MARKET STREET CHINATOWN ARCHAEOLOGICAL PROJECT

2008-2011 PROGRESS REPORT

Submitted in June 2011 to History San José, 1650 Senter Rd., San Jose, CA, 95112
Prepared at the Historical Archaeology Laboratory, Stanford Archaeology Center
Stanford University, Stanford CA 94305

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with contributions by

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EXECUTIVE SUMMARY
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The Market Street Chinatown in San Jose was the third-largest Overseas Chinese settlement in 19th century California. After a catastrophic fire destroyed the urban neighborhood in 1887, Chinese residents resettled into two nearby communities, Heinlenville and Woolen Mills. The archaeological remains of the Market Street Chinatown were unearthed during urban redevelopment in 1985-1988.

The Market Street Chinatown Archaeology Project (Project) is a research and education program that aims to catalog and analyze the archaeological collection generated by the 1985-1988 excavations. The Project is a collaboration between Stanford University, History San José, Chinese Historical and Cultural Project, Past Forward, Inc., and the City of San José Redevelopment Agency.

This progress report discusses documents cataloging activity, teaching and public outreach, and research initiatives undertaken by Stanford faculty, staff, and students during June 2008 – June 2011. Archaeological information presented here must be understood as *preliminary* findings, as only 27% (by volume) of the collection has been cataloged to date.

The most significant accomplishment reported here is the completion of an archival research initiative to reestablish historic and archaeological context for the collection. This study is discussed in Section 1.4; the findings are presented in full in a separate report: "Reconstructing Historical and Archaeological Context of an Orphaned Collection: Report on Archival Research and Feature Summaries for the Market Street Chinatown Archaeology Project."

Other important developments include an internship program that involves Stanford students in public archaeology events at History San José; cataloging initiatives for glass artifacts and faunal bone; new research partnerships with zooarchaeologists at University of Idaho, University of Indiana, and CSU Bakersfield; and funding for a pilot archaeobotanical study.

This Progress Report provides an account of all these developments. It also contains a CD attachment of the current catalog handbook and database. On-line readers may request a copy of the CD by contacting Dr. Voss or accessing copies of the report on file at the Northwest Information Center of the California Historical Resources Inventory, in Rohnert Park, California; and at History San José, in San Jose, California.

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SECTION 1.0
INTRODUCTION AND OVERVIEW

This document presents the seventh progress report of the Market Street Chinatown Archaeology Project (Project), a research and education program that has been developed to catalog, analyze, curate, and publish a remarkable collection of artifacts and archaeological samples that were excavated in downtown San Jose in 1985, 1986, and 1988. Once located at the intersections of Market and San Fernando Streets in downtown San Jose, California, the Market Street Chinatown was founded in the 1860s and occupied until it was burned in an arson fire in 1887. After preliminary field analysis, the artifacts from the site were boxed and stored at a warehouse that was inaccessible to researchers and to the public.

The primary goal of the Project is to catalog and analyze the collection and curate the materials in a way that they can once again be used for research and educational programs. The Project is a joint research and educational program developed by five organizations: Stanford University, History San José, Chinese Historical and Cultural Project; Past Forward, Inc.; and the City of San José Redevelopment Agency.

1.1 Report Purpose, Organization, and Authorship

This report discusses Project activity undertaken by Stanford faculty, staff, and students during the three-year period of June 2008 – June 2011. Our purpose in issuing this interim report is two-fold: first, to maximize transparency of research by releasing a public record of our research, teaching, and interpretive activities; and second, to make the *preliminary* findings of our research available to other archaeologists, historians, interpreters, and members of the public.

The word *preliminary* is emphasized for a reason. To date, we estimate that we have only cataloged 27%, by volume, of the Market Street Chinatown archaeological collection. Moreover, many of the cataloged materials, such as faunal bone, have been cataloged in batches according to provenience, with only minimal descriptive analysis. Comprehensive analysis and interpretation of the collection cannot be undertaken until more cataloging is complete. Nonetheless, we feel that the materials presented in this report may be of

interest to researchers and to the public, both as an indicator of the research potential of the collection and as a potential comparative point for interpretation of other archaeological sites.

Readers interested in the history of the Project, or in the broader scope of research that has been conducted to date, will find the Project website (http://marketstreet.stanford.edu) to be an important resource. The website includes downloadable files of all previous six progress reports, as well as student research papers and theses, a list of publications, and dozens of blog updates that chronicle research and public outreach activities.

The2008-2011 progress report is presented in six sections. This introductory section includes a general overview of current and forthcoming Project initiatives. Section 2.0 discusses current teaching and public outreach activities, while Section 3.0 provides a general update on the cataloging effort. Sections 4.0, 5.0, and 6.0 each present the methods and preliminary findings of targeted research initiatives: glass cataloging and GIS analysis, faunal bone cataloging, and faunal bone analysis. In each section, figures are included in the text, while data tables are presented at the end of each section. An attached CD provides digital files of the current catalog database and the cataloging handbook.

Like the previous six progress reports, this seventh report brings together work conducted by faculty, staff, and students. Dr. Barbara Voss contributed Sections 1.0, 2.0, and 3.0. Sections 4.0, 5.0, and 6.0 were contributed by Guido Pezzarossi, Adrian Myers, and Shea Henry, respectively. Megan Kane contributed to much of the public outreach, cataloging, and research activity discussed throughout this Progress Report, and also assisted with report preparation and distribution.

1.2 Project Personnel

The Project continues to benefit from the expertise and hard work of many talented researchers. This section documents current Project personnel who are Stanford faculty, staff, and students, or who are affiliated with the Project through Stanford University. We especially thank Professor Lynn Meskell, Director of the Stanford Archaeology Center, for continuing to facilitate use of laboratory and collections storage facilities that are so essential to the project. We also thank the administrative staff of both the Stanford Archaeology Center and the Department of Anthropology. We gratefully acknowledge all the contributions of the staff and members of our partner organizations: History San José, Chinese Historical and Cultural Project, and Past Forward, Inc.

Stanford University Personnel

Principal Investigator:	Dr. Barbara L. Voss, Associate Professor
Staff:	Megan Kane, Social Science Research Assistant
Student researchers:	Adrian Myers, PhD candidate
	Guido Pezzarossi, PhD candidate
	Meghan Gewerth, undergraduate
	Kate Rose, undergraduate
Student volunteers:	Stefanie Bautista, Thea DeArmond, Francesca Fernandini, Claudia Liuzza, Rita Lomio, Andrea Milly, Lindsay Montgomery, Guido Pezzarossi, Kate Rose, Sadie Weber, Tim Wilcox

Affiliated Researchers

Dr. Mark Warner, Department of Anthropology, University of Idaho
Shea Henry, Department of Anthropology, University of Idaho
Dr. Kenneth Gobalet, Department of Biology, CSU Bakersfield
Ryan Kennedy, Department of Anthropology, University of Indiana

1.3 Reconstructing Historical and Archaeological Context: The Feature Summary Research Initiative

Our most significant accomplishment during the period covered by this report has been the completion of a concentrated research initiative to reconstruct the historical and archaeological context of the Market Street Chinatown collection. Megan Kane developed and implemented this project during the 2010-2011 academic year with guidance from Dr. Voss.

The results of this initiative are presented in a separate report, "Reconstructing Historical and Archaeological Context of an Orphaned Collection: Report on Archival Research and Feature Summaries for the Market Street Chinatown Archaeology Project," which is being released at the same time as this progress report. This section presents a brief overview of this research initiative.

The need for a systematic assessment of historical and archaeological context has been apparent since the beginning years of the Project. In the decades since the archaeological materials were excavated in 1985-1988, a substantial gap has developed between the original context of discovery and the artifacts' current situation. The rushed character of the original archaeological excavations, which occurred in the midst of construction activity, and the many transfers of the collection that followed, exacerbated the problem. By the time

the collection arrived at Stanford in 2002, connecting individual artifacts with their historical and archaeological context seemed, at times, insurmountable.

In the intervening years, we have gathered considerable documentation about the original excavations and the archaeological and historical analyses that followed. Much of this material was graciously provided by Archaeological Resource Services, the firm which conducted the original excavations. Other sources were discovered in the collections held by History San José. Still other materials were sent to Dr. Voss by colleagues who had participated in the excavations and laboratory work in the 1980s and 1990s. We also obtained additional reports from the Northwest Information Center of the California Historical Resources Information System. All these materials, together with new project records generated through Stanford's research and teaching activity, constitute the Project archive.

In 2010-2011, Megan Kane completed a massive undertaking to organize, review, and synthesize the Project archive. As a first step, Ms. Kane sorted the archival materials into 7 categories: field records, laboratory records, project reports, project records, maps and images, historic references, and Stanford project records. Each document was then assigned a unique number, digitally scanned, indexed, and entered into a database developed using Microsoft Access. The original documents were then filed according to their identifying number in a filing cabinet located in Dr. Voss's laboratory. The organization of the archive is documented in greater detail in Section 3.0 of Ms. Kane's report. This archive, and the electronic database, will be returned to History San José with the archaeological collection when Stanford University's participation in the Project has concluded.

Second, Ms. Kane carefully reviewed the materials in the Project archive to synthesize the historic and archaeological context of the collection. The historic context summarizes the different occupations of Block 1 in San Jose, with particular attention to changes and continuities in Chinese occupation of the block. The archaeological context describes the location, methodology, and recording of Archaeological Resource Service's excavations in 1985, 1986, and 1988, as well as post-field analyses conducted by ARS and Basin Research Associates. Both the historic and archaeological context summaries are presented in Section 2.0 of Ms. Kane's report.

For the third phase of the project, Ms. Kane gathered data from the archival materials to produce a "Feature Summary" for each of the 63 archaeological features represented in the collection. Each Feature Summary lists the physical attributes of the feature, the dates and sequence of its excavation, its possible relation to historic occupations in Block 1, and an assessment of current Stanford University research related to the feature. The Feature Summaries now allow us to quickly and accurately reference the archaeological and historical context of every item in the archaeological collection.

The completion of this initiative is an important benchmark in our research on the Market Street Chinatown archaeological collection. The general historic and archaeological context, in conjunction with the Feature Summaries, allows us to begin to systematically evaluate the archaeological integrity of the collection as well as the potential historic and interpretive significance of particular artifacts.

