Historical Archaeology of an Overseas Chinese Community in Sacramento, California

VOLUME 1: ARCHAEOLOGICAL EXCAVATIONS



English 'Willow' pattern plate fragment with incised Chinese character

Anthropological Studies Center Sonoma State University Academic Foundation, Inc. Rohnert Park, CA 94928

> 1997 (reprinted 2007)

Historical Archaeology of an Overseas Chinese Community in Sacramento, California

VOLUME 1: ARCHAEOLOGICAL EXCAVATIONS

by Mary Praetzellis and Adrian Praetzellis

> with contributions by Sherri Gust Virginia R. Hellmann Madeline Hirn Sunshine Psota Lester A. Ross Peter D. Schulz G. James West Jeannie K. Yang

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ABSTRACT

In late 1994 archaeologists from Sonoma State University carried out archaeological testing and data recovery on the HI56 Block in Sacramento, California. This work, done in advance of construction of a federal office building and courthouse, was sponsored by the U.S. General Services Administration in accordance with the requirements of Section 106 of the National Historic Preservation Act. Prefield documentary research had disclosed that this was the last archaeologically surviving portion of Sacramento's mid-19th-century Chinese district. A detailed research design and archaeological treatment plan was prepared and, through an agreement with the State Office of Historic Preservation, test and data-recovery excavations were carried out as a single operation.

This work revealed archaeological deposits that were determined to be eligible to the National Register of Historic Places under Criterion D, including caches of domestic and commercial refuse associated with a series of Chinese District Association boardinghouses that housed Chinese workers during the mid-1850s. The resulting historical and archaeological analyses revealed much information about the everyday lives of these working-class Chinese pioneers as well as how material culture was used by Chinese District Association agents to enhance their community's relationship to Sacramento's power brokers.

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CHAPTER 1 INTRODUCTORY REMARKS

PROJECT HISTORY AND PERSONNEL

In compliance with federal mandates for the identification and protection of significant cultural resources, staff of Sonoma State University's Anthropological Studies Center (ASC) prepared a research design and archaeological identification and testing strategy for the proposed new Federal Building/Courthouse on the HI56 Block in Sacramento, California (Praetzellis and Praetzellis 1993a). As the location of the center of Sacramento's Chinatown, dating to the 1850s, the block was found to have high sensitivity for historic archaeological resources potentially eligible to the National Register of Historic Places (NRHP) under Criterion D. The block was considered to have low sensitivity for prehistoric archaeological sites, being within and bordering a slough. The document was subsequently approved by the state Office of Historic Preservation as being in conformity with the Secretary of the Interior's Standards for Archeological Identification.

While the research design concluded that potential NRHP-eligible properties were likely to exist on the subject parcel, the project area was entirely covered by fill, asphalt, and buildings. The potential significance of historic archaeological resources was made, therefore, on the basis of the archival record and the authors' experience with similar deposits in Sacramento. After the research design was prepared, subsurface investigations conducted for studies of toxic wastes identified the same stratigraphic profile that has been seen elsewhere in Sacramento's historic downtown: a 3- to 5-foot-deep layer of fill soil covering the historic ground surface. Although the core profiles confirmed that portions of the lot had been disturbed by recent construction, much appeared to be relatively intact.

Given the high likelihood of intact, NRHP-eligible resources on the project block, and due to the time constraints placed upon the project, a consolidated approach to Section 106 compliance was developed. The identification, evaluation, and data-recovery phases were collapsed into a single operation, an approach successfully underway at the Cypress Freeway Replacement Project in Oakland, California. The research design provided a context for evaluation and predictions as to where significant archaeological deposits may have survived. A data-recovery plan was prepared that summarized the methods for the identification and evaluation of historic archaeological remains and provided a treatment plan for those remains determined to be potentially eligible for inclusion in the NRHP (Praetzellis and Praetzellis 1994).

The U.S. General Services Administration, the Advisory Council on Historic Preservation, the State of California Historic Preservation Officer, and the City of Sacramento agreed to sign a Programmatic Agreement that implemented these stipulations regarding archaeological resources.

Field work was undertaken between 14 November and 29 December 1994. The artifact processing and cataloging was completed by 8 December 1995. Archival research was conducted prior to, during, and after field work to enhance our understanding of the site's historic context. The artifact collection and notes from this project are curated at the Collections Facility, Anthropological Studies Center, Sonoma State University, Rohnert Park, California. The following list provides the names of personnel involved in the project and summarizes their qualifications and roles.

Principal Investigator: Adrian Praetzellis Ph.D. Anthropology, SOPA (historical archaeology) Designed field work, oversaw all aspects of the project, field director, report author

Field Director: Grace H. Ziesing M.A. Historical Archaeology

Senior Historian: Mary Praetzellis M.A. Cultural Resources Management (CRM), SOPA (historical archaeology), CCPH (registered historian) Directed historical research, report author, project manager

Lab Director: Sunshine Psota M.A. CRM, SOPA Oversaw artifact processing, cataloging, and creation of computer catalog; prepared Volume 2

Technical Editor: Suzanne B. Stewart M.A. CRM, SOPA

Senior Field Technician: Michael D. Meyer B.A. Anthropology, CRM graduate student

Field Technician: Anmarie Medin M.A. CRM

Oral Historian: Karana Hattersley-Drayton B.A. Anthropology, University of California, Berkeley, graduate student

Historical Researcher: Elaine-Maryse Solari M.A. CRM, Juris Doctor

Computer Graphic Specialist: Bright Eastman B.A. Anthropology, CRM graduate student

Computer Graphics Specialist: Maria Ribeiro B.A. Anthropology

Computer Specialist: Rosemary White B.A. Psychology

Senior Field Technician/Faunal Analyst/Illustrator: Michael Stoyka A.A.

Field Technician: Conrad Praetzel A.A.

Field/Lab Technician: Margo Schur B.A. Art History

Field Technician: Allan Richard Wolter B.A. Anthropology

Field Technician: Bryan Mischke B.A. Anthropology

Field Technician: Keith Warren

Field Technician: Nina Ilic M.A. Anthropology

Field Technician: Jane Caputo M.A. CRM

Zooarchaeologist: Sherri Gust M.S. Anatomy

Field/Lab Technician/Special Studies: Virginia Hellmann B.A. History, CRM graduate student

Field/Lab Technician/Special Studies/Translation: Jeannie Yang B.A. Anthropology, CRM graduate student

Field/Lab Technician: Nelson Thompson B.A. Anthropology

Field Technician: Steven Moore B.A. Anthropology, CRM graduate student

Faunal Specialist: Samantha Schell B.A. Anthropology

Faunal Specialist: Scott McCartney B.A. Anthropology, CRM graduate student

Fish Consultant: Peter D. Schulz Ph.D. Anthropology

Bead Consultant: Lester A. Ross Lester A. Ross, Inc.

Pollen Consultant: G. James West Ph.D. Anthropology

Geoarchaeologist: Jack Meyer B.A. Anthropology, CRM graduate student

Seed Consultant: Elizabeth Honeyset Far Western Anthropological Research Group

Seed Specialist: Madeline Hirn B.A. Anthropology, CRM graduate student

Wet-screening Supervisor: William Stillman B.A. Anthropology

Lab Technician: Judith Gregg Anthropology undergraduate

Lab Technician: Kristen Lytle Anthropology undergraduate

Lab Technician: Darrell Cardiff Anthropology undergraduate

Lab Technician: Holly Hoods B.A. Linguistics, CRM graduate student

Lab Technician: Lowell Damon B.A. Anthropology

Lab Technician: David Makar A.A.

Lab Technician: Jonathan Legare Anthropology undergraduate

Lab Technician: Alex De Georgey Anthropology undergraduate

Lab Technician/Shell Specialist: Jennifer Ferneau B.A. Anthropology, CRM graduate student

ACKNOWLEDGMENTS

Many people contributed to the success of this project. We would like to thank GSA Historic Preservation Officer Joan Byrens; GSA Project Manager Gilbert Delgado; GSA planners Al Lui, Beverly Chinn, and Javad Soltani; OHP archaeologist Gary Reinoehl; City of Sacramento planner Wendy Saunders; and Fugro West representatives Chris Stabenfeldt, Alan Klein, and Melanie Halajian for seeing that the project ran smoothly. Derek Lim and Wesley Yee of the Sacramento Chinese American Council actively supported this project and helped advance the idea of establishing a permanent exhibit on local Chinese American archaeology and history in the courthouse. David Abrams of Sacramento City College was kind enough to video tape portions of the excavation. Anna Lee's enthusiasm for Sacramento's history helped us make it through some of the wettest periods on the site.

The archaeological field crew did a great job, working through one of the coldest and wettest Decembers on record. They knew that this was a once-in-a-lifetime site and pushed themselves so that we could gather as much information as possible. In addition to the usual cataloging of bags of artifacts, the lab crew wet-screened, sorted, and cataloged material from the 6 tons of soil brought in from the field for processing—a monumental task.

The final weeks of report production was particularly trying for everyone involved. The authors would like to express their appreciation for the exceptional efforts of those staff members who worked so long and hard during those last days (and nights!).

Although they did not contribute directly to this study, we would like to express our continuing gratitude to our friends and colleagues Marley Brown and Katie Bragdon. The present work would not have been possible without the foundation of an excellent research design that Marley and Katie prepared for our 1982 study of Chinese merchants on I Street. In contrast to the worthless "front-end loading" of theoretical pronouncements that accompany many archaeological reports, their ideas continue to stimulate and, we hope, improve our work.

Our sincere thanks to the colleagues listed above and apologies to anyone we have forgotten.

REPORT ORGANIZATION

Chapter 2 presents the research context and research design. Chapter 3 describes the research, field, and laboratory methods used in the study and the results of initial test excavation. Chapter 4 presents our findings, including site structure, historical associations, and interpretations for each address investigated. Chapter 5 presents special studies including those on Chinese artifacts, bead identification, and faunal remains.

Chapter 6 presents the conclusions of this study, focusing on the role of Chinese Company agents—both Chinese and American—in Gold Rush-era California. Appendix A contains summaries of the oral histories produced for this study; Appendix B lists context numbers assigned in the field. Volume 2 contains the catalog of artifacts, arranged by context, as well as appendices that list the glass beads and fish remains.

CHAPTER 2 RESEARCH DESIGN

PROJECT SETTING

The project area is bounded by 6th, I, and the extensions of 5th and H streets (HI56 Block; Figure 1). In 1994 the site included property belonging to the City of Sacramento used as a police facility to wash, maintain, and store cars, as well as property belonging to Southern Pacific Railroad Company. Most of the block was devoid of standing structures.

During the 1850s and into the 1860s, the HI56 Block was the center of the Sacramento Chinese community. Although the early history of the block is poorly known, as Chinese businesses were rarely represented in city directories and households were generally lumped as a group by census enumerators, it is clear that I Street between 5th and 6th served as a supply and service center for Chinese miners during the Gold Rush. Numerous Chinese stores, gaming houses, and lodgings were located there as well as a butcher shop and a doctor's office; the buildings were focused along China Lake, also known as Sutter Lake or China Slough, which served both as fishing grounds and as the scene of community recreational and ritual events. By the 1870s, some Caucasian residents appeared on the block, while the 1900 census documents a predominantly working-class population representing a broad mix of ethnic backgrounds.

Several factors increased the likelihood that significant, intact archaeological deposits remained on the block. The wooden structures of Chinatown were destroyed by fire twice in the 1850s, indicating the potential for discrete refuse caches representing cleanup from these datable events. The dense occupation along China Lake, and reports of ad hoc refuse disposal by residents of this area, indicated the likely presence of a residue of artifacts associated with the pioneer Chinese community. Finally, the raising of the city's streets and subsequent filling of the lots provided a protective cap over these mid-19th-century deposits.

