldered jars	0
straight-sided jars	0
ginger jars	
white wash	2
green drip	0
soy sauce jars	0
liquor bottles	1
large globular jars	0
simmering pots	0
small tapered ring-footed bowls	0
ceramic pans	0
opium pipe bowls	4
ceramic "fan"	0

Table 7. Minimum vessel count of Chinese vessels within ORMU57.

bottle. However, unlike standard liquor bottles, the upper exterior two-thirds of this vessel has a dark tan iridescent glaze, and the lower one-third has a light tan slip that also includes the base. This bottle also has an embossed mark on the base (see Table 7; Figure 31).

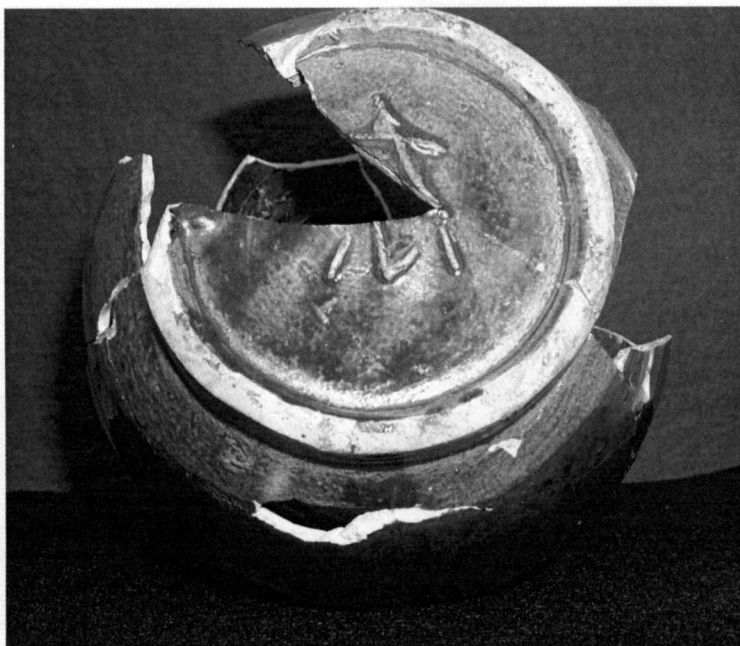


Figure 31. ORMU57 MVC Liquor bottle base showing the embossed character mark on the base (Researcher's photograph).

#### *Recreational Usage MVCs*

Using the established MVC for ORMU57, four opium pipe bowls were shown present (see Table 7; see Figure 29). Two are an orange fine stoneware or clay, both of which are circular. One of these two has no decoration while the other has incised lines around the perimeter. Both are one-piece wheel thrown, with both artifacts showing evidence of manufacturing (fingerprints) and the decorated piece also showing evidence of wiping on the interior. Another bowl made of gray fine stoneware or clay is also circular in design and is incised. This artifact was manufactured using the two-piece molded with slip welded top technique. The final pipe bowl is a white porcelain which is octagonal in

design, molded using the two-piece with coil welded top technique. There are also two negative Chinese character stamps evident on the area of the bowl near the flange. No other aspects of the typical smoking kits were accounted for by the MVC.

## EURO-AMERICAN CERAMICS

ORMU57 Euro-American Ceramic Assemblage

Ceramic tableware that would most commonly be construed as a part of a typical Euro-American table setting would be plates, dishes, bowls, cups and saucers. Due to the large number of table ware manufacturers there are hundreds of decorative patterns and designs that exist for table ware, as well as ware types. Vessels recovered from ORMU57 include, but are not limited to, plates manufactured by Thomas Hughes and Powell & Bishop, both of Staffordshire Potteries in England, with date ranges of manufacture ranging from 1860-1894 and 1876-1878, respectively. Other manufacturers represented (within the vessel form "dish") were Edward Clarke of Phoenix Works, also in England, with manufacture dates of 1865-1877, and Elsmore & Forster of Staffordshire Potteries, with date ranges of manufacture from 1853-1871. Cups, with and without handles, were represented, but manufacturers were not identified. Saucers were also represented, with manufacturers including E & C Challinor of Staffordshire Potteries, with date ranges of 1862-1891, and an unknown English producer (one of many possible producers) with a probable date range of 1849-1874. And, finally, Liddle, Elliott & Son of Staffordshire Potteries was represented by a soup tureen exhibiting the 1865 registered transfer design of Trumpet Vine.

## Analytical Techniques

Artifact relative frequencies for Euro-American ceramics were computed using a variation of Edward Staski's system (1996: 138-140). This system was utilized so that a consistent framework for analysis was applied for both Chinese and Euro-American ceramics. It must be noted that due to high numbers of ceramic fragments and field errors, many fragments were unidentifiable as to vessel form, therefore limiting total accuracy of counts.