1.4 Current and Forthcoming Research Initiatives

In addition to the research on historical and archaeological context (described in the preceding section), we have undertaken several other research initiatives in 2008-2011. This section briefly describes these undertakings and their current status, and directs the reader to sections of the progress report where these initiatives are discussed at greater length.

1.4.1 Student internships and public archaeology

In cooperation with History San José and Chinese Historical and Cultural Project, we began a new student internship program in Spring 2011. Students participating in the internship program learn about the archaeology of the Market Street Chinatown through hands-on cataloging experience in Dr. Voss's laboratory, and serve as interpreters during public archaeology events at History San Jose. The internship program and our first public archaeology event, held on May 15, 2011, are described in Section 2.4.

1.4.2 Glass cataloging

In Summer 2008, Guido Pezzarossi and Adrian Myers cataloged most of the glass artifacts from Lot 85-31. Analysis of the catalog records, including a pilot GIS spatial analysis, is presented in Section 4.0.

1.4.3 Glass medicine vial chemical sourcing

In Fall 2011, the Market Street Chinatown Archaeology Project was invited to contribute artifacts to the research project, "Sourcing Chinese Material Culture to Understand Trade Networks of Overseas Chinese in Idaho and the Northwest," co-directed by Mark S. Warner, Associate Professor of Anthropology, and Ray von Wandruszka, Professor and Chair Department of Chemistry, at the University of Idaho. The study uses electron spin resonance

spectroscopy (ESR) and inductively coupled plasma spectroscopy (ICP) to identify the chemical composition of glass containers (primarily medicine vials) recovered from archaeological excavations throughout Idaho and the northwest. The overall goal of the project is to use the analysis of glass containers to understand how materials from China moved between Chinese communities in the United States. Specifically, the chemical signatures of glass known to be manufactured in China will help determine whether goods came from a single point of origin in China or if there were multiple networks through which goods moved.

With permission from History San José, Chinese Historical and Cultural Project, and Past Forward, Inc., Stanford University transferred five glass medicine vial specimens to the University of Idaho in November 2010. The transferred specimens' catalog numbers are: 85-31/0-860, 85-31/0-864, 85-31/0-865, 86-36/17-122, and 86-36/7-15.

1.4.4 Faunal bone analysis

Faunal bone analysis has been a focal point of research activity on the Market Street Chinatown for several years. In 2007-2008, Stacey Kozakavich began the process of preparing faunal bone for analysis by sorting the bone according to provenience. Adrian Myers continued the process in July and August 2008 by cataloging and rehousing the faunal bone. A description of the cataloging process, and a preliminary analysis of the distribution of faunal bone, are presented in Section 5.0.

In Fall 2010, C. Shea Henry, a Master's student in the Department of Anthropology at the University of Idaho, requested permission to study faunal bone from Feature 86-36/5 for her MA thesis research. Dr. Mark Warner, also at the University of Idaho, is supervising this research as Ms. Henry's academic advisor.

With permission from History San José, Chinese Historical and Cultural Project, and Past Forward, Inc., Stanford University transferred seventeen cataloged batches of faunal bone specimens to the University of Idaho in November 2010. The transferred specimens' catalog numbers are: 86-36/5-1822, 86-36/5-1823, 86-36/5-1824_, 86-36/5-1825, 86-36/5-1826, 86-36/5-1827, 86-36/5-1828, 86-36/5-1829, 86-36/5-1830, 86-36/5-1831, 86-36/5-1832, 86-36/5-1833, 86-36/5-1834, 86-36/5-1835, 86-36/5-1837, 86-36/5-1839, and 86-36/5-1840.

Ms. Henry's research includes comparison of the Feature 86-36/5 assemblage with Overseas Chinese faunal assemblages in other parts of the U.S. west. Ms. Henry's research is scheduled to continue through Spring 2012. Her preliminary findings are presented in Section 6.0 of this report.

As part of Ms. Henry's research, she and Dr. Warner asked Dr. Ken Gobalet at the Department of Biology, CSU Bakersfield, to undertake a preliminary assessment of fish bones in the Feature 86-36/5 assemblage. Dr. Gobalet concluded that the fish bone subassemblage represents a rich variety of specimens:

> "Not only do you have native freshwater species (pike minnow, Sacramento blackfish, Sacramento sucker, Sacramento perch), and marine species of northern California, but marine species from southern California (sheephead, senorita (?), ocean whitefish (?), and exotic species likely from the orient (Sciaenidae, Oxyjulis-like unknown, unknown "A" and other unknowns)." (Dr. Ken Gobalet, email communication, May 20, 2011)

Dr. Gobalet provided a table showing presence/absence of fish species in the catalog numbers associated with Feature 86-36/5. It is reproduced here as Table 1.1.

Ryan Kennedy, a PhD student in the Department of Anthropology at the University of Indiana, has expressed interest in studying the Market Street Chinatown faunal and floral assemblages for his dissertation research. Mr. Kennedy visited Stanford University in May 2011 to begin familiarizing himself with the collection and the Project archive.

These research partnerships with zooarchaeological specialists have generated exciting new perspectives on the culinary and ecological history of the Market Street Chinatown. We look forward to the continuation of these partnerships in the coming year.

1.4.5 Environmental anthropology pilot study

In May 2011, Dr. Voss was awarded grant monies from the Lang Fund for Environmental Anthropology to conduct a pilot study that will evaluate the potential of soil samples from the Market Street Chinatown to address research questions related to human-environment interactions. This pilot study is scheduled to begin in Fall 2011 and will continue through Spring 2012.

Excavators of the Market Street Chinatown site routinely collected soil samples and samples of feature constituents. These samples include 55 file-sized boxes of soil samples (each containing two to four 3L-5L samples) and an additional 20 boxes of bagged material, also predominantly soil, labeled "organic samples." These samples were recovered from a range of features, including trash pits, wood-lined cesspools, wells, and open-air dumps.

The primary goal of the pilot study is to assess the research potential of these samples. After 20+ years of storage under less-than-optimal conditions, do the samples retain constituents such as macrobotanicals, pollen, starch, phytoliths,

and parasites? Do samples from specific periods or feature types have greater research potential than other samples? The samples will be analyzed by Linda Scott Cummings and Kathryn Puseman at PaleoResearch Institute, who have extensive experience in archaeoclimate research on Overseas Chinese sites throughout the U.S. West and Pacific Islands.

Beyond the initial assessment of research potential, evidence recovered from soil sample analysis will be used to trace changes in vegetation communities and agricultural practices. The presence and concentrations of different plant taxa will help to determine the local or extra-local origin of specific taxa and reconstruct the range of plants utilized, eaten, seen, and smelled by residents on a daily basis. Of particular interest will be the degree to which Chinese immigrants to San Jose adapted foodways, medicinal practices, and aesthetic preferences to incorporate locally-available species, or relied on more costly imports from Asia. Finally, parasitology will provide a direct line of evidence related to residents' health and can be compared to parasitology analyses from early industrial urban contexts from throughout North America. These preliminary questions will undoubtedly be refined and expanded once the pilot study results are available.

Table 1.1 Preliminary fish bone identifications for Feature 86-36/5. Adapted from data provided by Dr. Kenneth Gobatlet.

Catalog number: 86-36:5-		1822	1823	1824	1826	1832	1933	1834	1835	1840
Taxon	Common Name									
Triakidae	Houndsharks		x				x			
Cyprinidae	Carp/Minnows	x	x	x	x	x	x	x	x	
Ptychocheilus grandis	Sacramento pikeminnow	x*		x	x	x				x
Orthodon microlepidotus	Sacramento blackfish	x				x		x		
Catostomus occidentalis	Sacramento sucker					x	x		x	
Atherinopsidae		x	x			x			x	
Porichtys sp.	Toadfish		x							
Scorpaenichthys marmoratus	Cabezone	x								
Hexagrammos sp.	Kelp	x		x			x	x		
Sebastes sp.	Rockfish	x	x	x	x	x	x		x	x
Semicossyphus pulcher	California Sheephead		x							
Embiotocidae			x	x			x	x	x	
Sciaenidae (exotic)	Drums/hardheads			x						
Atractoscion nobilis	White Seabass	x			x					
Archoplites interruptus	Sacramento Perch	x	x	x	x		x	x		x
Caulolatilus sp. ?		x								
Scomber japonicus	Chub mackerel	x								
Pleuronectiformes			x	x	x	x	x			
Paralichthys californicus	California flounder				x					
Platichthys stellatu s	Starry flounder							x		
Oxyjulis -like unknown				x					x	
Unknown "A"		x	x					x	x	
big unknown										x

* and/or large exotic carp
(x denotes presence in sample)

SECTION 2.0
TEACHING, PUBLIC OUTREACH, AND PRESENTATIONS

The primary objective of the Market Street Chinatown Archaeology Project is to "catalog and analyze the collection and curate the materials in a way that they can once again be used for research and educational programs." Here, we document the educational and public outreach programs we have undertaken during 2008-2011.

2.1 Teaching

The history and archaeology of the Market Street Chinatown, and of Overseas Chinese communities more broadly, have featured prominently in undergraduate and graduate curriculum at Stanford.

IHUM 40b. Each Spring Quarter during 2008 – 2011, Dr. Voss has taught the course "World Archaeology and Global Heritage," as part of Stanford University's Introduction to the Humanities program for incoming freshman undergraduates. The course, which combines large-group lectures with small-group sections, is designed to introduce students to current debates about heritage in the modern world. The second course module focused on the archaeology and heritage of 19th century Chinese communities in the San Francisco Bay area. Students were assigned Connie Young Yu's book, *Chinatown, San Jose, U.S.A.*, and Rod Lum's 2007 article, "Finding Home Again: The Story of the Chinese Historical Cultural Project and Its Efforts to Reclaim the Forgotten Historic Chinatowns of San Jose, California." They came to the Historical Archaeology Lab at the Stanford Archaeology Center to complete hands-on exercises with artifacts from the Market Street Chinatown collection under the supervision of Bryn Williams.

In 2008, the students all went on a field trip to History San José, including a visit to the Chinese American Museum at Ng Shing Gung. Connie Young Yu and Anita Kwock were present to introduce students to the museum exhibits and to answer questions. However, as the course grew in size, the History San José field trip became impractical. In 2009 – 2011, the field trip took students to the Angel Island Immigration Station, another important site of Chinese American heritage.