HISTORICAL CONTEXT

SACRAMENTO: AN INSTANT CITY OF BUSY VICTORIANS

Sacramento is located in the center of the Central Valley at the confluence of the Sacramento and American rivers. Prior to their being filled in, Sacramento contained three bodies of water: the northern body was known as Willow Lake; the middle, as Sutter Lake, Sutter Slough, or China Lake; and the southern was known as Duck Lake. All of these were ox-bow lakes, attached to the Sacramento and American rivers by narrow channels through which floodwater flowed, creating pools during periods of high water and a marsh the remainder of the time. Low-lying marshes bordered the lakes (Brienes, West & Schulz 1981a:Figure 3). This freshwater marsh community called

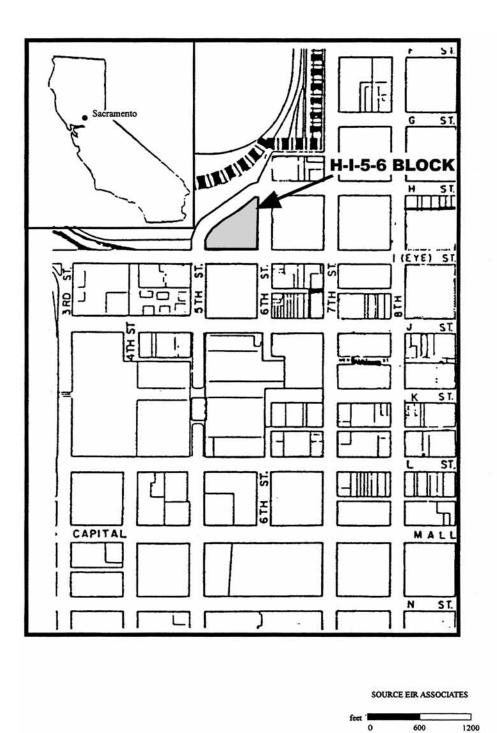


Figure 1. Project Location, Sacramento, California

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"Tulares" by the early explorers. has now disappeared, the community once supported stands of tules, with cattails, sedges, and rushes, and stands of willows on slightly more elevated areas. The site of the HI56 Block was located within and adjacent to Sutter Lake.

At the opening of the 19th century, Sacramento's aboriginal inhabitants, the Nisenan, still lived relatively unmolested by foreign encroachment, hunting and gathering from the land's abundant resources, as they had done throughout their history. The Nisenan way of life was abruptly transformed when John Sutter, a German-Swiss adventurer, arrived with his followers in 1839 to establish New Helvetia. Sutter received legal title from the Mexican government to 11 square leagues of land and established a cattle ranch and farm that he ran in quiet obscurity as a feudal estate using Native American labor. Then, on 24 January 1848, while digging a tailrace for Sutter's mill, James Marshall discovered gold on the American River. The news spread quickly, and by June, San Francisco stood deserted "as if an epidemic has swept the little town away" (Bancroft 1888:59). Rumors of the great riches to be found in California caused little excitement on the East Coast until the end of September and the publication of a number of fanciful and exaggerated articles on wealth being plucked from the ground. When a box filled with California gold dust was placed on exhibition at the War Office in Washington, D.C., many easterners turned westward, resolved to make their fortunes. Sutter's personal domain was trampled in the ensuing stampede.

From 1848 Sacramento grew and prospered as the gateway to the goldfields of the northern Sierra Nevada. The trail to Sutter's Fort became J Street, the town's main thoroughfare and center of trade, branching at the end of town into many roads to the mines. Virtually all supplies came up the river; and goods destined for the northern mines, which could not be reached by boat, were unloaded at Sacramento. Miners, of course, also disembarked here, making necessary purchases along J Street. Sacramento came to dominate the commercial activity of the interior of the state. From 1850 through the 1870s, Sacramento was second only to San Francisco as a commercial success story. Only with the expansion of the Central Pacific Railroad, owned by Sacramento businessmen, did the city change from a commercial city to an industrial one (Brienes, West & Schulz 1981a:31).

Sacramento was a classic "instant city" that grew on its own momentum in spite of the disadvantage of being founded on a virtually flat plain, on the banks of two seasonally flooding rivers. As with similar communities whose natural disadvantages were overcome by their place in the path of some irresistible historical force, the survival of the "goose that laid the golden egg" was of paramount concern to local merchants and property owners (Barth 1975:156). Sacramento was a commercial town where most folk who were not simply passing through were, like their associates in San Francisco, "in some way entrepreneurs" with a personal stake in the city's commercial development (Barth 1975:160). Unlike the socially bifurcated industrial cities of the East, a majority of Sacramento's residents in the 1850s and 1860s were either independent business people or employees in these small- or mid-sized firms, many of whom planned to go into business for themselves. As a result, while the city authorities of the gold-mining towns of Grass Valley and Nevada City had to contend with citizen apathy and even antagonism over the creation of major public works (Mann 1982:32), many Sacramentans embraced municipal improvements with enthusiasm. The merchants and property owners of early Sacramento sought to overcome three major obstacles to their city's prosperity—the ravages of flood, fire, and disease. Their approaches to solving these problems have formed, in part, the archaeological record of Sacramento and have profound research implications.

The flood of 1850 inundated four-fifths of the newly established city to a depth of 4 to 6 feet. Flood control, of course, became the hot issue in Sacramento's mayoral election of that year. Candidate Hardin Bigelow was elected handily on a strong, and predictably well-received, plank of levee building. On a vote of 543 to 15, Sacramentans approved a tax assessment for the construction of a levee, and by December, a massive 121,000 cubic yards of material had been thrown up into a 9-mile-long dike protecting the north and west borders of the city (Brienes 1979:5; Nagel 1965:95-99; Wright 1880:73).

Over the next 10 years—spurred on by floods in 1852, 1853, and 1861—the levee was raised and improved, and a new levee was constructed to protect the city's south and east sides (Brienes 1979:12). Although this "mighty cordon of protective embankments which now encircles the city like a fortification" appeared to be "an ample protection against the recurrence of [flooding]" (Wright 1880:68), floodwaters of the winter of 1861-1862 breached the dike and again the city was inundated. As high-water marks rose, so did the size of the levees: portions of the north levee were 14 feet wide at the top, 100 feet at the base, and 16 feet high; sections of levee nearer the commercial district were 8 to 10 feet high—a truly monumental symbol of the city's commitment to Progress.

While the levees were being built, an even greater task was being attempted to save the city: the raising of the entire business district. This mammoth undertaking began in 1853 with the importation of material to add to J and K streets, the city's main commercial arteries. Property owners bore the cost of raising the grade in front of their land, of raising their own buildings and sidewalks to meet the new level, and of installing a brick bulkhead along their frontage to hold the street fill. Finally, in 1878, after 25 years of effort, uncounted thousands of yards of sand fill, and a staggering cost, the raising of the business district was complete.

It would be difficult to find a western town that was not periodically destroyed by fire. Sacramento's first occurred in 1852 and destroyed seven-eighths of the city. At the end of the day, between 1,600 and 2,500 structures were gone; 23 city blocks had been decimated. The second and last major fire affected parts of 12 blocks of the downtown business district in 1854, destroying the State Capitol and many buildings put up since the fire of 1852. Ordinances passed after these fires established the city's "fire limits," within which only stone or brick could be used for building; furthermore, wood-frame buildings could not be raised to the new grade or moved onto lots within the fire limits (Askin 1978:4-7; Ulhorn 1873:113-114). Brick-built structures, it was felt, would be "our only protection against devastating conflagrations" (*Sacramento Union* 17 July 1854). By the end of 1854, Sacramento's 30 brickyards and 40 brick-making machines could produce a staggering 250,000 bricks per day (Wright 1880:146).

The creation of a landscape of prosperity so soon after the founding of the city and in spite of a series of natural disasters is a tribute to the fortitude of early Sacramentans. The rivers were tamed; fire would never again devastate the city. Yet the raising of the city's grade, the general orientation of business toward the street, and the new pattern of filling up lots' entire width with contiguous brick buildings created a new and unforeseen peril—the sunken lots, portions of ground behind and between the brick buildings. Some had access to the alleyway that ran down the middle of each block; others were entirely enclosed, courtyard-like spaces between brick buildings, what one geographer has termed "nascent courtyards" (Groth 1990:33).

The boosters had claimed that, after street raising, Sacramento "would be one of the most desirable cities in the State and by far the healthiest" (*Sacramento Bee* 21 March 1862). It was not foreseen that, for a short time at least, street raising would actually detract from public health. At this time, disease was believed to be directly related to the foul smells and decaying matter that were an everyday part of urban life (Brienes 1978). Street raising actually contributed to the generation of these "miasmas" by creating low-lying lots that filled with stagnant water, and cellars that were commonly used for waste disposal (Brienes 1978; Severson 1973:131; Wright 1880:57). The Sacramento Board of Health was specifically charged to "make a systematic and thorough examination of all parts of the City where noxious and offensive substances are supposed to exist . . . and cause all stagnant water to be drained off" (Ulhorn 1873:92).

The basements created by raising buildings to the new grade were touted as a great boon for merchants who could use them for storage (*Sacramento Bee* 18 March 1862; Severson 1973:109). In the absence of reliable sewers, however, many property owners and residents used their lower story as cesspools that were said to be "unquestionably the occasion of more sickness and disease than any one cause in existence" (Ferral 1885:12). Restaurant food waste was also dumped into basements; the smell that issued from the oyster shell and bone-filled cellar of Cronin's K Street Oyster Saloon on a hot Sacramento day must have been awful to experience (Praetzellis, Praetzellis, and Brown 1980:65).

Unlike the building of levees and the construction of street facades, the process of making the backlots habitable and healthful fell to individuals. The owners and tenants each tackled—or failed to tackle—the problem in their own way. Thus, while historical records show how the city as a whole and a few wealthy individuals put their civic pride into practice, through archeological site structure we can also see how ordinary people responded to the pressure to conform and create personal landscapes of prosperity. Public works and building facades are overt messages through which a city and individual property owners could demonstrate their endorsement of appropriate values to the world and their neighbors. The condition of their backlots, however, showed their individual commitment to civic values.

THE OVERSEAS CHINESE ON I STREET: A STUDY IN CONTRAST

Chinese and Caucasian Sacramento in the 1850s were, in some ways, parallel societies. Both had their civic leaders and both their distinctive mores. Furthermore, both had their own characteristic landscape: J Street for the Whites and I Street for the Chinese. The Chinese as a group actively resisted the encroachment of Victorianism and represented the last coherent bastion of non-Victorian values that left its mark on the city's landscape.

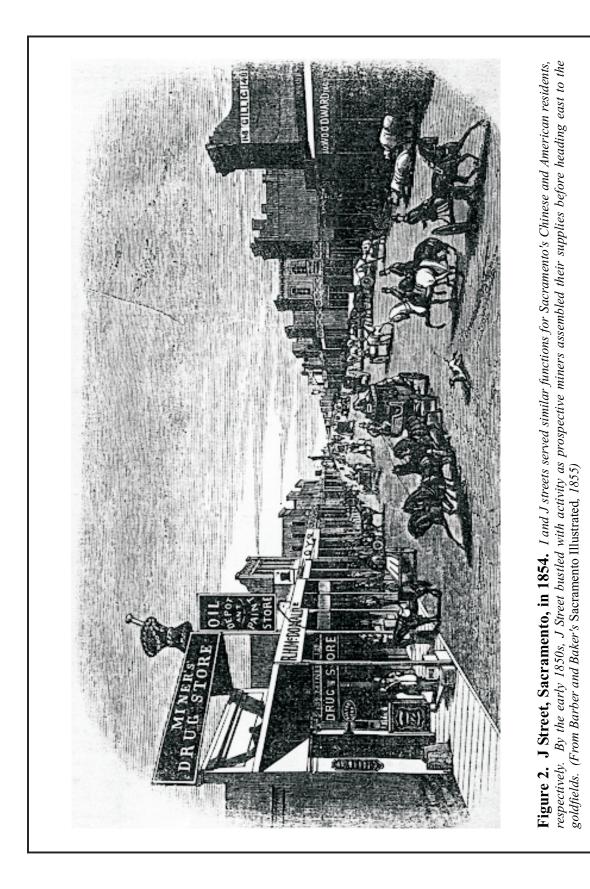
Linking the embarcadero with the road to the goldfields, J Street immediately became Sacramento's principal commercial street. Travelers heading for the goldfields could purchase all their supplies here and obtain lodging and entertainment. One block to the north, I Street between 5th and 6th played the same supply and service roles for prospective Chinese miners and for residents. Numerous Chinese stores, gaming houses, lodgings, butcher shops, and a doctor's office were located there, while a Chinese theater provided entertainment one block to the west.

