SF-80 BAYSHORE VIADUCT SEISMIC RETROFIT PROJECTS
REPORT ON CONSTRUCTION MONITORING, GEOARCHAEOLOGY, AND TECHNICAL AND INTERPRETIVE STUDIES FOR HISTORICAL ARCHAEOLOGY



Prepared for California Department of Transportation

ASC
ANTHROPOLOGICAL STUDIES CENTER
SONOMA STATE UNIVERSITY

Cover: Aerial overview of SF-80 Bayshore Project area; view to north

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EXECUTIVE SUMMARY

The SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project), an undertaking of District 4 of the California Department of Transportation (Caltrans), involved the retrofit of columns and footings supporting the elevated structure of Interstate 80 on 10 city blocks in the city of San Francisco: from Fourth Street between Harrison and Bryant to the viaduct's junction with SF-101, at Sixteenth Street between San Bruno and Vermont. The archaeological project reported on here was necessary to achieve compliance with the California Environmental Quality Act (CEQA). As part of its plan to comply with CEQA, Caltrans contracted with the Anthropological Studies Center at Sonoma State University (ASC) to address project impacts to prehistoric and historical archaeology.

Due to the time constraints placed upon the SF-80 Bayshore Project's schedule, the project research design adopted the consolidated approach to CEQA compliance, wherein identification, evaluation, and data-recovery phases were collapsed into a single operation. Archaeological fieldwork took place intermittently between 19 May 1999 and 11 December 2001. ASC archaeologists monitored footing excavation at selected bents and directed the mechanical excavation of soil in sensitive areas. The predictive model developed for the project was found to be accurate; intact historic ground surfaces—a prerequisite for the occurrence of important remains—were located in the majority of footings monitored. Archaeological deposits that met the criteria described in the research design were excavated stratigraphically, by hand, using rapid-recovery methods. To identify potential prehistoric deposits associated with buried soil horizons that would be impacted by the new piles, a program of geoarchaeological soil coring was performed.

No prehistoric sites were identified. Among other remains, eight artifact-rich, historic-era privy deposits were discovered. By applying the criteria specified in the research design, one of the latter collections (Privy 7) was evaluated as ineligible to the California Register of Historical Resources due to lack of materials and poor focus; the remaining seven collections were determined eligible. The latter are curated at the Archaeological Collections Facility, Sonoma State University, Rohnert Park, California.

This report is organized into five parts, each of which describes a different project component. Part I introduces the archaeological studies for the SF-80 Bayshore Project—where the work took place, how it was envisioned, and how it developed. The results of the geoarchaeology program are reported in Part II. Though this coring program, an important stratigraphic sequence was defined that has since been used to refine the predictive modeling for prehistoric deposits in San Francisco. The program explains the apparent absence of prehistoric sites in the area of direct impact by the timing and extent of landscape changes that buried virtually all formerly stable prehistoric land surfaces. Part III describes the methods and findings of the archaeological monitoring program, including evaluations of significance. Data describing the seven California Register-eligible collections discovered during archaeological monitoring are presented in Block Technical Reports in Part IV for ease of comparison with the West Oakland/Cypress Data. Finally, in Part V the seven collections are used to address the project research design. Archaeological collections from the nearby San Francisco-Oakland Bay Bridge West Approach Project are added to the San Francisco database to allow statistical comparisons between the San Francisco collections and those found during the West Oakland/

Cypress Project. Through the use of rigorously consistent methods of recovery, lab analysis, and reporting, truly comparable samples of a population size unprecedented in the West are available for statistical analyses. Patterns are revealed at the household, neighborhood, and city levels, as well as consistencies and contrasts between San Francisco and West Oakland. A concluding reflection is offered on the implications of these results for urban archaeological research.

ACKNOWLEDGMENTS

During the Bayshore Viaduct Project's five-year span, Caltrans' supervision of the archaeology passed through the hands of several District 4 Environmental Planners/ Archaeologists, beginning with Janet Pape and followed by Glenn Gmoser, before moving on to Thad Van Bueren, who took it to fruition. The project's frequent logistical challenges were overcome through consultation with Caltrans project engineers Jenny Nielsen, Peter Vigliotti, and Andrew Yan, and construction contractors Mick Wilson (FCI), Mike Melvin (Balfour Beatty), and Gregg Johnson (Dillingham Construction).

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Nancy Olmsted and the late Roger W. Olmsted undertook much of the project's prefield historical research, while ASC historical researcher Elaine-Maryse Solari and her assistant, Sandra Massey, performed tightly focused, postfield research.

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Mary Praetzellis

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Part I: Introduction

The SF-80 Bayshore Viaduct Seismic Retrofit Projects Report on Construction Monitoring, Geoarchaeology, and Technical and Interpretative Studies for Historical Archaeology is divided into five parts, each covering a major component of the project. Part I provides an introduction to the archaeological study for the SF-80 Bayshore Project where it took place, how it was envisioned, and how it developed.



SF-80 and the San Francisco Bay Bridge, view to northeast

CHAPTER 1
INTRODUCTION

PROJECT LOCATION AND DESCRIPTION

The SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project), an undertaking of District 4 of the California Department of Transportation (Caltrans), involved the retrofit of columns and footings supporting the elevated structure of Interstate 80 on 10 city blocks, from Fourth Street between Harrison and Bryant to the junction with SF-101 at Sixteenth Street, between San Bruno and Vermont, in the city of San Francisco (Figures 1.1 and 1.2). This portion of Route 80 was built in the early 1950s and serves as a vital transportation link between the San Francisco–Oakland Bay Bridge and points south along Route 101. Damage from the 1989 Loma Prieta earthquake created the need for such work and required that it be accomplished with the utmost dispatch.

The freeway retrofit was divided into three projects: Project 1 covered the area from Sixth Street to Eighth Street; Project 2 from Fourth Street to Sixth Street; and Project 3 from Eighth Street to the junction with SF-101 (Figure 1.3). This archaeological project was necessary to achieve compliance with the California Environmental Quality Act (CEQA). Compliance was achieved through implementation of a Treatment Plan (Mc Ilroy and Praetzellis 1997) approved by Caltrans.

The seismic retrofit projects for the SF-80 Bayshore Project were summarized in 1996 by an internal Caltrans scoping report as follows:

1. Provide bolted seat extensions with slotted holes as bearing retrofit at every girder. Provide strut ties at selected bents to transfer superstructure seismic loads to substructure.
2. At bents with steel columns, retrofit the existing column grillage anchorage and footing. The grillage retrofit consists of removing existing pedestal concrete, adding anchor plates and anchor bolts. The footing retrofit consists of increasing the existing footing size both horizontally and vertically and adding new 16-in.-diameter piles.
3. At the two-column concrete bents, retrofit the columns at every third bent. Provide cross brace and retrofit the footing at every bent. The column retrofit consists of adding longitudinal rebar and column encasement with steel jacket. The footing retrofit consists of increasing existing footing size both horizontally and vertically and adding new 24-in.-diameter pipe piles.
4. At the three-column concrete bents, retrofit columns and footings. The column footing retrofit consists of similar work as described in (3) above. The bent cap will be strengthened with the addition of reinforced concrete sections. 24-in.-diameter CIDH piles will be used and excavation underneath the existing footing is required at Seventh Street bents L64 & R62.
5. At the abutments: provide lateral shear keys and extend existing seat.

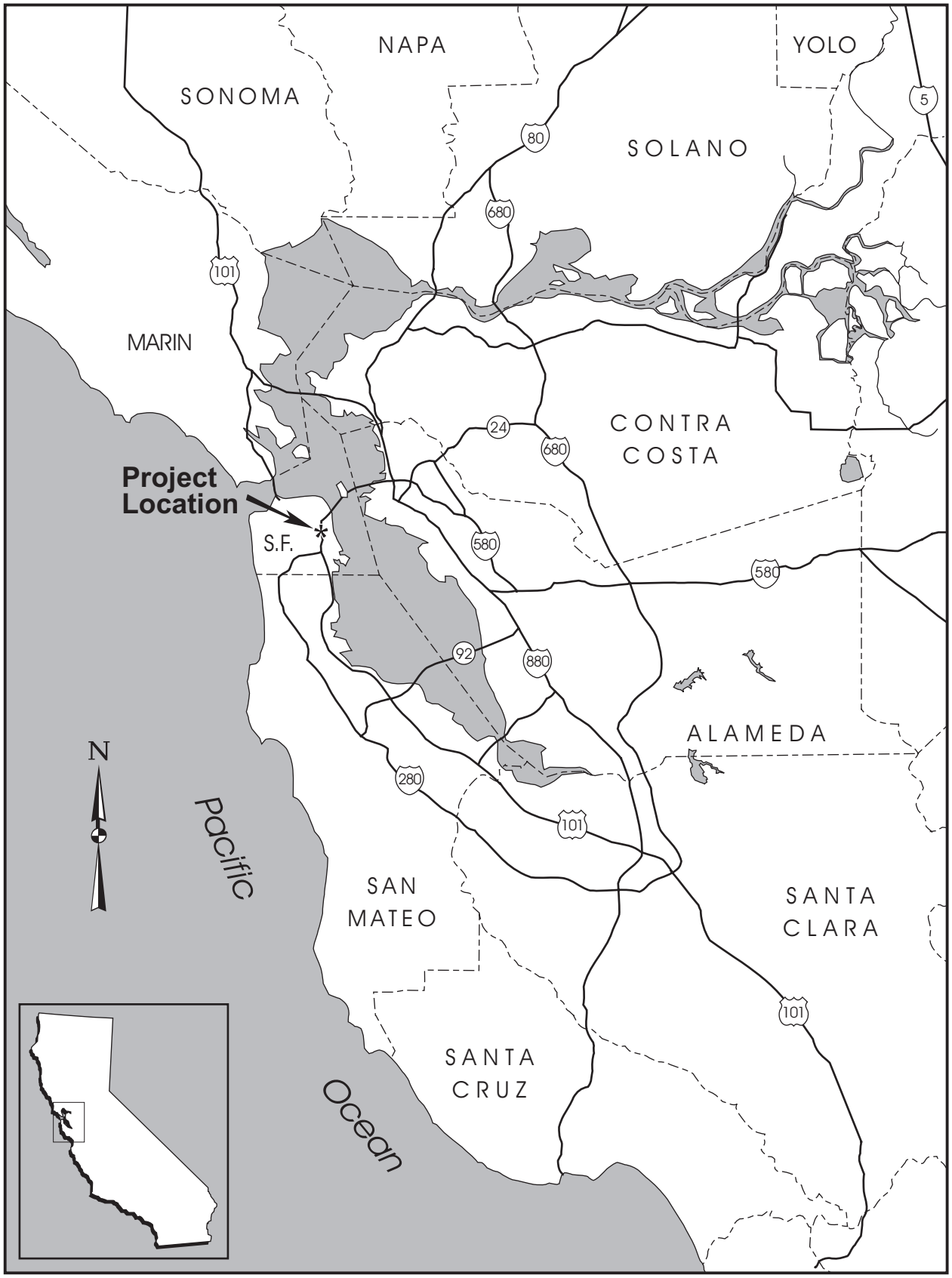


Figure 1.1. Project location – SF-80 Bayshore Viaduct Seismic Retrofit Projects, San Francisco, California

CONSTRUCTION IMPACTS

All construction was within existing Caltrans right-of-way. The potential archaeological impact derived from the retrofit, in which existing footing size was increased and new piles sunk. The original footings varied in size. On Blocks 1, 2, and 3, original footings were generally 9 x 9 ft., or 9 x 12 ft. on edge, and bottomed out around 5 to 6 ft. below grade. Retrofitted footings on these blocks are usually 17 x 17 ft., or 17 x 20 ft. on edge. Most original footings on the remaining blocks were 10 x 12 ft., 10 x 15 ft., 9 x 18 ft., or larger. Retrofitted footings now vary from 20 x 18 ft. to 33 x 21 ft. The retrofitted footings bottom out at about 6 ft. below grade. Piles were driven beneath the retrofitted footings. On Project 1 (Blocks 3 and 4), piles were driven to a depth of between 45 and 60 ft., and on Project 2 (Blocks 1 and 2), to between 45 and 80 ft. in depth. On Project 3 (Blocks 5 through 10), piles were driven to between 45 and 110 ft. in depth. The footing extensions, pile-driving, and sheet-piling were defined as an effect on any surviving buried archaeological materials in the areas of direct impact.

The SF-80 Bayshore Project adjoins another Caltrans seismic retrofit project: the San Francisco-Oakland Bay Bridge, West Approach Replacement Project (SFOBB West Approach Project). The two projects combined form a continuous corridor from Main Street to the Route 101 interchange. SFOBB West Approach Project Block 11 meets SF-80 Bayshore Project Block 1 in the middle of the block bounded by Fourth/Fifth/Harrison/Bryant. Archaeological features from three SFOBB West Approach Project blocks will be used for comparative studies in the interpretive chapter of this report.

ARCHAEOLOGICAL RESEARCH DESIGN AND TREATMENT PLAN

Archaeological sites in San Francisco, as in most urban areas, are invisible, buried under modern created land surfaces. For this reason, the preliminary phase of archaeological research consisted of using available historical information to develop a predictive model indicating where significant historical resources were likely to exist. The project research design and treatment plan (RDTP), *Vanished Community, 19th-Century San Francisco Neighborhoods: From Fourth Street to Mission Creek, and Beyond* (Mc Ilroy and Praetzellis 1997) was created for Caltrans to guide the following primary project tasks:

- Identify archaeological test locations where high research and survival potential coincided with project impacts;
- Provide the context, including research questions, evaluation criteria, and data requirements, within which to evaluate resources discovered during testing; and
- Supply a treatment plan for data recovery for properties that were evaluated as eligible to the California Register of Historical Resources (CRHR)

Due to the time constraints placed upon the SF-80 Bayshore Project schedule, the RDTP adapted the consolidated approach developed for the Cypress Freeway Replacement Project, wherein identification, evaluation, and data-recovery phases could be combined into a single operation. Detailed archival research identified 63 footings on portions of 8 of the 10 project blocks where historical archaeological sites with high research and

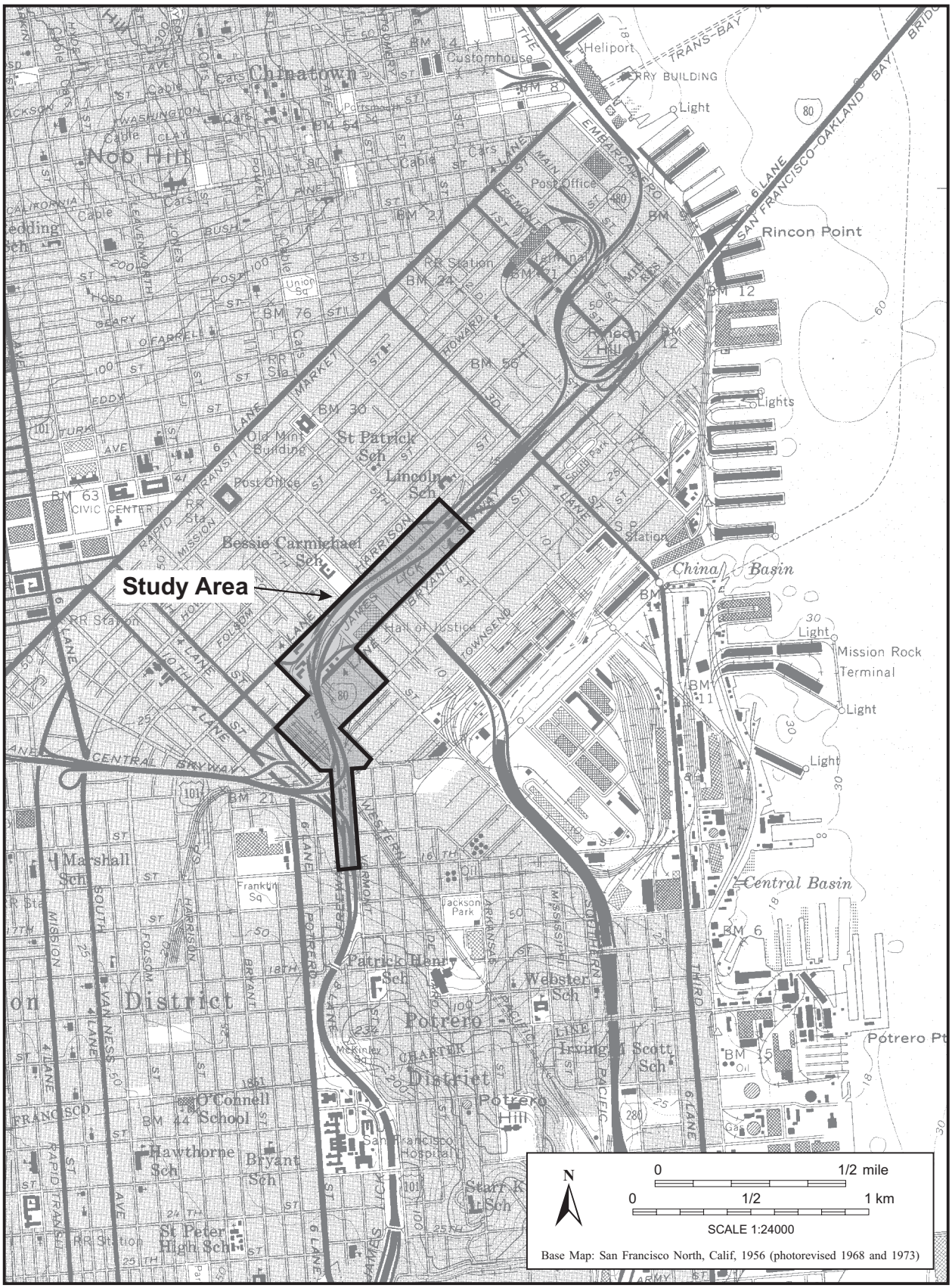


Figure 1.2. Study area – SF-80 Bayshore Project

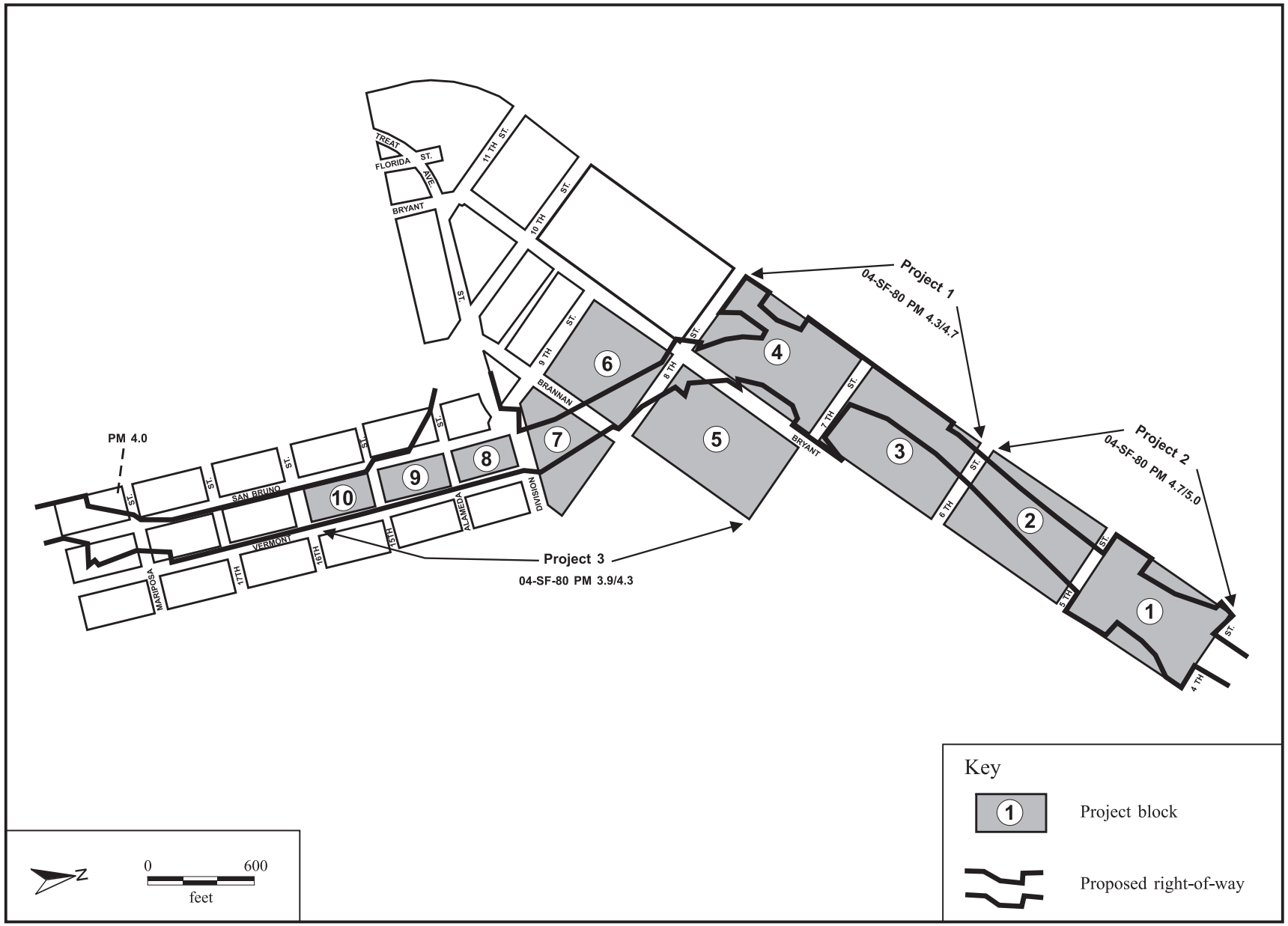


Figure 1.3. Project block numbers and right-of-way – SF-80 Bayshore Project

survival potential were predicted to occur. Analysis of the prehistoric landscape identified 27 footing locations where former dune surfaces capable of containing buried prehistoric deposits are present. Historic and prehistoric sensitive areas overlapped at 7 footing locations. The RDTP recommended archaeological testing at 83 of the projects' 294 footings (28%) to determine the presence/absence of the predicted important deposits, subject to logistical constraints, new hazardous soils information, and undocumented disturbances.