At the conclusion of the quarter, students were divided into small groups to develop their own public interpretation of a world heritage site. In 2011, a record number of student groups focused their project on San Jose's historic Chinatowns (Figures 2.1 – 2.4). Projects included: children's books, a video trailer for a documentary, an audio tour of San Jose's Chinese-American history, a proposal for an annual heritage festival in the Plaza de Cesar Chavez, and an educational game modeled on "The Amazing Race."

Figure 2.1 The IHUM 40b Project Fair, June 7, 2011

Figure 2.2 IHUM 40b project: San Jose Chinatowns and the Objectivity of Journalism.

Figure 2.3 IHUM 40b project: Chinese heritage festival.

Figure 2.4 IHUM 40b project: The Amazing Race

IHUM 40b rapidly became the most popular course in the Introduction to the Humanities freshman program, growing from 160 students in 2008 to over 230 students in 2011. The course exposed a broad cross-section of Stanford freshmen to the Chinese heritage of the San Francisco Bay area. The course will continued to be offered in 2012, with Dr. Jon Daehnke acting as course

professor. Dr. Daehnke plans to continue the course involvement with the Market Street Chinatown Archaeology Project.

Anthro 103. Anthro 103, "The Archaeology of Modern Urbanism," is an upper-division undergraduate seminar that fulfills requirements in the Anthropology, Archaeology, and Urban Studies undergraduate degree program. The seminar includes a week-long unit on the relationship between race and urban life, including a discussion of Marie Rose Wong's 2002 article, "The Urban Pattern of Portland, Oregon's First Chinatown" and Barbara Voss's 2008 article, "Between the Household and the World System: Social Collectivity and Community Agency in Overseas Chinese Archaeology." This allowed students to compare the different patterns of Chinese settlement between San Jose, which formed distinct and bounded Chinatowns, and Seattle, which had a more dispersed settlement pattern. Anthro 103 will be taught by Dr. Voss again in Spring 2012.

Anthro 374. Anthro 374, "The Archaeology of Colonialisms/Postcolonialisms" is a graduate seminar designed for doctoral students in the Anthropology and Archaeology programs. The third week of the seminar focused on the impact of Edward Said's 1974 book, *Orientalisms*, on archaeological research. Assigned readings for this week included Barbara Voss's 2005 article, "The Archaeology of Overseas Chinese Communities." This course will be taught by Dr. Voss again in Winter 2012.

2.2 Website

In 2008-2011, we continued to use our website as a primary medium for communicating about the Project to project partners, colleagues, and community members. (http://marketstreet.stanford.edu).

We resumed blog posts with several posts contributed by student interns (for example, Figure 12.5).

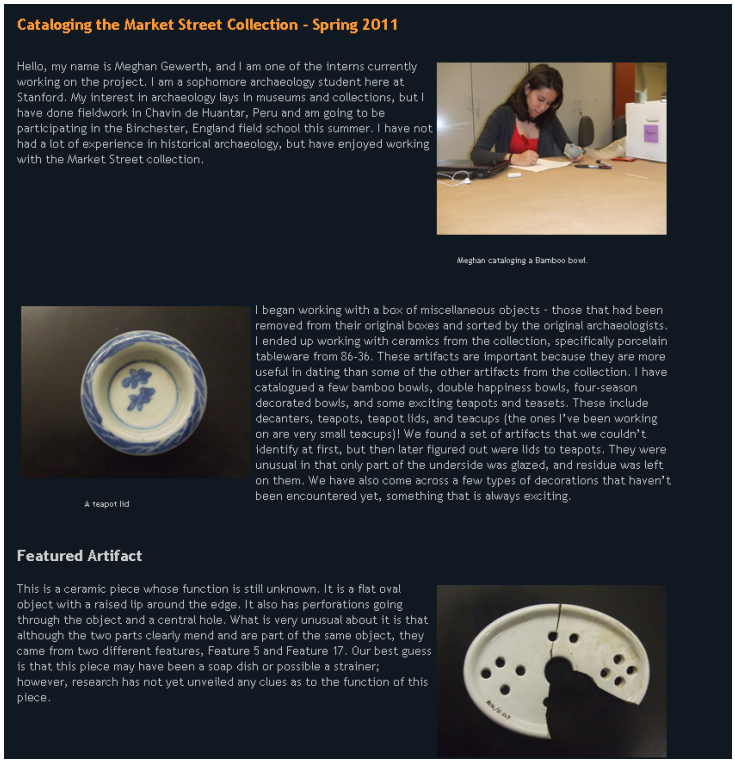

Figure 2.5 Example of student-contributed blog post on the Market Street Chinatown Archaeology Project website.

2.3 Presentations

Presentations to professional and public groups continue to be an important means for disseminating information about the Market Street Chinatown Archaeology Project.

During 2009-2011, Professor Voss presented the following lectures related to the Market Street Chinatown Archaeology Project.

May 2011	Market Street Chinatown Archaeology Project: Local Communities, Transnational Archaeology. Stanford Archaeology Council, Stanford.
March 2011	Reflections on Community Diversity: Emerging Approaches in Community Archaeology. Society for California Archaeology Annual Meeting, Rohnert Park.
May 2009	The Historical Archaeology of Sexual Communities. Theoretical Archaeology Group, Stanford University, Stanford.

May 2009 Discussant: “CHAT @ TAG: Symmetry and Diversity in Archaeologies of the Recent Past”. Theoretical Archaeology Group, Stanford University, Stanford.

May 2009 The Historical Archaeology of Sexual Communities. Annual Meeting of the Society for Historical Archaeology, Toronto, Ontario.

In 2011, C. Shea Henry presented the following lecture to the Northwest Anthropological Conference.

April 2011 Reconstructing Historical and Archaeological Context: Report on Archival Research and Feature Summaries for the Market Street Chinatown Archaeological Collection. Northwest Anthropological Conference, Moscow, Idaho.

2.4 Student Internships and Public Archaeology

Students have been involved in the Project from the beginning; however this has primarily occurred in a classroom setting such as IHUM or laboratory methods courses. In 2011, History San José proposed that Stanford students could take a more active role in the public interpretation of Chinese-American history in San Jose. Specifically, Stanford students, trained in archaeological methods and in the history of Chinese immigration, would serve as interpreters for “mock excavations” during weekend events at History Park and assist in History San Jose’s Grade 4-6 program: “Coming to America: The Immigrant Experience” (http://www.historysanjose.org/pdf_docs/1011HSJSchoolBrochure.pdf).

In Spring Quarter 2011, we ran a small-scale pilot program following this model. Two undergraduate interns, Meghan Gewerth and Kate Rose, enrolled in the internship program for academic credit. Additional students were recruited for a public archaeology day at History San José on May 15, 2011 (Figure 2.6). At History San José, the students ran a series of archaeology activity stations, including a mock excavation (Figure 2.7), archaeological screening (Figure 2.8), and artifact reconstruction (Figure 2.9).

Public attendance at the event was lower than hoped because of a rainstorm with intermittent hail. Despite inclement weather, about 15-20 families participated in the archaeology activities.

We plan to continue both the internship program and public archaeology events in 2011-2012.

Figure 2.6 Stanford student interns and volunteers at the May 15, 2011, public archaeology event at History San José.

Figure 2.7 Mock excavation.

Figure 2.8 Archaeological screening.

Figure 2.9 Artifact reconstruction.

SECTION 3.0
CATALOGING AND DATA MANAGEMENT

Cataloging was a continued priority throughout 2008-2011. We focused on cataloging three categories of cultural material: glass, faunal bone, and ceramics. These materials were selected in order to facilitate new research initiatives that are described in later sections of this report.

We also undertook a major overhaul of our data management system. This included purchasing and installing two new laboratory computers, upgrading operating systems and software, improving database protection to include automated off-site backups, and networking the laboratory computers to allow multi-user access to the catalog database.

As of June 2011, the Market Street Chinatown collection contained a total of 343 file-size boxes of artifacts. Of these, 93 boxes have been cataloged, while 250 remain to be cataloged. In other words, only approximately 27%, by volume, of the Market Street Chinatown collection has been cataloged. This statistic is not a good indication of the level of effort still required to complete cataloging. For example, one box could contain a single large artifact, or literally hundreds of smaller artifacts. Similarly, some artifacts, such as ceramics, are cataloged individually with a great level of detail, while others, such as animal bone, are batch cataloged with minimal analysis.

The current catalog database (Appendix A) includes 3560 records from Lot 85-31, and 766 records from Lot 86-36. Together these records represent 18,049 specimens representing an estimated 4,319 objects (excluding animal bone, which has not been counted by specimen). The sum total of cataloged materials weighs 485 kilograms.

Tables 3.1 and 3.2 provide a detailed account of the distribution and relative frequency of cataloged artifacts, by material type, as of June 1, 2011. These figures reflect only what has been cataloged to date and cannot be taken as representative of the contents of the entire collection. As shown in Figure 3.1, the distribution of cataloged materials reflects the Project's priorities to date: ceramics, glass, and animal bone have been cataloged extensively, while only limited amounts of other materials have been cataloged.

We plan to continue our emphasis on cataloging ceramics with the goal of completely cataloging this material type. In 2011-2012, we will also begin to catalog soil samples and organic residue to facilitate a pilot study in environmental anthropology (see Section 1.4.5.1).