In contrast with the exotic face of I Street, J Street was the pride of commercial Sacramento. The scene of Sacramento's daily bustle was played out upon the regular set of a well-planned landscape. The very intensity of activity on J Street was a function of planning that had its root in the medieval burgage lot: city lots were only 20 feet wide but 160 feet deep. A single block of J Street could be flanked by 32 businesses on ground floor premises alone. Between street raising, the "brick-only" code, and a variety of ordinances governing everything from commercial signs and the posting of street numbers, to the display of goods on the sidewalk, the landscape of J Street was well ordered by the late 1850s. The object was to regularize business; a result was the creation of a design orthodoxy—the antithesis of I Street. Where I Street was eclectic, the brick-only code effectively mandated uniformity in building design. Almost from Sacramento's inception, the wood-frame buildings of J Street had imitated brick in the iron facades and squared, false-front parapets that hid simple, gabled roofs. The change from wood to brick was seen as a happy and natural evolution for these symbols of progressive, Victorian values.

In Barber and Baker's boosterish *Sacramento Illustrated* (1855), J Street is shown flanked by brick buildings with formal, Italianate facades (Figure 2). Its tidy boardwalk, regularly numbered buildings, and large lettered signs and symbols of adjacent businesses presented a front to the world that was stable, industrious, and bustling—the epitome of a Victorian commercial landscape. As it was with the commercial districts of other early California towns (e.g., Mann 1982), J Street represented many of the middle-class values of the day given material form through the boosterism of local merchants.

The Gold Rush-era practices of low capital investment, an emphasis on expedient, idiosyncratic solutions to material problems, and a sense of impermanence were clearly expressed in the I Street landscape, and thus contrasted on most levels with that of J Street. Buildings in "Chinadom" were more diverse in form and constructed of a variety of materials-wood, canvas, brick, and iron-reminiscent of the frontier architecture of "'49 and '50" (Sacramento Daily Bee 6 August 1857). Some had the recessed balconies popular in southern China (Lai 1988:69). Chinese buildings also perched on the side of the I Street levee below the street's surface and could only be reached by walking down unsteady wooden gangplanks. Others sat on stilts over the marshy fringes of China Lake outside the levee. To the Euroamerican eye, the HI56 Block appeared chaotic and foreign. It had few sidewalks, and merchants and itinerant peddlers commonly displayed their wares in front of shops, exposing passersby to the sights and smells of foods and other goods that would have been strange to the uninitiated. Street vendors carried their wares from house to house in baskets suspended on bamboo poles. Buildings sported hangings in bright yellow, red, and gold, and signs painted with Chinese characters (Figure 3).

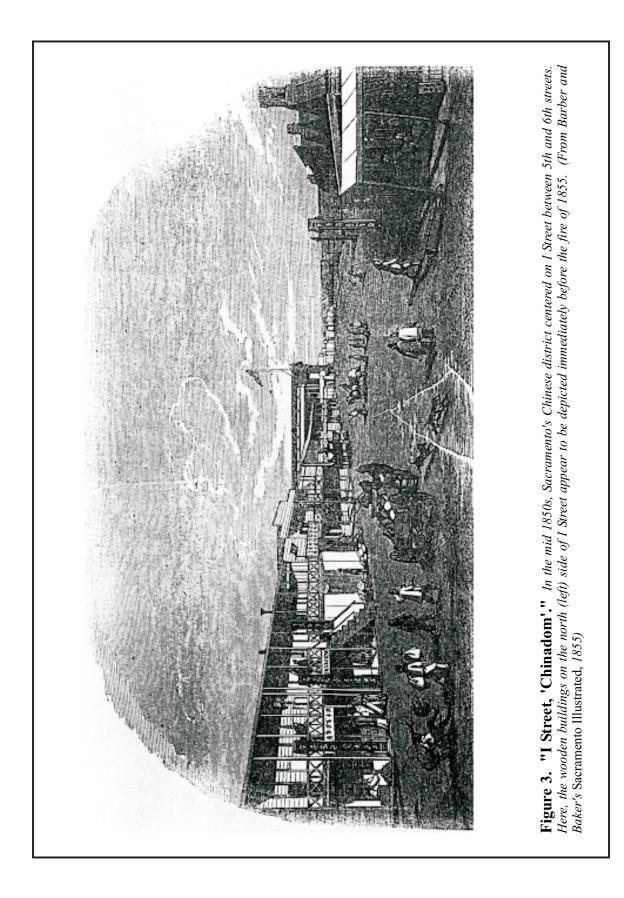
The popular myth of Chinatown as place of narrow alleys and a maze of tunnels beneath the streets (Jackson 1972:196; Lai 1988:68-70; Nordhoff 1874:85) was, to a point, an accurate description of Sacramento. In Chinatown, the alleyways that ran eastwest through the middle of each block were flanked with flimsy wooden shacks, the



homes of poor Chinese. Tiny courtyards enclosed by dwellings—what the *Sacramento Daily Union* (31 August 1855) described as a "heterogeneous mass of tenements"—were to be found in the rear yards of parcels that fronted on I Street (Baker 1857). All Sacramentans knew that under the sidewalks of their town's raised district, between the brick bulwark that restrained the street fill and the lower front of each building, was a passageway, several feet high and eight wide. While property owners on J Street carefully bricked off their own portions of this subterranean passage, local legend had it that under the streets of Chinatown was a parallel world of slaves and dens of depravity, as well as vaults of exhumed human remains (Minnick 1981:13).

While the Board of Supervisors and other boosters scrambled to regulate their city's frontier architecture out of existence in favor of permanent brick buildings, Sacramento's early Chinese residents may have been employing geomancy to advance their own notions of an appropriate urban landscape. The use of geomantic principles by Chinese in the western United States has been recognized by LeLande (1981) and Mueller (1986). Geomancy, or *feng-shui*, is the practical art of designing and positioning cultural features in harmony with the forces of nature. The archaeological evidence suggests that geomantic principles were used by merchants to orient structures on the IJ56 Block before parcel boundaries and orderly, city-wide street-numbering systems were established. Although the subtleties of geomantic town planning would have been lost on most Euroamericans, the distinctively Chinese landscape defined by the built environment and its embellishments resulted in the creation of a social and cultural boundary with clear material indicators. At a time when the Chinese were considered fair game for assault and even murder, the borders of Chinatown represented a zone of comparative safety (Chen 1981; Heizer and Almquist 1971); newspapers of the day reported that attacks on Chinese by Whites were far less frequent in Sacramento's Chinese quarter than outside. The security provided by this boundary benefited all of Chinatown's residents. Yet it was a particular boon to merchants whose economic interests were served by keeping the Chinese and Euroamerican populations apart and thereby maintaining the autonomy of Chinatown under the leadership of the merchant class. Omohundru (1981) observed Chinese merchants pursuing a similar pattern of exclusivity in the Philippines.

In addition to being geomantically favorable, Chinatown's location on the edge of the slough provided a perfect stage for cultural display on the lake itself. In 1857 a "Chinese Regatta" attracted both Chinese and White spectators to view the race for "fifty dollars and a Chinese flag"; the boatmen reportedly "propelled their skiffs with extraordinary rapidity and acquitted themselves very creditably" (*Sacramento Daily Bee* 29 March 1857). On another occasion, the lake was used to good theatrical effect when religious items were ferried from their temporary home to a newly built temple on the opposite bank. The event was accompanied by music, firecrackers, and colorful ceremony (*Sacramento Daily Bee* 31 October 1865). Public ceremonies held by Sacramento's Chinese were very effective ethnic boundary markers. Festivities for the New Year, New Moon, and the Chiao ceremony to "drive out the Devil" (Chace 1989; *Sacramento Daily Bee* 16 October 1866) were matters of interest as well as some amusement to outsiders. While some Chinese ceremonies appear to have been quite traditional, others incorporated American practices.



Like their modern counterparts in San Francisco, the Philippines, and Hawaii (Barth 1964:98-99; Glick 1942; Nee and Nee 1972:405; Omohundru 1978, 1981), Sacramento's important Chinese merchants operated on the boundary between their own insular community and society at large. They established and maintained contacts with politicians, the press, and the judiciary to support their contention that the order of Chinatown was adequately and most appropriately monitored by internal forces. An 1861 account of the annual dinner held by some of I Street's Chinese merchants illustrates the relationship fostered by the merchants with influential outsiders. The dinner took place in a room behind a store, set out with Chinese paintings, sculptures, and hangings. The table was set with a cloth, knives, forks, and celery in glasses "very much like ordinary tables." Twenty-six courses, including birds' nest soup, were served. Champagne was brought on several times, and the "brands were all different and all first class" (Sacramento Daily Bee 7 December 1861). According to K.C. Chang (1977:16), food is recognized as a social language in Chinese culture. When for example, mid-19th-century merchants of Kiangsu and Chekiang entertained guests, they followed an established ritual of a 16-, 10-, or 8-dish meal depending on the significance of the occasion. Birds' nests, a common element of gourmet meals in parts of China, were a favored dish in such displays (Spence 1977:273, 277). The Sacramento banquet was evidently considered an important occasion and was part of a long-standing Chinese tradition. In this case, the ostentatious display of Chinese artifacts and food was subtly combined with innovations, such as champagne and silverware, to create the desired impression among the American guests. The dinner ritual successfully communicated that although Chinatown was alien and unknowable to outsiders, it was under the sway of a class of people who apparently shared some Victorian values.

A long tradition of economic sojourning and the pressure of political forces outside Chinatown were also important influences in the creation of Chinatown's strong social boundaries and exotic appearance. Almost on their arrival in California, Chinese immigrants were accused of decreasing the wealth of the country by sending most of their money home and of harboring the desire to return to their native land rather than settle in the New World (Miller 1969; Takaki 1990:10); in their criticism, European Americans forgot that sizable numbers of their own groups had established similar patterns of return (e.g., Berthoff 1953). Omohundru has written that "sojourning is basically an export of people and an import of remittances" (1978:113). Although some writers have criticized the over-use of the "sojourner" model (e.g., Chan 1984; Ng 1987), Chinese merchants have a long tradition of sojourning in southeast Asia and the Pacific, as well as in California, and associations for traveling merchants have existed for centuries. Strong ties to family, clan, and place, and a religion based on the veneration of ancestors, discouraged permanent settlement abroad (Ng 1987; Shiba 1970).

Doubtless, the sojourner attitude affected the Sacramento merchants' unwillingness to invest in capital improvements to their I Street properties. But, Gold Rush values survived in Chinatown's streetscape of the mid-1850s partly because the controllers of Chinatown continued to operate under externally imposed constraints similar to those that had faced the Forty-Niners. Prejudice on the part of Euroamericans was translated into discriminatory, anti-Chinese legislation by local, state, and federal governments. As Chinese could not testify in court against a White person, the legal status of Chinese-owned goods and property was always precarious (Heizer and Almquist

1971:154-161). As a result, Chinese merchants tended to invest less than their Euroamerican counterparts in material improvements that could be torched by rioting "Anti-Coolie" elements or legislated and taxed away by the state. The sojourner attitude of the original Forty-Niners was, in the case of the Chinese merchants, a considered and intelligent strategy of keeping their financial assets in liquid and readily negotiable forms. In general, their investment was in the fashioning of a network of trusted business associates, rather than in the construction of buildings.

HI56 BLOCK

The following focused overview of HI56 Block history has been taken excerpted from Brienes, West & Schulz (1981c:3-14).

No part of Sacramento better demonstrates the central importance of the Sacramento and American Rivers to the valley city's development than the blocks between H and I, west of Sixth. The rivers determined the orientation of Sacramento to begin with, the initial focus of the new commercial center being on the embarcadero. A central commercial corridor running eastward toward the mines clearly centered on the main commercial artery of J Street, and formed the heart of the business district. It was this stretch of urban properties, from the riverfront to the Plaza at Tenth, that was raised above flood level during the 1860s (Lagomarsino 1969). Since proximity to the commercial core was a major factor in the development of blocks to the north and south, the north side of I Street in the earliest days of the gold rush could be considered a well-situated location. But at the same time, other frontages of these blocks, even if all else had been equal, would have experienced relatively retarded development regardless of their propinquity to J Street.

Despite the orderly platting of Sacramento City in accordance with the best 19th-century schemes of rationality and orderliness, local geography determined that much of this northern corner of historic Sacramento was frequently submerged. This body of water was known variously as Sutter Lake or China Slough. For the most part, though its level fluctuated with the volume of the river flow, the lake covered the greater portion of these lots. This had two unavoidable effects. First, it marked the northern boundary of urban development and forced growth easterly and southerly. Thus, in adding to the already existing commercial orientation, which was south from I Street, the presence of Lake Sutter dictated the most of this area for most of the time would be essentially undeveloped. The second effect was in the development of the dry land extending from the northern edge of I Street to the southern shore of the water. The lake ran parallel to I Street from Third to Fifth, and then its shoreline turned northerly. As a consequence all development was relegated to a narrow band running west to east along the northern edge of I Street, widening out between Fifth and Sixth where the lake's borders tended to the north.