Highs and lows are apparent for every time frame represented. No real trends are evident other than plates which peaked at a 37% presence in a period between 1884 and 1889. This percentage dropped to a 7% presence in a definitive post-1886 strata. Other vessels showed the same trend. For example, bowls peaked at 28% presence in a ca. 1879-1887 strata, then dropped to 7% in a post-1886 strata, and cups and saucers were at 7% and 9% presence, respectively, in a ca. 1884-1889 strata, and dropped to 1% and 4% presence, respectively, in the same post-1886 strata. These trends correspond with the knowledge of Chinese resident numbers associated with Operation 1, as well as the minimal number of lodgers from Operations 2 and 3. That is, with the increase in the numbers of Chinese residents on Lot 4, there is a decrease over time of the usage of Euro-American vessel forms that would be comparative to those forms used by Chinese immigrants.



### *Minimum Vessel Counts*

Minimum Vessel Counts (MVC) were derived by selecting and counting of ceramics which contained attributes that could be easily identified with specific ceramic types. For example, counts were completed through identification of footrings or bases that represented at least one-half of a vessel. Ceramics included within the MVC came from specific excavation units (Excavation Units 6, 12, 16) which were chosen because they were known to contain occupation-related features, with one exception which was included due to its very definitive occupaton-related strata (Excavation Unit 13). Therefore, features were Features 8, 9 15, 19, 20, 21, and 23. Further, within the site overall, excavation units have been so greatly disturbed as to make it nearly impossible to complete an all-inclusive MVC without knowingly double counting portions of a vessel, another reason for isolating the above-mentioned excavation units for the MVC.

### *Table Setting MVCs*

The Minimum Vessel Count (MVC) for ORMU57 site areas included in the count revealed a minimum count of 15 plates, two dishes, one bowl, five cups and six saucers (Table 8). Two of the cups were handleless punch cups, two were molded, and one had orange dots interspersed with blue ovoids and gold gilding. Vessels identified in this portion of the count were manufactured of ironstone, porcelain or miscellaneous earthenware. Those identified by

<b>Vessels</b>	<b>MVC</b>
Plates	15
Dishes	2
Bowls	1
Cups	5
Saucers	6
Serving dish	1
Soup Tureen	1
Miscellaneous--eggcup	2

Table 8. Minimum vessel count of Euro-American vessels within ORMU57.

manufacturer were identified as products of Staffordshire Potteries producers, with the exception of one dish and one saucer produced by Edward Clarke of Phoenix Works.

#### *Food Preparation MVCs*

The MVC for site areas of ORMU57 included in the count revealed a minimum of one serving dish, one soup tureen, and two eggcups (see Table 8). The serving dish and two eggcups were not identified as to manufacturer, however, the soup tureen was identified to a producer of Staffordshire Potteries in England and revealed a transfer print of the Trumpet Vine pattern. Vessels identified in this portion of the count were manufactured of ironstone and porcelain.

## CONCLUSIONS AND COMMENTS

### Conclusions

#### *Archaeological Evidence of Acculturation*

None of the data recovery from Operations 2 or 3 give a solid indication of ceramic preferences over time, which, for the purposes of this research, would have been a valid indication of the presence or absence of acculturation. Excavation units within these two Operations show a lack of artifact patterning or trends that would have indicated changes in the purchase and loss or discard of ceramics. Although it is known that the household within Operation 2 was occupied by one to two Chinese lodgers from the years 1886, 1889, and 1898, there are very low numbers of artifacts attributed to Chinese manufacture and occupation, thus making depositional analysis pertaining to the topic of acculturation very limited if not impossible.

Operation 1, although limited in scope, does give some insight. Excavation Units 5 and 9 show some patterning that indicate a selection of ceramics based on functionality rather than traditionality, aesthetics or cost. For example, the construction-related strata contained no Chinese ceramics and the post-1884 occupation-related strata specifically within Excavation Unit 5 contained very few undecorated unidentified Euro-American ceramics and more numbers of Chinese ceramics identifiable to form and function. Since it is known that Chinese occupation within the area of this Operation began, at the

latest, in 1884 with the Sung Lee laundry, evidence would suggest that those Euro-American ceramics purchased by Chinese inhabitants were very limited and likely based on functionality rather than traditionality, aesthetics or cost. This supposition could be further supported by the Excavation Unit 8 ceramics analysis which indicates that occupants intentionally continued usage of Chinese-manufactured items, with an increase from 21 ceramic fragments from a post-1884 stratigraphic unit to 59 from a 1900-1901 stratigraphic unit. Since this corresponds with known occupancy over time (from 1898-1901 the household consistently consisted of 40+ Chinese lodgers), these numbers indicate that, for whatever reason, household occupants preferred to remain largely with those items known to reflect attributes of their cultural identity.