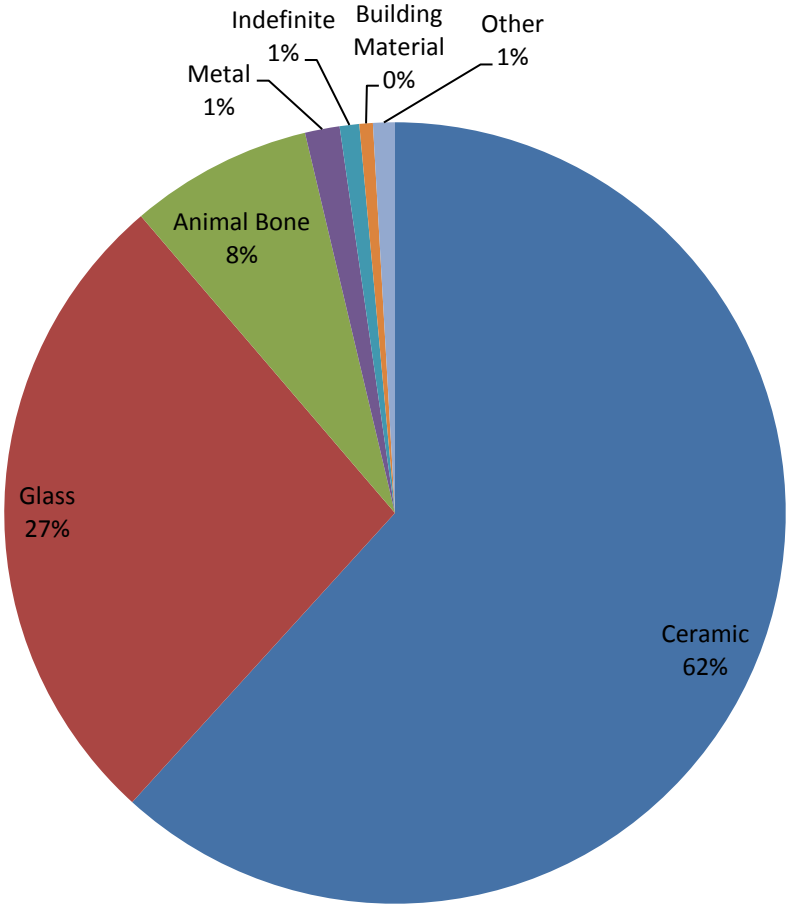

Figure 3.1 Relative frequencies of cataloged artifacts as of June 1, 2011, by material type, according to number of catalog records.

Table 3.1 Distribution of cataloged artifacts, by material type, as of June 1, 2011

	No. of Cat. Records	NISP	MNI	Weight (kg)
Animal Bone	327.00	not recorded	not recorded	223,571.76
Botanical	5.00	1.00	1.00	0.10
Building Material	24.00	69.00	24.00	1,732.43
Cellulose	4.00	4.00	4.00	3.20
Ceramic	2,669.00	11,080.00	2,799.00	166,107.77
Charcoal	5.00	15.00	5.00	0.30
Coal	1.00	1.00	1.00	-
Glass	1,167.00	5,046.00	1,243.00	86,508.14
Graphite	3.00	3.00	3.00	12.60
Indefinite	35.00	303.00	38.00	1,694.58
Ivory	1.00	2.00	1.00	100.00
Jade	1.00	1.00	1.00	18.00
Leather	1.00	1.00	1.00	0.10
Metal	62.00	746.00	80.00	5,012.43
Plastic	1.00	1.00	1.00	1.30
Shell	6.00	36.00	6.00	4.34
Stone	7.00	10.00	7.00	153.50
Textile	4.00	4.00	4.00	4.60
TOTAL	4,323.00	17,323.00	4,219.00	484,925.15

Market Street Chinatown Archaeology Project, 2008-2011 Progress Report

Table 3.2 Frequency of cataloged artifacts, by material type, as of June 1, 2011

	No. of Cat. Records	NISP	MNI	Weight (kg)
Animal Bone	7.56%	not recorded	not recorded	46.10%
Botanical	0.12%	0.01%	0.02%	0.00%
Building Material	0.56%	0.40%	0.57%	0.36%
Cellulose	0.09%	0.02%	0.09%	0.00%
Ceramic	61.74%	63.96%	66.34%	34.25%
Charcoal	0.12%	0.09%	0.12%	0.00%
Coal	0.02%	0.01%	0.02%	0.00%
Glass	27.00%	29.13%	29.46%	17.84%
Graphite	0.07%	0.02%	0.07%	0.00%
Indefinite	0.81%	1.75%	0.90%	0.35%
Ivory	0.02%	0.01%	0.02%	0.02%
Jade	0.02%	0.01%	0.02%	0.00%
Leather	0.02%	0.01%	0.02%	0.00%
Metal	1.43%	4.31%	1.90%	1.03%
Plastic	0.02%	0.01%	0.02%	0.00%
Shell	0.14%	0.21%	0.14%	0.00%
Stone	0.16%	0.06%	0.17%	0.03%
Textile	0.09%	0.02%	0.09%	0.00%
TOTAL	100.00%	100.00%	100.00%	100.00%

Market Street Chinatown Archaeology Project, 2008-2011 Progress Report

SECTION 4.0
GLASS CATALOGING AND PILOT GIS ANALYSIS
CONTRIBUTED BY GUIDO PEZZAROSSI

During Summer 2009, nearly all of the glass artifacts from ARS project 85-31 were cataloged, analyzed and rehoused into permanent curation boxes. The cataloging was undertaken by Guido Pezzarossi and Adrian Myers in the Historical Archaeology Laboratory at the Stanford Archaeology Center. The only remaining glass artifacts that are not yet cataloged are those that may be mixed in boxes consisting primarily of non-glass materials, and that were not visually apparent when inspecting the collection.

4.1 Cataloging

While some of the glass artifacts from Lot 85-31 had previously been cataloged, it had not been done systematically. We first focused on developing a cataloging scheme tailored to the specifics of a glass artifact analysis. Most of the glass artifacts remained clearly labeled with their original ARS catalog numbers. However, as the analysis proceeded it became necessary at times to divide up some of the labeled artifacts into distinct catalog numbers based on characteristics such as color categories, vessel form, function, size and decoration. In addition, a more detailed analysis of the bases and finishes of the bottles in the assemblage required increasing the level of detail of certain catalog fields. The procedures developed to catalog glass artifacts are documented in the updated cataloging handbook, provided as digital file in the CD attachment to this report.

A total of 637 new catalog records were completed and entered into the database, documenting the results of the analysis of over 3040 individual glass artifacts. Updates of the progress of the glass analysis were posted on the project website. An electronic copy of the current catalog database is provided as digital files in the CD attachment to this report. Researchers using this database should be aware that there are likely additional glass specimens remaining to be cataloged from ARS project 85-31, and that very little glass has been cataloged from ARS projects 86-36 and 88-91. As these tasks progress, the resulting data will be documented and included in all subsequent progress reports.

4.2 Analysis of Catalog Records

The catalog database has been used to generate Table 4.1, which displays the number and frequency of glass catalog records and aggregate glass weight from each feature within Lot 85-31. The relatively high concentration of glass within specific features becomes more apparent when the data presented in Table 4.1 is presented graphically, as in Figure 4.1.

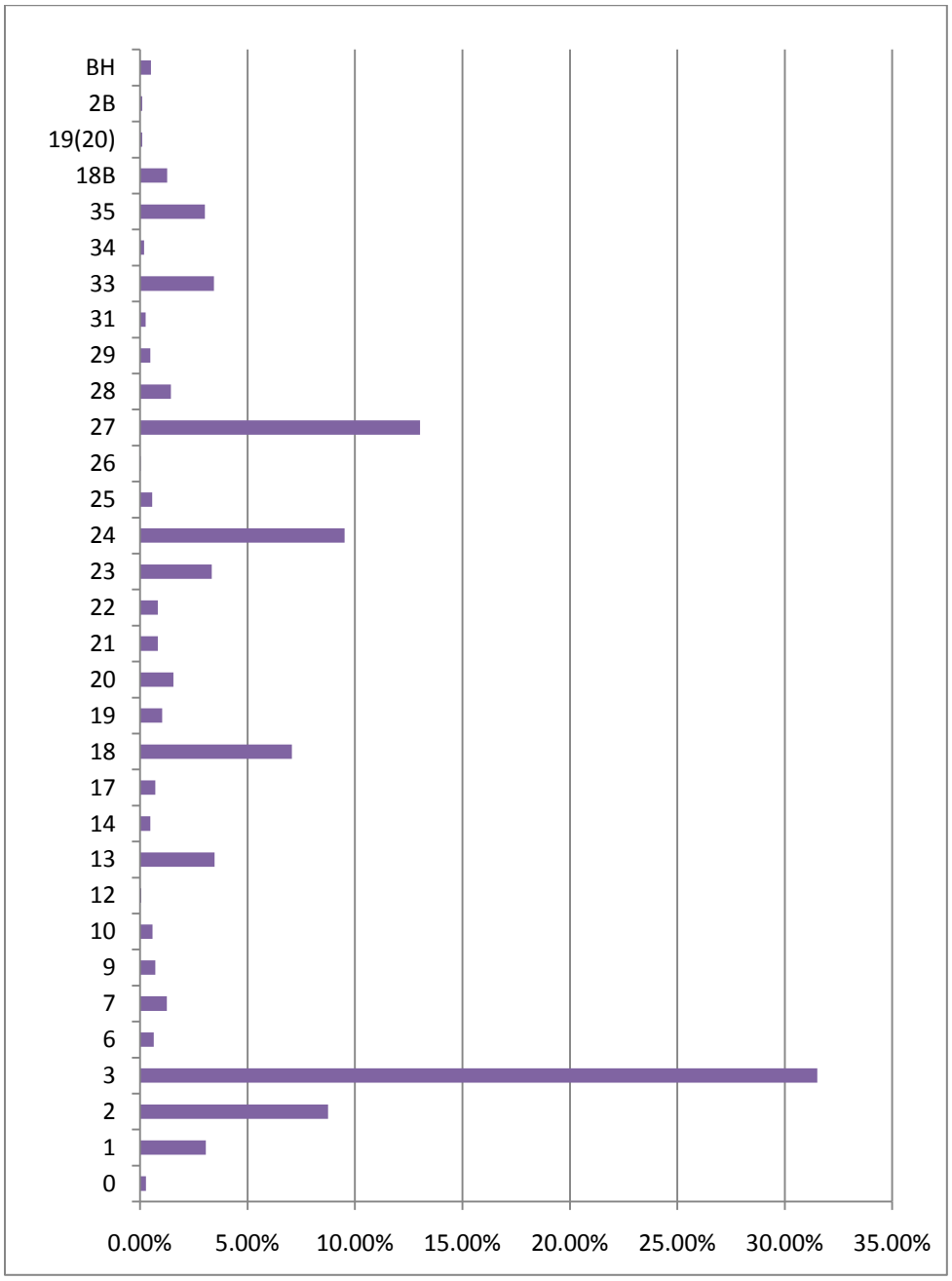

Figure 4.1. Frequency (by weight) of Lot 85-31 glass artifacts, by feature.