ARCHAEOLOGICAL PROJECT

Due to logistical and engineering constraints, it was not possible to conduct test excavations between footings. Anthropological Studies Center (ASC) archaeologists worked with Caltrans archaeologists to ensure that despite the difficulties—limited workspace, the restriction against exposing existing freeway piles, and the presence of deep overburden and potentially contaminated soils—a good-faith effort to identify significant archaeological resources was carried out.

ASC archaeologists monitored footing excavation at the selected bents and directed the mechanical excavation of soil in sensitive areas. The predictive model developed for the project turned out to be accurate: intact historic ground surfaces—a prerequisite for the occurrence of important remains—were located in the majority of the footings monitored. The evaluation criteria developed in the RDTP allowed the archaeologists to quickly determine the significance of these deposits, the majority of which related to building construction or 1906-earthquake debris, neither type of deposit being deemed significant according to that document. Archaeological deposits meeting the RDTP data requirements were excavated stratigraphically by hand using rapid-recovery methods. Some deposits were bulk-bagged for processing at the ASC.

In conjunction with the monitoring phase, which focused on the top 5 to 6 feet of fill impacted by retrofit construction at each targeted existing footing, a geoarchaeological coring program was conducted. The geoarchaeology program consisted of soil coring to a depth of up to 40 feet to determine the presence/absence of prehistoric deposits associated with buried soil horizons that would be impacted by the new piles. Investigation of these deep deposits by any other means would have been cost-prohibitive.

The areas recommended for monitoring were revised prior to and during fieldwork. Ultimately 45 locations were monitored for prehistoric sites, 41 for historic, and 2 for both. Ten of the targeted historic archaeological footings were dropped after fieldwork indicated that their research potential was low, resulting in archaeological work at just under 30 percent of the footings.

The archaeological fieldwork schedule was determined by the building contractors' schedule. Engineering specifications limited the number and location of bents that could be excavated at a given time. Fieldwork for the SF-80 Bayshore Project took place intermittently between 19 May 1999 and 11 December 2001. Due to the potential presence of hazardous soils, all of the archaeological field personnel were Cal-OSHA-certified for Hazardous Waste Operations at the 40-hour level and were current with the 8-hour annual recertification. Appendix A contains a list of project personnel.

The ASC field team identified and excavated a total of eight privy deposits, which were processed by the lab crew. One of these (Privy 7) was evaluated as ineligible due to paucity of materials and focus. Site record forms were completed for all blocks on which monitoring occurred (Appendix D). No prehistoric sites were identified. The geoarchaeology coring program resulted in the reconstruction of an important stratigraphic sequence that has been used to refine the predictive modeling for prehistoric deposits in San Francisco.

The artifact collections are curated at the Archaeological Collections Facility, Sonoma State University, Rohnert Park, under the following accession numbers: Block 3, 2000-19; Block 4, 1999-9; Block 6, 2000-21.

An interactive website is being developed as part of the SF-80 Bayshore Project in accord with the public-outreach requirement of the RDTP.

REPORT ORGANIZATION

This report is organized into five parts, each describing a different project component. Part I provides an introduction to the archaeological study for the SF-80 Bayshore Project—where it took place, how it was envisioned, and how it developed. The ASC Geoarchaeologist provides an overview of research on buried sites in the project area and reports on the results of the geoarchaeology-coring program in Part II. Part III provides a research context for the historical archaeology, including a summary of the historical overview presented in the RDTP. It follows with descriptions of the methods and findings of the archaeological monitoring program, which developed from the RDTP testing program, including evaluations of significance. The seven CRHR-eligible historic features discovered during archaeological monitoring are presented in Part IV, using the Block Technical Report (BTR) format developed for the Cypress Replacement Archaeology Project. The BTR format allows the collection to be easily used for comparative research. Lastly, in Part V, the findings from the seven privies will be used to address the SF-80 Bayshore Project's research design. Due to the limited scope and findings from the project, archaeological features from nearby Blocks 5, 9, and 11 of the SFOBB West Approach Project have been added to the San Francisco database to enable some preliminary comparisons between these San Francisco deposits and those found on Caltrans' Cypress Freeway Replacement Project in West Oakland (Praetzellis and Praetzellis, eds. 2004).

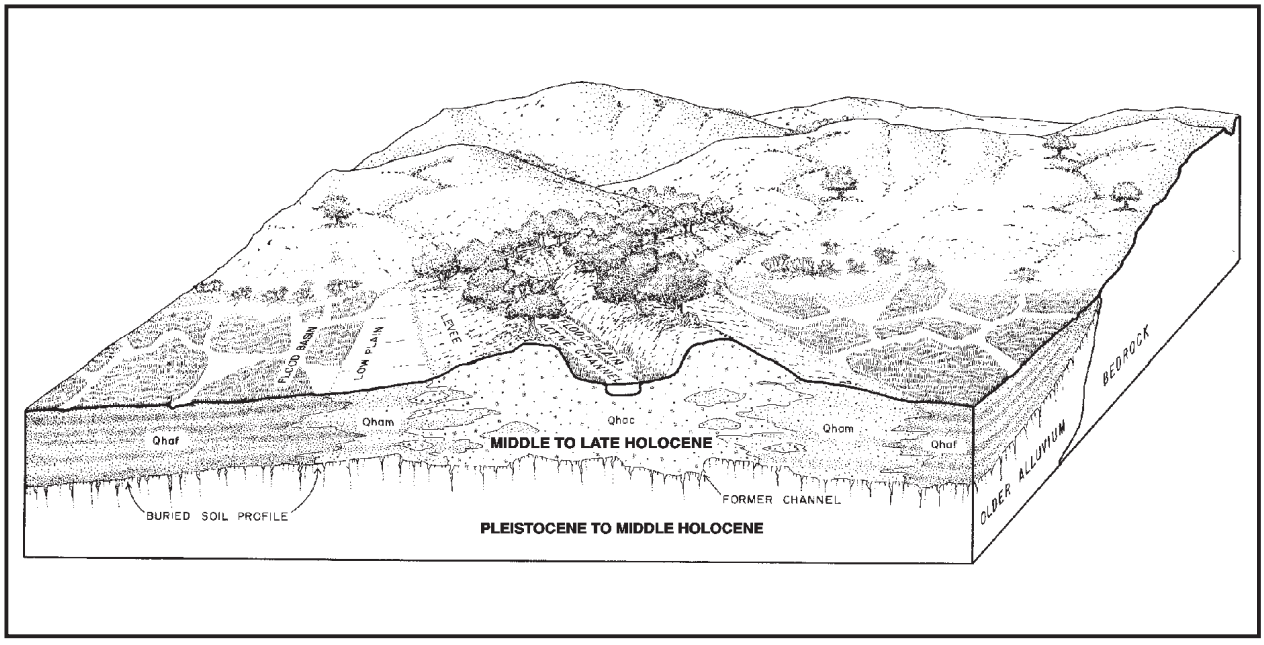
Appendix A lists the duties and qualifications of project personnel. Appendix B contains tables of the Significant Statistical Findings of comparisons between aspects of the SF-80, SFOBB West Approach, and Cypress Replacement project collections. SFOBB West Approach Feature Snapshots are included as Appendix C. Appendixes D through I are included on the compact disk attached to this report. Site-record forms are presented as Appendix D. A concordance of numbers assigned to record site stratigraphy is presented as Appendix E. The geoarchaeology program boring logs comprise Appendix F and the accompanying radiocarbon findings make up Appendix G. Statistical studies of faunal remains, glass and ceramic containers, and ceramic vessels from SF-80 Bayshore, SFOBB West Approach, and the Cypress Freeway Replacement projects are included as

Appendix H. The detailed artifact catalog in its entirety is included as Appendix I. The database is also presented in both Excel 2000 and Access 2000 for ease of user accessibility. Researchers may add data fields for social and economic characteristics, date, and any other category that they chose to explore, or they may expand the database to include their own projects.

This report owes a debt to the contributors to the Caltrans research designs and treatment plans that preceded it, beginning with the SF-80 Terminal Separation Rebuild in 1993, the Cypress Freeway Replacement Project in 1994, and the present SF-80 Bayshore Project in 1997. In keeping with the technical nature of the current report, individual contributors are only given bylines for new, interpretive material presented for the first time herein.

Part II: Geoarchaeology

Part II describes the environmental history of the San Francisco Bay Area and the potential relationships between environmental changes, human settlements, and the archaeological record. It provides a brief overview of human prehistory on the northern San Francisco peninsula, emphasizing the effects of Holocene landscape evolution and the potential for buried archaeological deposits. Findings from the SF-80 Bayshore Project geoarchaeological coring-program are presented within the context of regional San Francisco prehistory.



CHAPTER 2
GEOARCHAEOLOGY: OVERVIEW AND RESEARCH CONTEXT

Jack Meyer

GEOENVIRONMENTAL HISTORY

VALLEY TO BAY

This section describes the environmental history of the San Francisco Bay Area and the potential relationships between environmental changes, human settlements, and the archaeological record. The Bay Area has undergone a series of significant large-scale environmental changes since the late Pleistocene, when people may have first entered and inhabited the region. These changes included rising sea levels, widespread sediment deposition, and corresponding fluctuations in the distribution and availability of important natural resources. As a result, the archaeological record, and the potential for archaeological deposits in the SF-80 Bayshore Project area, is better understood when viewed within the history of Bay Area environmental and landscape changes.

During the last glacial maximum some 22,000 years ago, vast ice sheets covered the northern part of the continent, and the climate in central California was considerably cooler than at any time since. Worldwide sea levels were at least 100 meters (about 328 feet) lower than today, and the California coastline was located some 25 to 50 kilometers (about 15 to 30 miles) west of its current position (Atwater, Hedel, and Helley 1977; Bard et al. 1996). At that time, the combined runoff from the Sacramento and San Joaquin rivers merged to form the "California River" (Howard 1979), which passed through the Carquinez Straits and into the "Franciscan Valley" (Axelrod 1981), now occupied by San Francisco Bay. The smaller streams and rivers draining the Franciscan Valley also joined this massive drainage as it flowed west through the Golden Gate and across the continental shelf, where it eventually emptied into the Pacific Ocean near the modern-day Farallon Islands (Atwater, Hedel, and Helley 1977; Axelrod 1981). Thus, instead of a "bay," there was a broad inland valley that supported grassland and riparian plant and animal communities.

As the continental ice sheets melted, the oceans of the world began to rise rapidly, which caused the Pacific shoreline to migrate eastward (Figure 2.1). Between 15,000 and 11,000 cal B.P. (calibrated years before present), sea levels rose about 55 m (180 ft.) worldwide, at an average rate of about 13 m (42.6 ft.) every 1,000 years (Bard et al. 1996)—enough to cover most of the continental shelf. The lowest portions of the Franciscan Valley and California River were flooded between 11,000 and 8000 cal B.P., as sea level rose about 25 m (82 ft.) at an average rate of about 8.3 m (27.2 ft.) every 1,000 years. As the waters continued to rise, freshwater marshes began to form and sediments carried by the California River accumulated on the floor of the Franciscan Valley—marking the transition from valley to bay.

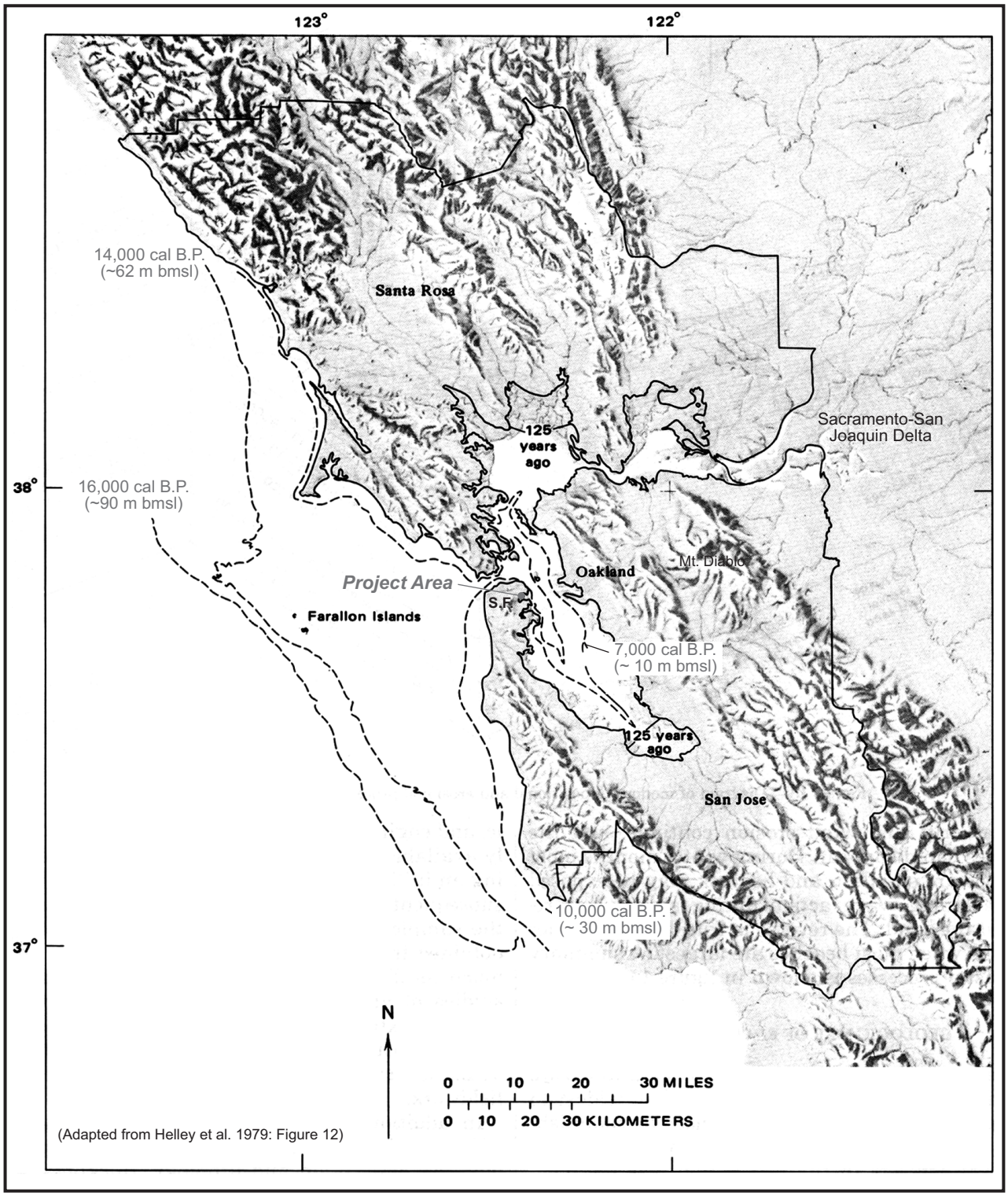


Figure 2.1. Timing and extent of Holocene sea-level rise in the San Francisco Bay Area

Between 7000 and 6000 cal B.P., there was a dramatic decrease in the rate of sea-level rise worldwide (Stanley and Warne 1994). During this time, the sea inundated the Franciscan Valley at a more gradual rate of about 1.3 m (4.3 ft.) every 1,000 years, for a total of 8.0 m (26.2 ft.) over the past 6,000 years. This allowed sedimentation to keep pace with inundation, which permitted the formation of extensive tidal-marsh deposits during the middle Holocene (Atwater et al. 1979). As base levels rose, the lower reaches of the stream and river channels became choked with sediments that spilled onto the surface of existing fans and floodplains, forming large alluvial floodplains (Helley et al. 1979). As a result, bay and marsh deposits now cover many formerly stable Holocene-age land surfaces, such as those documented beneath Yerba Buena Cove (Lee and Praszker 1969:60-63), and the San Francisco–Oakland Bay Bridge (Atwater, Hedel, and Helley 1977:Plate 1; Louderback 1951:90; Treasher 1963:Figure 5). During the late Holocene, the Bay grew in size as marshlands expanded in response to higher sea levels and the decomposition, compaction, and subsidence of intertidal deposits. These processes resulted in the formation of large tidal mudflats and peat marshes, which further promoted the deposition of sediment around the margins of the Bay. Radiocarbon dates from southwestern San Francisco Bay (Palo Alto Marsh) indicate that these deposits were generally formed during the past 2,000 years (Atwater et al. 1979:349).

Several studies confirm that many of the late Pleistocene and early Holocene land surfaces located near the Bay were overlain by deposits of younger alluvium that are generally less than 6,000 years old (Borchardt 1992; Gmoser et al. 1999; Helley et al. 1979; Meyer 2000, 2001; Stewart, Meyer, and Newland 2002). Stratigraphic and radiocarbon evidence indicate that the Holocene-age alluvial deposits average 2 to 3 m in thickness, with deposits exceeding 10 m in a few areas. These older land surfaces usually exhibit well-developed buried soils (paleosols) that represent a significant stratigraphic boundary in the region (Figure 2.2). As a result, older archaeological sites located in and around the Bay were either submerged by sea-level rise and/or buried by sediment deposition.

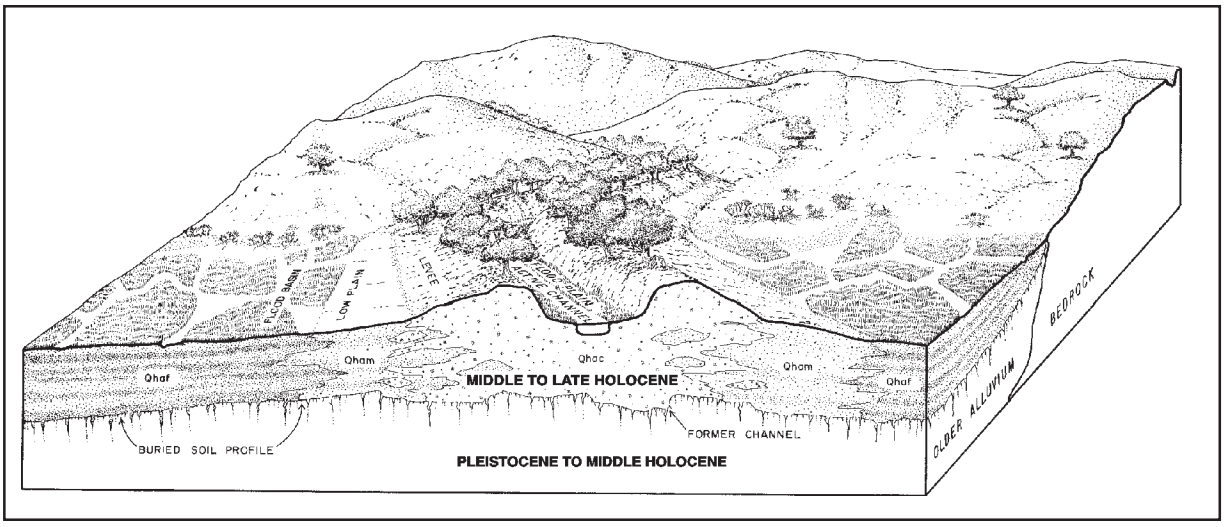


Figure 2.2. Typical Bay Area landform-sediment assemblage. Note older buried land surface (Helley et al. 1979:Figure 19).

Isotopic analysis of shell suggests that salinity and discharge levels of the Bay have undergone substantial fluctuations over the past 6,000 years (Ingram and DePaolo 1993; Ingram, Ingle, and Conrad 1996a and 1996b; Wells 1995; Wells and Goman 1994). The mass extinction of large prehistoric oyster beds that flourished in southern San Francisco Bay between 1700 and 1850 cal B.P. indicates that significant changes did occur in the south Bay (Story, Wessels, and Wolfe 1966). Given the potential influence of large-scale environmental changes on the distribution and abundance of certain animal communities, it is likely that prehistoric human populations were forced to respond to periodic (perhaps critical?) shortfalls in the availability of species used for subsistence.

SAND AND WIND

Wind-blown sand dunes cover a large part of the San Francisco peninsula and portions of the project area. This vast dune field stretched eastward across the entire peninsula from Ocean Beach to the margins of the Bay (Figure 2.3), making it one of the four most extensive dune complexes on the California coast (Cooper 1967:42). In 1857 W.P. Blake keenly described the highly variable nature of the San Francisco dunes and the importance of wind, topography, and vegetation as factors of dune stability, observing that

> Most of the hills in the city and its vicinity, where they were partly sheltered from the wind, are, or were, covered with a thick growth of dwarf trees and shrubs (chamisal), which prevented the wind from acting upon their surfaces and removing the sand. The progress of such hills is not uniform and constant, for, under certain circumstances, they remain stationary for long periods. Whenever the vegetation is removed, or a cutting is made, and the wind is allowed to act upon the surface, or to strike a hill in a new direction, the motion of the sand is rapid, and a large hill is soon carried away and piles up in a protected place, where the sand remains, secure from further violent action [1857:160-161].
>
> Towards the Mission the sand hills are an important feature of the place, being high and steep, and covered in most places by a low growth of vegetation, principally shrubs and evergreen and dwarf oaks . . . [1857:145].