The slough not only eliminated the greater part of the area from use, but relegated what remained to an economically and socially undesirable status. This undesirability left the property along the I Street strip to be developed by the Chinese who in the 1850s became the most numerous of California's immigrant minorities. The Chinese were attracted to the mines in the same way and for the same purposes as their American and European counterparts. But when persecuted in the mining districts, increasing numbers began moving to the state's urban areas. Sacramento soon attracted thousands of Chinese residents—most of them settling in an insular community strung out along I Street. . . .

The lake had another connection with the Chinese that may have helped determine the location of Chinatown. Whatever the lake's positive potentials, it was for the most part a nuisance and a health hazard due to the limited possibilities of flushing by the Sacramento River. As early as November, 1852, the lake was called a "pool of filth" (Jenkins 1966:1). The Union dubbed it "the plague spot of Sacramento" in 1877. The Bee three years later wrote: "About the water's edge may be seen all descriptions of decaying garbage, kitchen refuse, etc., and the stench arising from the green and slimy water is simply sickening" (Jenkins 1966:4). The concern with stagnant waters and the dangers and discomforts of evil smells, decay, and filth in general was a powerful element in Sacramento civic affairs into the 20th century (Brienes 1978). Thousands of privy pits, inadequate or non-existent sewage systems, empty city lots that were used as dumps for all manner of refuse, animal and vegetable, plagued the river town. It seems clear that Sutter Lake was more often noted for its fetid quality than for its idealized perfected state. This, in addition to the flood danger, would appear to have lowered the desirability of the I Street frontage for Caucasians and thus left open the possibility of Chinese settlement.

Exactly what structures or individuals were on these blocks and where, particularly in the case of the Chinese who made up the vast bulk of the residency, is for the most part an insoluble question. The structures of Chinatown were many, and according to one of the best views, tightly crowded facing I Street. Available bird's-eye views show much construction bordering the lake. But it is difficult getting much detail for the Chinese residents. Census enumerators tended to lump all the Chinese residents of the area together without specific addresses as residents of the whole Chinatown district along I Street. Even more exasperating was the general conspiracy of silence worked by Sacramentans who, while needing the Chinese in the running of the local economy and individual households, sought to make them officially invisible, certainly to the eye of outsiders. As the benefits of boosterism grew through the 19th century, this studied ignoring of the Chinese became a major block to learning about their presence and participation in Sacramento. Tract after promotional tract revealed the city in minutely flattering detail without ever mentioning the Chinese, when in 1880 there were nearly 5,000 of them, in 1890 about 4,300, and in 1900, after nearly 20 years of exclusion, still some 3,250 (Census of 1900, Population, part 1:565). The mainstay of our knowledge of 19th-century Sacramento, the city directories, virtually ignore the presence of the Chinese with the prominent exception of one 1880 volume, which includes a Chinese business directory (Crocker 1880). Little information seems to have survived from the Chinese community itself. There were a few Chinese directories in the 19th century, but these gave little information for the blocks under study, as they concentrate on the blocks further west, which were the more mercantile and densely populated sections of Chinatown. A Chinese language newspaper was published in the mid-1850s for about two years, but no copies are known to be extant (Chinn, Lai, and Choy 1969:70). The sum of our knowledge about the Chinese occupancy in Sacramento's Chinatown remains unfortunately small, and for the most part the information relayed is by the elements averse to their presence.

The early history of the HI56 Block, like that of the blocks to the east, is poorly known. The block was included in the range of the 1854 fire, but the lists of buildings destroyed in the conflagration include, for I between Fifth streets, only "one large frame, owned by Dr. Failie" and a "number of frames occupied by Chinese," without even distinguishing between the two sides of the street (*Sacramento Union* 14 July 1854:2). The city map prepared later in the same year depicts, with highly questionable accuracy, no structures on the block. An 1855 view of "Chinadom," however, shows a series of simple wood frame structures lining the north side of I Street, including this block.

That the block was rebuilt is certain, however, for a year later it burned again. Accounts of this second fire give clear evidence that Chinatown had by then extended east as far as Sixth Street (*Democratic State Journal* 4 July 1855:2). The fire, which seems to have consumed nearly all of the block, began in a building belonging to the See Yup Co. According to the paper, "an intelligent Chinaman" presented a list of the big losers in the disaster. This list powerfully evidences the density of Chinese concentration on this block in the 1850s, and places in unflattering contrast the lack of information from other sources respecting the Chinese on I Street:

Building	Loss
Wah Fong, store	\$5000
Tailor	600
Poh Green Fong, drug store	1000
Restaurant	1500
Ring Sing, boarding house	3000
Sang Lee & Co., store	8000
See Yap Co.'s building	1200
Yu Chung Co.'s goods and building	9000
Ya Zuck Co.'s goods and building	8000

Restaurant	1500
Sang Lee, building	1200
Won Hang, building	1200
Tsoe Wah, butcher	700
Tin Wah Zong, drug store	1100
Wong Lee, store	6000
Ming Yaong Co.'s house	1000
George Elder's building	1000
Madame Rosa's dwelling house	1500
Rear buildings and furniture	3000

The Madame Rosa noted at the end of the list is Rosa Hermosilla, who owned the south half of Lot 4, on Sixth Street, from 1856 or earlier until 1886. This might suggest that the businesses are recorded in order westerly along I to Sixth, but this is unconfirmed.

The street scene of "Chinadom" in 1855 was drawn before the fire of that year, since it had just been published at the time of the conflagration. These buildings were replaced by similar new one-story or two-story wood frame structures, as is demonstrated by the bird's-eye view of 1857.

The city directories are silent regarding the early decades of the block. No occupancy is noted at all until about 1870, when the Summit Ice Company is noted on I Street. Thereafter a pattern of business occupation emerges that shows the block had attractions for businesses requiring relatively large amounts of land that dealt in high volume-low price materials. These included ice, coal, cement, bricks and similar materials. Apparently this reflects two factors along the I Street frontage: the relative undesirability and hence relatively low value of the land, and the fact that the lake turned northerly along this block, exposing more land of the I Street lots than was the case on the other blocks, where the street line and lake shore ran parallel with only a narrow strip of land between them. Other Caucasian occupancy is to be noted over the years from 1875 to 1920, though the occupancy by the types of businesses noted above continued. Some residency occurred, concentrated on Lots 4, 5, and 6 almost entirely, and a saloon was at times located at the corner of I and Sixth as well.

In 1880, 42 white residents are recorded on the block (1880 Census, Dist. 78:3, 13-14) These include E.K. Hawkins and Malon Dusenberry, a bookkeeper and a carpenter, at 519 I, and W.F. Hicks, another bookkeeper, and his wife at 527 I. On Lot 4, at 810 Sixth lived the families of J.H. Johnson, a laborer and G.L. Shafer, a salesman, as well as Joseph Gosland (listed in the directories as Jacob Golsin), a Canadian-born tailor. At 814 Sixth were R. Dawken, a painter from England, his Mexican-born wife, a niece and nephew, and a female boarder. More densely occupied was Lot 5. There, undoubtedly in the tenements shown on the 1895 Sanborn map, were four households listed at 818 Sixth. These included Sarah Neely and her family of six children (including two laborer sons); Lawrence Fisher, an English-born Central Pacific blacksmith, who lived with his English-born wife and brother and American-born children; J.D. Thomas, a railroad brakeman, and his family; and Patrick Scanlan, an Irish immigrant, whose occupation is not listed and who lived with his two adult daughters. At 820 resided A.R. Abbot, a harness maker who lived with his wife and stepson, while at 822 Sixth were bar tender William Wallace and his Chilean wife.

The neighborhood at the time was clearly working class. Of 14 men whose occupations are listed, four held clerical positions, seven were skilled laborers, and three were unskilled laborers. No merchants or professional men resided on the block, and none of the residents owned their own homes. Yet a modicum of stability is indicated by the fact that most of the occupants resided with families and all but Dawken and Scanlan were listed in the city directory (cf. Crocker 1880, in spite of the absence of most in McGowan et al. 1979).

Records of the Chinese occupation are rare. No HI56 businesses are noted in the Chinese directory of 1873, though five years later Quong Wo Hong, a druggist, is noted at an unspecified address on the block (Wells Fargo & Co. 1878). Two years later, 501 I Street is reported as the site of the "Chinese Masonic Hall"—doubtless the headquarters of a Chinese secret [or family] society (cf. Lyman 1970:34-38). Also noted as being on the block was a Chinese temple. The 1882 directory again contains no relevant listings. Census listings include only two Chinese households, both composed entirely of male laborers and both at 505 I Street (1880 Census, Dist. 78:3). One group consisted of three young adult ranch workers; the second included six older vegetable peddlers [excerpted from Brienes, West & Schulz 1981c:3-14].

PREVIOUS ARCHAEOLOGICAL RESEARCH

During the past 30 years, Sacramento has been the scene of numerous large-scale historic archaeological excavations. Early archaeological investigations concentrated on Sacramento's embarcadero and the associated commercial district in connection with the construction of Interstate 5 in 1966 (Hastings 1968). This research focused on architectural reconstruction and recovery of artifact-rich deposits that were the result of city-wide fires in the early 1850s. From 1968 to 1978, the California Department of Parks and Recreation sponsored an intensive series of investigations of a half-block portion of Old Sacramento State Historic Park, just one block from the waterfront. Once again, architectural reconstruction was the principal rationale for this work, much of which—although not all (e.g., Butler 1979; Pritchard 1972)—was done using the arbitrary unit/10-cm level method devised for unstratified prehistoric sites.

Beginning in 1976 archaeological efforts shifted away from "Old Sacramento" and the embarcadero district with the excavation of the Hannon Saloon deposits at 4th and K streets (Schulz 1977), the Golden Eagle Hotel and other businesses at 7th and K streets (Praetzellis, Praetzellis, and Brown 1980), and a portion of Sacramento's 1850s Chinatown at 5th and I streets (Praetzellis and Praetzellis 1982). These later

investigations emphasized the stratigraphic excavation of discrete archaeological features that could be associated with documented activities and social units. These investigations were outcomes of government regulations requiring mitigation of the destruction of archaeological sites prior to development.

In the summer of 1988, personnel of the Anthropological Studies Center (ASC), Sonoma State University, excavated portions of the Sacramento city block IJ89 in advance of development. The block was very rich in historic archaeological deposits; after only five weeks' field work, the crew returned to the lab with more than 140 archive boxes of well-provenienced artifacts. Rather than produce a single, unwieldy multi-volume report on the investigations, the directors decided to create four reports. Each of these documents stands alone as an excavation report on a distinct, historic archaeological component of the block. The reports discuss the following: (1) the Pioneer Junk Store, 1877-1908 (Praetzellis and Praetzellis 1990a); (2) discrete domestic deposits representing three identified households from the 1860s and early 1870s, and one unidentified household from the early 1850s (Praetzellis and Praetzellis 1990b); (3) the backlot of the San Fong Chong laundry (Praetzellis and Praetzellis 1990c); and (4) a cellar deposit associated with the household of Mary Collins and her children, created by the demolition of the family's rented home circa 1905 (Praetzellis and Praetzellis 1990d).

Again, in the summer of 1991, ASC personnel excavated three features on the JK/14-15 Block: a small refuse-filled pit that was once located beneath the Newman family's hen house (Praetzellis and Praetzellis 1992a); a low-lying area once beneath the residence of Mrs. Hudson at 1408 J Street (Praetzellis and Praetzellis 1992b); and a privy associated with an African American family, the Cooks, who lived on the alley at 1418-1/2 J Street (Praetzellis and Praetzellis 1992c). This third feature is believed to be the first archaeological deposit associated with an identified African American family excavated on the West Coast.

RESEARCH DESIGN

This research design is based on ones developed for the cities of San Francisco (Praetzellis and Praetzellis, eds. 1992), Sacramento (Praetzellis and Praetzellis 1991; Praetzellis and Praetzellis 1993), and Oakland (Praetzellis, ed. 1993). Over the past 10 years, the research design has been applied successfully on numerous occasions on urban Sacramento deposits, enlarging and building upon the knowledge gained from each project. The research design follows a contextual approach in the evaluation of the significance of properties.