Feature 85-31/3 yielded the highest proportion of glass, with 31.52% (by weight) of the glass artifacts originating from that feature. Overall 70% of the Lot 85-31 glass assemblage originated in just five features: 85-31/2; 85-31/3; 85-31/18; 85-31/24; and 85-31/27. This finding was surprising as it indicates that the majority of glass used in the Market Street Chinatown was selectively disposed of in a few specific locations.

Table 4.2 shows the distribution of glass artifacts by artifact type: building material (primarily window glass), closures (lids), containers (bottles and jars), decorative items, drinking vessels (goblets and glasses), indefinite (shards too small to identify the original vessel), jewelry, serving vessels (e.g., platters), tableware (plates or bowls), and toiletry items (such as cosmetic jars). Preliminary interpretations can be made from the results of this analysis, with the caveat that these frequencies may change as more glass is cataloged from other segments of the Market Street Chinatown assemblage. The most abundant type of glass recovered from the Market Street excavations is container glass, primarily alcoholic beverage and medicine bottles, accounting for close to 563 catalog records, or 55% of the cataloged assemblage. This is not surprising, due to the more disposable nature of such bottles compared to drinking vessels and tablewares. In contrast, tablewares (not including drinking vessels) were recovered in very small quantities – only seven catalog records – with Features 85-31/2, 85-31/18 and 85-31/19 yielding the only examples.

In interpreting these preliminary findings, a distinction should be made between number of individual specimens (NISP), number of catalog records, and minimum number of vessels (MNV). One original bottle could remain intact; or may have broken into many pieces; for this reason NISP may not be a good indicator of relative abundance. Raw weight provides a proxy, but the more commonly used measure is MNV, which accounts for the minimum number of vessels represented by the specimens. At the present time, MNV is calculated within each catalog record, which may artificially inflate the MNV count if two catalog records hold specimens that might be from the same or similar vessel. One of the future goals of the project is to undertake a complete intra- and inter-feature MNV count in order to rectify the less accurate MNV provided above.

Together these measures do provide a rough indication of the abundance and frequency of glass artifacts in the assemblage. Prior to the cataloging undertaken in Summer 2009, 1432 glass specimens from Lot 85-31 were cataloged in 359 catalog records, and yielded an MNV of 380. In Summer 2009, we cataloged an additional 3040 specimens in 637 catalog records, yielding a MNV of 651. Together, all of the cataloged glass artifacts from Lot 85-31 yielded 4432 specimens and an MNV of 1031.

4.3 Pilot GIS Study

In Summer 2009, we also undertook a pilot project to determine the usefulness and feasibility of digitizing the excavation maps from the Market Street project. The digitization took place through creating a Geographic Information System (GIS) for the project with the ESRI product arcGIS 9.1. The purpose of digitizing the maps within a GIS is to maximize the potential benefits of using spatial and non-spatial information together, allow for analyses of the spatial distribution of artifacts across the project area, as well as allowing us to overlay the excavation map onto a variety of historic and modern maps. Additionally, the communicative and aesthetic value that a GIS provides is significant.

The preliminary steps to establishing the GIS consisted of locating a scanned image of the USGS quadrant map that contains the portion of San Jose where the Market Street Chinatown was located. Using this USGS quad map as a base, we then proceeded to georeference the scanned excavation maps and Sanborn Insurance maps for the project area onto the base map by identifying common points between them. The presence of Market Street on the excavation maps and the fact that the road has not changed location since the excavations, allowed us to anchor the excavation and Sanborn maps to the quad map and thus locate the excavation features in space despite the lack of UTM coordinates or latitude/longitude information.

After georeferencing, the next step was to digitize all of the features on the excavation map and assign to each created polygon its associated feature designation. The digitized features were all assigned to individual layers depending on what excavation lot they were located in. Once the spatial information for each of the features was defined, we were able to assign to each feature the non-spatial information contained in the catalog. Thus, once information such as glass container frequencies for each feature was tied to the digitized feature, it was possible to display the spatial distribution of artifacts. At the moment, the GIS is functional and has had all of the glass analysis results joined to the feature, which has allowed us to utilize the GIS for the spatial analysis of the glass assemblage that is summarized below.

The future goals for the GIS (beyond further refinement of the current GIS' data and file organization), are centered on joining more non-spatial information to the maps. Of primary importance is to digitize all of the buildings present on the Sanborn Insurance map and add to them as much information about each building that can be rendered from the Sanborn map. This step may necessitate research trips to analyze the original Sanborn maps, as the digital copies in our possession lack much of the information potentially available and are somewhat illegible. The secondary goal is to continue to migrate other facets of the catalog database to the GIS as they are completed, in addition to allowing undergraduate students to use it and the analytical tools it offers in student research projects.

4.4 Preliminary GIS Analysis of Glass Assemblage from Lot 85-31

Using the GIS and data from the project catalog database, we were able to easily generate maps of the density of glass artifacts, as shown in Figures 4.2, 4.3, and 4.4.

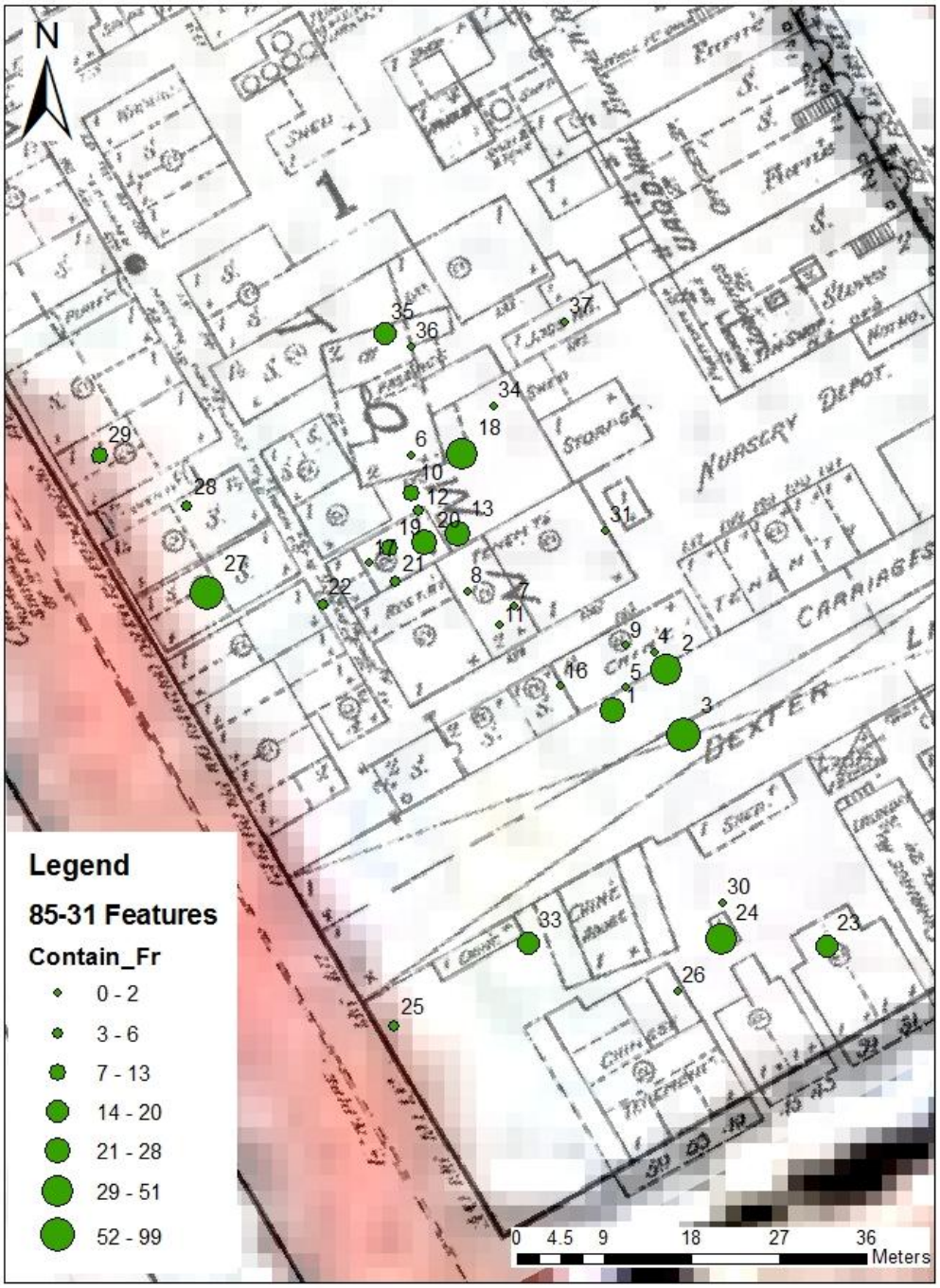

Figure 4.2 Distribution of Lot 85-31 glass containers, by feature.

Figure 4.3 Distribution of Lot 85-31 glass drinking vessels, by feature.