In the 1860s Golden Gate Park was established within an active part of this dune field that was not stabilized by vegetation until the 1880s (Amundson and Tremback 1989:1798). These historic accounts illustrate the relatively mobile nature of these transient landforms, which are largely the result of variations in wind, topography, vegetation, sediment supply, and sea level (Carter, Nordstrom, and Psuty 1990:4-5). The configuration of the San Francisco dunes indicates that they were formed by the prevailing westerly winds that transported loose sand from Ocean Beach across the nearly level and poorly vegetated topography to the east (Schlocker 1974:78-80). In their natural state, these dunes formed a series of transverse-ridges that were characterized by narrow, almost linear dune crests and wide interdune troughs. As Blake noted, the dunes are generally thicker on the eastern or leeward side of prominent bedrock hills and ridges on the

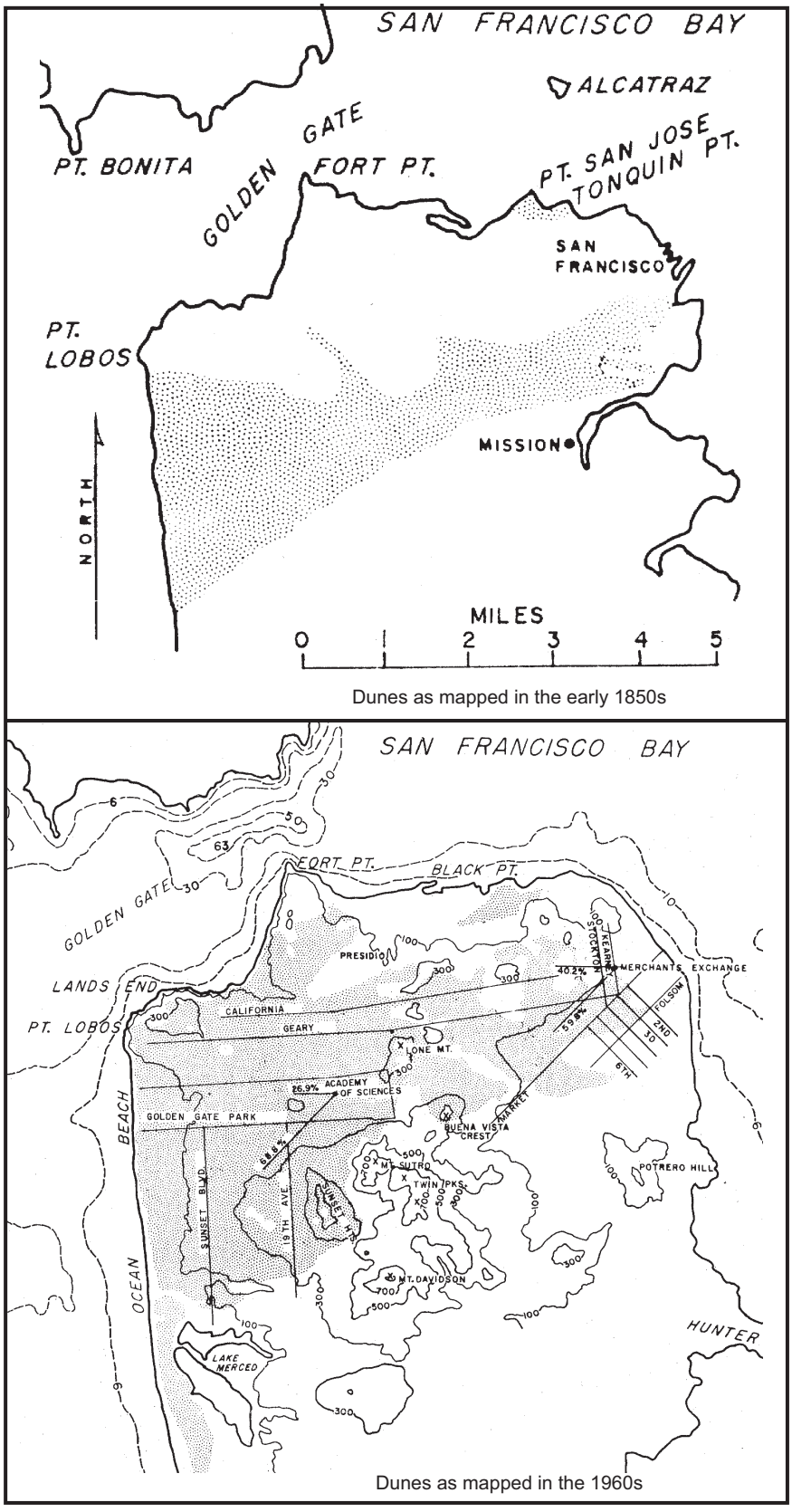


Figure 2.3. Extent of the dune field on northern San Francisco peninsula

peninsula, because they are better protected from the winds in these areas (Schlocker 1974:78-80).

Although the occurrence and extent of the dune fields in San Francisco are well-documented, the age and evolution of these dunes are only partly understood. In his study of dunes along the California, Oregon, and Washington coasts, Cooper (1967) identified two major episodes of dune formation during the Holocene, which he correlated with significant sea-level changes. Cooper suggested that dunes on the east side of the San Francisco peninsula are older than the dunes on the west side, based on the observation that older dunes are generally located farther inland that younger dune along the Pacific coast. At Morro Bay in San Luis Obispo County, however, younger dunes were found to be located farther inland than older dunes because the younger dunes were formed from destabilized older dunes (Orme 1990). At least two phases of dune development are indicated in the San Francisco dunes by "two sections of dune sand separated by bay mud and clay" in the Market Street area east of the Civic Center (Schlocker 1974:80). A radiocarbon date obtained from the bay mud at that location indicates that the overlying dune sands are less than 2000 cal B.P. In the same general area, a buried soil of unknown age was exposed in dune sand during the excavation for Brooks Hall at the Civic Center (Schlocker 1974:Figure 52). Radiocarbon dates of 2085 to 1155 cal B.P. from archaeological sites (SFR-112 and -113) buried in the dunes demonstrate that the San Francisco dune complex was still actively forming during the latter part of the late Holocene (Henn and Schenk 1970:6). It is also possible that some phases of dune activity are associated with widespread devegetation resulting from fires set either deliberately or accidentally as a result of increased human settlement over the past 2,000 years (Orme 1990:328). As such, it appears that the dunes within the project area have the potential to contain buried archaeological deposits.

HISTORIC CHANGES AND SUMMARY

More recent changes on the northern peninsula include the appearance of introduced (non-native) plant species, which generally coincides with the arrival of the Spanish and other Euroamerican settlers during the 1700s and 1800s (Reidy 2001; West 1989). An intense drought during the late 1800s reduced the vegetation cover and made the landscape susceptible to erosion (Burcham 1982:171), as did many of the activities associated with historic settlement. Hydraulic-mining activities in the Sierra Nevada increased the amount of sediment deposited within the Bay (Gilbert 1917). Lasting evidence of these changes is found in estuarine deposits (Mudie and Byrne 1980) and seen along many stream channels, where the lowest terraces are often composed of historic-age sediments (Knudsen et al. 2000). Finally, thick deposits of artificial fill were placed around the margins of the Bay to reclaim the marshes and wetlands for human development (Lee and Praszker 1969), including parts of Mission Bay within the project area (Schlocker 1974:Plate 1). While some archaeological resources may have been partially or completely destroyed by historic development, others were obviously buried by artificial fill.

This brief overview illustrates that large-scale environmental changes played a major role in the evolution of the Bay Area landscape over the past 15,000 years. Many of these

changes undoubtedly affected the distribution of human populations and buried and/or submerged large segments of the landscape that were once available for human use and occupation, particularly those that are middle Holocene-age and older. Thus, the relatively incomplete nature of the Bay Area archaeological record is almost certainly related to the sequence of changes that led to the formation of the current landscape. Additional evidence related to landscape changes and buried archaeological sites is explored in the following section.

BAY AREA PREHISTORY AND ARCHAEOLOGY

This brief overview of human prehistory on the northern San Francisco peninsula emphasizes the effects of Holocene landscape evolution and the potential for buried archaeological deposits. A more detailed overview of ethnographic studies, chronology/taxonomy, early archaeological studies, radiocarbon evidence, and modern archaeological studies is provided in the SF-80 Bayshore Project's research design and treatment plan (RDTP; Mc Ilroy and Praetzellis 1997:18-46).

The prehistory of the San Francisco Bay Area has been the subject of archaeological inquiry for more than a century. Despite the number of archaeological studies that have been conducted in the area, relatively little is known about the prehistory of the northern San Francisco peninsula. This can be attributed partly to the extensive amount of development on the San Francisco peninsula, and to the relatively recent and widespread processes responsible for the formation of the surrounding landscape. Both factors have reduced the visibility of prehistoric sites and hampered archaeological identification and sampling efforts.

A series of rather obvious shell mounds along the eastern shore of the San Francisco Bay caught the attention of the public and archaeological investigators around the turn of the 19th century. It was apparent even then that the number of shell mounds in the San Francisco Bay Area "certainly falls short . . . of the number that originally existed" (Nelson 1909:322). Except for the investigations of the Bayshore Mound (CA-SFR-7) by Nelson in 1910, and of CA-SFR-6 by Loud in 1912, prehistoric sites on northern San Francisco peninsula received little attention from early scholars. This was due in part to the rapid destruction and/or burial of many sites as a result of early Euroamerican settlement and urbanization of the northern peninsula.

At least 33 prehistoric archaeological sites have been recorded on the northern San Francisco peninsula; most are located in sheltered coves or near streams within 1/2 mile or less from the historic margins of San Francisco Bay. Important archaeological excavations have been conducted at several of these sites that resulted in the identification of a wide variety of cultural materials, residential features, and/or human remains (e.g., Baker, Horvath, and Carlson 1978a; Holman et al. 1977; Moratto and Hegler 1972; Pastron 1990; Pastron and Walsh 1988a, 1988b, 1988c). Five prehistoric sites (SFR-2, -28, -112, -113, and -114) have been recorded within 1 mile of the Bayshore Project corridor, with SFR-2 being located about one block northeast of the APE (Figure 2.4). In addition, the Ramaytush Costanoan villages of *Amuctac*, *Chutchui*, *Petlenuc*, *Sitlintac*, *Tubsinte*, and



Figure 2.4. Location of prehistoric archaeological sites within 1 mile of the SF-80 Bayshore Project corridor

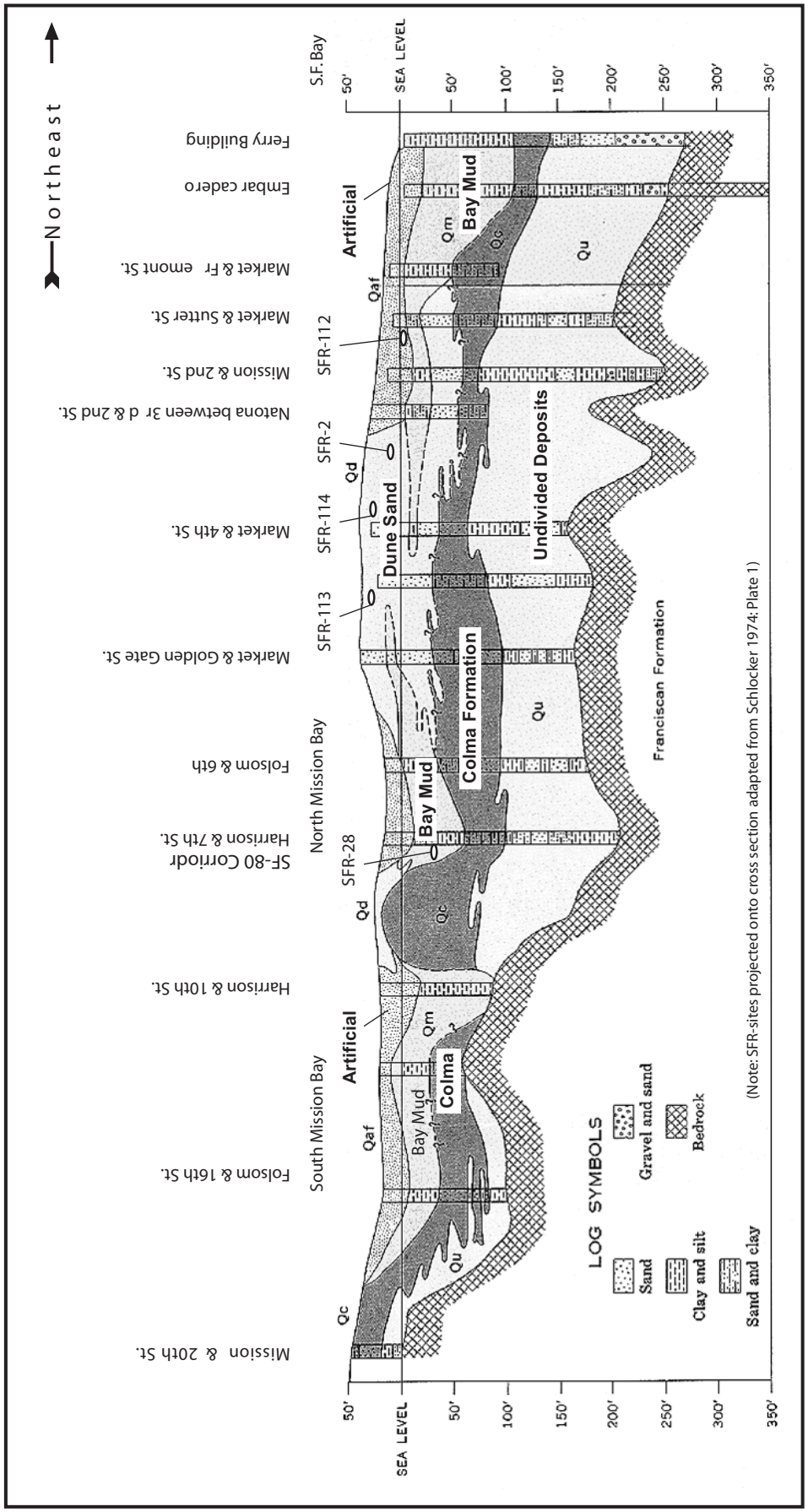


Figure 2.5. Known archaeological sites in relation to geologic landform deposits along a transect near the northwestern side of the corridor

Yelamu were located within 2 miles or less miles of the project area, although their exact locations remain uncertain (Milliken 1983:72-74, Map 4). Thus it is clear that creeks (e.g. Mission Creek) and the San Francisco Bay margins attracted prehistoric people as favorable locations for human settlement and subsistence.

Except for SFR-2, each of these sites was "discovered" during construction projects over the past 35 years or so. Four of these sites appear to represent permanent or semi-permanent residential locales that contain diverse artifacts, midden debris, intact features, and/or human burials. All of these sites were found to occur at depths of 2 m (6 ft.) or more below the modern ground surface. Four of the sites (SFR-2, -112, -113, and –114) are known to be associated with dune sand, as shown in Figure 2.5. Site SFR-28 consisted of an isolated human skeleton ("BART Man") that was overlain by about 14 m (45 ft) of "Bay Mud." and about 9 m (30 ft) of historic artificial fill (Henn, Jackson, and Schlocker 1972; Henn and Schenk 1970); additional information about several of the excavated sites on the peninsula is provided in Table 2.1. The age and distribution of these sites indicates that people were present more than 5,000 years ago and that long-term occupation sites were established less than 1 mile from the project corridor as early as 2,000 years ago. Additional unidentified prehistoric sites are almost certainly associated with dunes or other landforms that have been buried by natural geologic processes near the margins of San Francisco Bay, such as those that have occurred within the project area.

Previous researchers have recognized that large-scale geological processes have likely buried, destroyed, or submerged many older archaeological sites in the Bay Area (Atwater 1979; Banks, Orlins, and McCarthy 1984; Bickel 1978a, Louderback 1951:87). Indeed, the recent discovery of several buried archaeological deposits around the margins of the Bay suggests this is likely the case (Gmoser 1998; Gmoser et al. 1999; Meyer 2000; Tiley 2001). A radiocarbon date of 9430 cal B.P. recently obtained from buried archaeological deposits at site CA-SCL-178 (Blood Alley) near San Jose confirms that people used and/or occupied the Bay Area during the early Holocene (Fitzgerald and Porcasi 2003). Given the timing and extent of sea-level rise during the Holocene, prehistoric populations likely shifted occupation sites in response to the advancing sea, which suggests that older archaeological sites may be associated with landforms that are submerged below present sea level (Bickel 1978a). An analysis of radiocarbon dates from Bay Area natural and cultural contexts indicates that most early and middle Holocene-age archaeological sites and land surfaces (paleosols) have been buried by sediment deposition (Meyer 1998:26). This is even true for many late Holocene-age sites and paleosols, particularly those located near the margins of San Francisco Bay Taken together, this evidence suggests that the apparent lack of older archaeological sites is not an accurate reflection of human occupation, but instead reflects the large-scale environmental changes that reduced the visibility and accessibility of these sites in the Bay Area (Rosenthal et al. 2003). For these reasons, this geoarchaeological study was primarily designed to identify prehistoric archaeological sites that may be buried within the project area.

Table 2.1. Excavated Archaeological Sites on the Northern San Francisco Peninsula

Site Designation	Depth (cm)	Material Remains	Cal Years B.P.	Obsidian Hydration	Reference
CA-SFR-2* (Nelson No. 439)	180-300	Shell, bone, cooking stones, biface, bowl mortar, human burials	-	-	Gifford 1929; Rudo 1982
CA-SFR-5, -21, 24 (Sutro Baths)	?	Shell, bone, chert & obsidian flaked stone, heat-altered rocks	-	-	Holman et al. 1977
CA-SFR-6 (Presidio)	180-300	Mica ornaments	-	-	Voy 1872 (in Rudo 1982)
CA-SFR-6 (Presidio)	15	Modified bone	-	-	Loud 1912a, 1912b
CA-SFR-7 (Nelson No. 387)	60	Shell, bone, groundstone, hearths, human burials	-	-	Nelson 1911
CA-SFR-17 (Islais Creek)	120	Shell, bone, chert & obsidian flaked stone, heat-altered rocks, human burials	-	-	Loud 1931 (cited in Rudo 1982:20); Lathrap 1951 (cited in Rudo 1982:23-24)
CA-SFR-23 (Hyde/Beach St.)	Cutbank	Human burial	-	-	*Alta California* 1861 (Rudo 1982:11-12)
CA-SFR-26 (Presidio)	190-250	Human burial, cut/polished bird bone	1145	-	Moratto and Heglar 1972
CA-SFR-28* (Civic Center/BART)	2300	Human burial	5640	-	Henn and Schenk 1970
CA-SFR-29, -30, -31 (Fort Mason)	50-80	Beads, hearth, obsidian, flaked stone, heat-altered rocks	1050, 1350	-	Baker 1978; Baker, Horvarth, and Carlson 1978a-c
CA-SFR-112* (Stevenson Street)	510-580	Beads, bone, modified bone, shell, flaked stone, milling tools, charmstones	1155-1645	1.6-3.6 μ NV	Pastron and Walsh 1988a
CA-SFR-113* (Emporium Street)	290-520	Bone tools, flaked stone, groundstone	1910-2085	2.4-4.5, 7.3 μ NV	Pastron and Walsh 1988b
CA-SFR-114* (Howard Street)	300-630	Bone tools, obsidian bifaces, features, shell beads & ornaments, human burials	-	-	Pastron 1990; Walsh 1986

* Sites within 1 mile of the project corridor

RESEARCH FRAMEWORK

Research Orientation

As noted in the Geoenvironmental History section above, the Bay Area landscape is composed of different deposits, soils, and landforms that were formed at different times and/or by different processes. Soil formation is a by-product of sustained or prolonged land stability. The degree of soil formation is directly related to the amount of time a landform has been stable and subject to near-surface weathering processes. In this regard, landforms with well-developed soils have been stable and available for human use or occupation longer than those with weakly or moderately developed soils. Conversely, landscape instability is evidenced by erosional unconformities or by a lack of soil formation, which indicates relatively rapid deposition. Because soils are formed during sustained periods of land stability, archaeological materials are most often associated with soils, whether they are buried or at the surface. Since archaeological evidence of past human alteration and/or occupation of a landscape is subject to the same processes that affect the preservation, distribution, and visibility of geological deposits (Bettis 1992:119), the nature and timing of landscape evolution ultimately determines whether soils and archaeological remains will be buried, destroyed, or redeposited (Kuehn 1993; Waters 1992).

Most Pleistocene-age landforms have little potential to contain buried archaeological remains because they formed prior to the arrival of humans in North America. Conversely, most Holocene-age landforms have some potential to contain buried remains because they either formed during or after people first occupied the region. The occurrence of buried soils in Holocene-age alluvial and colluvial landforms is significant because they represent formerly stable ground surfaces that were available for human use and occupation in the past. Regional evidence discussed in the previous section indicates there is a strong correlation between Holocene-age landforms, buried soils, and buried archaeological remains.

Although it has long been known that natural processes have buried many archaeological sites in California (Heizer 1949:39-40, 1950, 1952:9; Moratto 1984:214), archaeological visibility has not been treated as a significant archaeological problem in the same way it has in other parts of North America (Meyer 2000). The biases imposed by landscape evolution have only been exacerbated over the last 25 years as research in central California has gradually shifted toward techno-economic concerns related to resource optimization and intensification, and away from culture-historical issues and the search for antecedent archaeological assemblages (Rosenthal et al. 2003:8). Theoretical models emphasizing population-resource imbalances usually assert that economic and sociopolitical development in prehistoric central California was ultimately driven by changes in human population density and resource availability (Basgall 1987; Bouey 1987; Broughton 1994a, 1994b; Jones 1992). In the context of these current models, the abundance of late Holocene archaeological sites in this region has frequently been considered prima facie evidence for human population growth (Basgall 1987:43; Beaton 1991; Broughton 1994a, 1994b; Glassow 1999; Hildebrandt 1983, 1997; Jones 1992; Schulz 1981:181-188).