Furthermore, artifact relative frequencies and MVC numbers reflect the trends within Operation 1. Artifact relative frequencies indicate a preference over time of the use of Chinese goods and possibly the reuse of food containers over time even prior to the larger household numbers from 1898-1901. More specifically, Chinese vessel forms indicated their presence within this Operation from 1884, with the first known presence of Chinese inhabitants on the site area, and maintained the presence in higher percentile frequencies than Euro-American vessels. For example, Euro-American vessels showed peak presence prior to, or just in the beginning years of, Chinese occupation of the site area, then showed dramatic drops within following years, whereas Chinese vessels showed fairly steady appearances with minor fluctuations (compared to the Euro-American fluctuations) throughout the years of Chinese occupation of

the site area. It must be noted that it is difficult to make such comparisons due to the dissimilarities of vessel forms between Euro-American and Chinese artifacts present within the artifact relative frequencies. MVCs reinforce the aforementioned conclusion that Chinese-manufactured items were consistently utilized over time for food consumption, storage, and preparation, as well as recreation. Mid-to-high expense of goods is apparent (with the presence of Bamboo rice bowls and a Four Seasons serving bowl), virtually ruling out cost as a factor in ceramic preferences. If it were assumed that most of the Chinese from Operations 1, 2, and 3 were of the lower paid laboring class, as is indicated by historical records, then the expense of goods in relation to their presence or absence within the site would be a valid indication of some form of cultural maintenance. In comparison to Euro-American MVCs, Chinese MVCs appear low. However, there is a larger presence of rice bowls within the Chinese MVCs than there are everyday bowls within the Euro-American MVCs. This would seem to indicate that that specific Euro-American vessel form was displaced by the Chinese vessel form. Once again, a difficult comparison due to dissimilarities of vessel forms.

#### *Historical Documentary Evidence of Acculturation*

Aside from an anthropological or sociological study, historical documentation does not provide definitive indications of the presence or absence of a movement towards acculturation. What is known is that anti-Chinese sentiment and the establishment of the CCBA would likely have

promoted a move towards, or resistance to, acculturation. From the discussion in Chapter 3 of this thesis, it is apparent that phase one of the process of acculturation occurred--that of contact. The second phase, that of conflict, is also known to have occurred, as indicated by historical documentation of anti-Chinese sentiment. The third phase, that of the varied forms of adaptation (adjustment, reaction, and withdrawal) is the phase that requires the most investigation, and which is the least observable in the archaeological record. It is also within this third phase that the establishment of the CCBA would have had its influence. By its nature, the CCBA enabled the Chinese to confine their primary relationships and social ties to members of the growing Chinese community, thus creating an environment of unity against the non-Chinese population of Portland, Oregon. This would indicate the establishment of the reactive mode of the adaptation phase of acculturation. However, it is these social aspects that would need further investigation to support the archaeological data that indicates that a low level of acculturation (not necessarily limited to change of culture, but also including maintenance of culture and ethnicity) may have existed within the members of Portland's Chinatown.

Another historical aspect of the investigation into acculturation within the Portland, Oregon, Chinatown is that of businesses that were established within the Chinese community to cater to the Chinese and non-Chinese. J. Scott Jones (1979) states that by 1863 a merchant named Wa Kee had established a store providing the basics to the Chinese community, but by 1874 he had

expanded his merchandise to include Chinese luxury items. There were also, in 1863, eight laundries registered as businesses within the Chinese community, with the number increasing to fifteen by 1865. The number of merchants grew as well by this year, bringing the total number to five. Furthermore, two physicians were established by 1865 to serve the Chinese community, as well as an interpreting service to assist Chinese businessmen in their dealings with the non-Chinese community, and those having to appear in the public courts. Businesses continued to grow in numbers over the next decade and a half with laundries being the most numerous (33 by 1880), but merchants the fastest growing. In 1885 growth in numbers was still abundant, but the area of occupation was becoming smaller and more compact. Overall growth continued into 1900, but many businesses began to establish themselves outside of the area now known as old Chinatown (Jones 1979: 4-5). Through these growth trends it can be observed that the community as a whole chose to maintain certain elements of their culture, such as material goods offered by merchants. A 1966 Northwest Magazine article reinforces this observation to apply to contemporary times with its article "A Stroll Through Chinatown", in which the author was given a tour of Fong Chong & Co., in business for more than 40 years. More than 90% of goods were noted to be imported from Hong Kong, Formosa, Japan, South Korea, Holland (for the local Indonesians), and Hawaii. Items included kitchen utensils, dishes and crockery, with food including dry seafoods such as squid, fish bladders and shark fins, instant noodles, pans of barbecued duck and pork, a freshly butchered pig in

the back of the store, and sacks of rice piled to the ceiling, delivered by truckload every three to four weeks. Other contemporary news and magazine articles (The Sunday Oregonian 1963, 1971; The Oregonian 1978; Portside Vol. 12 1987; and Longview Daily News 1992) reflect the desire for cultural maintenance by the Chinese community.