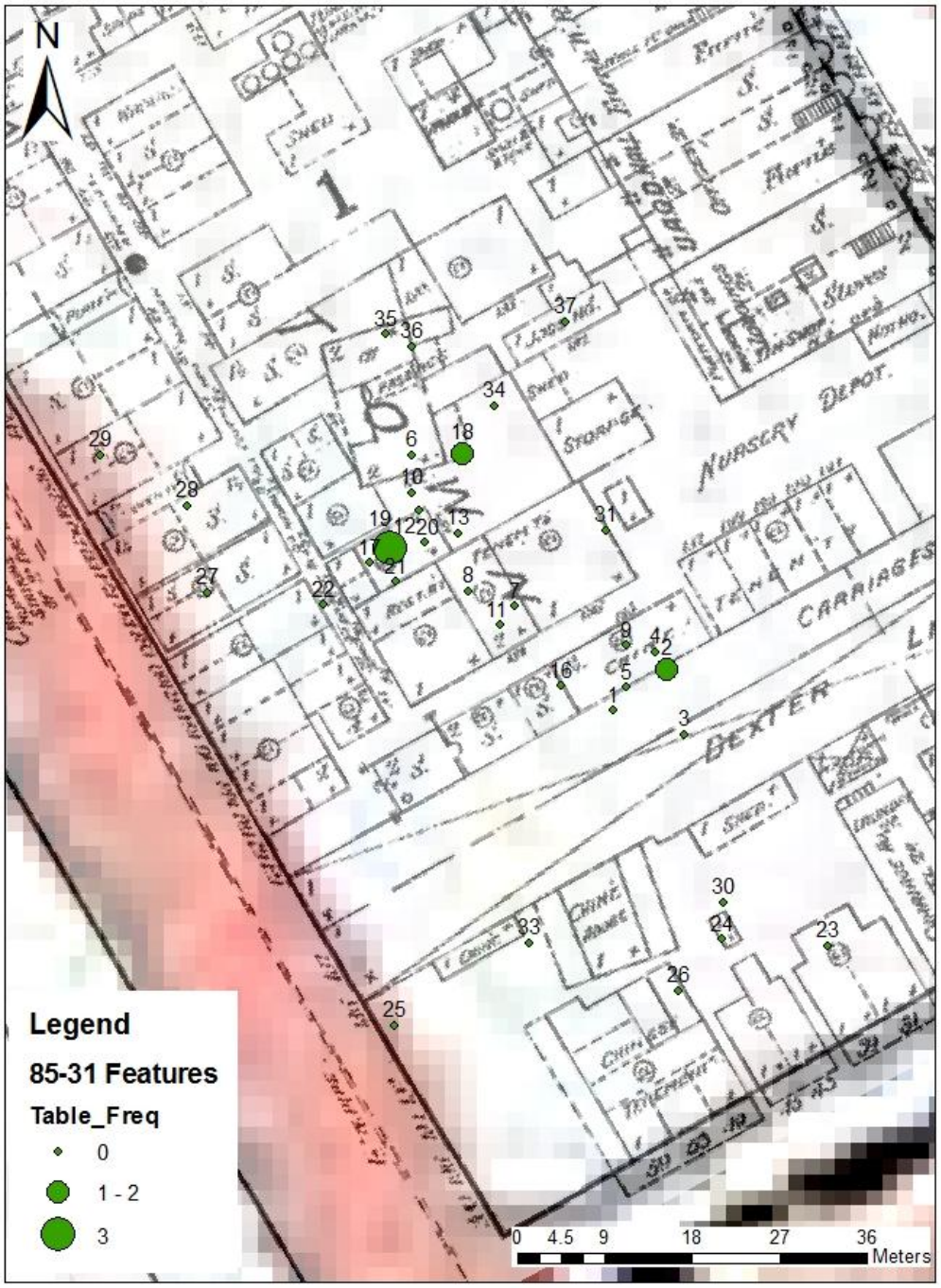

Figure 4.4 Distribution of Lot 85-31 glass tableware vessels, by feature

These examples of GIS applications illustrate the potential of GIS to represent archaeological data in its geographic relationship to the historic structures of the Market Street Chinatown, and as such may be a valuable method for archaeological research and public outreach.

Table 4-1. Distribution of Lot 85-31 glass artifacts, by feature

Lot No.	Feature No.	Catalog Records	Frequency, by cat. records	Weight, in grams	Frequency, by weight
85-31	0	5	0.49%	224	0.28%
85-31	1	44	4.28%	2,448	3.06%
85-31	2	91	8.85%	6,984	8.74%
85-31	3	144	14.01%	25,185	31.52%
85-31	6	17	1.65%	514	0.64%
85-31	7	27	2.63%	998	1.25%
85-31	9	18	1.75%	561	0.70%
85-31	10	14	1.36%	460	0.58%
85-31	12	10	0.97%	45	0.06%
85-31	13	90	8.75%	2,771	3.47%
85-31	14	15	1.46%	382	0.48%
85-31	17	3	0.29%	570	0.71%
85-31	18	115	11.19%	5,639	7.06%
85-31	19	34	3.31%	822	1.03%
85-31	20	41	3.99%	1,233	1.54%
85-31	21	4	0.39%	664	0.83%
85-31	22	13	1.26%	657	0.82%
85-31	23	31	3.02%	2,665	3.33%
85-31	24	68	6.61%	7,603	9.52%
85-31	25	10	0.97%	454	0.57%
85-31	26	2	0.19%	15	0.02%
85-31	27	120	11.67%	10,412	13.03%
85-31	28	13	1.26%	1,140	1.43%
85-31	29	14	1.36%	385	0.48%
85-31	31	2	0.19%	201	0.25%
85-31	33	29	2.82%	2,745	3.44%
85-31	34	2	0.19%	153	0.19%
85-31	35	25	2.43%	2,412	3.02%
85-31	18B	21	2.04%	1,006	1.26%
85-31	19(20)	1	0.10%	78	0.10%
85-31	2B	4	0.39%	77	0.10%
85-31	BH	1	0.10%	403	0.50%
	TOTALS	**1028**	**100%**	**79,902.18**	**100%**

Table 4.2 Distribution of Lot 85-31 glass artifact types, according to number of catalog records

Lot #	Feature #	Building Material	Closure	Container	Decorative	Drinking Vessel	Indefinite	Jewelry	Lamp	Serving	Tableware	Toiletry
85-31	0			3					1			1
85-31	1	2	1	28			12					
85-31	2	2		51		2	30		3		2	
85-31	2B	1					3					
85-31	3	6		97		3	35	1				
85-31	4											
85-31	5											
85-31	6	3		4			6		4			
85-31	7	1		14			11	1				
85-31	8											
85-31	9			8			11					
85-31	10	2		8			4					
85-31	11											
85-31	12	1		3			6					
85-31	13	3	1	28	4		48	1	6			
85-31	14	1		6		1	5	1				
85-31	15											
85-31	16											
85-31	17			1			2					
85-31	18	10	1	40	1		57	1	4		2	
85-31	18B	2		6			12		1			
85-31	19	3		13		1	8		6		3	
85-31	20	3		26		1	11					
85-31	21			4								
85-31	22	1		6		2	3		1			
85-31	23			19		1	9		2			
85-31	24	4		37	1	10	12			2		2
85-31	25		1	4			4		1			
85-31	26			1			1					
85-31	27	2		99		2	16		1			
85-31	28	1		5			2		6			
85-31	29			11			3					
85-31	30											
85-31	31			2								
85-31	32											
85-31	33	1		17		2	10					
85-31	34			1			1					
85-31	35	2		20			3					
85-31	BH			1								
	Totals	**51**	**4**	**563**	**6**	**25**	**325**	**5**	**36**	**2**	**7**	**3**
	Frequency	**5.0%**	**0.4%**	**54.8%**	**0.6%**	**2.4%**	**31.6%**	**0.5%**	**3.5%**	**0.2%**	**0.7%**	**0.3%**

SECTION 5.0
FAUNAL BONE ASSEMBLAGE CATALOGING AND REHOUSING
CONTRIBUTED BY ADRIAN MYERS

Identification of faunal remains for dietary reconstruction is a major interpretive goal for the Project. In July and August 2008 all of the faunal collection from Lot 85-31 and Lot 86-36 was sorted, catalogued, and rehoused – a project started by Stacy Kozakavich (see the 2007-2008 Annual Report). Also, all of the boxes containing faunal materials have been moved from the Historical Archaeology Lab to the Stanford Archaeology Center (SAC) artifact storage room. Samples may now be extracted and submitted for specialized analysis. Additionally, some preliminary analysis calculating the gross weight of faunal bone by feature has been completed.

5.1 Gross Sorting by Provenience

In the first stage of faunal processing, all faunal material boxes stored in the Historical Archaeology Laboratory and Stanford Archaeology Center artifact storage room were moved into the laboratory for sorting by feature number. During this initial sort, non-bone faunal materials (such as eggshell and marine shell), non-faunal organics, screen samples, slag, and soil samples were boxed separately for future cataloging and analysis. Bone artifacts, including "small finds" such as bone toothbrush handle fragments, and non-bone materials such as ceramics and glass, were taken out of faunal boxes and set aside for cataloging.

Two boxes labeled on their exteriors with Market Street Chinatown Archaeology Project stickers as belonging to ARS project 85-31 were found during sorting to contain large identifiable faunal elements bagged with photocopies of a previous box label reading "85-31 Blk 1 / Fea 23" and photocopies of handwritten bag tags labeled "88-33" with modifier numbers GS249, GS250, GS254, GS253, GS251. Dr. Voss contacted Archaeological Resource Service (ARS), and with their help, established that these boxes of fauna were not recovered during the excavation of the Market Street Chinatown. The boxes were returned to History San José in March 2011.

In another box labeled as belonging to Lot 85-31, there were several bags of faunal bone labeled with the ARS project number "85-47" but with other

indicators (Block 1, Feature 18 and Feature 10, and dates) that were consistent with other fauna excavated from Lot 85-31. Through email correspondence with Bill Roop at ARS, we learned that project number 85-47 was an administrative designation for some emergency salvage excavations conducted at the Market Street Chinatown site. During field processing in 1985 and 1986, most of these materials were consolidated with the collection from Lot 85-31; but apparently these bags were not relabeled. Consistent with the information provided by Bill Roop, we cataloged these materials as part of the collection (see Section 5.2). The new catalog numbers for these bags of faunal bone are 85-31/18B-429 and 85-31/10-105.

5.2 Initial Cataloguing

Following aggregation and sorting of all faunal materials for each excavated feature from both Lot 85-31 and Lot 86-36, initial cataloging of unsorted and partially-sorted bags of Lot 85-31 faunal bone was initiated to provide a working record of location and quantity of bone prior to sampling and in-depth analysis.

Within each feature, separate catalogue numbers were assigned to each sub-provenience (such as excavation level) and recovery strategy (such as volume control sample). In some cases, multiple bags from a single, undifferentiated provenience were combined within one Stanford catalog number. Catalogue records were then created in the main database, and include the total weight of bone, number of current bags associated with the record and brief descriptions of the bag contents. Temporary bag-tags were placed within each catalogued bag to record the contents and catalog number.

5.3 Rehousing

All faunal bone was rebagged in clean 2-mil thick plastic self-closing bags according to provenience-based catalog record numbers. When the re-bagging was completed for all features, these bags were transferred from the old heavily re-used cardboard boxes to the new 15”x12”x10” corrugated polypropylene boxes. New box numbers were assigned according to the system discussed the lab manual, and box labels and content lists were generated consistent with the existing standards. These boxes were moved from the historical archaeology lab to the collection storage room at the Stanford Archaeology Center.