While it is reasonable to assume that late Holocene populations were greater than those of preceding periods, it is not clear whether the relative paucity of middle and early Holocene archaeological sites indicates that human populations were substantially lower or that it reflects a sampling bias related to landscape changes. If natural geological processes have shaped the archaeological record in a manner that is consistent with prevailing assumptions about late Holocene human population growth, then it is inappropriate to use site frequencies in support of demographic-driven theoretical models (Rosenthal et al. 2003:8). Without a systematic consideration of the ways in which landscape changes may have affected the preservation, accessibility, and representativeness of the full range of archaeological deposits (e.g., up to 14,000 years old), it is premature to assume that the frequency and distribution of sites is necessarily a true reflection of prehistoric demographic and settlement/subsistence patterns, especially for earlier time periods. Thus, the lack of geoarchaeological studies is an ongoing problem for researchers seeking to understand the relationship between regional site-distribution patterns and demographic and settlement– subsistence changes in central California (Meyer and Rosenthal 1997; Rosenthal et al. 2003).

At the same time, the potential for buried archaeological sites is a practical problem for resource managers who must ensure that previously unknown sites are identified and that potentially important archaeological resources are not inadvertently affected by project activities. This can be a problem in any area where archaeological sites may have been buried or obscured by natural sediments and/or deposits of artificial fill, such as found within the project area. Consequently, buried sites are most often discovered after they are inadvertently exposed by natural erosion or mechanical earthmoving, and only rarely are they intentionally found as a result of conventional archaeological surveys. The discovery and analysis of buried archaeological sites, particularly those from early time periods, is crucial for archaeological inquiry because without new or comparative data, important questions regarding chronology, settlement, and subsistence change cannot be properly addressed or answered, and many existing research questions cannot be confirmed, denied, or refined beyond the present understanding. It is critical that a reasonable and good-faith effort be made to identify archaeological resources that may be buried within a given project area.

Research Themes, Questions, and Data Needs

The Research Themes presented in the SF-80 Bayshore Project RDTP include Human Occupation and Landscape Evolution, Culture Chronology, Culture History, Vertebrate Archaeofauna Variability, Invertebrate Archaeofauna Variability, Coastal Colonization Patterns, Resource Intensification and Adaptive Change, Interaction and Social Change, and Research Potential of Redeposited Sites (Mc Ilroy and Praetzellis 1997:32-47). Given the environmental setting and history of the project area, only the research questions related to Human Occupation and Landscape Evolution (Theme A) are reiterated here, as they are the most relevant for this study. Below are the specific research questions and data requirements related to this theme.

Theme A. Human Occupation and Landscape Evolution

One of the most difficult issues faced by archaeological investigations is the problem of locating sites that may be buried by natural depositional processes, such as those

documented in the San Francisco Bay Area. This problem is compounded in areas where sites may be covered by pavement, standing structures, or artificial fill deposits, such as occurs in many portions of the project area. Identifying previously unknown sites is critical, as noted above, in order to avoid project-related impacts, as well as to advance knowledge regarding the archaeological record.

Several significant research issues have emerged from considering the prehistoric archaeological sites in the project area and vicinity as rich repositories of geomorphologic and paleoenvironmental information. For example, it is notable that all of the archaeological deposits were buried beneath sterile dune sands and rested in clayey silt (CA-SFR-28) or dark, clayey sands (SFR-2, -112, -113, -114). It appears that the BART skeleton was associated with tidal marsh deposits that were buried during the late Holocene by active dune migration, as sand was blown eastward across the peninsula. Sites SFR-2, -112, -113, and -114 were formed on and, in some cases, buried by continued dune migration. This suggests that occupation occurred during periods when the dunes were relatively stable, which may correspond with periods of increased vegetation growth (ground cover) and/or changes in wind speed or direction. Conversely, occupation is not associated with episodes of dune instability and eolian deposition, which may correspond with periods of decreased vegetation growth and/or changes in wind speed or direction. As such, it will be important to determine the timing and extent of these stable (soil-forming) and unstable (e.g., erosional, depositional) periods, and to determine if these landscape changes correlate with climatic fluctuations documented in the region. If archaeological deposits are identified within the dunes, it may be possible to determine if dune-specific plants or animals were part of the subsistence resources used or preferred by prehistoric people.

In addition, the presence of these buried sites indicates that, "other shell middens or other prehistoric sites probably occur elsewhere south of Market Street along the former shores of Mission Bay" (Holman & Associates 1995:5). The existing data suggest that both residential and nonresidential sites may occur within the former dunes and—at greater depth—on the former, pre-transgression land surface underlying the dune sands. Figure 2.5, which shows the relationship between the age and depth of the radiocarbon-dated samples from CA-SFR-112 and SFR-113, demonstrates that these late Holocene-age samples occur at depths that range from 4 to 5.8 m (approximately 13 to 19 ft.) below the present ground surface. While no clear age-versus-depth function is apparent, the variable age and depth of these samples suggest that the former dunes were characterized by undulating surfaces.

While previous soil borings were available from several locations along the project corridor, most of these did not extend to depths that were adequate to test for the presence of buried land surfaces, nor were the subsurface deposits described in enough detail to assess the nature or age of the deposits. The placement and driving of piles, however, extended to depths sufficient to impact potential archaeological resources that are deeply buried. At the same time, the corridor passes through areas that were subject to extensive cutting and filling during the historic period. It was considered possible that previous excavation had removed sterile overburden in some areas, thus lowering the modern surface closer to the former land surfaces that are most likely to contain intact deposits. This was particularly true in those areas where thick deposits of dune sand were present

on the surface at the time of historic contact. It is also possible that archaeological remains may have been removed from some areas and incorporated within artificial fill in other areas. In recognition of these issues and circumstances, the following research questions were posed to address this theme.

Research Questions and Data Needs (Theme A)

- Does the corridor contain, or have the potential to yield, buried land surfaces (paleosols) that were available for prehistoric human occupation, and are these land surfaces of sufficient vertical and horizontal extent to serve as stratigraphic markers and be searched for archaeological remains?
- Does the corridor contain, or have the potential to yield, organics (in the form of charcoal, ash, bone, antler, soil humates, etc.) that may be radiocarbon–dated, or other chronometrically datable materials suitable for determining the age and depositional history of natural geological deposits?
- Does the corridor contain, or have the potential to yield, one or more land-form–sediment assemblages that can be compared and correlated with other local or regional depositional sequences?
- Does the corridor contain, or have the potential to yield, evidence that contributes to an understanding of the timing and extent of local or regional landscape evolution and the effects of these processes on the location, duration, and mode of prehistoric human land use?

These questions are addressed in Chapter 3, Geoarchaeological Methods, Findings, and Interpretations.

CHAPTER 3
GEOARCHAEOLOGICAL METHODS, FINDINGS, AND INTERPRETATIONS

Jack Meyer

The geoarchaeological study was designed to locate potentially buried archaeological resources in the project corridor by targeting depositional landforms that may contain buried Holocene-age soils. This was initially accomplished by reviewing relevant geologic studies and logs of previous cores and borings obtained from in or near the project corridor. In doing so, the study attempted to increase the likelihood that potentially buried archaeological resources would be identified by reducing the area and/or volume of sediments that need to be searched. Ultimately, the ability to locate buried sites depends on the whether or not appropriate methods are used to explore sensitive landforms for evidence of past human activity. Given the limited scope of this study, the presence of artificial fill deposits throughout the project area, and the many methodological constraints in the field, it was only possible to search for buried sites within very small portions of the study area. This chapter describes the methods used for the geoarchaeological study, presents the results of the fieldwork, and interprets the results according to the research questions, data needs, and regional issues outlined above in Chapter 2.

FIELD AND LABORATORY METHODS

Subsurface Coring and Sampling

A hydraulic coring device, known commercially as a "Geoprobe," was used to explore subsurface deposits for buried archaeological resources. A Geoprobe was used as an alternative to excavating backhoe trenches because (1) the anticipated depths of former ground surfaces were often greater than those that can normally be reached by a backhoe (i.e., >15 ft., or 4.6 m), and (2) Caltrans prohibited the use of trenches in response to a variety of logistical, safety, and engineering concerns. A total of 27 "prehistorically sensitive" locations were initially selected for subsurface sampling based on a general understanding of the nature and extent of geologic deposits in the project area, and on the limited information obtained from previous core logs. Two of these locations (Block 3 R64C1, and Block 4 L64C1) were not tested; instead, alternative locations were selected based on the results of nearby cores. However, 14 locations not originally specified in the RDTP were also tested at the request of Caltrans Archaeologist Glenn Gmoser, because the initial coring results indicated that buried soils could be present in other areas. Information about all 39 of the tested locations is provided in Appendix F. Samples of subsurface deposits were obtained from each block in the project area except for Block 7, which was not originally targeted as part of the RDTP, nor was it accessible when coring was conducted in the area.

The samples from subsurface deposits were recovered and stored in hard plastic (PVC) liners that were either 36 or 48 inches long, and 1.25 or 2 inches in diameter. Each liner was placed in a dual-walled push tube that was hydraulically driven to the appropriate

depth then opened to capture a continuous core sample from the desired interval. The liners were then extracted from the push tube and labeled to indicate their location, depth, and orientation (i.e., top or bottom), with details noted on core logs. All samples were transported to the laboratory at the ASC, where they were stored and allowed to air-dry in a protected place until they could be described and subsampled. All of the cores were grouped by block and compared to determine which ones contained the most complete (i.e., deepest) stratigraphic sequences and/or materials suitable for radiocarbon dating. At least one core from each explored block was selected for detailed description and/or radiocarbon dating; Block 7 was not explored. Although relatively small, the core samples were large enough to determine: (1) the nature and extent of the subsurface deposits; (2) if they contained archaeological materials; and (3) to yield samples suitable for radiocarbon dating.

Stratigraphic Identification and Description

At the laboratory, stratigraphic units (strata) and soil horizons were identified in the cores on the basis of their physical composition, superposition, textural transitions (fining-upward sequences), and the relative degree of near-surface weathering (soil development). Master soil horizons were designated by upper-case letters (O, A, B, or C) and proceeded by Arabic numerals (2, 3, etc.) when the horizon is associated with a different stratum (i.e., 2Cu); number 1 is understood but not shown. Buried paleosols were identified on the basis of color, structure, horizon development, bioturbation, and the nature of the upper boundary with the overlying deposit (Birkeland, Machette, and Haller 1991; Retallack 1988). The paleosols often exhibited abandoned root and insect holes, or other indications of bioturbation.

Master soil horizons include O horizons, dominated by organic remains such as peat; A horizons, or mineral soils enriched by organics near the surface; B horizons, or zones of increased subsurface structure and/or mineral accumulation; and C horizons, or relatively unweathered parent materials. Lower-case letters were used to designate subordinate soil horizons as follows:

"b" is a buried horizon at the location where it was described (not used with C horizons);

"t" is a subsurface accumulation of silicate clays;

"u" is relatively unweathered parent material (i.e., C horizon); and

"ox" is oxidized parent material.

Combinations of these numbers and letters were used to indicate the important characteristics of each major stratum and soil horizon. The colors of the deposits were determined using the Munsell Soil Color Charts (Macbeth 1992). These techniques and designations are consistent with those outlined by Birkeland et al. (1991), Schoeneberger et al. (1998), and the Soil Survey Staff (1998).

Radiocarbon Samples and Dating

Radiometric analysis was conducted to establish and refine the chronology of natural and cultural contexts in the project area. Radiocarbon (^{14}C) is produced primarily by the interaction of cosmic radiation with nitrogen in the earth's atmosphere. After mixing with carbon dioxide (CO_2), ^{14}C is readily assimilated by plants and other living organisms. When plants and animals die, however, ^{14}C levels start to decrease because they no longer absorb

new carbon. Since ^{14}C is known to decay at a rate that approaches a half-life of 5,730 years, the amount of decay reflects the age of biogenic carbon as compared to modern levels of ^{14}C activity (Geyh and Schleicher 1990). For consistency, the half-life of ^{14}C is set at 5,568 years by international convention.

Soils and sediments can be dated if they contain certain amounts of biogenic carbon in the form of organic matter or secondary carbonates (i.e., soil organic matter, or SOM). The differential decomposition, humification, and translocation of biogenic carbon in a given deposit determine the type and amount of SOM available for dating. The accuracy of soil dates depends on the researcher's ability to select samples that will minimize potential contaminants (Scharpenseel 1979) and to properly interpret the context of the sample (Matthews 1985). The ^{14}C age of a soil or sediment reflects the apparent mean residence time (AMRT) of the total organic content of the analyzed material. Since soil formation is time-transgressive, AMRT dates are usually younger than the true age of the soil. Understood in this way, the 14C age of a soil does not mark a single time or event, but reflects the influence of multiple processes that affect the soil–carbon system over time.

Measured ^{14}C ages also reflect the enrichment or depletion (fractionation) of stable carbon isotopes ^{12}C and ^{13}C, as determined by the metabolic and environmental history of a sample (Geyh and Schleicher 1990). For this reason, ^{13}C /^{12}C ratios are often used to correct measured ^{14}C ages to conventional ^{14}C ages, which are expressed in years before present (B.P.), with "present" equaling A.D. 1950. Due to fluctuations in the concentration of atmospheric ^{14}C over time (the de Vries effect), conventional ^{14}C ages can differ from the actual ages in solar years. This difference amounts to only $\pm$200 years over the past 2,000 years, but increases to a minus of 800 years between 2,000 and 7,300 years ago, and a minus of 1,100 years between 8,000 and 11,000 years ago (Geyh and Schleicher 1990:168). To compensate for these differences, high-precision calibration programs have been developed that convert conventional ^{14}C ages into calibrated years (cal B.P.).

A total of 17 samples from the Bayshore Geoprobes were submitted to Beta Analytic, Inc., in Coral Gables, Florida, for radiocarbon-dating analysis; these included 1 shell sample, 4 peat samples, and 12 samples of soil or organic sediments—some with small amounts of peat or shell. All of the radiocarbon dates obtained by this study are reported in calibrated years as determined by the radiocarbon lab (Beta Analytic, Inc.), while dates obtained by other studies were calibrated using the CALIB software program (version 4.3) developed by Stuiver and Reimer (1993). Additional information and the specific laboratory calibration methods used for the radiocarbon analysis of samples from the project area are provided in Appendix G (Radiocarbon).

FIELD AND LABORATORY FINDINGS

This section describes the results and findings of the field and laboratory investigations. ASC employees conducted the geoarchaeological fieldwork between 29 June 1999 and 1 May 2001. This work was performed in accordance with the RDTP (Mc Ilroy and Praetzellis 1997) and in response to initial coring results as requested by Caltrans. The laboratory work was conducted at the ASC between 1 July 1999 and 3 March 2004.

The subsurface deposits were described and radiocarbon-dated, which resulted in the identification of four major stratigraphic units and one minor unit. The age, nature, and extent of these units are described below, from oldest to youngest. The archaeological significance of the units is addressed in the Analysis and Interpretations section below.

Subsurface Stratigraphy

Early to Middle Holocene Dunes

Sand dunes were found in cores placed beneath Blocks 1, 3, 8, 9, and 10, at depths below surface that ranged from about 2.3 m (7.5 ft.) on Block 9 to about 10.6 m (34.7 ft.) on Block 1—generally at or below mean sea level (see Figure 3.1). These deposits consist of moderately consolidated sandy clay, which grades downward into weakly consolidated, well-sorted fine to medium sand. A well-developed soil profile, with A, B, and C horizons, marks the upper portion of the deposit. The A horizon is about 60- to 80-cm thick, exhibits a dark gray color (10YR 4/1) in the most shallow locations (Blocks 9 and 10) and a gleyed greenish gray color (5G 5/1) at deeper locations, where it is covered by bay or marsh deposits (Blocks 1, 3, 8), and contains numerous abandoned root and insect holes. The B horizon is about 80- to 160-cm thick, exhibits an olive-brown color (2.5Y 4/3), a moderate subangular blocky structure, and common clay films coating ped faces and bridging sand grains. The underlying C horizon consists of weakly consolidated, brown (7.5YR 4/3) sand that displays many iron-oxide mottles. In Block 9, these deposits formed part of the historic ground surface but were later covered by artificial fill deposits (Figure 3.1). The total thickness of this deposit was not determined because the lower boundary was not encountered in any of the cores. No prehistoric archaeological materials were identified in these deposits.

Soil samples collected from the buried A horizon of this deposit yielded radiocarbon dates of 6750, 6300, and 4210 cal B.P. (see Table 3.1 for date and sample details), indicating that the dunes are at least middle Holocene in age. These dates are considered the minimum age of the deposit because organic matter that accumulated not long before the deposit was buried likely dominates the soil samples. Differential burial likely explains the 2540-year difference between the oldest and youngest dates from this deposit—older surfaces were simply buried earlier than younger ones. As such, the dates do not reflect the maximum age of the deposit, but are most representative of the last major period of stability associated with different parts of the same dune surface.

The soils that formed in these dunes are similar to those described in the Colma formation, which is generally thought to be late Pleistocene-age elsewhere on the San Francisco peninsula (Schlocker 1974:84, 96). Indeed, the stratigraphic position of these dunes, which lie immediately below bay and marsh deposits, is identical to the Colma Formation as identified by Schlocker near the project area (see Figure 2.5); note that one of Schlocker's cores was located just north of the project area, at the intersection of Seventh and Harrison streets, between Blocks 3 and 4. Given the late Pleistocene age previously assigned to the Colma formation and the radiocarbon evidence generated by this study, these older dunes are conservatively estimated to be early to middle Holocene in age. It is probable, however, that these deposits were originally formed by a phase of dune activity that occurred prior to the Holocene.

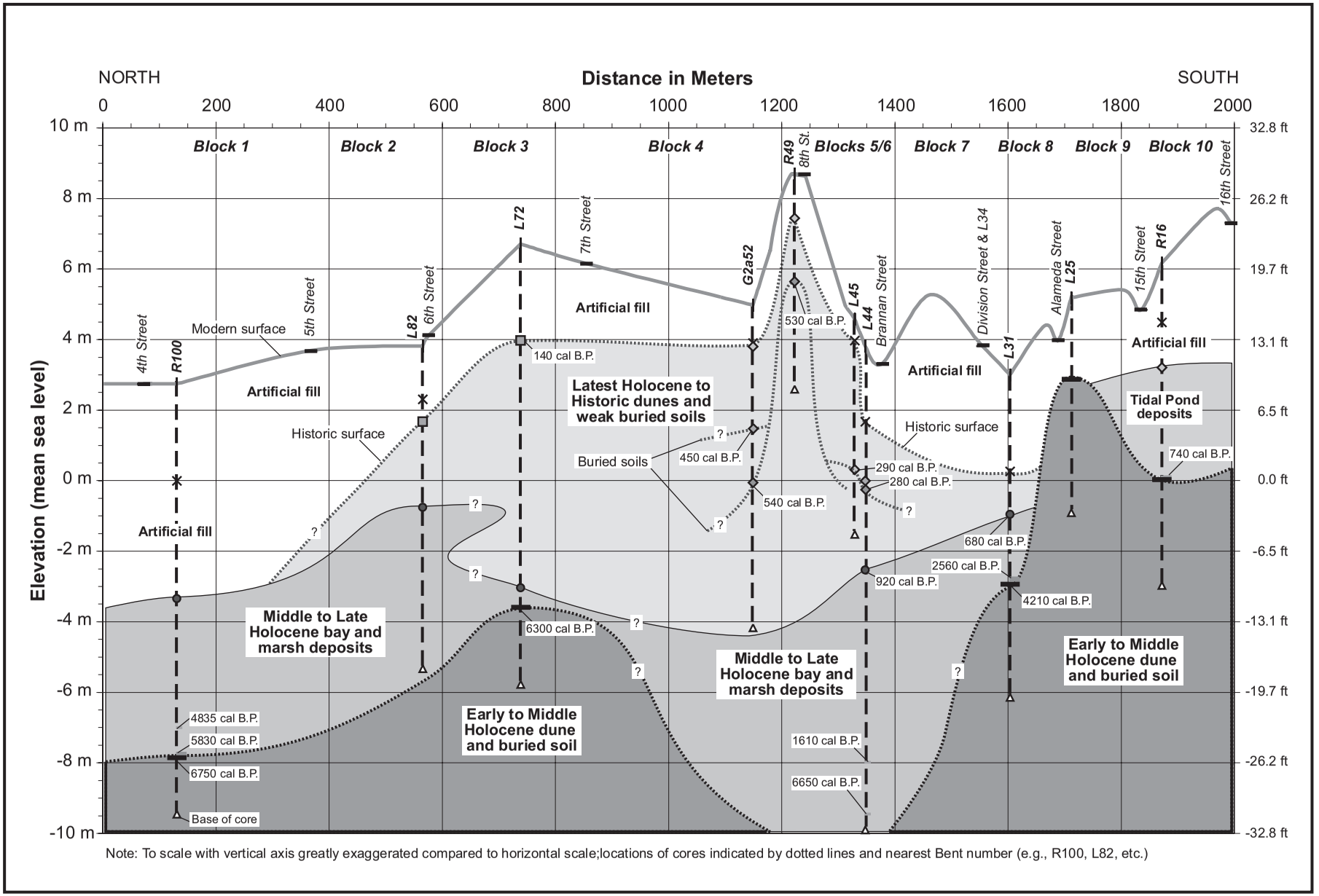


Figure 3.1. Generalized stratigraphic cross section of deposits beneath the SF-80 Bayshore Viaduct, San Francisco

Table 3.1. Radiocarbon-Dating Results from SF-80 Bayshore Project (listed from oldest to youngest)