MODERNIZATION, VICTORIANISM, AND ETHNICITY

The history and archaeology of the HI56 Block will be viewed within the framework of an issue that is of great importance to social historians: the process by which people from traditional, premodern cultures—both immigrant and native-born— adapted to life in an industrial society (Gutman 1977). In 19th-century America, this process involved a change from a traditional, "face-to-face" society (Redfield 1955) to one that emphasized rationality in economic relationships, specialization, and efficiency, and whose goal of an improved future was to be measured by material progress (Brown 1976:29; Wallerstein 1983). Until as late as the 1970s, many economic historians

conceived of 19th-century modernization as a simple, linear process. According to this model, societies evolved in a straight-line path from traditional, agrarian-based communities, in which social control was maintained by church, family, and an inviolable social order, to industrialized ones in which "centralization, bureaucratization, and role segmentation" were the rule (Bender 1978:56).

A parallel interpretation, and one which has come to predominate in recent years, rejects the idea that all vestiges of the preindustrial past were rejected by all segments of society undergoing urbanization. Glazer and Moynihan's (1963) classic examination of the strength of immigrant ethnic culture in New York and studies of resistance to industrial culture on the part of workers (e.g., Hirsch 1978; Rodgers 1978) have contributed to the view of urban pluralism developed by Bender (1978). Bender proposed that the modernization of 19th-century American urban dwellers was multilinear and complex: multilinear because various class and ethnic groups participated to varying degrees; and complex because individuals and families were simultaneously involved with both traditional and modern ways of life. Through the mechanism of family and social networks, national, religious, and ethnic ties remained strong and encouraged communal, traditional values and practices (Bender 1978:122; Haraven 1978). At the same time, industrial time discipline, the cash economy, and relationships with government institutions necessitated that individuals be able to function within the modern order (Rodgers 1978).

It has been suggested that a set of cultural values, practices, and aesthetics known as "Victorianism" (Howe 1976; Wiebe 1967) came to predominate among the Euroamerican cultural and political establishment of this modern society. Victorianism is said to have been a "homogenizing force" (Hardesty 1980) upon the cultures of immigrants and the native-born working class alike, attempting to replace traditional mores with modern values and patterns of behavior suited to their roles in an industrial society.

VICTORIAN VALUES AND PRACTICES

Victorian values had strong and clear behavioral and material correlates, many of which were displayed in the home (Praetzellis 1991). The essential moral quality of a Victorian family was expressed by the presentation of tasteful, Gothic-style artifacts in their appropriate context (Eastlake 1878). To maximize this effect, the home itself had to be of the correct style and internal arrangement. The relationship between Gothic architecture and mid-19th-century Christian values has been examined by Clark (1976). This architectural form, with its church-like exterior and functionally discrete interior spaces, provided the ideal context in which highly formalized Victorian social interactions, dubbed "secular rituals" (Moore and Meyerhoff 1977), were carried out.

Artifacts played an essential part in Victorian families' household rituals. On the largest scale, Romantic Revival houses were themselves designed to accommodate these rituals (Clark 1976:51-52). If a prospective visitor were allowed beyond the front stoop of a middle-class home, the hall stand would receive his or her visiting card. This piece of furniture was a veritable icon of respectable values because of its role in this highly formalized practice of social visiting, an essential part of 19th-century manners (Ames 1978; Lynes 1963:147). Proceeding through the hall, the new arrival would be ushered into the parlor. It was here that morning callers were received and afternoon tea parties

and evening receptions were held. In the parlor, the guest would experience an environment created solely for such formal receptions; a room whose embellishments expressed the public face of both middle- and working-class households (Cohen 1986). The parlor's interior was a vision of respectable clutter: weighty, dark-stained furniture shrouded in swags of heavy fabric; walls jammed with copies of famous works of art; and every flat surface home to some figurine or gilded trinket (Seale 1981; Vaux 1864:95-97). The expense of outfitting a middle-class parlor in 1877 was more than three times that of any other room (Lynes 1963:142). Only in the homes of the rich was it not maintained at the cost of some inconvenience, for this room took away space from a family's informal living space. The volume of good taste in the parlor was redundant to the point of being overwhelming, and its cultural significance was understood by all who entered (Grier 1988).

The dining room was also a public room in the Victorian house. The rules to be obeyed here were even more elaborate and intricate than in the parlor, and the display of fashionable artifacts, such as dinner ware, was equally important. The best dinner service, crystal, and silver were displayed in a dresser, while decorative platters and bric-a-brac ringed the wall on a shoulder-high plate rail. Under the popular "English" system of dining, serving vessels were passed from hand to hand around the table; plates never arrived pre-portioned from the kitchen in a well-regulated Victorian household. At a formal dinner, each table setting included several drinking vessels; until the rise of the temperance movement in the 1880s, each course might be served with its own type of wine (Lynes 1963:176-199).

Nineteenth-century intellectuals from John Ruskin to Henry Ward Beecher fostered the belief that beautiful surroundings created good people (McLoughlin 1970; Ruskin 1959; Watkin 1977). While tasteful design could educate, bad design was berated as an immoral influence (e.g., Beecher 1868). Starving a child's soul of beauty condemned it to an empty life of frustration and despair. Material culture had the power to improve and uplift, and reformers explicitly promoted specific fashion modes to achieve their religious and social ends. The moral connotations of material goods, however, shifted through time and according to observer. Whereas the Gothic Revival inspired middle-class European and American consumers from the 1840s through the 1870s, the embellishments that had formerly designated comfort came to be seen as cluttered gaudiness, connoting "sloth" by the 1890s. The Arts and Crafts and Colonial Revival movements and the Centennial celebration inspired pride in America and its accomplishments. A "Buy America" campaign stressed not only products of local origin, but products along a certain line. These goods melded the wonders of technology with the simplicity of nature, a combination that can be seen most clearly in Craftsman-style architecture. According to Gustav Stickley, a proponent of things Craftsman, "Luxurious surroundings . . . suggest and induce idleness." By the turn of the century, the American middle class had by and large rejected Victorian fashion and adopted a style of decor that was seen as simple, natural, and efficient (Cohen 1986:275).

ETHNIC DISPLAY AND BOUNDARY MAINTENANCE

Three archaeological features excavated on the IJ56 Block in 1981 were firmly associated with Chinese merchants, members of the Sze Yap district association, who occupied the lot through a sequence of fire and reconstruction in 1855. These features

and their contents show how the merchants attempted to create a traditional Chinese environment in Sacramento and used ethnicity as a tool by which to maintain and enhance their influence on both the Chinese and White communities (Praetzellis and Praetzellis 1982).

Although artifacts were important tools for influencing outsiders, the merchants' chief interest in artifacts was as salable items. Feature 1 on the IJ56 Block reflects this aspect since it contained what appeared to be a broken shipment of tableware. The ceramics were identical porcelain bowls of a type known to archaeologists as "Double Happiness," because of their *shaung hsi* motif, a common decorative element in Chinese art that expresses the wish for happiness and long life (Chavannes 1922:23). In the context of everyday use, the Double Happiness bowl reflected a familiar and long-established decorative motif that may have offered some psychological comfort to the immigrants who purchased and used them. These characteristics were used to advantage by merchants who encouraged the continued use of traditional goods, since they themselves controlled their importation and distribution.

A second collection of archaeological materials, this from Feature 5 on the IJ56 Block and also firmly associated with Chinese merchants, was the product of domestic behavior and consequently can offer insights into the use of artifacts in a different behavioral context. Although there is a preponderance of Chinese food storage and tableware vessels and food bone bearing distinctively Chinese butchering marks in this collection, some of these materials are Euroamerican.

Collections of artifacts that include both Chinese and Euroamerican items are generally interpreted as evidence of acculturation on the part of the Chinese. Historical and ethnographic research, however, provide alternative explanations for this pattern in the present context. First, the non-Chinese materials reflect the merchants' superior access to goods compared with the nonmerchant population. A mixed collection from a nonmerchant household, suggesting direct economic relations with White American society, would be a less common phenomenon if the foregoing ideas about Chinese merchants' desire to exclude White competition are correct. Material innovation is far from being coterminous with cultural change; the cultural significance of the former depends on the meaning of the artifact within a given social context.

The use of Euroamerican ceramics and some processed foods may have represented a new cultural norm for some Chinese immigrants. Such new practices, however, were not seen as being in conflict with traditional modes of thought since these values were not tightly connected with the traditional materials. Indeed, limited material innovation on the part of merchants was advantageous for the survival of more important aspects of Chinese culture, particularly those that aided in the consolidation of the merchants' own position of power within their own community.

ARCHAEOLOGY AND MATERIAL CULTURE STUDIES

Beliefs, cultural attitudes, and values are not directly accessible through archaeological data (Binford 1962, 1965). Ian Hodder, however, pointed out that ethnicity is an appropriate subject for archaeological studies if it is defined as the "mechanism by which interest groups use culture to symbolize their within-group organization in opposition to and in competition with other interest groups" (1979:452).

Thus, ethnic strategies such as boundary maintenance that were expressed in patterns of behavior that took material form can be studied archaeologically.

To apply these concepts successfully to the study of the Overseas Chinese, rigorous standards must be applied to highly focused historical and archaeological research. The highest level of control over the source of archaeological collections exists when one can identify the individual social unit responsible for it. The core of the approach taken in this study is identifying and examining, through archaeology, particular social units. As Staski (1985:239) points out, social forces would have affected portions of the immigrant Chinese society at different rates. Ethnographic and historical sources can provide a firm comparative basis from which to apply the direct historical approach. This information must provide more than just background to the archaeological finds, for "in each particular context general symbolic principles . . . are rearranged in particular ways as parts of the strategies and intents of individuals and groups" (Hodder 1982:217). Sound archaeological reasoning requires an understanding of the artifacts' behavioral context before one may speculate on their symbolic significance for the people who used them.

Archaeology is one of the few sources through which the secular rituals practiced by 19th-century families and individuals can be examined. Archaeological data are democratic in that poorer people and cultural minorities, who are meagerly represented in the written record, are as likely as the rich to have left archaeological remains. Equally significant, however, is the ability of the archaeologist to associate remains with historically documented households of known ethnic, national, and economic characteristics. In this way, the archaeological data are sufficiently controlled to allow both synchronic and diachronic comparisons within and between groups.

In Sacramento, as elsewhere, it is postulated that some people maintained traditional practices while also conforming or converting to certain formal Victorian mores and tastes. The social and municipal agendas of Sacramento's early Progressives were products of Victorian values that can be seen in the consciously created urban monuments constructed by these people and in archaeological remains—unconsciously made but nonetheless reflective of their era. While the values of the new age dominated much of the material culture of 19th-century Sacramento, elements of preindustrial, non-Victorian ways of life held sway in many quarters. The relative influence of Victorian values on individual households of varying social, economic, and ethnic affiliations can be gleaned from the archaeological record that has survived them.

During the 1850s and into the 1860s, the HI56 Block was the center of the Sacramento Chinese community. By the 1870s, changes from both within and without the Chinese community resulted in a new geographic focus for the area's Chinese: I Street between 5th and 2nd streets. The HI56 Block was increasingly used for warehousing materials prior to shipping on the railway that crossed the block. Nevertheless, those portions of the block that remained residential constituted one of the most ethnically and racially mixed sections of the city well into the 20th century. Archaeological excavation, in combination with documentary evidence, has supplied the specifics of the blend of Victorian and preindustrial or ethnic modes that existed side-by-side in the pluralistic society that was 19th-century Sacramento. Consumer behavior,

fueled by the industrial revolution, has presented numerous avenues of inquiry when informed by the ethnic, economic, and demographic characteristics of the household associated with each recovered archaeological deposit.

RESEARCH THEMES

All historic archaeological deposits possess information. The problem is to determine whether this information could be obtained in a more cost-effective and straightforward manner through the documentary record, oral history, or other nonarchaeological data sources. To be effective, an archaeological research design should link archaeological deposits with historically documented events and processes so that significant archaeological research questions may be identified.

The research themes outlined below are currently being studied by historical archaeologists working in urban contexts. The themes are broad and could be studied in most urban areas, given an adequate archaeological and documentary record. Some of these questions require the analysis of only one deposit; others must be viewed at the parcel, block, neighborhood, city, or even inter-city level. In addition, Theme D addresses interpretive potential and identifies those classes of resources important for their public values.