5.4 Preliminary Analysis

The gross weight of faunal bone by feature has been calculated for Lot 85-31 and Lot 86-36 (Table 5.1). These data provide a coarse measure of the relative abundance of fauna bone across the entire collection, and may be useful to researchers in identifying samples for future analysis.

The most surprising result of this analysis is that slightly over half of the faunal bone (by weight) is associated with only five features (Figure 5.1). This suggests that disposal of faunal remains was not evenly distributed throughout the Market Street Chinatown, and that specific features may have greater zooarcharchaeological research potential than others.

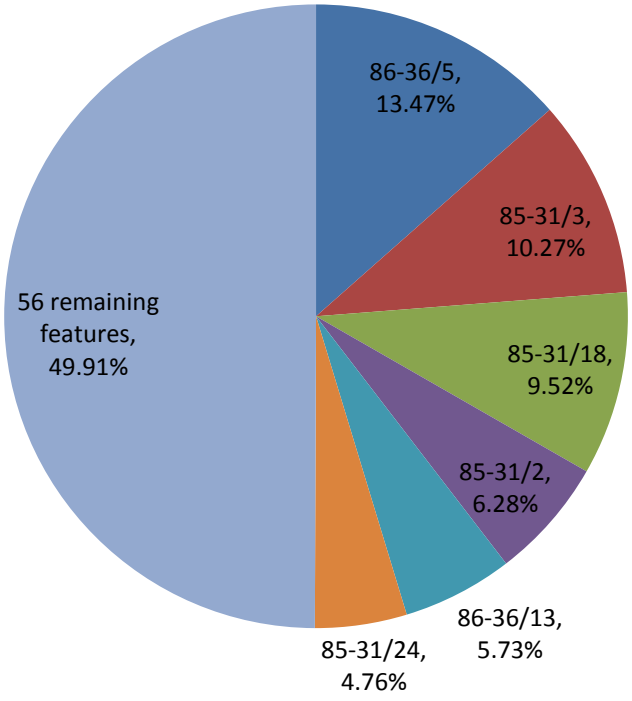

Figure 5.1 Distribution of faunal bone by weight.

Table 5.1 Gross weight of faunal bone, by feature (2 pages)

Project Area	Feature #	Sum of Weight (Grams)	Frequency By Feature
85-31	0	1,073.30	0.24%
85-31	1	8,837.48	1.98%
85-31	2	27,963.20	6.28%
85-31	2B	2,309.20	0.52%
85-31	3	45,751.60	10.27%
85-31	6	11,622.31	2.61%
85-31	7	4,364.50	0.98%
85-31	9	5,103.50	1.15%
85-31	10	2,363.98	0.53%
85-31	11	1,106.30	0.25%
85-31	12	371.96	0.08%
85-31	13	7,397.11	1.66%
85-31	14	4,741.99	1.06%
85-31	14.5	325.59	0.07%
85-31	16	695.69	0.16%
85-31	17	1,009.49	0.23%
85-31	18	42,368.84	9.52%
85-31	18B	15,525.62	3.49%
85-31	19	4,757.10	1.07%
85-31	19(20)	460.10	0.10%
85-31	20	15,393.93	3.46%
85-31	21	663.90	0.15%
85-31	22	3,839.60	0.86%
85-31	23	5,113.40	1.15%
85-31	24	21,172.98	4.76%
85-31	25	2,827.16	0.63%
85-31	26	815.10	0.18%
85-31	27	7,428.10	1.67%
85-31	28	4,466.13	1.00%
85-31	29	1,525.30	0.34%
85-31	30	1,560.40	0.35%
85-31	31	277.95	0.06%
85-31	33	6,836.00	1.54%
85-31	34	1,742.70	0.39%
85-31	35	954.70	0.21%
85-31	36	909.00	0.20%
85-31	BH	415.60	0.09%
86-36	0	9,783.58	2.20%
86-36	1	958.70	0.22%
86-36	2	397.00	0.09%
86-36	3	3,345.00	0.75%
86-36	4	1,177.00	0.26%
86-36	5	59,999.10	13.47%
86-36	6	1,093.58	0.25%
86-36	7	14,159.82	3.18%
86-36	8	14,243.61	3.20%

Table 5.1 Gross weight of faunal bone, by feature (2 pages)

Project Area	Feature #	Sum of Weight (Grams)	Frequency By Feature
86-36	9	1,935.23	0.43%
86-36	10	881.58	0.20%
86-36	11	2,212.00	0.50%
86-36	12	103.00	0.02%
86-36	13	25,515.03	5.73%
86-36	14	2,126.75	0.48%
86-36	15	560.00	0.13%
86-36	16	5,308.00	1.19%
86-36	17	1,894.00	0.43%
86-36	18	16,285.48	3.66%
86-36	19	6,985.76	1.57%
86-36	20	11,208.02	2.52%
86-36	21	-	0.00%
86-36	22	0.10	0.00%
86-36	23	-	0.00%
86-36	24	758.00	0.17%
	Total	**445,021.14**	**100.00%**

SECTION 6.0
OVERSEAS CHINESE FOODWAYS OF THE WESTERN UNITED STATES: FROM CALIFORNIA TO IDAHO

CONTRIBUTED BY C. SHEA HENRY

Editor's note: C. Shea Henry presented this paper at the Northwest Anthropological Conference at Moscow, Idaho in May 2011. It is included here with her permission as an interim report of her research on Feature 86-36/5. Throughout this section, references to the Market Street Chinatown collection refer specifically to Feature 86-36/5, the subject of Ms. Henry's Master's thesis analysis.

This paper is a preliminary study of faunal remains from Market Street Chinatown in San Jose, California and a comparison of how the foodways from California compare to three Chinese-occupied sites in Idaho. I will first consider the numbers of identified domesticates to show differences in meat consumption between the sites. I will then comment on the meat remains found in the Market Street Chinatown collection that are not seen in the Idaho sites. The differences between the San Jose assemblage and the Idaho assemblages can shed light on the numerous factors that influenced food choices such as distance from trade routes and differences in population size of these Chinese communities.

Chinese immigration to the United States began in the early 1850's. Thousands of men, women and children, but mostly men, came to the Untied States fleeing war, poverty and social strife in their native China. Chinese immigrants settled all across the country with many settling in enclaves with other immigrants. These "Chinatowns" thrived in California and across the western United States. Though Chinese immigrants came for a better life they faced poverty and discrimination in their new home at the hands of Euro-Americans. Despite these disadvantages, Chinese immigrants created settlements for themselves where they could live and have some semblance of the cultures they knew but left behind. Excavations at these Chinatowns have shown the extent to which residents did or did not maintain traditional consumption practices, particularly in their foodways.

Market Street Chinatown was located at the intersection of Market and San Fernando streets in downtown San Jose. The site was first occupied in the 1860's and was destroyed by an arson fire in 1887. At the height of

occupation, the community housed over 1000 Chinese men, women and children and served as a cultural center for more than 2000 Chinese miners and workers in the surrounding Santa Clara County (Voss 2005:430). The community was formed as a result of the large number of Chinese men who having originally been miners and railroad workers, were suddenly excluded from such work due to spreading misconceptions and discriminatory thoughts of Euro-American employers (Voss 2005:430). As a result, Chinese men and women opened shops specializing in laundering, butchery and other service related industries. San Jose was one of several urban centers that served as embarkation points for Chinese man who later settled in mining and railroad camps of the Northwest and Idaho. The site was excavated in 1985 through 1988 as part of a salvage operation in preparation for the redevelopment of downtown San Jose. The artifacts that were recovered from the dig represent one of the largest and most varied Overseas Chinese archaeological collections to date. I am in the process of identifying the faunal remains from a single feature of the Market Street collection. The faunal statistics presented in this paper are based on a partial analysis of the collection and representing approximately one third of the feature.

In Idaho, the Chinese settlements at Silver City, Pierce and Sandpoint show the changing of traditional foodways to a more assimilated Euro-American diet. This change reflects a preference for a Euro-American diet or simply a lack of access to traditional resources. Silver City was a mining community in Southern Idaho established in 1864 and all but abandoned in the 1930's when the mining industry left (Hamilton 2008). At its height of population, Silver City was home to 159 Chinese miners (Hamilton 2008:17). Pierce Idaho is located in north central Idaho and was founded as a mining camp in the 1860's. Pierce's Chinese population at one point was as many as 500 (Longenecker and Stapp 1993:98). Sandpoint was founded as a logging town and is located in Northern Idaho. Sandpoint had a very large Chinese population in the early 1880's while the railroad was being built but the long term Chinese population was quite small, generally around 6-10 individuals (Warner 2010) The Chinese settlers of all three sites lived separate from Euro-American settlers, often on the outskirts of the town.

Traditional Overseas Chinese foodways included not only imported delicacies unique to China but also involved a preference for certain meats over others. Food stuffs imported from China included bean curd, bamboo shoots, sweetmeats, birds' nests and fish fins, among others (Longenecker and Stapp 1993:104). These items were imported into San Francisco through the pacific trade routes with China. In meat consumption, pork is the primary meat consumed and most important in a traditional Chinese diet (Anderson 1988:144). Chicken and fish (where available) are also consumed and preferred. Beef on the other hand is a minor part of the traditional diet and mutton is virtually non-existent; though is more common in northern China

(Coe 2009:81). The percentages of these meats depend on location and population of the Chinatown occupied.

To compare foodways of the San Jose Chinatown against the three Idaho sites in this study, I considered the identified faunal remains of domestic animals at all four sites. Remains of a variety of food animals were recovered at each site, however, for the purpose of this comparison I will only use pig, cow, sheep/goat and fowl. Sheep and goat bones are relatively indistinguishable from one another and are put into a single category of sheep/goat or caprene. Fowl includes any identified bird including chicken, duck, goose and turkey. These animals are placed into a chart and some differences stick out (Figure 6.1). It is clear that the Market Street and Pierce Chinatowns retain more traditional Chinese foodways practices while Silver City and Sandpoint Chinatowns have food habits more commonly associated with Euro-Americans. The Silver City and Sandpoint Chinatowns not only have nearly as much beef as pork but also include large quantities of mutton, a practice not held at Market Street or Pierce.