### Comments

#### *Influences of Contract Archaeology*

Investigations for this research involved the utilization of a previously written report based on excavations completed by Archaeological Investigations Northwest, Inc., a contract urban archaeology firm. While their research questions and initial research strategies were thorough and insightful, their attempts at implementing them through field methodology were limited by time and monetary constraints. As a result, these limitations prevented this researcher from completing a full assessment of research questions pertaining to acculturation. For example, during surface collections prior to excavation of the site, no known proveniences were taken of any artifacts recovered and field collection policies did not mandate the collection all artifacts encountered severely limiting interpretations of such artifacts for temporal periods, site function, material density, spatial variability, and artifact patterning, as well as discrete activity areas or structured use of space, all important information for the thesis topic at hand. Furthermore, no field notes seem to exist for the monitoring that was completed and no proveniences were documented for



artifacts retrieved during the monitoring process. Other relevant field methodology discrepancies were inconsistencies in provenience data recovered from Excavation Units, including feature areas, lack of reference as to whether artifacts recovered were found in clusters or as single fragments, and lack of consistency throughout the site with the assigning of SU numbers (each EU was treated as if it had nothing in common with the other EUs on the site, therefore similar or identical SUs throughout the site were given completely different SU designations making intrasite comparisons sketchy at best). Furthermore, the two trenches excavated within the site area also appear to lack stratigraphic maps, something that would have assisted in intrasite comparisons.

Although AINW field methodology for the excavation of this site did include standardized level excavation forms which were to include SU plan maps, inconsistencies occurred here as well. For example, strata maps are not present for every SU encountered in each EU, oftentimes no elevation information is present for SUs in non-feature areas of an EU, and Lot numbers assigned in the field often do not correspond to those recorded for reference within the final report materials. Other field-to-report discrepancies include incongruities in field recorded elevations for SUs and what elevations they appear to be on the report maps, extent that an SU is found across an EU being indicated as one thing on field forms but as another on the report maps, field maps indicating multiple aspects of a particular strata but report maps showing no such indication, and strata maps for EUs showing no SU but having Lot

numbers assigned to SUs from that EU. All in all, four features had no provenience information for artifacts recovered, seven features indicated only the SU from which artifacts were recovered but recorded no provenience for such artifacts, four features inconsistently had SUs and/or provenience information recorded, eleven features lacked strata maps altogether, one feature has a strata map but lacks any SU identification, and 15 EU SUs lack strata maps. Yet another inconsistency is that Lot numbers that have no connection to any EU (according to AINW records) appeared to have been assigned to artifacts, making their usage in analysis a moot point. One thing that may have assisted in clarifying questions of stratigraphy would have been strata maps for the two trenches excavated in the site area. However, no such maps appear to exist, as they were not included within the field maps or within the final report.

### *Suggestions for Future Contract Archaeology*

While limitations to the work of contract archaeologists are well known within the archaeological community, it is still possible to complete archaeological investigations in a thorough, but timely, manner, and with results that would permit future researchers to utilize information originally gained to explore alternative research questions. For this researcher there are four very fundamental aspects to field methodology that can very easily be implemented (and should be implemented) by archaeologists, whether they be contract firms, individuals, or within a governmental agency. The first aspect of field work that

should, without a doubt, be included in all projects is the field notebook. These notebooks, above all else, serve as a double check on field record sheets, and, in theory, give a firsthand continuous account of the progress of field work, as well as trouble areas and changes in site assessments. A second aspect of field methodology that of the setting up of a grid prior to surface collections taking place. Surface collections are just as integral to the overall archaeological picture as items recovered from actual excavations, and as such should be provenienced. Furthermore, if time constraints are not going to allow for precise proveniencing to take place, the very least that should be done is notation of whether artifacts found are occurring in clusters or singly as well as notation as to what quadrant of the excavation unit from which they are recovered. And, finally, accuracy and consistency in field record sheets as well as in notation of stratigraphy and stratigraphic maps. All of these aspects, upon implementation, would give future researchers a sound foundation to explore questions of temporal periods, site function, material density, spatial variability, and artifact patterning, as well as discrete activity areas or structured use of space.

### Summary

In summary, it is apparent that ceramics could be effectively utilized within archaeological studies of acculturation as an indicator of the processes of acculturation. This study has indicated that the Chinese of "old" Chinatown in Portland, Oregon, experienced some form of acculturation that was not

necessarily characterized by change, but likely by maintenance in a reactive manner. However, this study has also exhibited, first hand, the limitations placed on researchers that choose to utilize information from previously excavated sites. Once more, retrospect in the field of archaeology allows constructive criticism and recommendations to abound. Had limitations on the original field excavator's field methodology allowed them to do other than meet minimum field requirements, this research could have quite possibly created a standard for others to follow. Rather, this study should be looked at as that standard in its infancy.