The research questions are phrased so that they could be used to evaluate the importance of archaeological deposits as they were encountered in the field. Within a contextual approach, questions build upon each other as new data are gathered from the ground, from the archives, from maps and photographs, and from oral-history informants. The answers, when woven together, provide a richer more human history of Sacramento and a deeper understanding of the people who once lived there.

THEME A: CONSUMER BEHAVIOR/STRATEGIES

Question 1. Does this resource enable us to describe the consumer practices and disposal behavior of a household or business with specific social, occupational, economic, and/or ethnic characteristics?

This is one of the core questions of the research design. It identifies archaeological deposits created by the disposal of refuse. As in the present day, refuse includes the remains of food preparation and consumption (containers, left-overs, bones, seeds, spoiled food, etc.), as well as broken and unwanted household paraphernalia. Archaeologists study refuse deposits associated with specific households to understand the way of life of people in the past at a level that could never be achieved through the written record: What did they eat? How did they allocate their money? Where did they shop? How was food prepared and served? Was dining formal or informal? How were they influenced by fashion, mass marketing, and/or social movements? What household items did they consider disposable or unwanted? What medicines did they use and how do these correlate with gender-specific, age-specific, or occupation-specific epidemiology?

Given the previous discussion of resistance to, and modification or acceptance of, middle-class values and material culture on the part of urban working people of various ethnicities, the consumer and disposal practices of these Sacramento residents can provide a wealth of comparative data from a range of households that could make important contributions to the understanding of this important issue. Did households purchase new or used goods? Did they shop in junk stores or from mail-order catalogues? Did Chinese residents purchase Chinese goods exclusively? Were dwellings decorated with items that were traditionally Chinese or were items currently fashionable with middle-class consumers also displayed? Was cost, tradition, quality, fashion, or efficiency the prime influence on consumer choices?

Question 2. Does this resource add to our knowledge of the availability of various classes of consumer goods at a specific place and point in time (i.e., material remains associated with a mercantile establishment)?

The question of availability must be addressed along with that of consumer choice. In some contexts, the cost and availability of goods may have had the greatest influence on consumer choices. During the Gold Rush, for example, merchants from around the world are said to have dumped their obsolete and damaged merchandise on desperate Californians scrambling for scarce consumer goods. Archaeological excavations in the remains of the Warren and Cothrin stores that burned in Sacramento's great fire of 1852 support this proposition and show the relatively limited range of goods available in early Sacramento (Butler 1979). Likewise, excavations at the Pioneer Junk Store elucidate the range of goods available secondhand in early 20th-century Sacramento and provide evidence of recycling (Praetzellis and Praetzellis 1990a).

Shops within the HI56 Block included Chinese butchers, grocers, and druggists, as well as a corner saloon operated by various persons of European descent. Refuse deposits associated with these ventures would give a partial answer to the question of availability. Did the Chinese merchants cater, in whole or in part, to their countrymen selling exotic foodstuffs essential to the preparation of traditional ethnic meals? Chinese merchants on the south side of I Street catered to their countrymen while using western material culture to advance their position within the Sacramento business community. They ate locally grown Chinese vegetables and imported dried Chinese fish, as well as quantities of pork (Praetzellis and Praetzellis 1982). Did the goods sold on the north side of I Street vary between shops or through time? Is there evidence of Chinese medicinal or butchering practices? How did the food and drink served in Sacramento saloons vary? Can this be tied to the ethnic or occupational characteristics of the saloon patrons?

Question 3. Does this resource add to our knowledge of adaptive behavior in urban settings associated with the acquisition and consumption of foodstuffs or the organization and use of space?

Although limited by factors of cost and availability, 19th-century urban dwellers had potentially good access to a variety of commercially supplied foodstuffs. The choices made by individual households in these and other purchasing decisions can be reconstructed through archaeology. The contribution to the urban diet through the efforts of individual householders can help us to gauge the level of reliance on commercial versus self-procured food resources. Pollen studies can often contribute to this work on a block or parcel level by providing evidence of vegetable gardens (Kelso and Beaudry 1990), whereas the discovery of the remains of noncommercially taken fish or evidence of animal husbandry could allow statements to be made about the food-acquisition practices of individual households. How did households balance their economic strategies? How did households use their yards? Did this vary by ethnicity or neighborhood? What can be learned about the daily diet from the assemblages recovered from various backlots? Did residents fish or capture waterfowl from the slough? Were any animals butchered on site? Did the use of backyards change through time?

THEME B: ETHNICITY/URBAN SUBCULTURES

Question 1. Does this resource reflect the rise or relative influence of Victorianism as a class-based ideology? Does this resource reflect resistance to Victorian or post-Victorian tastes and mores, or the persistence of traditional values?

Victorian values were the values of middle-class commercial and professional interests during much of the 19th century. Others have suggested that these characteristics included (in no particular order and with some redundancy) piety, purity, submissiveness, and domesticity in women (Welter 1966:152); rectitude, thrift, sobriety, and hard work in men (Wiebe 1967:4); self-discipline, temperance, and respect for authority (Mann 1982:210); and steady work, punctuality, and compulsive behavior in general (Howe 1976:10). Apparent inconsistencies—such as hard-headed rationality along with mawkish sentimentality—pervade the system. These inconsistencies emphasize the transitional quality of Victorianism, which sought to "soften the hard edges of modernization" with glances back to a bucolic, preindustrial past and visions of a better future through science, education, and Progress (Brown 1976:31). Victorianism as a statement of fashion transformed into the Arts and Crafts movement; the values remained the same, but their appropriate material manifestation evolved to express the triumph of technology and progress.

As a multifaceted set of values that influenced the lives of its predominantly middle-class participants in many ways, Victorianism (and post-Victorianism) found its way into artifacts, behavioral patterns, and specific historical events and processes on many levels—from municipal public works, to children's toys and decorations in ordinary families' homes, to archaeological site structure and content (Praetzellis 1991).

Conversely, the distinctiveness of traditional Overseas Chinese and working-class consumer practices, in spite of assimilative pressures from domestic reformers and from society at large, can be viewed as resistance to middle-class values. For many workers, efficiency, productivity, and modernization simply meant mechanization and depersonalization of the work place and of the worker.

Archaeological deposits associated with mid-19th-century households can be examined for evidence of their respective degrees of participation in or rejection of Victorian and post-Victorian patterns of domestic behavior. Artifacts associated with formal entertaining can be examined for evidence that these practices became more important through time. The archaeological remains of landscape values and disposal practices of individual households can be viewed within their backlots. The survival of ethnic foodways and other practices can be studied in deposits associated with Sacramento's various ethnic groups, who lived in close proximity to each other at this time. **Question 2.** Does this resource possess artifacts and/or faunal remains that could be used to elucidate the role of symbols in defining and maintaining boundaries between groups?

Scholars have been suggesting for some time that archaeologists could make a contribution to the study of ethnic boundary maintenance (Brown and Bragdon 1982; Kelly and Kelly 1980; McGuire 1982). Much has been written by ethnographers on ethnicity as social process among the Overseas Chinese. On the community relations level, it has been noted that where the host people have been hostile to the Chinese traditional values, behaviors and organization among the immigrants have been reinforced (Coughlin 1960;192; Glick 1942:647-675). Conversely, where relations have been good, outward signs of Chinese ethnicity have become less noticeable (Amyot 1973:82). In personal interaction across ethnic lines, John Omohundru reported that Chinese merchants "advertise their ethnic distinctiveness and consequently shift the stress inherent in face-to-face commercial transactions at the ethnic group level" (1978:130). In this way, each party involved in the transaction has mutually understood expectations of the other that help to regularize their business relationships. The Chinese merchant community itself has strong reasons for preserving its ethnic boundaries: "the reason is business, the method is to organize an entire commercial ethnic group" (Omohundru 1981:84). The commercial advantages of exclusiveness include the ability to deter competition, fix prices, obtain credit, and to settle disputes informally.

Merchants were the usual choice to represent the Chinese community as a whole to local government officials and other influential bodies (Coughlin 1960:80; Glick 1938:74; Lai 1988:191). The Chinese middleman was often someone with ties to specific native individuals whom he could call upon when needed (Omohundru 1981:114). When not excluded by law or practice, Chinese businessmen became involved with local government and could serve as official intermediaries by virtue of their bilingualism and their positions of respect in both communities (Glick 1938:740).

It is clear that the Chinese merchants' ethnicity involved more than simply cultural display for its own sake. The actor's emphasis on ethnic differences will vary "from time to time, from situation to situation, depending on the way they interpret their interests" (Coughlin 1960:191-192). As an active force, ethnicity can be a strategy for both survival and economic advancement. The aspect of Overseas Chinese merchant culture that is most relevant to this study was their position as middlemen in relations between resident Chinese and the host community. It is in this situation that the use of symbols as ethnic boundary markers should be most evident.

Social boundaries are marked by material symbols of ethnic differences—stylebearing artifacts. The historic record of Sacramento's Chinese community shows that style was expressed through differences in landscape, public display, dress, and language. Although the latter two characteristics have left little or nothing for the historical archaeologist to work with, historical studies of landscape and ethnically specific public display can be rewarding. For example, the site of the Sacramento Overseas Chinese community bordering Sutter Slough was geomantically favorable and provided the perfect stage for cultural displays, such as boat races, on the lake itself. While collections of artifacts that include both Chinese and Euroamerican items are generally interpreted as evidence of acculturation on the part of the Chinese, a contextual approach provides an alternative explanation for this pattern in the 1850s Chinese merchant community in Sacramento. Here, the non-Chinese materials reflected the merchant household's superior access to goods compared with the non-merchant population. Artifacts used by merchants themselves also may have served a stylistic function in boundary maintenance displays to emphasize the differences between themselves, as boundary people, and the Chinese community at large (Praetzellis, Praetzellis, and Brown 1987).

The varied ethnicities of Sacramento households and businesses may be expressed in material form on the landscape as gardens, fences, and in other forms of public display. Understanding the meaning of landscapes, style-bearing artifacts, and behaviors reconstructed from site structure as ethnic boundary symbols could be derived from the contextual approach.

THEME C: URBAN GEOGRAPHY

Question 1. Does this resource help us to understand the characteristics of the natural environment and the landscape modifications made during the historic period? Does this resource aid in our understanding of the beginnings of urban planning and infrastructure—water supply and storage, trash and sewage disposal, fire protection, drainage—in this city?

China Lake is a highly unusual context because of its geographic proximity to a population center occupied from the beginning of the American period. The environmental record in the lake sediments is a unique source of information to expand the poorly known spectrum of pre-contact vegetation in the Central Valley. In addition, a clear pollen record could help to chart the dramatic vegetation change that occurred in the mid-19th century as native species were replaced by exotics.

Civic improvements that are carried out by government agencies are generally planned and well documented. In western cities of the late 19th and early 20th centuries, these projects were often undertaken on a large scale to overcome the natural disadvantages of the city's site. Sacramento, for example, was a classic "instant city" that sprang up to take advantage of a particular historical phenomenon: the Gold Rush. Situated at the junction of two seasonally flooding rivers, the city was assaulted by several major floods that, for a time, threatened its status as regional commercial center and state capital. As discussed above, the city's reaction was to raise the level of its business district by as much as 16 feet.

The progress and process of street raising are generally well documented in contemporary primary and secondary sources (e.g., Lagomarsino 1969). The responses of the citizenry itself, however, are largely unknown since this level of activity occurred one parcel at a time and varied significantly throughout the city in spite of city ordinances that attempted to regulate them (Praetzellis 1991). Archaeology is the only source through which we can examine the responses of individual residents to some legal norms established by the city. For example, in many cities "earth closets" (i.e., privies dug directly into the ground) were outlawed in the 1880s, and historic records document many sewer hook-ups at this time. Archaeological evidence, however, demonstrates that some urban households and neighborhoods continued to use earth privies well into the 20th century (Praetzellis and Praetzellis 1992c). Similar examples of ad hoc drainage, fire protection, and refuse disposal have been discovered archaeologically.

Question 2. Does this resource demonstrate the relationship between public perceptions of the environment and public policy? How did society's perceptions of the cultural landscape and modifications to the environment change over time?