Block, Bent No., Deposit, Soil Horizon	Material	Min. Depth (cm)	Max. Depth (cm)	^{14}C B.P.	±	$^{12}C/^{13}C$ Ratio	Cal B.P.	Lab. No.
Block 1, Bent R100, buried soil, 5Ab	Soil (SOM*)	1060	1067	5940	120	-25.3	6750	Beta-189259
Block 6, Bent L44L, bay mud/clam shells, 5Cg	Organic sediment (w/shell)	1326	1326	5820	70	-24.1	6650	Beta-189269
Block 3, Bent L72C2, buried soil, 5Ab	Soil (SOM)	1030	1036	5530	50	-25.2	6300	Beta-189261
Block 1, Bent R100, peat on buried soil, 4Ob	Peat (bulk)	1050	1055	5050	60	-22.7	5830	Beta-189258
Block 1, Bent R100, bay mud, 3Cu2	Organic sediment	975	991	4250	70	-26.5	4835	Beta-189257
Block 8, Bent L31, buried soil, 5Ab	Soil (SOM)	594	610	3810	60	-25.2	4210	Beta-189272
Block 8, Bent L31, peat on buried soil, 4Ob	Peat (bulk)	579	585	2500	70	-22.2	2560	Beta-189271
Block 6, Bent L44L, clam shell in bay mud, 5Cg	Shell (*Macoma* clam)	1180	1180	2270	40	2.3	1610**	Beta-189268
Block 6, Bent L44L, peat on bay mud, 5Ob	Soil (SOM w/peat)	634	655	970	50	-28.9	920	Beta-189267
Block 10, R16, peat on buried soil, 5Oab	Peat (bulk)	610	613	840	40	-26.0	740	Beta-189273
Block 8, Bent L31, peat on bay mud, 3Oab	Soil (SOM w/peat)	396	405	760	60	-26.1	680	Beta-189270
Block 4, Bent G2a52, buried dune soil, 5Ab	Soil (SOM)	502	518	530	40	-25.9	540	Beta-189262
Block 5, Bent R49C1, buried dune soil, 3Ab	Soil (SOM)	304	335	520	40	-25.9	530	Beta-189264
Block 4, Bent G2a52, buried dune soil, 4Ab	Soil (SOM)	350	366	360	40	-26.4	450	Beta-189263
Block 6, Bent L45L, buried dune soil, 3OAb	Soil (SOM w/peat)	426	457	240	50	-26.0	290	Beta-189265
Block 6, Bent L44L, buried dune soil, 4OAb	Peat (bulk)	411	442	200	60	-26.4	280	Beta-189266
Block 3, Bent L72C2, buried dune soil, 3Ab	Soil (SOM)	274	283	150	40	-25.6	140	Beta-189260

Note: *SOM is soil organic matter; **marine correction factor of minus 220 years applied to the *Macoma* clam sample (Beta-189268)

Middle to Late Holocene Bay and Marsh Deposits

Bay and marsh deposits were found in cores placed beneath Blocks 1, 2, 3, 6, and 8, at depths below surface that ranged from about 3.0 m (10 ft.) on Block 2 to about 6.4 m (21 ft.) on Block 6—all below mean sea level (Figure 3.1). These deposits consist of weakly consolidated silty to sandy clay that lacks indications of near-surface weathering and soil development. The upper portion of the deposit is sometimes marked by an O horizon that consists of a thin layer (<30 cm) of peat or peaty clay, which displays a very dark-brown color (10YR 3/3). The central part of the deposit exhibits a gleyed greenish gray (5G 5/1) or bluish gray (5B 5/1) color, and occasionally contains a few marine shells or concentrations of carbonized plant remains. At a few locations, a very thin (<10 cm) O horizon is present at the base of the deposit, which consists of a very dark-brown (10YR 3/3) peat or peaty clay. Thus, these deposits were formed within bay or marsh environments created as sea levels rose into the area. The thickness of the deposit ranged from only about 60 cm near Bent L72 in Block 3, to more than 7.5 m near Bent L44 in Block 6, where the lower boundary was not penetrated (Figure 3.1). No prehistoric archaeological materials were identified in these deposits.

Samples of peat, shell, and organic sediments collected from this deposit produced radiocarbon dates that range from 6650 to 680 cal B.P. (Table 3.1), indicating they are middle Holocene to late Holocene in age. These dates are considered to be relatively accurate, because they reflect the age of organic materials that accumulated during the formation and progressive growth of the bay and marsh environments. The oldest date (6650 cal B.P.) was obtained on organic sediment that contained a thin layer (<5 cm) of small, unidentified clamshells from the lower part of the deposit. Dates of 5830 and 2560 cal B.P. were obtained from a thin layer (<5 cm) of peat at the base of the deposit. The middle part of the deposit yielded a date of 4835 cal B.P. on organic sediment with carbonized plant remains, and a date of 1610 cal B.P. on a *Macoma* clamshell contained within bay mud. Dates of 920 and 680 cal B.P. were obtained from peat layers located at the top of the deposit. Together this suite of dates records the arrival, development, and subsequent burial of the bay and marsh at various locations within the project area.

These deposits are the same as those described elsewhere in the area as Bay Mud (Schlocker 1974:83-84). The stratigraphic position of these deposits, above the Colma formation and below dune sand and artificial fill, is identical with the Bay Mud deposits identified by Schlocker near the project area (Figure 2.5). In addition, Bay Mud was identified as filling a basin beneath Blocks 5 through 7, which is likely the same Bay Mud-filled basin identified below Tenth and Harrison streets by Schlocker. The age and distribution of these deposits indicates that the bay had reached and extended inland beyond the project area more than 6,600 years ago, and remained a constant feature of the area up to the historic period.

Latest Holocene to Historic Dunes

Younger sand dunes were consistently found to underlie artificial fill deposits in cores placed beneath Blocks 2, 3, 4, 5, 6, and 8, at depths below surface that ranged from about 1.2 m (4 ft.) on Block 4 to about 4 m (13 ft.) on Block 8 (Figure 3.1). These deposits consist of a very weakly consolidated sandy loam, which grades downward into loose, well-sorted fine to medium sand. The upper portion of the deposit is marked in most

places by a weakly developed soil profile with A and C horizons, but the A horizon was truncated at some locations within Blocks 4 and 5 by artificial cutting. Localized disturbances include the excavation of numerous wells, privies, and foundations, though none of these were identified within any of the cores. Additional weakly developed A horizons were found to occur within the dunes beneath Blocks 4, 5, and 6. These A horizons range from about 10- to 35-cm thick, exhibit a dark-gray (5Y 4/1) or olive-gray (5Y 5/2) color, and contain common abandoned roots or root holes. The underlying C horizon consists of loose sand that displays a light-yellowish brown (10YR 4/3) to light-olive-brown (2.5Y 6/3) color, with a few iron-oxide mottles. Thinly bedded layers (<1 cm) of well-sorted and stratified sand and organic materials were observed in a few of the C horizons (e.g., Bent R49 on Block 5). The total thickness of this deposit ranged from about 1.8 m (6 ft.) at Bent L31 in Block 8 to at least 7.7 m (25 ft.) at Bent G2a52 in Block 4, though it is more than 11 m (36 ft.) thick at Bent R49 in Block 5 (Figure 3.1). No prehistoric archaeological materials were identified in these deposits.

Soil samples collected from the buried A horizons of this deposit yielded radiocarbon dates ranging from 140 to 540 cal B.P. (Table 3.1), indicating that the dunes are latest Holocene in age. These dates are considered to be relatively accurate, because they reflect the age of organic materials that accumulated during successive and relatively brief periods of dune formation. A date of 140 cal B.P. was obtained from soil formed in the upper part of the deposit (3Ab), which confirms that it represents the former historic land surface. The first buried A horizon (3Ab or 3OAb) within the dunes yielded dates of 290, 450, and 530 cal B.P., while the second buried A horizon (4Ab or 5Ab) dates of 280 and 540 cal B.P. Based on the dates obtained from bay and marsh deposits that lie immediately under the dunes in Blocks 6 and 8 (Figure 3.1), it appears that these dunes were deposited sometime after 920 to 680 cal B.P. Therefore, the minimum and maximum ages of these dunes are constrained by this suite of dates as being latest Holocene to Historic.

These radiocarbon dates indicate that the dunes in the project area are at least 1,000 years younger than the dunes between Market and Mission streets, which contained buried archaeological sites (CA-SFR-112, -113, and 114). The ages and distribution of the buried dune soils suggests that a relatively stable dune ridge had formed near the intersection of Eighth and Bryant streets more than 500 years ago, and that younger dunes formed and stabilized on either side of this ridge about 450 to 300 years ago (Figure 3.1). The older dune ridge and the younger dunes were buried by a final phase of dune activity that occurred sometime between about 300 and 150 years ago. It appears that this youngest dune was primarily deposited along the northeast side of the older dune ridge in Blocks 2, 3, and 4 (Figure 3.1), resulting in the formation of the dune ridge depicted in the earliest Coast Survey map (Figure 4.1). Thus, it appears that the eastward migration of sand formed these dunes during the latest Holocene to Historic period—making them relatively youthful landscape features.

Latest Holocene to Historic Tidal Pond

Tidal floodplain deposits were found in a core at Bent 16 beneath Block 10, at a depth of about 2.9 to 6.1 m (9.8 to 20 ft.), or about 3.3 to 0.1 m (10.8 to 0.3 ft) above mean sea level (Figure 3.1). The upper part of this deposit consisted of weakly consolidated brown (10YR 4/3) loam that graded downward into gleyed gray (Gley N5/) silty clay

near the base. Except for a weakly developed A horizon in the upper 20 cm, the deposit lacked indications of near-surface weathering and soil development. A 10-cm-thick layer of bone fragments was identified in the deposit at a depth of about 4.4 m (14.4 ft.), but examinations revealed saw-cut marks on a few of the bones. Carbonized peat remains were common in the lower part of the deposit. A thin (<10 cm) layer of very dark-brown (10YR 3/3) peat (5Ob horizon) underlies the deposit, which is in turn underlain by early to middle Holocene-age dunes at this location (Figure 3.1). No prehistoric archaeological materials were identified in this deposit.

The peat layer produced a radiocarbon date of 740 cal B.P. (Table 3.1), confirming that the overlying floodplain is latest Holocene in age, while the saw-cut bones indicate that the upper portion of the deposit accumulated during the Historic period. The early Coast Survey maps show that this part of Block 10 was part of a small tidal floodplain that was situated along the western edge of Mission Bay near the base of Potrero Hill (Figures 4.1 and 4.2). By 1899 a small pond occupied the northeast corner of Block 10, as shown on the Sanborn Map (Figure 5.16). It is possible that the concentration of bone fragments in these deposits originated from the former "Soap Works" that was located adjacent to the pond in the northwest corner of Block 10, though this association cannot be demonstrated. As such, the deposit is a relatively localized and minor stratigraphic unit within the project area.

Artificial Fill Deposits

Deposits of artificial fill were found in the upper part of each core placed within the project area. The depth (thickness) of the fill ranged from about 0.6 m (2 ft.) at Bent L45 in Block 6 to about 6.1 m (20 ft.) at Bent R100 on Block 1 (see Figure 3.1). These deposits consist of loose sand and one or more layers of modern construction debris and/or historic materials and structural remains. In Blocks 1 and 2, these deposits were dominated by relatively clean sand that appears to have been used as fill within that part of Mission Bay. On the remaining blocks, the fill in the upper 1 to 3 m (3– to 10–ft.) was dominated by sand and modern construction debris, while the fill in the lower 1 to 2 m (3– to 6–ft.) contained a mixture of sand and disturbed historic remains, including charred debris that is likely derived from the 1906 earthquake and fire. As such, it appears that deposits of artificial fill now cover every natural (i.e., Historic) surface in the project corridor. No prehistoric archaeological materials were identified in these deposits.

Analysis and Interpretations

The sequence of stratigraphic units outlined above provides information about the nature, timing, and extent of paleoenvironmental and landscape changes within the SF-80 Bayshore Project area. This section provides a brief comparative analysis of the stratigraphic and radiocarbon evidence obtained from the project area, with similar evidence from the surrounding Bay Area. The analysis focuses on the paleoenvironmental and archaeological significance of the evidence, particularly as it relates to the research issues outlined above in *Chapter 2*.

During the middle Holocene, the project area experienced a prolonged period of land stability, as indicated by the presence of "older sand dunes" with well-developed buried soils. With sea levels 5 to 10 m (16.4 to 32.8 ft.) lower than today (Figure 3.2),

these dunes formed an undulating surface, with the high points near Alameda Street and between Sixth and Seventh streets; the channel of Mission Creek incised these dunes near Brannan Street (Figure 3.1). The age and elevation of these formerly stable land surfaces indicate that they were available for human use and occupation throughout the early Holocene and part of the middle Holocene (Figure 3.2). The middle Holocene-age radiocarbon dates obtained from these dune soils are similar to dates obtained from buried soils formed on older dunes beneath the Central Freeway (Figure 3.3), in the Mission Creek drainage west of the project area (Mc Ilroy, Meyer, and Praetzellis 2001). In the project area, the highest part of the older dune was exposed at the ground surface (Block 9 south of Alameda Street) until it was covered by artificial fill in the Historic period (Figure 3.1). While no archaeological materials were recovered, these older dunes are estimated to have a moderate to high potential to contain buried prehistoric archaeological remains.

Beginning in the middle Holocene (>6650 cal B.P.), rising sea levels inundated the lower parts of Mission Creek and the older dunes, which eventually led to their burial by bay and marsh deposits. By about 5,800 years ago, marsh and bay deposits were accumulating in the northern arm of Mission Bay, where Blocks 1 and 2 are located today. This arm of the bay extended all the way to the Civic Center at Market Street, where the BART skeleton was found (Henn, Jackson, and Schlocker 1972). The date of 5640 cal B.P from the skeleton is

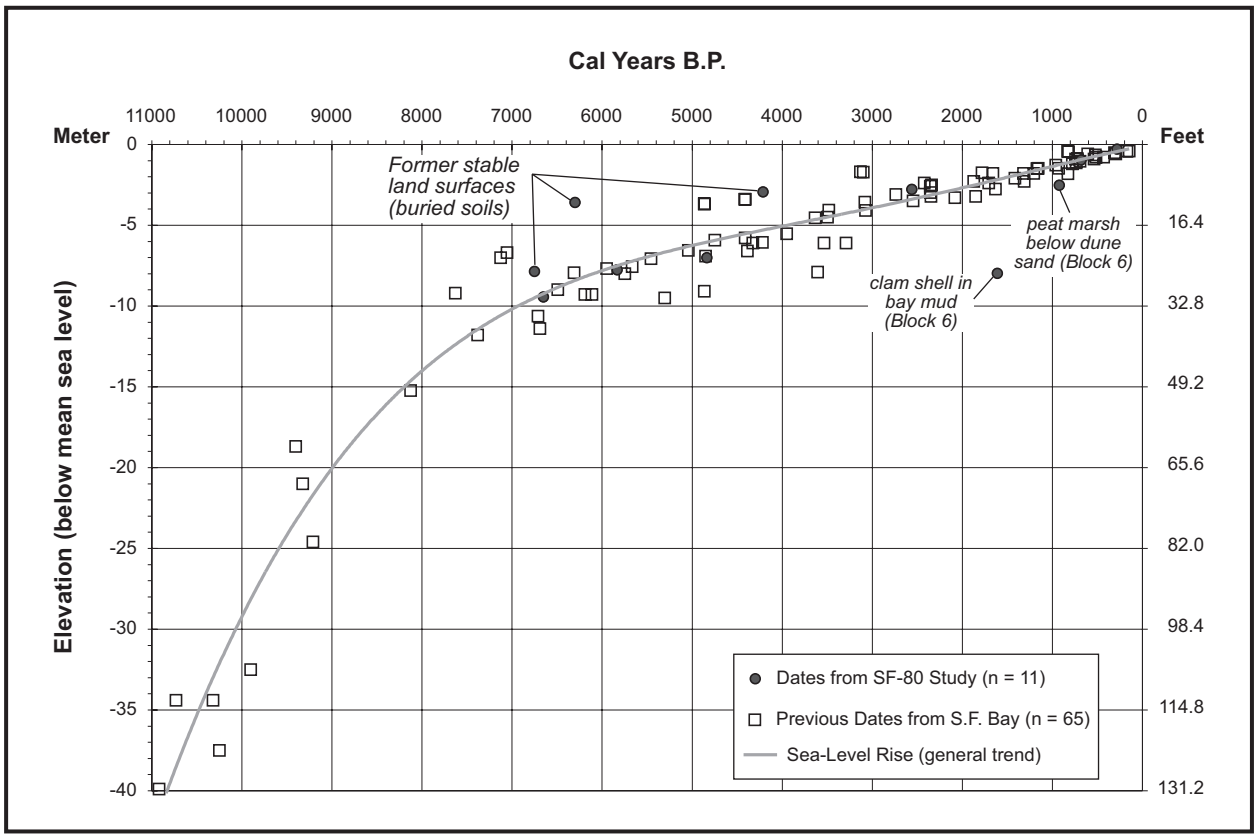


Figure 3.2. Radiocarbon dates from San Francisco Bay and the SF-80 Project, showing trend of Holocene sea-level rise

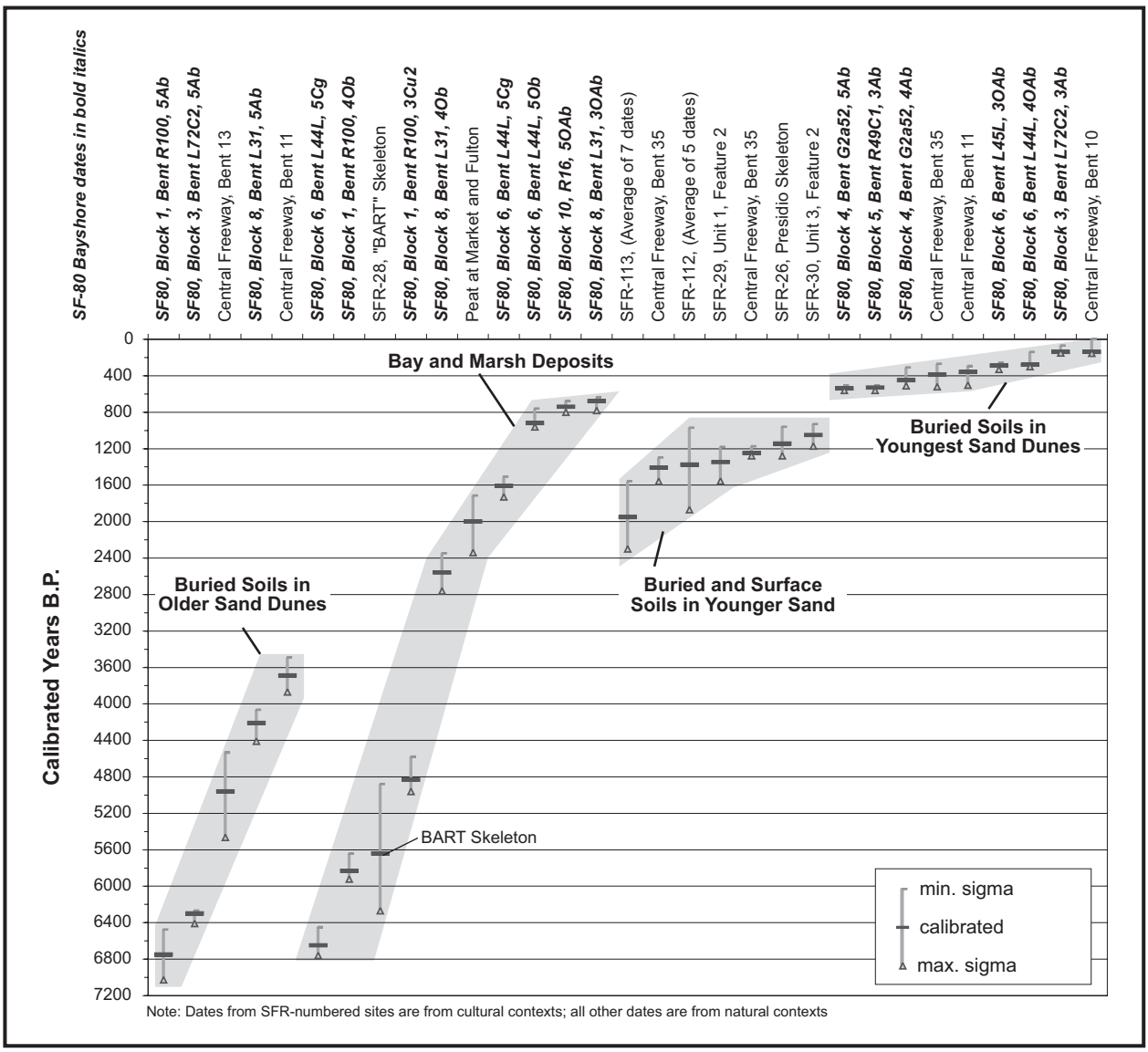


Figure 3.3. Radiocarbon dates from northern San Francisco peninsula contexts

bracketed by dates of 5830 and 4835 cal B.P. obtained from marsh and bay deposits in Block 1 of the project area, though there is significant overlap given the large sigma range for that date (Figure 3.3). It seems likely that during life of the BART individual, the older dunes would have formed much of the habitable landscape. As sea-level rise progressed more gradually, the higher portions of the older dunes were not buried until the late Holocene in the project area. The timing of these changes is demonstrated by the close correspondence between the age and elevation of bay and marsh deposits in the project area with those obtained from beneath San Francisco Bay (Figure 3.2). Except for unusual isolated discoveries like the BART skeleton, however, these deposits have very little potential to contain buried archaeological remains.