## BIBLIOGRAPHY

- Arnold, Dean E.  
1985 *Ceramic Theory and Cultural Process*. Cambridge University Press, Cambridge.
- Barka, Norman F. *et al.*  
1984 *The "Poor Potter" of Yorktown: A Study of a Colonial Pottery Factory*. Ceramics Vol. 3. Department of Anthropology, College of William and Mary, Virginia.
- Baugher, Sherene and Robert W. Venables  
1987 Ceramics as Indicators of Status and Class in Eighteenth-Century New York. In *Consumer Choice in Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 31-53. Plenum Press, New York.
- Beals, Herbert K. and Harvey Steele  
1981 *Chinese Porcelains: From Site 35-TI-1, Netarts Sand Spit, Tillamook County, Oregon*. University of Oregon Anthropological Papers No. 23. Ceramic Analysis Laboratory, Portland State University, Portland.
- Brott, Clark W.  
1987 Utilitarian Stoneware from the Wong Ho Leun Site: A Pictorial Essay. In *An American Chinatown*, edited by The Great Basin Foundation, pp. 233-248. The Great Basin Foundation, San Diego.
- Buenker, John D. and Lorman A. Ratner (Editors)  
1992 *Multiculturalism in the United States: A Comparative Guide to Acculturation and Ethnicity*. Greenwood Press, New York.
- Byrd, John E. and Dalford D. Owens Jr.  
1997 A Method for Measuring Relative Abundance of Fragmented Archaeological Ceramics. *Journal of Field Archaeology* 24:315-319.
- Carey, Charles Henry (Editor)  
1926 *The Oregon Constitution and Proceedings and Debates of the Constitutional Convention of 1857*. State Printing Department, Salem.

Chapman, Judith S.

- 1993 *French Prairie Ceramics: the Harriet D. Munnick Archaeological Collection circa 1820-1880*. Anthropology Northwest Number 8. Department of Anthropology, Oregon State University, Corvallis.

Cheng, David Te-ch'ao

- 1955 Acculturation of the Chinese in the United States. In *Acculturation: Critical Abstracts, North America*, edited by Bernard J. Siegel, pp. 30-35. Stanford University Press, Stanford, California.

Clark, Lynn

- 1987 Gravestones: Reflectors of Ethnicity or Class? In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 383-395. Plenum Press, New York.

Corbett, P. Scott and Nancy Parker Corbett

- 1977 The Chinese in Oregon c. 1870-1880. *Oregon Historical Quarterly* 78:73-85.

Curtis, Julia B.

- 1988 Perceptions of an Artifact: Chinese Porcelain in Colonial Tidewater Virginia. In *Documenting Archaeology in the New World*, edited by Mary C. Beaudry, pp. 20-31. Cambridge University Press, Great Britain.

Deetz, James

- 1977 *In Small Things Forgotten: An Archaeology of Early American Life, Expanded and Revised*. Anchor Books/Doubleday, New York.

DeCunzo, Lu Ann

- 1987 Adapting to Factory and City: Illustrations from the Industrialization and Urbanization of Paterson, New Jersey. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 261-295. Plenum Press, New York.

Diehl, Michael *et al.*

- 1998 Acculturation and the Composition of the Diet of Tucson's Overseas Chinese Gardeners at the Turn of the Century. *Historical Archaeology* 32(4):19-33.

Du Boulay, Anthony

- 1984 *Christie's Pictorial History of Chinese Ceramics*. Prentice-Hall, Inc., New Jersey.

- Eriksen, Thomas Hylland  
1993 *Ethnicity and Nationalism: Anthropological Perspectives*. Pluto Press, London.
- Esten, John (Editor)  
1987 *Blue & White China: Origins/Western Influences*. Little, Brown and Company, Boston.
- Fagan, John L.  
1993 The Chinese Cannery Workers of Warrendale, Oregon, 1876-1930. In *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, edited by Priscilla Wegars, pp. 215-228. Baywood, Amityville, New York.
- Fay-Halle, Antoinette and Barbara Mundt  
1983 *Porcelain of the Nineteenth Century*. Rizzoli International Publications, Inc., New York.
- Ferrante, Joan.  
2000 *Sociology: The United States in a Global Economy*. Wadsworth/Thomas Learning, California.
- Friedman, Ralph  
1966 A Stroll Through Chinatown. *Northwest Magazine* December 25: 7, 10.
- Fry, Roger *et al.*  
1935 *Chinese Art: An Introductory Handbook to Painting, Sculpture, Ceramics, Textiles, Bronzes, and Minor Arts*. E. Weyhe, New York.
- Gans, Herbert J.  
1997 Toward a Reconciliation of "Assimilation" and "Pluralism": the Interplay of Acculturation and Ethnic Retention. *International Migration Review* 31(4):875-893.
- Garrow, Patrick H.  
1987 The Use of Converging Lines of Evidence for Determining Socioeconomic Status. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 217-231. Plenum Press, New York.
- Godden, Geoffrey A.  
1964 *Encyclopaedia of British Pottery and Porcelain Marks*. Bonanza Books, New York.