Joan Geismar has studied variability in fill sequences in New York City, viewing fill layers in tandem with city and state health legislation to ascertain the response of inhabitants to health regulations. By 1790 as medical knowledge of disease grew, City authorities began to link aspects of refuse disposal with the spread of diseases like yellow-fever. Whereas waterfront fill in the mid-1700s included ship's ballast, abandoned ships, tannery refuse, butchery waste, construction debris, garbage from city food markets, and even human waste, refuse disposal became more highly regulated in the 1800s. During periods of yellow-fever outbreak (or of similar contagious diseases), Geismar found that layers of fill deposited in city environs were relatively sterile (i.e., contained very few or no artifacts). As the number of years after an outbreak increased, however, residents once more began to see filling activity on city lots as an opportunity to rid themselves of household and industrial wastes. Thus alternate sequences of semi-sterile fill (what people of that era called "clean, wholesome sand") interspersed with sequences of refuse-laden fill can be read, in New York City, as a record of the health of city dwellers (Yentsch 1993:331, citing Geismar 1987).

What plant life characterized the local environment prior to the arrival of the Spanish explorers? How rapidly did the environment change? What does the stratigraphic sequence created by the filling of China Lake tell us about the history of Sacramento and the health and priorities of its residents?

THEME D: INTERPRETIVE POTENTIAL

Question 1. Does the resource have public interpretive potential? For example, could the site provide information about the lifeways of a poorly documented ethnic or occupational group that can be used to better explain the group's position in the city's history to visitors and residents?

The value of archaeologically derived materials for use in exhibits is beyond question. A carefully planned display of artifacts, text, and photographs can move and educate an audience. Results from the multidisciplinary investigation described herein could form the basis for a sensitive rendering of Sacramento and its people in a way that could not be accomplished without the active voice provided by the tangible objects of the past.

Question 2. Does the resource contain artifacts that could be used to interpret the past in a museum or public display or as a tangible, hands-on component of a teaching unit developed for use in schools?

The archaeological study on the IJ56 Block resulted in the creation of a traveling display portraying the excavation and its findings. The large volume of materials expected to have survived within the archaeological record of Sacramento could form the basis for type collections to be used by local teachers in their California history sections. For example, a teaching unit focusing on the material culture of the Overseas Chinese could be developed.

CHAPTER 3 METHODS AND INITIAL STUDY

In general, the Sacramento Federal Courthouse Project followed the methods developed for the Cypress Freeway Replacement Project being undertaken at the same time in Oakland for the California Department of Transportation and outlined in the *Cypress How-to Manual* (Mc Ilroy et al. 1995). Aspects specific to the Sacramento project are presented below.

HISTORICAL RESEARCH METHODS

Research in a variety of sources (i.e., archival, interview) is usually necessary to allow full interpretation of archaeological sites. The goal of this research has been to develop two complementary sets of data: highly focused information on the associations of the archaeological features themselves—who created them, when, and in the course of what activities—and more general information on the site's milieu. This kind of research establishes historical associations and context for a feature, helps to focus research questions on actual data gaps, and provides an independent source that can be used to complement and interpret archaeological data.

RESOURCES

Elaine-Maryse Solari conducted research in the following facilities and record groups:

County Recorder's Office, Sacramento Deeds Leases (NB: index is at the Sacramento Archives) Marriage Indexes, 1850-1880

Sacramento Archives

Assessment Rolls Chinese Poll Tax City Block Index City and County Map Books City Directories City Tax Collector-Business License Index District Court Records Index to Letters, Correspondence, Diaries, Journals Photograph Index Probate Records Sacramento Bee and Sacramento Union Indexes Sacramento Illustrated Sole Trader Index, 1856-1881 Tapper's Record Book, 1854-1877

Sacramento Room, Sacramento Main Public Library Card Catalog

California Room, California State Library

California Card File California Pioneer Cards City Directories Daily Democratic State Union Pioneer Letters San Francisco Call Tuolume County Great Register, 1867

Bancroft, University of California at Berkeley

The Oriental

Personal Communication

Ronald L. Gallup, 23 January 1996

Karana Hattersley-Drayton and Jeannie Yang conducted interviews with the following individuals:

Stanley Chun Margaret [Wong] Lim Raymond Young Eddie Chan

All interviews were tape recorded and either transcribed verbatim or summarized. Tapes, transcriptions, and summaries are on file at the Oral History Archive, Anthropological Studies Center, Sonoma State University, Rohnert Park, California. Brief summaries of the interviews are included as Appendix A.

Until 1861 the street-numbering system in Sacramento applied only to streets south of I Street and thus excluded the study area. Residents and businesses in this area listed themselves in city directories simply by the nearest cross streets. In response to a rapidly increasing population, the Board of Supervisors voted to change this system in June 1860: I Street was established as the dividing line and all numerical streets were to be designated North or South with each 20-foot frontage being assigned a number. The alphabetical streets were also divided into segments and numbered consecutively. As can be seen from the city directories of the period, the new numbering system did not achieve acceptance and as years went by the system became increasingly unworkable and chaotic. In 1879 the city completely overhauled its numbering system (Pitti n.d.). Addresses changed through the years and did not consistently apply to a given parcel; thus identifying the addresses of specific project-area parcels involves research in numerous sources.

Previous Research

This study draws heavily on three previous works. In 1978-1979 a team of historical researchers under the leadership of Joseph McGowan compiled information on 16 blocks in downtown Sacramento from city directories and tax assessment records to produce a series of reports outlining the ownership and uses of these blocks from 1850 to 1920. Their study included the HI56 Block and provided a firm base from which to begin our research. Using the data assembled by McGowan, as well as census information and secondary sources, Peter Schulz prepared a research design for the city of Sacramento and for the 16 blocks studied specifically (Brienes, West & Schulz 1981c). The present work drew on both components of his study. In 1981 the ASC excavated portions of the block directly across the street from the present project area, the IJ56 Block (Praetzellis and Praetzellis 1982). That study recovered numerous discrete archaeological features associated with Chinese merchants who occupied the block in the 1850s and provides a source of direct comparison for the present work.

ARCHAEOLOGICAL FIELD METHODS

ARCHAEOLOGICAL FORMATION PROCESSES

It is essential to understand the processes by which cultural and natural strata are formed in order to interpret archaeological data and to evaluate their importance. When working in complex urban contexts, it is especially important to understand archaeological deposits in terms of the events that created them, not merely through the artifacts they contain. The excavation and recording system developed by Edward Harris (1974, 1977, 1979, 1988, 1989) aids in interpreting these events. Under this system, archaeologists must take note not only of solid features (such as walls) and negative features (such as pits), but also of contiguous interfaces that are created where stratigraphic units come into contact with one another. Thus, Harris recognizes layer interfaces, feature interfaces, and period interfaces—"a surface composed of a number of layer and feature interfaces" (1979:47). Leonard Wooley provides another definition of this concept: "the sum total of the ground surfaces which were ground levels in use at one and the same time" (1961:24).

Archaeological deposits reflect either periods of continuity or intervals of transition in site occupation or use. Continuous deposits are archaeological layers or living surfaces that become recognizable and distinct when buried by natural strata (i.e., flood silt, ash) or cultural strata (i.e., fill, roadway, building). Continuous deposits can form over periods of thousands of years, as on some California prehistoric sites, or in just a few years, as in the sequence of fire, flood, and fill found in Sacramento. It is a transition, natural or cultural, that results in a layer interface and the sealing of a continuous deposit into an archaeological layer. A process of continuous discard produces "sheet refuse" or gradually fills hollows and negative features. Because they accumulate gradually, these strata are highly susceptible to depositional and post-depositional disturbance. Archaeologists employ assemblages recovered from stratified, continuous archaeological layers to examine a variety of research problems concerning changes through time.

Archaeological strata formed during incidents of transition accumulate very quickly, often through a single depositional event in response to an abrupt change in the nature of site occupation and use. Activities such as the creation of a new feature interface (the removal of strata—hole digging) or the deposition of materials within a previously existing feature interface (the addition of strata—hole filling) often mark intervals of transition. Such deposits are more likely to retain their integrity than are continuous deposits and, therefore, possess greater visibility and focus in the archaeological record. In addition, deposits formed during intervals of transition may often be associated through historical research with specific households.

In urban areas, transitional feature interfaces and the strata that create them are often the result of changes on two levels: (1) those that result from the new use of a particular parcel due to the presence of a different commercial enterprise, occupant, or owner, or from modifications made by a continuing one; and (2) those produced by widespread responses to either natural disaster, such as floods or fires, or to municipal regulations governing sanitation practices, water delivery and storage, or street and lot improvements. More broadly, the latter transitions may be viewed as the movement by city government away from unplanned growth and development toward urban planning.

Sacramento's problem with floods has been of great significance to the preservation of the archaeological record. The solution was to truck in loads of fill and to raise the city streets from 4 to 16 feet. Property owners abandoned their lower floors or jacked up entire buildings. The result was the abandonment of the pre-1880s ground surface under the buildings themselves and in some of the courtyards and alleyways behind them. It was into this historic ground surface that the Sacramentans had dug their wells, privies, and drains—their feature interfaces. Over the years, the old ground surface had been covered by silt from floods, fill soil, and paving, creating layer interfaces. Beneath the late 19th-century fill an intact period interface is often found representing a most dynamic era in the history of Sacramento.

TESTING STRATEGY

The purpose of the test excavations was to determine the presence or absence of legally important property types. Potentially eligible properties were defined as deposits that contain domestic or commercial refuse, can be reliably associated with particular households or groups, and that possess substantial stratigraphic integrity. The areas to be examined were chosen using a modified version of the predictive criteria developed by Schulz (1979), as well as information about the historic-period uses of the project area. Known locations of contaminated soils were eliminated. The 1993 research design provided a focused historical outline, including historical summary, identified problems, archaeological potential, and research potential for each lot on the HI56 Block. The locations chosen for test trenching were those where it was believed high research potential coincided with high archaeological potential (survival).

Prior to beginning field work, a Health and Safety Plan, including discussion of Cal/OSHA trenching and shoring specifications and procedures for protection from soil contaminants and other dangerous conditions, was completed for the project.

The archaeological test excavation began on 14 November 1994 and continued until 25 November 1994. The elevation of the study area was approximately 8 feet below the surrounding streets; the area had been used as a parking lot in recent years. Since the

archaeological test areas specified in the project research design were situated in relation to the historic lot lines, the latter were marked on the ground by measuring from known points of historic continuity, such as the northwest corner of 6th and I streets. The accuracy of the lot lines was confirmed later by comparing the locations of wall junctions found archaeologically with those depicted on the Sanborn maps. A large area back from I and 5th and 6th streets was explored by backhoe. The object of this work was to locate features associated with the tenements at 6th and I and to identify features and stratigraphy associated with the early Chinese community that dwelt along the edge of China (a.k.a. Sutter) Lake in the 1850s.

The investigation areas were exposed by removing overlaying soils with a backhoe-loader equipped with a 36-inch trenching bucket. Historical research had shown that China Lake flooded several times in the 1850s and 1860s, depositing alluvium on the site. China Lake was filled in the early 20th century as part Southern Pacific Railroad Company's efforts to reclaim what had become a noisome pond. Fill soils from both of these events were anticipated.

The project research design emphasized exposing archaeological features, layers, and layer interfaces that related to the occupation of the site, principally by Chinese immigrants, in the 1850s and 1860s. Thus, later fill layers were removed mechanically. As the early layer interface was exposed, technicians shovel-scraped the ground's surface to remove loose soil, and then used trowels to define and clean features. A recording grid was laid over the entire site after it had been cleared, but provenience was recorded principally by street address. The following three areas were exposed:

	Addresses	Size (sq ft)
Area 1	812/826 6th St. & 525/527 I St.	6,300
Area 2	513/515 I St.	875
Area 3	507 I St.	1,900

Area 1

This exposure was designed to investigate deposits that accumulated within a "courtyard" created by the rear walls of several buildings that faced I and 6th streets. The yard was approximately 42 by 82 feet in size and was some 10 feet below the adjacent streets as a result of street raising in the 1850s and 1860s. To ensure that important deposits were not being overlooked, four trenches were excavated by backhoe within the building footprints themselves: Contexts 13, 14, 15, and 55. Trench 55 revealed demolition debris and flood alluvium, but not the discrete associations of artifacts or evidence of the 1855 fire that were specified in the project research design. The other trenches showed only disturbed deposits.