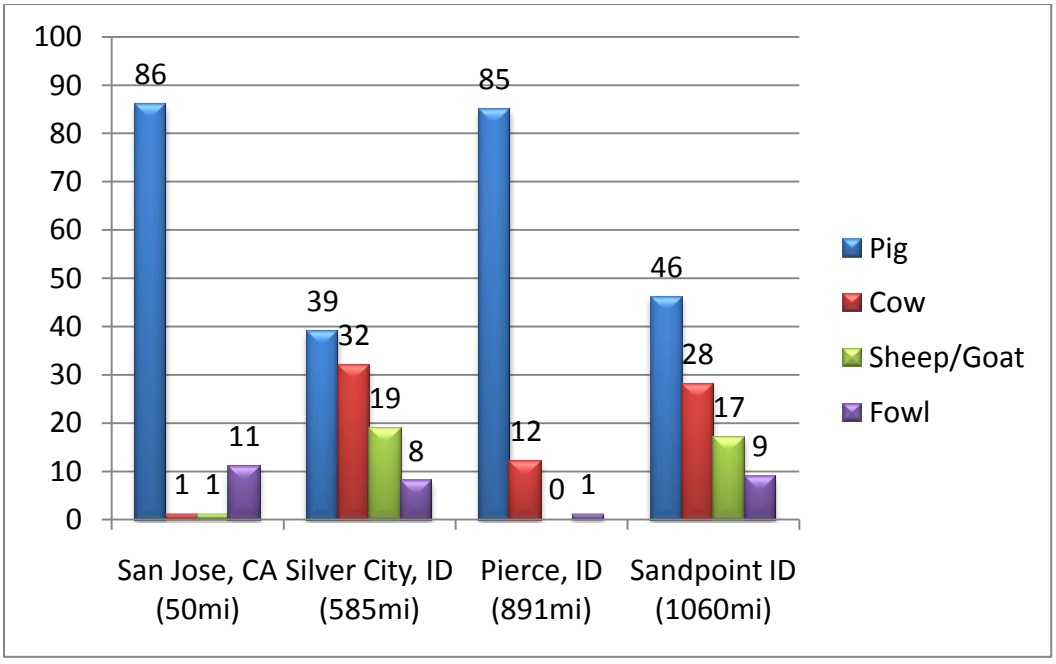

Figure 6.1 Percentage of domesticate meats by distance from San Francisco.

So what is causing these differences in food consumption? The theory commonly accepted in rural Overseas Chinese studies is the limits in consumption due to the far distances from trade routes. The hub of the trade network with China was in the booming Chinatown of San Francisco. The distance of each Chinatown in this study from San Francisco will be used as the

basis of comparison. The closest site in this study, Market Street San Jose was 50mi away and Sandpoint, the furthest was 1060mi away. There does not appear to be an overwhelming correlation between distance from the trade hub and the tendency to consume a more traditional Chinese diet. There is some correlation however since San Jose is only 50 miles away, they would obviously have access to traded resources that show up less in the archaeological record, which will be discussed later.

So if the distance from the trade route does not affect the food eaten to a large extent, what does? The four Chinatowns discussed have vastly different populations, ranging from the thousands to a few individuals. When considering the population and number of individuals who would be consuming imported trade goods, a noticeable pattern arises (Figure 6.2). As a Chinese population becomes less populous in a town, it appears that coherence to traditional Chinese foodways becomes less prevalent. Both distance from trade routes and limited Chinese population certainly effect the consumption of traditional food. It appears though that limited population affects the maintaining of a traditional diet more than distance from trade routes.

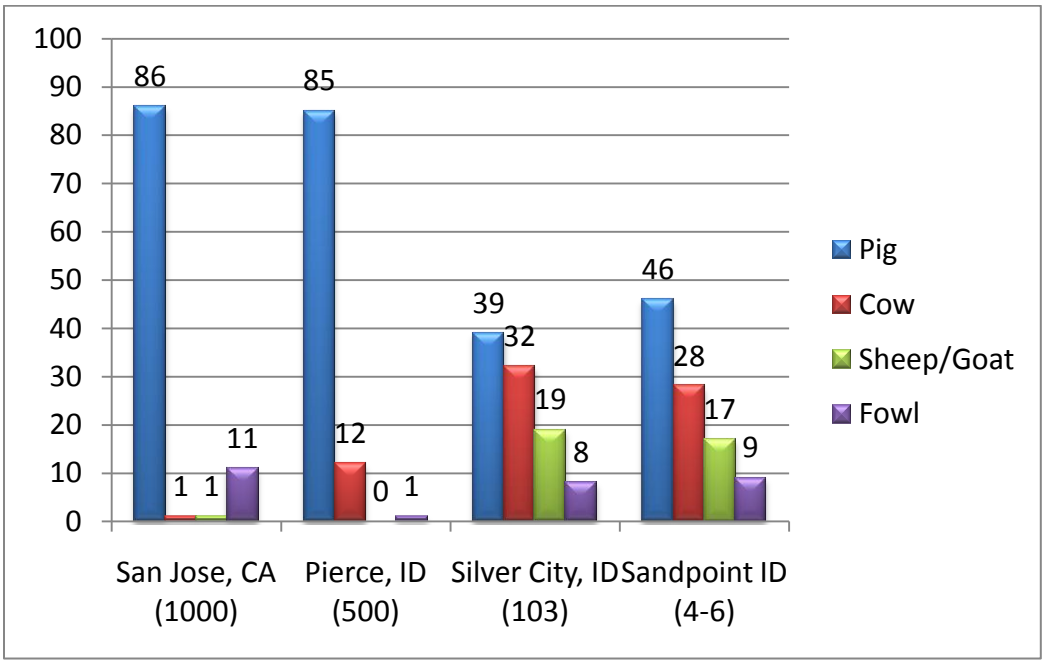

Figure 6.2 Percent of domesticate meats by population size

Fish bones also represent an interesting contrast between the Urban Market Street Chinatown and the settlements in Rural Idaho. The numbers of fish bones in the Market Street collection have been counted in entirety, with a total of 2,611 bones. Of those bones, 1,125 are fish vertebrae while a staggering 1,486 are head and fin bones. This amount of head and fin bones differs drastically from the common Euro-American practice of discarding the head, often at sea. The bones represented and shear numbers differentiate

the Market Street fish bones from the Pierce, Silver City and Sandpoint collections which include a very small number of fish bones (Hamilton 2008:57; Warner 2010). No fish bones were recorded from the Pierce Chinatown site, despite the relatively close proximity of the Clearwater and Salmon Rivers (Longenecker and Stapp 1993). The Silver City Chinatown records a single fish bone being discovered but the bone identification is not recorded. At the Sandpoint Chinatown, 21 fish were recovered, a surprisingly small number considering the abundance of fish in the surrounding rivers and Lake Pendoreille.

Fish, more than pork or chicken, represent an adherence to traditional Chinese foodways in the highly populated Market Street Chinatown. Though the residents of Market Street did have closer access to marine resources, the inhabitants of the three Idaho sites cannot claim lack of access due to the abundance of freshwater fish in nearby streams and lakes. The lack of freshwater resources indicates at least some assimilation to Euro-American foodways at the time. Euro-Americans in the mid 19th century considered fish to be a poor-mans food and ate it in very small quantities, a trait apparently picked up by their Overseas Chinese neighbors at the three Idaho sites.

Shifting focus, several meat resources recovered from the Market Street investigation are not found in any Idaho Chinatown excavation, and may even be unique to Market Street itself. There have been eleven rabbit bones found in the collection. Two of the eleven rabbit bones found so far show signs of butchery and cutting, indicating that they were used as a food source and not simply miscreant rodents caught in the trash pile. Rabbit meat was consumed in China but not in large quantities and was usually made into a stew.

Another interesting pattern noticeable in the collection is the abundance of butchered chicken tibio-tarses, or chicken feet. There are nearly as many of the chicken feet bones recovered as all other chicken bones together. Most of the tibio-tarses in the collection have been butchered, specifically chopped, in the same relative place. This abundance of chicken feet suggests the preference for this dish by the people of Market Street. Chicken feet are a necessary part of the dim sum feast that is still practiced in China and Chinese communities today. It is unclear however if this behavior is the reason for the high amount of butchered chickens feet.

Among the marine resources discovered in the collection, 42 cuttlebone fragments have been found, indicating the consumption of cuttlefish. Cuttlefish can be found in the warm pacific waters off the coast of southern China but not in the San Francisco bay or western US coast. This is therefore the first evidence from the feature of meat imported from China. I will continue to research the presence of cuttlefish remains by searching the historical records for indications of purchasing and importing costs.

Possibly the most exciting find in the collection so far has been the butchered and nearly complete, bear's paw. Bear's paw was eaten in imperial China but fell out of favor after the fall of the Qing dynasty. It was part of a 16 course meal held by the imperial family and other wealthy Chinese families. These 16 course meals included the most expensive and rare dishes and meats that were meant to display a family's wealth and prestige. Other dishes served in this imperial feast include sharks fin, panther's breast, camel hump, suckling pig, minced crab, chicken, goose and duck. The presence of the bear's paw in this collection suggests the continuation of the feasting tradition began in imperial China.

There is also evidence of meat consumption at two of the Idaho sites that has not yet been identified in the Market Street collection. The Market Street collection shows a definite lack of game animal remains. The Silver City and Sandpoint sites both indicate the presence of elk and deer in small quantities, while Market Street has none (Hamilton 2008:57, Warner 2010). The presence of game animals for food shows adaptations to environmental availability of the Silver City and Sandpoint inhabitants. It is not out of the question that deer and elk would have been available in the San Jose region. The lack of deer and elk meat suggests that the inhabitants of Market Street Chinatown had other resources they could tap into and did not need to hunt or purchase game animals.

It is clear that there are drastic differences in food consumption between the highly populated urban San Jose Chinatown and the rural Idaho communities, but it yet unclear why that difference occurs. There are obvious restrictions placed on the Idaho communities based on their distance from the trade routes to China. They also lack the high population that would encourage a supply of traditional foods. However, given the amount of available resources consumed in San Jose and not in the Idaho sites, fish in particular, there are obviously other factors affecting the food cultures of each Idaho community. As my research continues I expect to present a more detailed summary of San Jose Market Street Chinatown foodways and by implication present a richer understanding of the complexities of Chinese foodways in the west.

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