As noted above, radiocarbon dates from buried dune soils indicate that dunes on the northern San Francisco peninsula were relatively stable between about 6800 and

3600 cal B.P. (Figure 3.3). This stable period was interrupted by active dune migration around 2,000 years ago, based on a date from marsh deposits that underlie dune sand at Market and Fulton streets (Kelly, Spiker, and Meyer 1978). Dates from buried dune soils and archaeological deposits (SFR-112, -113) point to another period of dune stability between about 2000 and 1000 cal B.P., which are identified as the "younger sand dunes" in Figure 3.3. Given that no dunes of this age were identified in the project area, it appears that the eastward migration of the younger dunes may have been slowed by the presence of bay and marsh deposits to the west. Thus, Upper Archaic period archaeological materials are probably not present within the project area, except perhaps in those portions of Blocks 9 and 10 where the older dunes were not buried until the latest Holocene or Historic period.

During the latest Holocene, the dunes continued their migration east into Mission Bay, where they eventually reached and buried marsh deposits in the project area between about 920 and 680 cal B.P. Radiocarbon dates from buried soils formed in these "youngest dunes" indicate that portions of the dune had stabilized as early as 540 cal B.P. (Figure 3.3). The occurrence of multiple, thin, buried dune soils dating between 450 and 280 cal B.P. demonstrate, however, that the periods of stability were repeatedly interrupted by active dune migration and deposition in the project area. It appears that the last major episode of dune activity occurred sometime before about A.D. 1810, based on a radiocarbon date of 140 cal B.P. from a dune soil overlain by artificial fill deposits in Block 3 (Bent L72). The stratigraphic and radiocarbon evidence indicates that the youngest dunes were not available for human use until Phase 1 of the Emergent period. The unstable nature of the dunes, however, suggests that they would have been a rather unattractive location for prolonged human occupation. As such, the youngest dunes are estimated to have a low potential to contain buried prehistoric archaeological remains.

Prehistoric Research Themes, Questions, and Data Needs

As noted in Chapter 2, the identification and recovery of certain types of data from the project area were required for addressing the most relevant research theme—Human Occupation and Landscape Evolution (Theme A). This section briefly compares the findings of the geoarchaeological study with the original research questions and data needs (*in italics below*), first described in the RDTP (Mc Ilroy and Praetzellis 1997) and noted above in Chapter 2.

Question 1. *Does the corridor contain, or have the potential to yield, buried land surfaces (paleosols) that were available for prehistoric human occupation, and are these land surfaces of sufficient vertical and horizontal extent to serve as stratigraphic markers and be searched for archaeological remains?*

This study determined that one or more formerly stable land surfaces exist beneath each of the blocks explored in the project corridor (Block 7 was not explored). The stratigraphic and radiocarbon evidence clearly indicates that these buried soils were variously available for human use or occupation during the most of the Holocene and Historic periods. One of these buried soils is associated with early to middle Holocene dunes that have extensive lateral continuity within the corridor. The widespread occurrence and consistent physical nature of this buried soil makes it a useful stratigraphic marker that can be targeted and searched for buried archaeological remains. The middle to late Holocene bay and marsh

deposits that occur beneath most of the project area are another distinctive stratigraphic marker, but they do not represent a formerly stable land surface. A series of buried dune soils dating to the latest Holocene (<540 cal B.P.) and Historic period (<140 cal A.D.) were also identified, but they are either too thin and/or horizontally discontinuous to be used as stratigraphic markers within the corridor. Therefore, the older dunes are the most significant stratigraphic marker recognized in the project area.

Question 2. *Does the corridor contain, or have the potential to yield, organics (in the form of charcoal, ash, bone, antler, soil humates, etc.) that may be radiocarbon-dated, or other chronometrically datable materials suitable for determining the age and depositional history of natural geological deposits?*

The project corridor was found to contain a variety of datable materials that included peat, marine shells, organic sediment, and soil humates. Seventeen radiocarbon dates, ranging from 6750 to 140 cal B.P. (Table 3.1), were obtained from the subsurface cores. The dates confirmed that the older dunes, bay and marsh deposits, and youngest dunes are all Holocene in age. The age and elevation of dates obtained from the bay and marsh deposits correspond with the general timing of sea-level rise within San Francisco Bay (Figure 3.2). One date of 1610 cal B.P. obtained from a single *Macoma* clam shell appears to represent an exception to this pattern, as it is located at a lower elevation than would be expected based on the rate of sea-level rise. It is possible that the date is in error, or that the shell may have been deposited within a deeper part of the bay that had not yet filled with sediments. Finally, the dates of 920 and 680 cal B.P. obtained from marsh deposits that lie immediately below the youngest dune deposits are important because they demonstrate that these dunes migrated eastward into Mission Bay after the initial formation of the bay itself. As such, the radiocarbon dating was crucial for understanding the timing and significance of the depositional sequence identified within the project area.

Question 3. *Does the corridor contain, or have the potential to yield, one or more landform–sediment assemblages that can be compared and correlated with other local or regional depositional sequences?*

The 6,800-year-old sequence of dunes separated by bay and marsh deposits identified in the project area can readily be compared and correlated with similar depositional sequences identified in other parts of the San Francisco Bay Area. For instance, the older dunes of this study were tentatively correlated with the Colma formation that is documented at numerous locations on the San Francisco peninsula (Schlocker 1974). These older dunes appear to correlate with the Merritt sand identified by Trask and Rolston (1951) in the eastern part of the Bay Area, and sand deposits identified by Treasher (1963) beneath San Francisco Bay (Atwater, Hedel, and Helley 1977:9). Radiocarbon dates of 8410 and 5390 cal B.P have been obtained from buried soils located in areas mapped as Merritt sand in the city of Oakland (Meyer n.d.), which demonstrates that there was at least one phase of dune activity in the East Bay during the middle to late Holocene. The bay and marsh deposits identified by this study clearly correlate with the Bay Mud of Trask and Rolston (1951), the younger bay mud of Treasher (1963), and the estuarine deposits of Atwater, Hedel, and Helley (1977). The youngest dune deposits identified by this study are similar to those identified by Meyer (2001) near the intersection of Oak and Octavia streets (Block 10 of Central Freeway), of which there are likely many counterparts across the northern San Francisco

peninsula. As such, the landform–sediment assemblages in the project area are directly comparable with other deposits that are already recognized in San Francisco and in the surrounding region.

Question 4. *Does the corridor contain, or have the potential to yield, evidence that contributes to an understanding of the timing and extent of local or regional landscape evolution and the effects of these processes on the location, duration, and mode of prehistoric human land use?*

The findings indicate that the project area has undergone a series of significant Holocene landscape changes that would have resulted in the burial of any prehistoric archaeological deposits in the project corridor. The depositional sequence identified by this study indicates that progressive sea-level rise, successive dune migrations, and artificial fill deposits have buried the prehistoric land surfaces once available for human use. Thus, the geologic history of the project area has determined what portions of the archaeological record may have been buried.

With this understanding, the preservation potential for buried archaeological deposits can be estimated based on the age of a given landform and the duration of a cultural period. In most places, the older dunes have the potential to contain buried archaeological components that range in age from the Lower Archaic to the Upper Archaic periods, and may even contain older components. However, they have the potential to contain younger buried components in Blocks 9 and 10, where latest Holocene or Historic-age deposits cap them (Figure 3.1). The bay and marsh deposits, in turn, have a very low potential to contain buried components ranging from the Lower Archaic to the Emergent periods, though these would likely be unusual or isolated finds like the BART skeleton. The youngest dunes have a low potential to contain buried Emergent-period components, and appear to lack the potential to contain older components.

Because no prehistoric cultural materials were identified or recovered by this study, there are no data to address the other prehistoric research issues proposed by the RDTP. While no significant concentrations of buried prehistoric archaeological remains were identified, this does not mean that such deposits are not yet present in some of the unexplored portions of the study area (see below).

Research Conclusions and Recommendations

The project area was found to contain the quantity and variety of data needed to address the important research issues of human occupation and landscape evolution. Together, the findings of this study demonstrate that the apparent absence of prehistoric sites in the project area is most easily explained by the timing and extent of landscape changes that have buried virtually all of the formerly stable prehistoric land surfaces. For these reasons, future archaeological studies should consider the potential effects of landscape evolution on the nature and completeness of the archaeological record on the northern San Francisco peninsula.

The stratigraphic framework developed by this study represents an archaeological sensitivity model that can be systematically tested by identifying and exploring landforms expected to contain buried soils (paleosols) in order to determine if archaeological deposits are also present. By adopting this framework, it will be possible to review and revise the sensitivity model to improve its accuracy in a given area or in the north San Francisco peninsula as a whole, and thereby overcome some of the biases imposed by landscape changes on the

archaeological record. By using the appropriate methods to explore potentially sensitive landforms for buried cultural remains, archaeologists and cultural resource managers can address the problem of buried sites and gaps in the archaeological record.

Because subsurface coring was conducted at only 27 widely spaced locations in the study area, it is still highly possible that buried prehistoric deposits are present in portions of the study area that were not or could not be explored. Furthermore, given that the cores themselves were less than 2 inches in diameter, it is also possible that one or more of these cores was placed within a portion of an archaeological site that simply did not contain any cultural remains, as is the case at many sites. The findings of this study, along with the well-demonstrated association between human settlement and water sources, supports the interpretation that the potential for buried archaeological deposits in the study area is high.

This is particularly true in those areas where the early to middle Holocene-age land surfaces were located within 1/2-mile of Mission Creek and/or the former Bay margin, which encompasses much if not all of the study area. It will not be possible to provide a more exact sense of where buried prehistoric sites may be found until (1) archaeologists have opportunities to further develop and refine models of human settlement patterns for the San Francisco Bay area, and (2) geoarchaeologists have opportunities to further identify and refine the timing and extent the landscape changes that have affected the nature and completeness of the Bay Area archaeological record (Rosenthal et al. 2003).

If further subsurface explorations are conducted in the project area, they should attempt to repeatedly target and search the buried soils associated with the older dunes in an effort to identify archaeological resources that are almost certainly associated with these deposits. Because most of these deposits are located at or below the present mean sea level, it will make such explorations difficult. This predictable constrain can generally be overcome by developing and implementing appropriate sampling techniques that are designed to create opportunities for archaeological discovery.

Part III: Construction Monitoring

Part III provides an overview and research context for historical archaeology and a description of the methods and findings of the archaeological monitoring program, including evaluations of significance. No prehistoric sites were discovered although numerous buried surfaces were uncovered; these are discussed in Part II. Monitoring resulted in the excavation of seven California Register of Historical Resources-eligible, historic-era features; these are described in Part IV.



CHAPTER 4
OVERVIEW – HISTORIC CONTEXT AND RESEARCH DESIGN

MISSION BAY HISTORIC CONTEXT

(Adapted from Olmsted and Olmsted 1997)

WATER AND SAND: THE NATURAL SETTING

The original landscape of the SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Project) area—sand dunes and marshes, with abundant fresh water flowing into Mission Bay—determined the neighborhood's historical development and character. Water was the defining element. The ground was full of it, lying in subterranean lakes under the peat-crusted marshes and surfacing in artesian springs to feed Mission Creek and other, smaller streams. The seawaters of 260-acre Mission Bay produced a rich concentration of plant and animal life, and the inlet's shallowness kept it well-flushed and cleansed by the tides.

The wealth of resources made the area a desirable home for Native Americans. When Spanish settlers came in the late 18th century, they chose a nearby freshwater lagoon on upper Mission Creek as the site of their mission. With the American era came radical changes to the original landscape. High-volume springs were ideal for water-intensive industries like sugar-refining, stock-butchering, and tanning; the outflow of Mission Creek and the twice-daily tidal flushing of the bay created an efficient 19th-century industrial drain; and proximity to the greater San Francisco Bay and deep water made it easy to ship materials in and products out. Industrial enterprises and housing for workers sprang up on the higher ground. When San Francisco began to level its inconvenient sand hills along Market and other streets, the nearby bogs and marshes of the South of Market area (and ultimately Mission Bay itself) were waiting to be filled, disposing of the huge amounts of sand while creating more usable dry ground.

The natural setting of the project area was eventually transformed from wild marshes and sand hills to a grid of streets enclosing blocks of factories and high-density working-class housing. The water that first characterized the place, while perhaps not as apparent, was not gone. It still percolated and flowed beneath the streets and buildings. Its unseen presence became obvious again during the 1906 earthquake, when ground movement and subsequent structure damage in the area was severe.

EARLY SETTLEMENT

Pre-contact Native Americans, attracted by the fresh water and profuse resources, created two villages in the vicinity. *Sitlintac* was their summer home on Mission Bay, while the winter village of *Chutchui* was a couple of miles upstream on Mission Creek. In 1776 Sonoran settlers under Lt. José Joaquín Moraga arrived from Monterey to found the Mission San Francisco de Asís near *Chutchui*, as well as the Presidio near the Golden Gate to the northwest. Over the next 40 years, virtually all of the surviving native people

in the Bay area became attached to the missions (Milliken 1995:1, 53, 61). By 1817 a thousand native "converts" lived in squalid conditions around the Mission San Francisco (Beechey 1831[II]:20). That population declined along with the political power of the Franciscans, and as secularization of mission lands began in 1833, there were but 204 native converts near Mission Bay (Hittell 1878:70).

Murky Titles and Tideland Squatters

Early grants in present-day San Francisco County encompassed most of the land between the mission and the presidio/pueblo. SF-80 Project Blocks 1 through 7 were within the original pueblo grant lands, while Blocks 8 through 10 fell within the Potrero Nuevo, a grant created from former mission lands in 1835. The 1847 American conquest of California ushered in an extended period of struggle throughout the state for the physical and legal control of lands entitled under the former Mexican regime. The flood of settlers and speculators unleashed by the Gold Rush resorted to a variety of means, fair and foul, to obtain often vaguely titled lands from the Mexican owners.

The City of San Francisco assumed control of the pueblo grant, a title eventually confirmed in U.S. courts, and as those lands had not been held privately, they were not subject to excessive rancho title litigation. Early on, during the American takeover, temporary military governor General Stephen Kearny gave the town the right to sell beach and water lots between Fort Montgomery and Rincon Point for its own benefit (Bancroft 1884[V]:563-564), paving the way for future sales of submerged tidal lands near the present project area. Years later, in 1868, the Tidelands Act established a commission to sort out ownership claims to squatted-on watery lots, primarily in and around Mission Bay, and to legally sell the lots to the successful claimants. Physical possession was one requirement, resulting in some violent skirmishes among rivaling claimants. The Tidelands Act also paved the way for the railroad's entry into the area, deeding 150 acres, mostly filled Mission Bay lands, to the Central Pacific for a freight terminal.

South of the mouth of Mission Creek, the Potrero Nuevo was the site of an 1849 development scheme by Dr. John Townsend and Cornelius de Bloom. The speculators secured title to Potrero Nuevo lands from the heirs of presidio soldier José Bernal and surveyed a plat of blocks and streets for the proposed city of South San Francisco. The timing, however, was not right: Townsend's death during an 1850 cholera epidemic, along with poor existing access from San Francisco, spelled failure for the venture. While a portion of the larger original Bernal rancho was confirmed to Bernal's heirs in 1857, the de Haro claim, which included Potrero Nuevo lands at Mission Bay, remained in litigation for another 10 years. Squatters had taken up residence on the claim in the meantime, defiantly building homes and fencing farmlands. The de Haro claim was finally overturned in 1867, the court ruling that the Mexican government had reserved the area for public grazing land. This cleared the way for legitimization of the squatters' holdings.

Engineering San Francisco: Landscape Becomes Cityscape South of Market

The radical changes necessary to convert the South of Market area from sand dunes and wetlands into a vital part of the new city happened quickly and efficiently (Figure 4.1). Two processes were required for this to occur: first, development had to be planned and the land surveyed to give it the needed cultural structure for ownership and use;

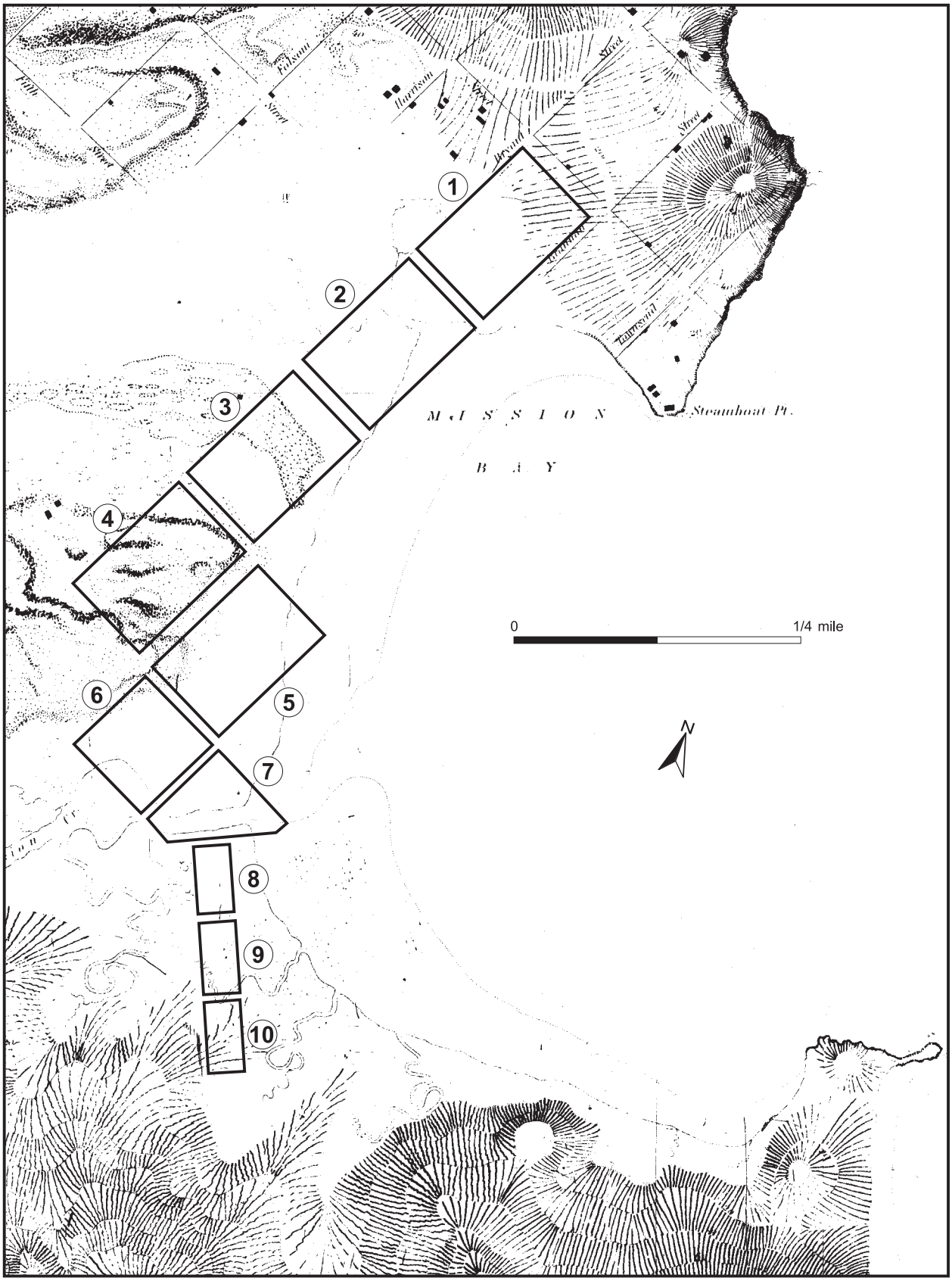


Figure 4.1. SF-80 Project study area shown on 1852/53 U.S. Coast Survey Map

and second, the natural landscape had to be physically transformed to turn surveyed streets and lots into tangible reality.

The South of Market was given much of its identity as a separate place within the city when surveyor Jasper O'Farrell created Market Street in 1847. At that time the original townsite of Yerba Buena constituted about 40 acres surrounding Portsmouth Square and functioned as the commercial center for much of the sparsely settled Pacific Coast. O'Farrell cut off the established (roughly north/south) town grid of Yerba Buena diagonally, laying out what he envisioned as a broad future boulevard across what was then an uninhabited sand-hill wasteland. Streets to the south conformed to this diagonal layout: O'Farrell "correctly appreciated the importance of making the main streets in the southern part of town agree in general direction with the route followed by people going from Yerba Buena Cove to the Mission" (Hittell 1878:116). Other defining features of this survey were larger blocks and lots, and wider streets in the lands to the south of Market Street. The view in those pre-Gold Rush times that the area was of limited value resulted in the oversized blocks, each containing six 100-vara lots. The broader grid and streets also reduced the amount of grading that would be necessary to access the lots.

Initial response to South of Market real estate was tepid, but Gold Rush population growth soon spurred development. By 1852 the Mission Dolores Plank Road Company, franchised to collect tolls for seven years, had built planked roads on Mission and Folsom streets, each over 2 miles long. A City-funded toll-free planked road authorized in 1853 was built on Brannan Street (crossing the SF-80 Project area at Eighth Street), at the time more of a causeway along the northern edge of Mission Bay than a road. The 1857/59 Coast Survey map shows all three planked roads connected to downtown via the Third Street thoroughfare, as well as by a wagon road on the Sixth Street alignment, which ran all the way to the still-undeveloped Market Street (Figure 4.2). The Brannan Street free road was the preferred corridor for development: the 1857/59 map shows that most lots accessible by this road were already filled and graded, while marshes, pools, and sand hills remained on many lots along the toll roads.

The planked roads were only a temporary solution. City-owned streets as well as private lots needed permanent filling and grading. With marshy wetlands to be filled and steep hills north and south of Market to be leveled, all that was lacking was the means to move the sand. The answer was provided by David Hewes, who combined a steam shovel with movable tramways for hauling the sand. The resulting system was dubbed the "Steam Paddy," a somewhat derogatory reference to the Irish workers who provided much of the non-mechanized earth-moving labor of the time. From 1852 to 1854, and from 1858 to 1873, Hewes's Steam Paddy was at work shaping the terrain of San Francisco (Hittell 1878:438). Eventually, Mission Bay itself would disappear under the relocated sand fill. The 1857/59 Coast Survey map gives us a snapshot of the SF-80 Project area as this massive and rapid transformation was underway.