- Greenwood, Roberta S.  
1996 *Down By the Station: Los Angeles Chinatown 1880-1933*.  
Institute of Archaeology, University of California, Los Angeles.
- Griggs, Heather J.  
1998 GO gCUIRE DIA RATH AGUS BLATH ORT (God Grant That You Prosper and Flourish): Social and Economic Mobility Among the Irish in Nineteenth-Century New York City. *Historical Archaeology* 33(1):87-101.
- Grover, E. S. , A. L. Bancroft & Co.  
1879 Portland, Oregon, Panoramic Lithograph Map. Library of Congress Geography and Map Division, Washington, D. C.  
<http://hdl.loc.gov/loc.gmd/g4294p.pm007220>
- Gust, Sherri M.  
1993 Animal Bones from Historic Urban Chinese Sites: A Comparison of Sacramento, Woodland, Tucson, Ventura, and Lovelock. In *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, edited by Priscilla Wegars, pp. 177-212. Baywood Publishing Company, Inc., New York.
- Haggar, Reginald G.  
1960 *The Concise Encyclopedia of Continental Pottery & Porcelain*.  
Hawthorn Books Inc., New York.
- Hattori, Eugene M., Mary K. Rusco, and Donald R. Tuohy (Editors)  
1979 *Archaeological and Historical Studies at Ninth and Amherst, Lovelock, Nevada*. 2 vols. Nevada State Museum Archaeological Services Reports.
- Hayashiya, Seizo and Gakuji Hasebe  
1966 *Chinese Ceramics*. Charles E. Tuttle Co.: Publishers, Vermont.
- Henry, Susan L.  
1987 Factors Influencing Consumer Behavior in Turn-of-the-Century Phoenix, Arizona. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 359-381. Plenum Press, New York.
- Herskovits, Melville J.  
1958 *Acculturation: The Study of Culture Contact*. Peter Smith, Gloucester, Massachusetts.



- Hildebrand, Lorraine Barker  
1977 *Straw Hats, Sandals, and Steel: The Chinese in Washington State*. Washington State American Revolution Bicentennial Commission, Tacoma.
- Hillier, Bevis  
1968 *Pottery and Porcelain 1700-1914: England, Europe, and North America*. Meredith Press, New York.
- Ho, Nelson Chia-Chi  
1978 *Portland's Chinatown: The History of an Urban Ethnic District*. Bureau of Planning, City of Portland, Oregon.
- Jones, J. Scott  
1979 *The Chinese Business Community in Portland, Oregon: 1863-1900*. Ms. on file, Oregon Historical Society, Portland.
- Keefe, Susan Emley  
1980 Acculturation and the Extended Family Among Urban Mexican Americans. In *Acculturation: Theory, Models and Some New Findings*, edited by Amado M. Padilla, pp. 85-110. Westview Press, Boulder, Colorado.
- Kent, Susan  
ND *Analyzing Activity Areas: An Ethnoarchaeological Study of the Use of Space*. University of New Mexico Press, Albuquerque.
- Kerr, Rose  
1986 *Chinese Ceramics: Porcelain of the Qing Dynasty 1644-1911*. Victoria and Albert Museum, London.
- Kung, S.W.  
1962 *Chinese in American Life: Some Aspects of Their History, Status, Problems, and Contributions*. University of Washington Press, Seattle.
- LaLande, Jeffrey M.  
1981 *Sojourners in the Oregon Siskiyou: Adaptation and Acculturation of the Chinese Miners in the Applegate Valley, ca. 1855-1900*. Unpublished M.A. thesis, Department of Anthropology, Oregon State University, Corvallis.
- Lee, Rose Hum  
1960 *The Chinese in the United States of America*. Hong Kong University Press, Hong Kong.

LeeDecker, Charles H. *et al.*

- 1987 Nineteenth-Century Households and Consumer Behavior in Wilmington, Delaware. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 233-259. Plenum Press, New York.

Lesser, Alexander

- 1955 The Pawnee Ghost Dance Hand Game: A Study of Cultural Change. In *Acculturation: Critical Abstracts, North America*, edited by Bernard J. Siegel, pp. 96-101. Stanford University Press, Stanford, California.

Lightfoot, Kent G. *et al.*

- 1998 Daily Practice and Material Culture in Pluralistic Social Settings: An Archaeological Study of Culture Change and Persistence from Fort Ross, California. *American Antiquity* 63(2):199-222.

Lister, Florence C. and Rober H. Lister

- 1989 *The Chinese of Early Tucson: Historic Archaeology from the Tucson Urban Renewal Project.* The University of Arizona Press, Tucson.

Longenecker, Julia G. and Darby C. Stapp

- 1993 The Study of Faunal Remains from an Overseas Chinese Mining Camp in Northern Idaho. In *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, edited by Priscilla Wegars, pp. 97-122. Baywood Publishing Company, Inc., New York.

*Longview Daily News* [Longview, Washington]

- 1992 "Chinatown: Chinese Americans Preserve Memories, Fend off Development". 6 May. On file, Oregon Historical Society, Portland.