Area 2

An area measuring 31 feet east/west by 36 feet north/south was exposed. This area was designed on the basis of the locations of buildings shown on the 1895 Sanborn map and the Koch (1870) Bird's-Eye View to include the backlots of 513 and 515 I Street. The western boundary of the excavation area was formed by Context 904, the remains of a brick wall. The stepped footings of this massive structure were bonded with

Portland cement, dating it to the beginning of the 20th century at the earliest. Both this footing and the entire excavation area were covered by a layer of brick and mortar demolition debris, Context 976.

Area 3

After the fire of 1855, Josiah Gallup, the property owner, constructed a 20 by 50 foot brick building on the parcel and rented it out to a Chinese company. Later, this building was expanded to the rear. The object of the investigation was to discover remains that were discarded in situ in the wake of the 1855 fire that might reflect the activities of the Chinese companies who occupied the parcel at that time. Accordingly, archaeological testing concentrated on the area within and to the rear (north) of Gallup's building.

As each feature/layer was discovered during the test investigation, it was exposed in plan by hand, photographed, and mapped in relation to a permanent datum in order that it could be relocated. The approximate depth of refuse-filled pits was gauged by probing with a steel rod. To assess the features' potential content and integrity, an appropriate portion of each was hand-excavated. In the case of a refuse-filled pit, for example, the feature was cross-sectioned and part of the top layer excavated. The proper level of effort for each feature was determined by the Field Director as the phenomena were investigated. Excavated soil was passed through 1/8- or 1/4-inch screen, as appropriate to document the presence of all classes of artifacts. It is noted that several archaeological investigations in Sacramento have recovered the tiny bones of birds and fish by the use of 1/8-inch mesh. Test excavations were limited to the minimum amount of work necessary to determine the features' crucial characteristics: structure and stratigraphic integrity, approximate date of deposition, and range and quantity of artifacts.

EVALUATION PROCEDURES AND CRITERIA

Archaeological properties discovered during testing were evaluated first for integrity. Integrity is an essential prerequisite for NRHP-eligibility. For most archaeological properties, integrity is a matter of their research potential. This dictum, however, begs the question of the property's physical condition. The research questions in the project research design have archaeological data requirements that include, in addition to portable artifacts, an adequate archaeological context in the form of archaeological strata, interfaces, and features. To possess research potential, these types of phenomena must have adequate physical integrity in the form of what James Deetz (1977) has called archaeological "focus." By focus Deetz refers to the level of clarity with which the archaeological remains can be seen to represent a particular phenomenon. Remains that represent a number of activities or other characteristics that cannot be separated out from one another are said to lack focus. Where focus is lacking as the result of disturbance, a property also lacks integrity.

The following questions were applied to each feature to assess its integrity:

1. Does the property have focus? That is, is it possible to interpret the behaviors that are represented by it?

2. Does the property have integrity of location and setting with respect to the arrangement of remains? That is, does the property retain a significant portion of its original contents and condition, and is it in its original location?

Properties that retained integrity were evaluated in relation to the NRHP criteria for evaluation (36 CFR 60.4). This involved assessing the property's historical associations and information potential under NRHP Criterion D. Archaeological test excavation was recommended for a large portion of the HI56 Block. Until this ground-truthing exercise was initiated, the overall quality of archaeological preservation was not known. If postdepositional disturbance had destroyed or damaged many of the remains, a high proportion of the surviving features may have been said to have research potential because of their rarity and, therefore, would have been potentially NRHP eligible. If preservation was good, as turned out to be the case, it was recognized that numerous archaeological features with some level of research potential would likely be uncovered.

In a world of unlimited funding for archaeological research, all of the features discovered under the latter scenario would be fully excavated, analyzed, and reported upon. Since archaeology is only one of many national priorities, however, it is important to ensure that while demonstrably useful data are recorded, redundancy is avoided. In the Advisory Council on Historic Preservation's *Treatment of Archeological Properties: A Handbook*, Tom King posed the rhetorical question "How much archaeology is enough?" Replying to his own question, King concluded that it is "enough to conclude the data recovery program approved by the consulting parties under 36 CFR Part 800" (ACHP 1990:9). In other words, "enough" is a mutable value that will vary depending on the circumstances. The Secretary of the Interior's *Guidelines for Archeological Documentation* also addresses this difficult issue:

Archeological investigations seldom are able to collect and record all possible data. It is essential to determine the point at which further data recovery and documentation fail to improve the usefulness of the archeological information being recovered. One purpose of the research design is to estimate those limits in advance and to suggest at what point information becomes duplicative. Investigation strategies should be selected based on these general principles, considering the following factors: (1) Specific data needs; (2) Time and funds available to secure the data; and (3) Relative cost efficiency of various strategies [48 CFR 44735].

According to the *Guidelines*, then, it falls to the writers of archaeological research designs to determine the point at which archaeological data becomes duplicative. Implicit in the concept of duplicative data is the notion that the archaeological research potential of a given deposit is not a fixed quality. Since research potential is measured in relation to particular research issues, one can conceive of a point at which the research value of a particular archaeological feature is reduced as data that relate to the same issue are seen to be available from other features. While it cannot necessarily be said that the excavation of similar features will lead to no new insights whatsoever into the research issue—except in relation to highly particularistic questions of unequivocal fact—it is fair to say that, at some point, the principle of diminishing returns will come into play.

This threshold is difficult to define. Mere numbers of features are not a reliable measurement of the quantity of data needed to make confident interpretations. It is a qualitative decision that can only be made by individuals experienced in the process of archaeological interpretation. After one has determined that the point of diminishing returns will be exceeded if all available properties of a certain type are excavated, the next problem to solve is how to choose between the available data sets. If historic-period archaeological features were homogeneous in the density and quality of their content, it would be reasonable to select a statistically valid sample on the basis of a random draw. This is emphatically not the case, however, for these phenomena vary markedly in their integrity, content, structure, historical associations, and overall research potential—all qualitative factors. "Cookbook" approaches, which apply hard and fast rules indiscriminately, result in a level of predictability of treatment, but often at the expense of important data and with the needless expenditure of time and money.

The approach outlined here involves employing a set of general principles that aided GSA and its consulting archaeologist in their decision about which archaeological remains were excavated and analyzed and which were not. The principles are not criteria, in that they cannot be applied directly as a "test." Rather they are intended to guide the thoughtful consideration of a difficult qualitative issue. The principles will not substitute for the best judgment of a team of experienced professionals, but they may help to direct it. In this scheme, archaeological research potential is defined as the ability of a deposit to contribute to the questions identified in the research design.

1. Integrity. All else being equal, an archaeological phenomenon that retains good integrity will have more research potential than one whose integrity has been compromised.

2. Content. All else being equal, the research potential of a cache of archaeological materials from a domestic context will increase with the number of items and the variety of types present.

3. Historical associations. All else being equal, the research potential of an archaeological deposit that has reliable and precise historical associations will be higher than one whose associations are less certain.

4. Relative rarity. All else being equal, remains from a social, ethnic, or economic group that is poorly represented in the sample universe will be more important, because of their rarity, than remains that relate to a well-represented entity.

Of course, all remains encountered in the course of project activities have the characteristics of relative integrity, content, association, and rarity. The process of evaluation consisted of comparing individual properties on the basis of these characteristics. The evaluation, however, was not done mechanistically. It was recognized that a site with poor physical integrity might still have research potential if its relative rarity is high. Conversely, a feature might score quite high on content and associations, but it may be of a type that is already well documented and, therefore, may rate low in relative rarity.

At the completion of the testing phase on 24 November 1994, a letter report was submitted to GSA describing where testing was carried out and deviations made to the procedures set out in this plan (Praetzellis 1994). Of the 1,200-square-foot area exposed in the southeast portion of the block approximately 800 square feet contained an unbroken stratigraphic sequence of fire, demolition, filling, and sheet refuse disposal

from the early 1850s to the mid-20th century. These test investigations demonstrated the presence of remains that had the potential to address the research questions posed in the project research design. GSA and the OHP determined that the findings required the implementation of the data-recovery plan and work preceded immediately in order to accommodate the construction schedule and to prevent vandalism on the site should it have been left unattended.

DATA-RECOVERY EXCAVATION

A site record, or site context, sheet was used to record and cross reference all of the relevant excavation information. Each archaeological feature, or event, was assigned a context number, and the data relating to each observed archaeological context was entered onto the context sheet. This context sheet assists with both efficient ordering of archaeological data during field work and with the interpretation of the site during the post-field-work period. The system reduces errors by providing a series of cross-checks on each aspect of the site. It also simplifies the construction of a Harris matrix, or flow chart, that presents the observed totality of the archaeological relationships that are represented on the site (Harris 1989).

Several kinds of data were recorded for each property in order to realize its research potential: the deposit's structure (including stratification and features, areal extent and depth), and content (including the nature and quantity of artifacts). In addition, the phenomena were placed in their temporal and cultural/historical contexts. The field techniques described under Testing Strategy (above) were, in general, applicable to data recovery level work. Additional detail is provided below.

Where physical layers of deposition were not present, excavation was controlled by means of successive 4-inch (or thinner) arbitrary levels. The material was excavated using hand tools and, where appropriate, the soil passed through 1/4-inch screen. Due to the extremely wet conditions on site, the short field session, and the presence of small artifacts and faunal remains, large quantities of soil were bagged and processed back at the laboratory. Each unit of excavation was recorded on detailed forms on which the excavator and/or supervisor noted site structure and content. Artifacts were bagged according to provenience; the bags marked with the provenience designation, screen size, excavator's name, and the date. Some artifacts whose archaeological context was uncertain (i.e., unstratified finds) were collected for their potential value for public interpretation. Excavations were mapped in relation to permanent datum points. Excavations were recorded on plan and cross-section drawings drawn to scale, as well as by 35-mm black-and-white print and color slide photography.

LABORATORY METHODS

Portions of selected contexts were bagged in the field for laboratory processing. A total of 6 tons of soil, mainly from Contexts 954, 903, and 702, were screened through 1/4th, 1/8th, and 1/16th inch mesh. Materials from the 1/4th-inch sample were sorted for identifiable artifacts. Nondiagnostic items—such as unembossed bottle fragments and pieces of window panes—were counted, weighed, and discarded. The 1/8th-inch sample was sorted for beads and any unique artifacts; while a portion was

culled for fish bones. Portions of the 1/16th-inch sample were sorted for tiny beads and fish bones. The residues from these samples were curated together with the remainder of the collection for future research.

All materials recovered were cleaned, preliminarily sorted, and cataloged. Artifacts were given the Sonoma State University's Archaeological Collections Facility accession number 95-14. The remainder of the catalog number consists of the context layer from which the artifact was recovered, followed by a sequential number beginning with one for each lot within a context. Items were sorted into individual groups based on function and material, with some, such as nails, grouped by type.

Materials were divided into broad functional categories, modifying Stanley South's (1977) groupings into ones that are more appropriate for later period sites in the western United States. These categories include domestic, industrial, personal, and structural. The total number of whole and fragmentary pieces was determined, as well as a minimum number of items per feature. Whenever possible, manufacturer, manufacturing dates, and points of origin were noted.

Artifacts were sorted and cataloged. Ceramics were grouped by material. Then, these were further categorized based on form, function, decoration, and surface treatment. Glass items were divided into serving and tableware use, or bottles, or window pane. Tableware items were cataloged by color, function, and if possible manufacturing processes. Bottles were sorted by color; function was determined when possible based on the shape of base, finish, or embossment. Unless otherwise stated, all finishes are hand-applied. Other manufacturing techniques were described and dated if possible. Embossed bottle sherds were researched to determine information concerning manufacturer, contents, origin, and date ranges. Window glass was sorted by thickness and color, and only examples with corners were curated.

Artifacts produced from metal were classed and function determined. Cut nails were the most plentiful artifacts. Complete ones were measured by pennyweight, with a sample of each size curated; fragments were counted, minimum numbers established, and then discarded. The poor condition of tin cans allowed for descriptions of only some technological characteristics, mainly seams. Nondiagnostic body fragments were counted and discarded. Lester A. Ross, Historical Archaeological Consulting, aided in identifying selected metal items. A few copper alloy artifacts were soaked in citrus acid to enhance additional analysis.

Other items, such as game pieces, buttons, bone artifacts, and structural material fragments were sorted by function and then material. Manufacturing techniques were noted and, whenever possible, dated.

The collection is permanently housed at the Archaeological Collections Facility, Sonoma State University, Rohnert Park, California.