Early Settlement South of Market: Prosperous Germans on Block 3

The human flood that washed over northern California in 1849 turned San Francisco into a major American city in the space of a few months. Expedience directed most early building construction, resulting in informal and ephemeral structures hurriedly put up with minimal rough lumber along with liberal amounts of canvas. With few exceptions,

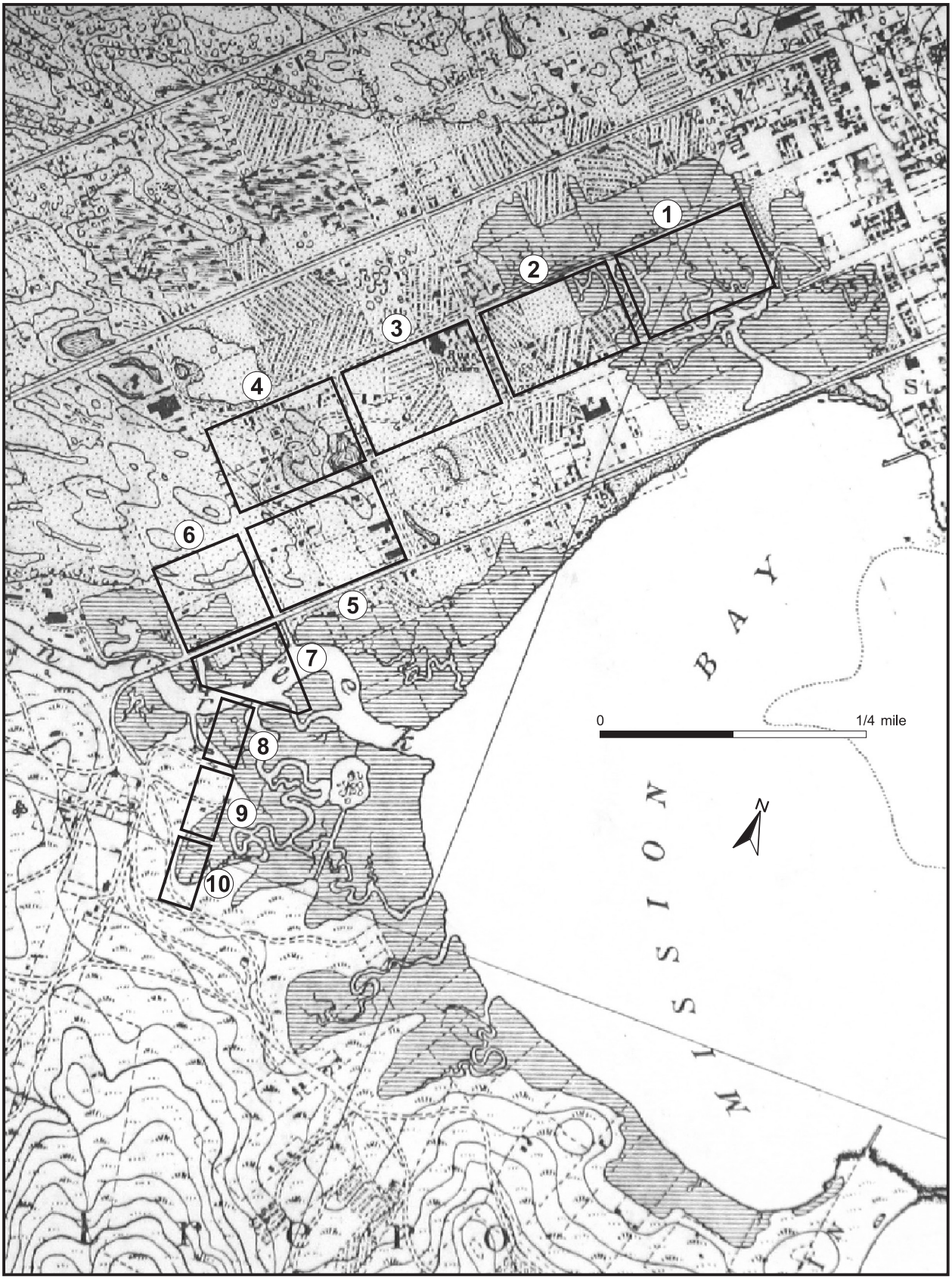


Figure 4.2. SF-80 Project study area shown on 1857/59 U.S. Coast Survey Map

dwellings and shops ranged from tents to board shanties to single-story framed buildings (Hittell 1878:213; Soule, Gihon, and Nesbit 1855:252). The shores of Yerba Buena Cove remained the focus of settlement during the Gold Rush years. The 1852/53 Coast Survey map shows few buildings south of Market Street, but it is impossible to know how many impermanent tents and shanties may have existed there on the southern suburban fringe, unnoted by the survey.

Jeweler Emanuel Christian Charles Russ and his family emigrated from Saxony to New York in the early 1830s. Russ and his three sons enlisted in a regiment of New York Volunteers and came to fight in the Mexican War; arriving in California in March 1847, they were immediately mustered out. Joined by his wife and smallest child, Russ succeeded over the ensuing years at a variety of pursuits, including gold-mining, real-estate development, and operating a hotel and jewelry store. Russ bought property on both sides of Harrison Street between Sixth and Seventh streets, and by 1852, the family had settled as the first permanent residents on project Block 3. They soon moved across the street and opened Russ Gardens, the city's first commercially operated pleasure garden, on their Block 3 property. The place became a favorite Sunday and holiday recreation spot for San Franciscans, with special celebrations for different groups: May Day for Germans, Bastille Day for French, and the Fourth of July for Americans in general. Russ died in 1857, and when the gardens burned down in 1861, the family created Garden Street on the site, lining it with New York-style working-class tenements on small lots.

Near Russ Gardens at Seventh and Harrison streets was another German household. Charles August Christian Duisenberg and his brother, Edward, natives of Bremen, came to San Francisco as forty-niners after working for a German mercantile firm in Valparaiso, Chile. Their mother and grandmother came to live with them in 1851. The Duisenbergs lived at the Block 3 house as early as 1856, along with Frederick Mebius, Charles Duisenberg's import and commission mercantile business partner. Edward Duisenberg was the Acting Consul for the independent City of Bremen, while Charles was the long-time German Consul for San Francisco, flying the German flag over the house for many years as a symbol of that office. Charles was involved in other aspects of the local German community, such as helping to found the German Hospital and the German Benevolent Society. Mebius became Hanoverian Consul, married a Russ daughter, and moved to Folsom Street by 1861. While on a trip to Switzerland, Charles Duisenberg married Minna Schupf, bringing her back to San Francisco in 1869. His brother Edward, his mother, and grandmother had all died by then, the lost family replaced by Minna and the two sons and two daughters they had in the following years. The Duisenbergs lived under the German flag on Harrison Street until Charles' death in 1894. The property was sold to "capitalist" Walter E. Dean that year, and by 1899, the house had been torn down and replaced by a draying business. In 1906 the property became the Southside playground.

Yet another German, Henry Schmiedell, lived on Block 3 starting in the late 1850s. Eventually a wealthy and successful merchant, real-estate broker, and stockbroker, Schmiedell had probably known the Duisenberg brothers in Valparaiso before the Gold Rush. Although he moved to a larger house north of Market in the 1880s, Schmiedell still held the South of Market house and property when he died in 1894. His heirs retained the place until at least 1899.

Raising Vegetables in the City: A Transitional Land Use

As planked and simple sand roads penetrated the South of Market area, market gardens to feed a growing city were planted on many of the more level lots. Wells and windmills tapped abundant groundwater to make these operations possible. While large commercial gardens lined Folsom Street southwest of the SF-80 Project, smaller 100-vara plots, such as those recorded by the 1857/59 Coast Survey map on SF-80 Project Blocks 2 and 3, represented transitional productive use of lots that had been filled, graded, and accessed from the expanding public-road system with driveways. Henry Schmiedell, for example, had planted gardens on his Block 3 property before building his house there. The map also depicts Russ Gardens and an adjacent Block 3 parcel as garden plots. On Block 2, four out of six 100-vara lots are shown planted in gardens. It is unclear, which of the garden plots in the project area were commercial operations and which were planted to supply individual households. Both were likely to have been represented.

Anecdotal evidence connects Chinese gardeners and produce peddlers with the larger market gardens to the west and southwest of the project-area blocks. While some Chinese vendors apparently purchased their vegetables from non-Chinese markets, most references agree that Chinese growers leased garden plots and Chinese laborers worked the market gardens of the Mission. Early South of Market resident James Roxburgh, reminiscing in 1926, describes youthful excursions up Mission Creek to an area of Chinese gardens near where 12th, 13th, and 14th streets intersected (*South of Market Journal [SMJ],* June 1926:15). After the late 1880s, area Chinese gardeners had been largely displaced by Italian immigrants.

Butchertown on Mission Creek

When the Gold Rush exploded San Francisco's population, vast amounts of meat were required to keep the people fed. Market hunters supplied much wild game in the early years, but large-scale commercial butchering of livestock animals, a messy and smelly business, was a necessity from the start. The foot of Ninth-Street area at the mouth of Mission Creek—sufficiently removed from the town center—was the ideal spot for slaughtering operations. By the early 1850s, the place had become the city's slaughterhouse and was known as Butchertown. Related and equally malodorous industries, such as tanneries and glue, fertilizer, tallow, and soap manufacturers, also located there. Abundant fresh-water supply for production and the twice-daily tidal flushing for waste disposal, as well as ready shipping access via roads and shallow-draft scows, all contributed to make the site well-suited to these industries. Boardinghouses and tenements within the neighborhood offered cheap living space to those who worked here.

The 1857/59 Coast Survey map shows a small wharf and five permanent buildings in the area, with a wagon road to a nearby hog farm and stock pens. By 1868 the city business directory lists seven wholesale butchers at or near Ninth and Brannan streets, and three more near the Brannan Street bridge. Eight cattle wholesalers were listed in the nearby Potrero district, pointing to the likely source for much of Butchertown's beef. After 1865 cattle were also landed at the Hobbs or Cattle Wharf on the Long Bridge to be herded to Butchertown slaughterhouses (*SMJ,* June 1926:16).

Hides had been Yerba Buena's (and most of California's) only export prior to U.S. annexation, mostly shipped to the East Coast for tanning. By the 1850s large-scale tanning had become a California industry. The 1859 city directory locates two tanneries, those of William Field and J.J. Fulton, on Simmons (Sixth) Street near Brannan. By 1867 the Funcke & Wassermann Tannery was in operation at Ninth and Brannan streets, on project Block 6 (Douglass 2002:41-51). San Francisco had 19 tanneries by 1868.

As San Francisco grew, the stench of the Mission Creek Butchertown became too offensive to residents of downwind neighborhoods. Their agitation culminated in the 1871 "Offensive Trades and Occupations and Nuisances" ordinance. It was designed to force relocation of butchering and related unpleasant-smelling industries to a new Butchers' Reserve 5 miles south to the mouth of Islais Creek. The 1899 Sanborn maps show, however, that meatpacking operations continued on the south side of Mission Creek, and stockyards as well as several soap factories existed on project Block 9. The 20th century saw new offensively scented and even dangerous industries come into the neighborhood, such as the Stauffer Chemical Company across from Block 9, and a match factory on Block 10. This area south of the original Butchertown seems to have become a place where nuisance-producing but economically important industries were unofficially tolerated, in spite of the 1871 ordinance.

FILLING IN AND BUILDING UP: CONTINUED GROWTH

As Hewes's Steam Paddy chugged away through the 1860s, San Francisco grew steadily southward into an increasingly homogeneous South of Market cityscape (Figure 4.3). The area was a focal point of a building and real-estate boom in the city that continued to expand until the 1869 completion of the transcontinental railroad. Several factors spurred growth here, including the final clearance of Nuevo Potrero land titles, the nearly completed work of the Steam Paddy, the labor needs of increasing industry, and advances in transportation and its infrastructure.

Public transportation in San Francisco's early years took the form of omnibuses and cabs. The Omnibus Road, which ran large stagecoach-like vehicles from South Park in the South of Market district to North Beach, converted to tracked horse cars in 1862 to become the city's first street railroad (Hittell 1878:182). The 1860s saw the building of horse-car lines on many South of Market streets. The Sixth Street horse-car line, running from north of Market down Sixth to Brannan, then down Brannan to Mission Creek, started in the mid-1860s and operated with horses until it became one of the city's earliest electric lines around the turn of the century. The railway passed between Blocks 2 and 3 on Sixth, and past Block 5 on Brannan to end at Block 7. Its presence allowed Sixth Street to become a major retail commercial corridor. The construction of the Long Bridge as a continuation of the Fourth Street horse-car route, across Mission Bay and beyond to Potrero and Hunter's Point, was another important stimulus to South of Market development.

The Character of the Place: South of Market, 1860s-1870s

O'Farrell's 1847 survey had largely set the distinctive physical character of the area when it was still a wilderness of sand hills and swamps. Steam-powered machines and

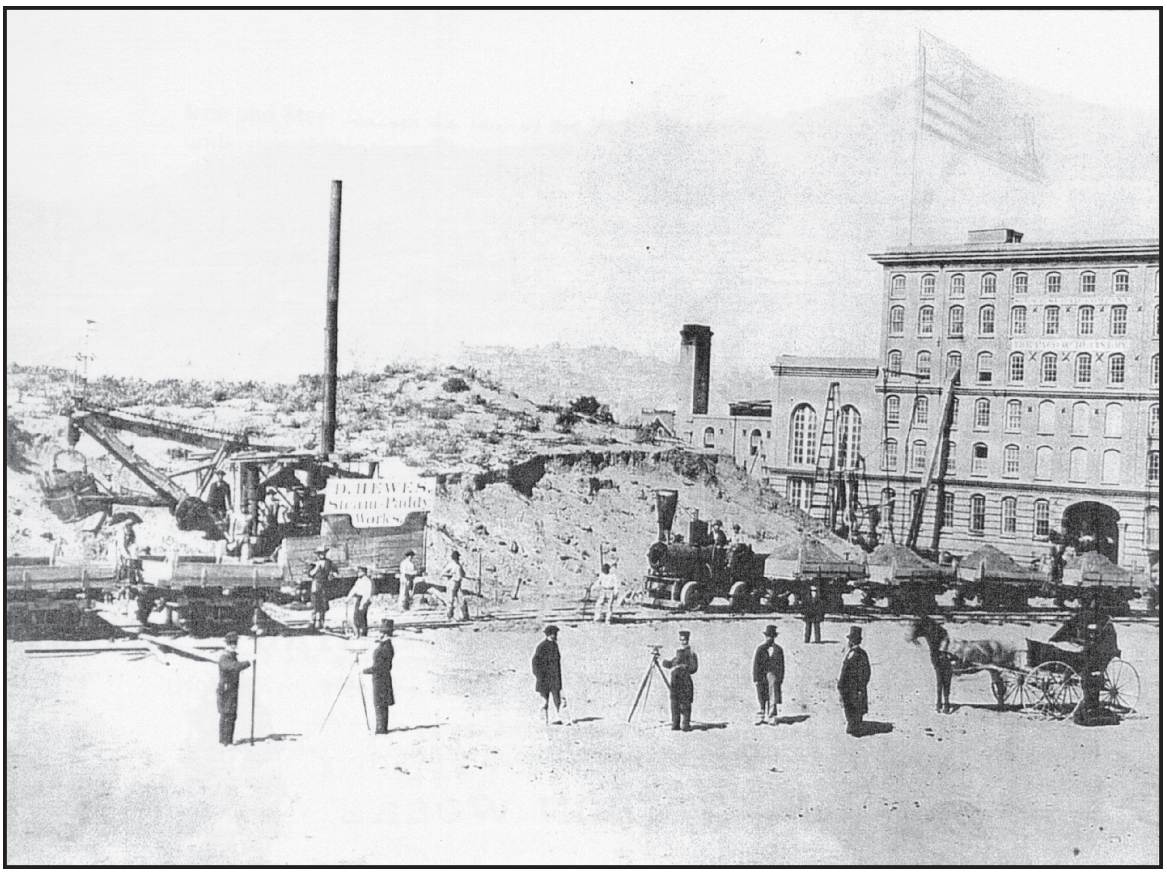


Figure 4.3. David Hewes and the Steam Paddy at Eighth and Harrison. David Hewes poses with his workmen and associates in front of the steam shovel and train system that spread the sandhills north and south of Market Street into Yerba Buena Cove and Mission Bay in the 1860s. George Gordon's sugar refinery was located in the six-story building on the right. This building was damaged by the 1868 earthquake. (Courtesy of the Bancroft Library)

human labor had made O'Farrell's grid of large blocks and broad, flat streets a reality. The level streets were easily traveled by the omnibuses, horse cars, and carriages, and by the drays hauling goods and materials to and from the factories. The flatness and uniformity, however, gave the South of Market a monotonous and, perhaps at times, slightly menacing feeling. It was a place where strangers might easily get lost. Rudyard Kipling once got lost there after wandering in to find himself "in a hopeless maze of small wooden houses, dust, street refuse, and children who played with empty kerosene tins," unable to understand the speech of locals from whom he sought directions (Kipling 1949:4). Low houses, tenements, hotels, and lumber- and coal yards covered the blocks. Only occasional landmarks in the form of steeples, larger buildings, and the smoking stacks of factories rose high enough to provide locational clues. A single public park, Columbia Square, was developed after the Civil War.

Many of the blocks came to have small secondary interior streets, as owners subdivided large lots into tiny residential lots for building small houses and tenements. The streets were placed according to the owners' wishes, without City permission. An example of this within the SF-80 Project area is Block 3's Garden Street, created between

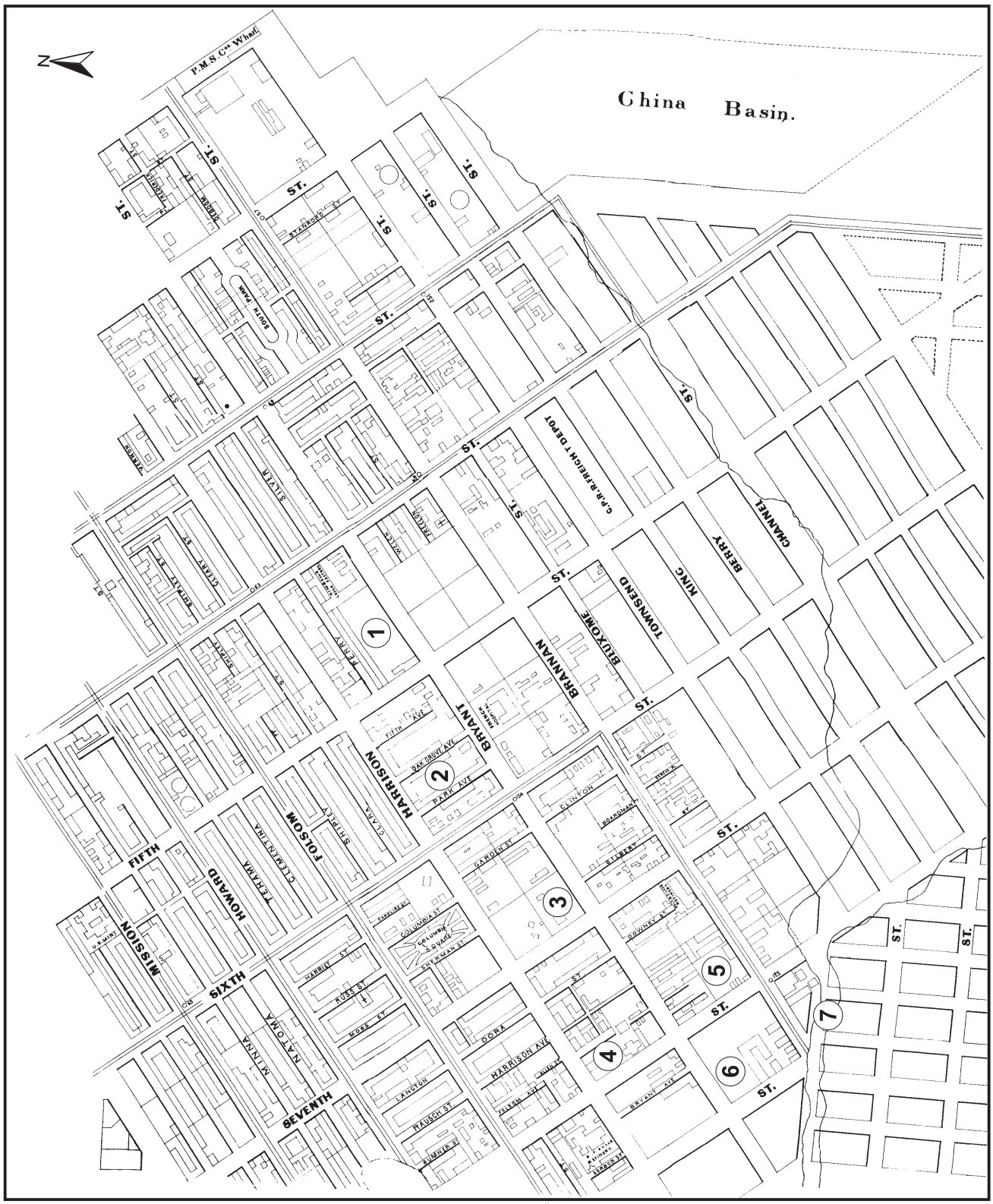


Figure 4.4. SF-80 Project Study Area shown on 1874 land use map, City of San Francisco (City of San Francisco 1874)

Harrison and Bryant after Russ Gardens burned, around 1861. Both sides of the 35-foot-wide street were surveyed into 25- by 75-foot lots, some of which housed six families each in cramped tenements. The interior streets were probably the true public places South of Market, where neighbors met and interacted. No photographs and few written references exist to tell us about life in their tenements and tiny houses. The 1874 Land Use Map shows many of these interior streets, including representations of buildings constructed upon them (Figure 4.4).