MacColl, E. Kimbark

- 1976 *The Shaping of a City: Business and Politics in Portland, Oregon 1885-1915.* The Georgian Press Company, Portland.

MacColl, E. Kimbark and Harry H. Stein

- 1988 *Merchants, Money, and Power: The Portland Establishment 1843-1913.* The Georgian Press, Portland.

Majewski, Teresita. and Michael J. O'Brien

- 1987 The Use and Misuse of Nineteenth-Century English and American Ceramics in Archaeological Analysis. *Advances in Archaeological Method and Theory* 11:97-209.

Manchester, Scott

- 1978 *The History of Mutual Support Organizations Among the Chinese in Portland, Oregon*. Unpublished M.S.W. thesis, School of Social Work, Portland State University, Portland.

McBride, W. Stephen and Kim A. McBride

- 1987 Socioeconomic Variation in a Late Antebellum Southern Town: The View from Archaeological and Documentary Sources. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 143-161. Plenum Press, New York.

Medley, Margaret

- 1976 *The Chinese Potter: A Practical History of Chinese Ceramics*. Charles Scribner's Sons, New York.

Merriam, Paul

- 1979 The "Other Portland": A Statistical Note on Foreign-Born, 1860-1910. *Oregon Historic Quarterly* 80:258-268.  
1971 Portland, Oregon, 1840-1890: A Social and Economic History. PhD Dissertation, University of Oregon, Eugene.

Michael, Ronald L. (Editor)

- 2000 *Approaches to Material Culture Research for Historical Archaeologists*. The Society for Historical Archaeology, California, Pennsylvania.

Miller, George L.

- 2000 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. In *Approaches to Material Culture Research for Historical Archaeologists*, edited by Ronald L. Michael, pp. 86-110. The Society for Historical Archaeology, California, Pennsylvania.

Newman, David M.

- 1995 *Sociology: Exploring the Architecture of Everyday Life*. Pine Forge Press, California.

*Oregonian* [Portland, Oregon]

- 1851 15 November. On file, Oregon Historical Society, Portland.

Orser Jr., Charles E.

- 1987 Plantation Status and Consumer Choice: A Material Framework for Historical Archaeology. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 121-137. Plenum Press, New York.

- Orser Jr., Charles E. and Brian M. Fagan  
1995 *Historical Archaeology*. Harper Collins College Publishers, New York.
- Padilla, Amado M. (Editor)  
1980 *Acculturation: Theory, Models, and Some New Findings*. American Association for the Advancement of Science Selected Symposium Number 39. Westview Press, Boulder, Colorado.
- Padilla, Amado M.  
1980 The Role of Cultural Awareness and Ethnic Loyalty in Acculturation. In *Acculturation: Theory, Models, and Some New Findings*, edited by Amado M. Padilla, pp. 47-84. Westview Press, Boulder, Colorado.
- Penkala, Maria  
1963 *Far Eastern Ceramics: Marks and Decoration*. Mouton & Co., The Netherlands.
- Perry, Barbara (Edited)  
1989 *American Ceramics: The Collection of Everson Museum of Art*. Rizzoli International Publications, Inc., New York.
- Praetzelis, Mary *et al.*  
1988 What Happened to the Silent Majority? Research Strategies for Studying Dominant Group Material Culture in Late 19th Century California. In *Documentary Archaeology in the New World*, edited by Mary C. Beaudry, pp. 192-202. Cambridge University Press, Great Britain.
- Pred, Allan R.  
1966 *The Spatial Dynamics of U.S. Urban-Industrial Growth, 1800-1914: Interpretive and Theoretical Essays*. The M.I.T. Press, Cambridge, Massachusetts.
- Press, Irwin and M. Estellie Smith  
1980 *Urban Place and Process: Readings in the Anthropology of Cities*. Macmillan Publishing Co., Inc., New York.
- Quimby, George I. and Alexander Spoehr  
1951 Acculturation and Material Culture-I. *Fieldiana, Anthropology* 36(6): 107-148.
- Roulette, Bill R., David V. Ellis, and Maureen Newman  
1993 *Data Recovery at OR-MU-57, The U.S. Courthouse Site, Portland, Oregon*. Archaeological Investigations Northwest Inc. Report No.

42, Portland, Oregon. Prepared for CRSS Constructors, Inc., Portland, Oregon and General Services Administration, Region 10, Auburn Washington.

Sahlins, Marshall D. and Elman R. Service (Editors)

1973 *Evolution and Culture*. The University of Michigan Press, Ann Arbor.

Schiffer, Michael Brian

1995 *Behavioral Archaeology: First Principles*. University of Utah Press, Salt Lake City

Shepard, Anna O.

1956 *Ceramics for the Archaeologist*. Carnegie Institution of Washington Publication 609, Washington, D.C.

Shephard, Steven Judd

1987 Status Variation in Antebellum Alexandria: An Archaeological Study of Ceramic Tableware. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 163-198. Plenum Press, New York.

Siegel, Bernard J. (Editor)

1955 *Acculturation: Critical Abstracts, North America*. Stanford University Press, California.

Snyder, Eugene E.

1970 *Early Portland: Stump-Town Triumphant*. Binfords & Mort, Publishers, Portland, Oregon.

Snyder, Jeffrey B.

1997 *Romantic Staffordshire Ceramics (With Values)*. Schiffer Publishing Ltd., Pennsylvania.

Spencer-Wood, Suzanne M. (Editor)

1987 *Consumer Choice in Historical Archaeology*. Plenum Press, New York.

Spencer-Wood, Suzanne M.

1987 Introduction. In *Consumer Choice in Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 1-24. Plenum Press, New York.

- Spencer-Wood, Suzanne M. and Scott D. Heberling  
1987 *Consumer Choices in White Ceramics: A Comparison of Eleven Early Nineteenth-Century Sites*. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 55-84. Plenum Press, New York.
- South, Stanley  
1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.
- Staski, Edward  
1993 *The Overseas Chinese in El Paso: Changing Goals, Changing Realities*. In *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, edited by Priscilla Wegars, pp. 125-149. Baywood Publishing Company, Inc., New York.
- Sunday Oregonian* [Portland, Oregon]  
1963 24 March: 36, 4M. On file, Oregon Historical Society, Portland.  
1971 "Portland's Chinatown Remains Local Focus for Ancient Culture". 31 October. On file, Oregon Historical Society, Portland.
- Tang, Taryn N. and Kenneth L. Dion  
1999 *Gender and Acculturation in Relation to Traditionalism: Perceptions of Self and Parents among Chinese Students*. *A Journal of Research* 41(1):17-45.
- Towner, Donald  
1978 *Creamware*. Faber and Faber, London.
- Trigger, Bruce  
1989 *A History of Archaeological Thought*. Cambridge University Press, Great Britain.
- Tsai, Shih-shan Henry  
1983 *China and the Overseas Chinese in the United States, 1868-1911*. University of Arkansas Press, Fayetteville.
- Tung, William L.  
1974 *The Chinese in America 1820-1973: A Chronology & Fact Book*. Oceana Publications, Inc., Dobbs Ferry, New York.
- Ueda, Reed  
1999 *Second Generation Civic America: Education, Citizenship, and the Children of Immigrants*. *The Journal of Interdisciplinary History* 29(4):661.

Unknown Author

- 1987 Chinatown Gateway Links Oregon and Far East. *Portside* 12(1).  
On file, Oregon Historical Society, Portland.

Van der Porten, Edward

- 1972 Drake and Cermeno in California: Sixteenth Century Chinese  
Ceramics. *Historical Archaeology* 6:1-22.

Watson, James L.

- 1975 *Emigration and the Chinese Lineage: The Mans in Hong Kong  
and London*. University of California Press, Berkeley.

Webster, Donald Blake

- 1971 *Decorated Stoneware Pottery of North America*. Charles E. Tuttle  
Company, Vermont.

Wegars, Priscilla (Editor)

- 1999 *Japanese Artifact Illustrations, Terminology, and Selected  
Bibliography*. Asian American Comparative Collection, Laboratory  
of Anthropology, University of Idaho, Moscow.  
1999 *Chinese Artifact Illustrations, Terminology, and Selected  
Bibliography*. Asian American Comparative Collection, Laboratory  
of Anthropology, University of Idaho, Moscow.  
1993 *Hidden Heritage: Historical Archaeology of the Overseas  
Chinese*. Baywood Publishing Company, Inc., New York.  
1993 *Chinese and Japanese Artifact Terminology*. Asian American  
Comparative Collection, Laboratory of Anthropology, University of  
Idaho, Moscow.

Wetherbee, Jean

- 1996 *White Ironstone: A Collector's Guide*. Antique Trader Books, Iowa.

Williams, Petra

- 1978 *Staffordshire Romantic Transfer Prints: Cup Plates and Early  
Victorian China*. Fountain House East, Kentucky.

Williams, Petra

- 1986 *Staffordshire Romantic Transfer Prints II: Cup Plates and Early  
Victorian China*. Fountain House East, Kentucky.

Wong, Bernard

- 1992 Chinese-Americans. In *Multiculturalism in the United States: A  
Comparative Guide to Acculturation and Ethnicity*, edited by John  
D. Buenker and Lorman A. Ratner, pp. 193-214. Greenwood  
Press, New York.

Worthy, Linda H.

- 1982 Classification and Interpretation of Late-Nineteenth- and Early Twentieth-Century Ceramics. In *Archaeology of Urban America*, edited by Roy Dickens, pp. 329-360. Academic Press, New York.

Wylie, Jerry and Richard E. Fike

- 1993 Chinese Opium Smoking Techniques and Paraphernalia. In *Hidden Heritage: Historical Archaeology of the Overseas Chinese*, edited by Priscilla Wegars, pp. 255-303. Baywood, Amityville, New York.