AT WORK

Public transportation allowed many 19th-century residents of the SF-80 Project area to work throughout the South of Market, as well as in adjoining districts. It was preferable, however, to work in one's own neighborhood, avoiding the time and expense of commuting, and making it possible to eat the midday meal at home. Along with the industries of Butchertown, many other local manufacturers and businesses provided jobs for project-area residents.

The same natural features that made the area suitable for the animal-products industries made it an excellent place for sugar-refining. There was a high demand for sugar on the West Coast: Hittell (1878:457; 1882:544) calculated western per-capita consumption to be well over double that of the East Coast. The Hawaiian Islands provided a ready source of the raw sugar to be refined. George Gordon's San Francisco and Pacific Sugar Refinery, across the Eighth and Harrison intersection from project Block 4, was one of the earliest factories in the South of Market, opening in 1856. Claus Spreckels built his competing California Sugar Refinery two blocks away on Block 7 in 1867-1868 (Figure 4.5). A high percentage of Irish immigrant laborers at the San Francisco Sugar Refinery, some of whom lived on Block 4, led to its local nickname of the "Irish Sugar Refinery." Spreckels' "German" refinery, smaller but equipped with the latest technology, soon dominated the market. The last portions of the Block 7 physical plant, used as late as 1906 for syrup production, were demolished during initial SF-80 Bayshore viaduct construction in the 1950s.

Late in the economic boom of the 1860s, Bank of California manager William Ralston invested a large sum in an existing San Francisco carriage-making firm, the Kimball Carriage Factory. With the transcontinental railroad becoming a reality, he saw a potential market opening up for rail cars. Ralston sought to build the established carriage works into a major manufacturer of rolling stock for the nation's expanding rail system. A three-story brick factory for the new Kimball Carriage and Car Manufacturing Company was constructed at the corner of Bryant and Fourth streets, covering, along with the yards, an entire 100-vara lot on SF-80 Project Block 1 (Figure 4.6). The operation, which was to employ 230 men, boasted up-to-date wood- and iron-working machinery, and state-of-the-art paint and upholstery shops (White 1985:76). The completion of the railroad was as disappointing here as in other areas of business: the large orders for rail cars never materialized. The local demand for horse cars provided some work, but not enough to save the business (Figure 4.7). In a now-failing economy, rail passenger cars that Kimball did produce were so luxurious as to price themselves out of the market. Responsible for the company's mountain of debt, as well as that of the Pioneer Woolen Mills, Ralston

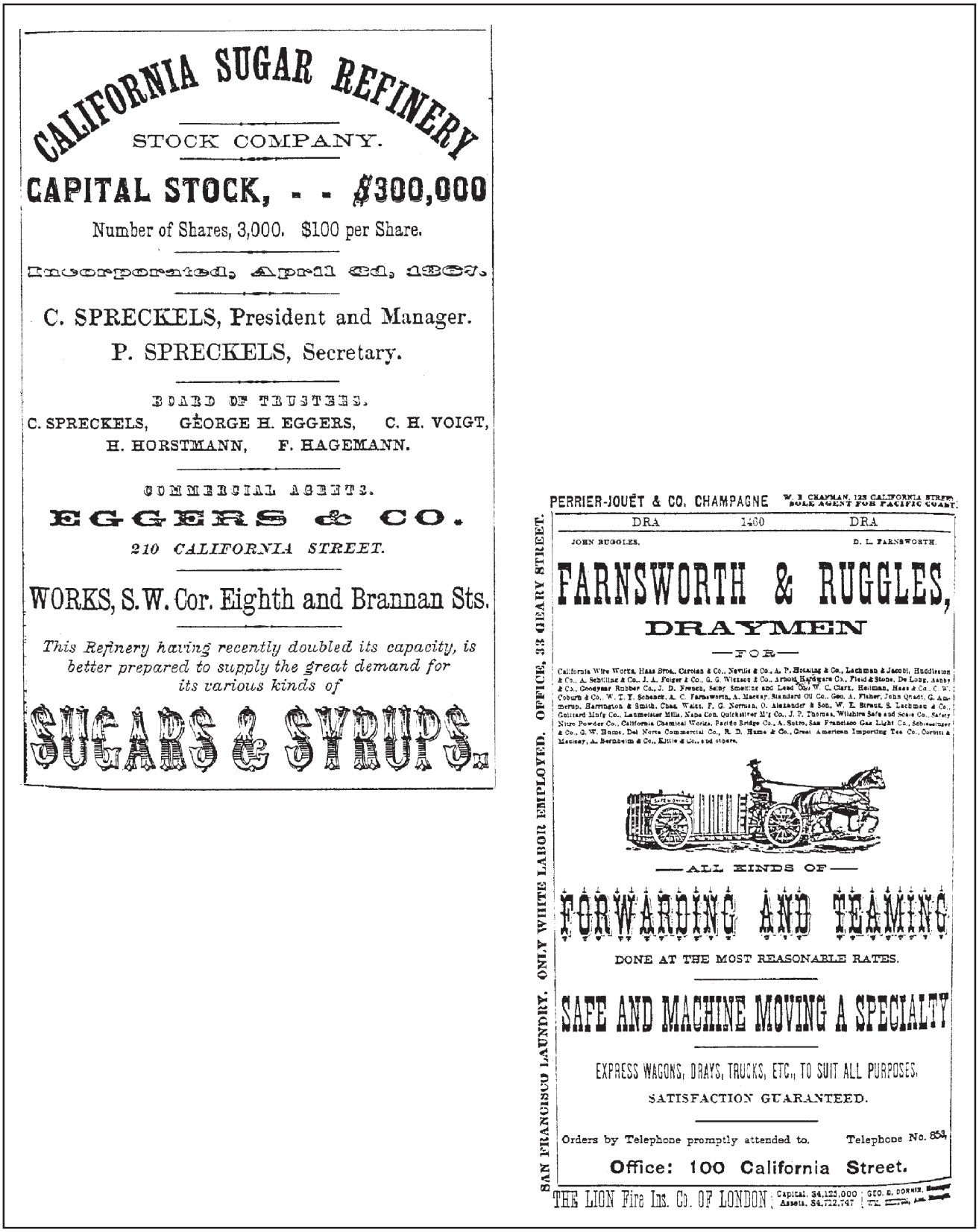
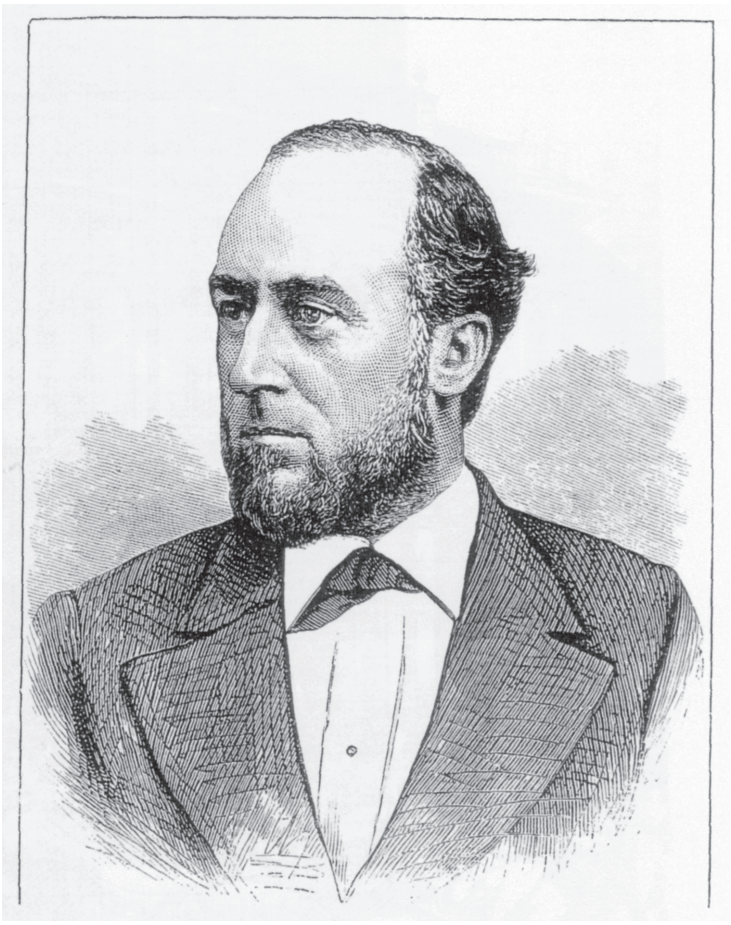


Figure 4.5. Spreckels's California Sugar Refinery. Spreckels's employed many workers in the project area, particularly after the rival Gordon refinery shut down in around 1873. (*San Francisco City Directory* 1883)



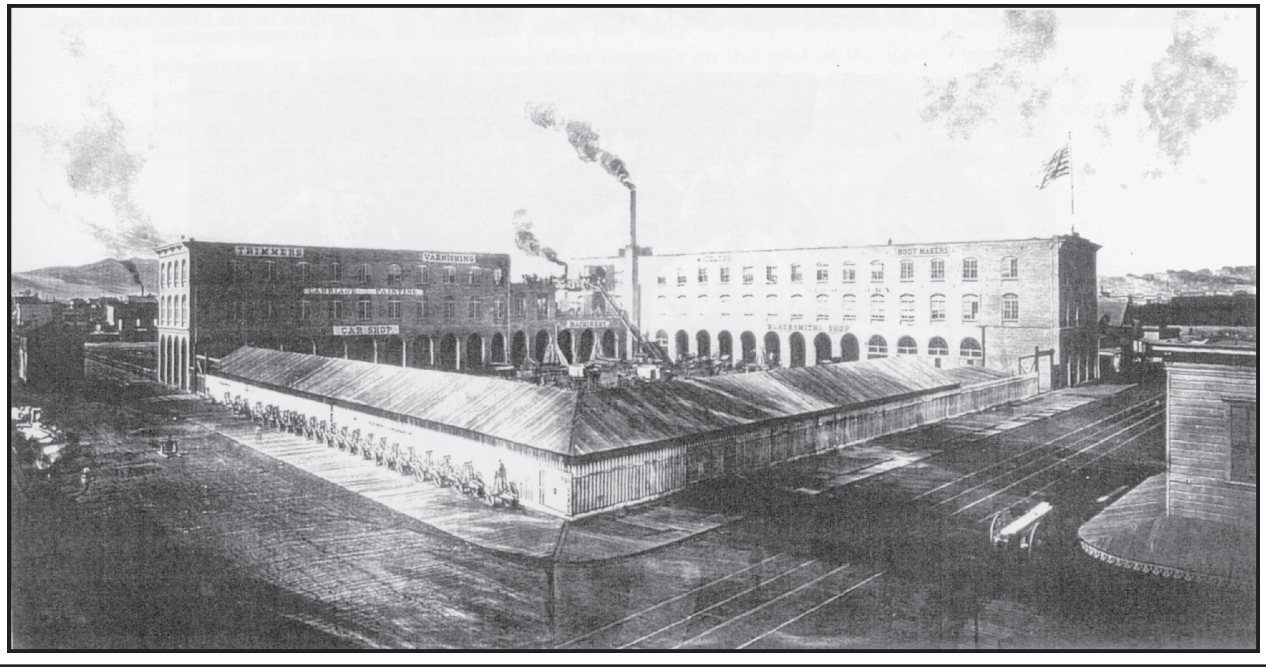


Figure 4.6. William Ralston (pictured above) and the Kimball Carriage Works. Taken from the corner of Bryant and Fourth, this view shows the Kimball Carriage Works shortly after it was completed in the late 1860s on SF-80 Bayshore Block 1. Ralston employed 230 craftsmen in the building. Anticipating the coming of the railroad, Kimball constructed the highest quality equipment for railroad sleeping cars; but at $20,000 for a sleeper that only carried 11 passengers (with private bathrooms), there were no customers. (Courtesy of California Historical Society)

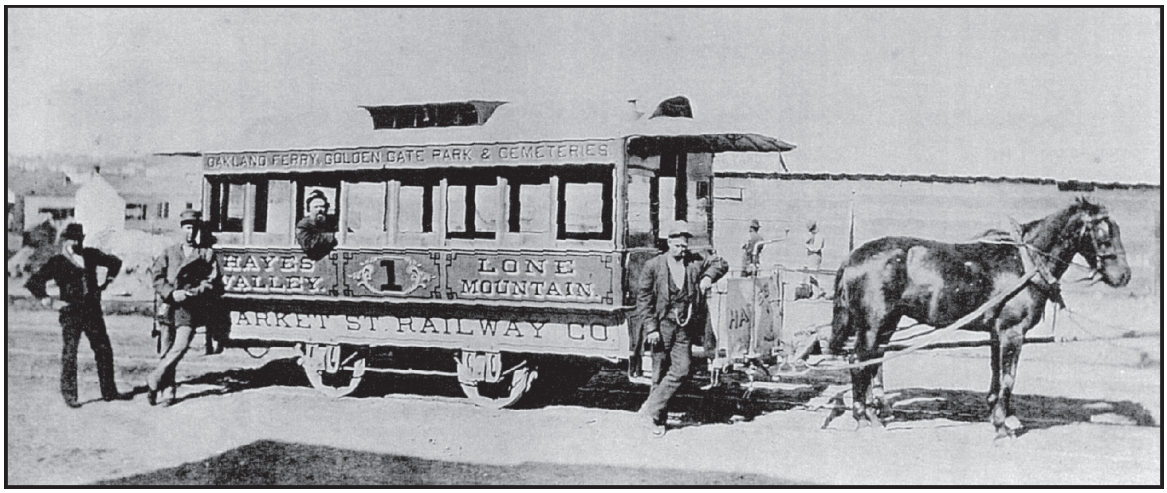


Figure 4.7. Market Street Railway car built by Kimball Carriage Works. This handsome car had a curved roof to accommodate standing-room passengers and open-sided seating. (From the collection of Nancy Olmsted)

attempted in 1875 to liquidate his personal fortune, helping to precipitate the 26 August "Black Friday" bank run and further disaster. Ralston resigned, signed over most of his assets to the bank, and went for a fatal swim in the bay. The Kimball works was closed on Block 1 by late 1876, but the shops soon attracted furniture makers and other woodworking enterprises to employ area workers.

The 1887 Sanborn map shows the former Kimball premises filled with a busy complex of manufacturers, including the West Coast Furniture factory and two other furniture makers, a Chinese cigar box factory, a marble works, a sausage factory, a blacksmith, and a plating shop. The 1887 maps of SF-80 Project blocks offer a sampling of other kinds of businesses providing employment South of Market in the late 19th century. In addition to previously mentioned businesses, men might find work at the supply yards selling coal, wood, feed, and lumber scattered through the project area. The Spring Valley Water Works was next to the former Kimball Carriage site. Small manufacturing included a cooperage, pickle factory, matzo factory, chemical laboratory, photo plate factory, cream of tartar works, mattress factory, flourmills, pasta makers, and winery. Four laundries, three of which were Chinese-owned, were on Block 1, with another Chinese laundry on Block 3. Necessary to most of these was extensive drayage to move goods and materials. Public transportation industries are represented by the Central Railroad stables, car barn, and blacksmith shop on Block 5.

The labor of feeding families and running households in crowded houses and tenements doubtless occupied many area women. Other work open to them might have been found at various hotels and boardinghouses, the Eighth Street Primary and Grammar schools, the Starr King Primary School, the Stanford Free Kindergarten, and the retail shops lining Fourth and Sixth streets. While no clothing factories were operating in the project blocks in 1887, this was one manufacturing field that often employed women, and "works in the shirt factory," "tailoress," and "milliner" were women's occupations noted among project-area families by census takers. Women might also work as servants,

nurses, or business proprietors, such as Margaret O'Brien, who ran a saloon on Block 4's Chesley Street in 1889.

The Immigrant Mix in the 1880s

A review of 1880 U.S. Census population schedules for the Fifth Street strip of Block 2 found several families of northern European origin who were probably of Jewish ethnicity based upon their nativity, names, and occupations. The Solomons, from Germany, lived over the family junk business with their four children. Ferdinand Falkronhalm, native of Sacheim, was a liquor-store sales clerk who lived with his wife, Caroline, over the pickle factory on Fifth Street. Their next-door neighbors were Prussian-Polish immigrants Michael (a furniture salesman) and Emilie Marks, and their four children. Also living above the pickleworks were Samuel Morris (a Polish-born "huckster" or peddler), his Prussian-born wife, Henrietta, and two sons; and kosher butcher H.L. Freedberg and his wife, Julia, both Prussians, with their California-born daughter.

Also on this same block of Fifth Street, occupying a single tenement, were four Italian and three Irish families, totaling 37 individuals. The Italian breadwinners included three laborers and an unemployed miner, while the Irish wage-earners included two house painters and a varnisher. These were the only Italians recorded by the 1880 census within the SF-80 Project area. On other project blocks, substantial numbers of Irish immigrants dominated. German immigrants formed another major group living on project-area blocks, many working in the tanning, meat-cutting, and sugar-refining industries, as well as operating grocery stores and saloons. Chinese laundrymen lived and worked on Block 1. Households scattered through the project blocks also contained first- and second-generation immigrants of English, Russian, Scottish, French, Swedish, Swiss, and other nativities. While definitely an international mix, the people of the South of Market were overwhelmingly of European and Euroamerican background.

Corner Grocery/Liquor Stores and Saloons as Workingmen's Clubs

At nearly every South of Market intersection were corner grocery stores, liquor stores, and saloons, and various combinations thereof. The grocery/liquor stores, of course, kept families supplied with food, but most also sold beer by the bottle or mug. Actual saloons, with bars, stools, and perhaps tables, were more conducive to the spending of recreational time. The proprietors of these businesses were almost always German, and customarily ran weekly tabs for their patrons.

At midday, workers could visit nearby saloons to take advantage of free lunches that might, incidentally, induce them to have a drink or two. In the evenings, after long hours at industrial jobs, the saloons and corner liquor stores gave workingmen a temporary escape from crowded houses and tenements into a relaxed atmosphere. The corner grog shop, whatever its form, served as a social club for weary workingmen.

The transcontinental railroad brought an influx of cheap goods and jobless immigrants to California. The resulting depression of the 1870s gave rise by 1877 to Dennis Kearney's Workingman's Party, dedicated to blaming low wages and unemployment on Chinese labor, and expelling the Chinese from the labor market. The movement gained much support among San Francisco Democrats, reducing that party's membership by 80 percent by 1879. Into the Democrat leadership power vacuum stepped

"Blind" Chris Buckley, a bartender and former conductor on the Third Street horse-car line. He organized the city's Democrats into 47 "clubs" that rallied party spirit with clambakes, breakfasts, and rewards for loyalty (Callow 1982:264-265). Buckley built an organizational hierarchy with himself at the top surrounded by a small army of street thugs known as his "Lambs." Buckley's clubs were easily assimilated into the cozy culture of the South of Market saloons, giving impoverished workingmen there, especially the Irish, a new sense of clout. Running on a system of patronage and graft, gaining and keeping power by stuffing ballot boxes and intimidating rivals, Buckley's machine ruled San Francisco politics through the 1880s. Boss Buckley's saloon politics were a part of life in the South of Market neighborhoods of the time (Callow 1982:266-269; Kipling 1949:34).

Helping Hands

When things got tough for a Buckley club member, the party hack at the corner saloon could always be approached for help—a feature of the system was the distribution of public funds to those in need. This allowed the machine to be viewed as compassionate and caring, while incidentally buying further loyalty. Aside from Boss Buckley, primary support for working-class families in trouble came from family, friends, and neighbors. Sympathetic tradesmen also helped at times, perhaps by extending extra credit or letting something go free-of-charge.

Map and city directory research shows a wide range of benevolent societies, often based on religion or ethnicity, were organized to help others in need. These included the German Benevolent Society, Association of the Daughters of Israel, British Benevolent Society of California, Ladies Protective and Relief Society, San Francisco Scottish Thistle Society, and Native Sons of the Golden West. Various temperance societies, and special-interest protective and trade organizations also tried to improve life according to their particular views. Privately formed organizations founded many San Francisco hospitals and clinics, such as the German Hospital, the French Hospital, and the Pacific Dispensary for Women and Girls. Also originating with private and church groups were such refuges as the Old People's Home of San Francisco, Roman Catholic Orphan Asylum, Protestant Orphan Asylum, Little Sister's Infant Shelter, Home for the Care of Inebriates, and the Salvation Army. On SF-80 Project Block 7, Stephen Maybell's Army of Heaven Mission offered shelter to transients from the late 1880s through the 1890s.

Free kindergartens, such as the El Emmanuel Free Kindergarten on Block 4 and the Stanford Free Kindergarten on Block 6, relieved harried mothers and gave area children an educational start. Public schools, like the Eighth Street Primary and Grammar schools on Block 4 and the Starr King Primary School on Block 3 continued that education. Organizations like the Young Men's Christian Association and the Young Men's Hebrew Association looked to the welfare of young men. South of Market in 1894, Major Sidney S. Pexiotto started an after-school program for local boys in a hall next to Columbia Square, across Harrison from Block 3. His Columbia Park Boys' Club offered the boys organized athletics and various arts programs, including music, drama, and fine arts (*SMJ*, November 1929:11).



Figure 4.8. The SF-80 Bayshore/Highway 101 Interchange site in 1906. Dore Street between Bryant and Brannan was built near the natural course of Mission Creek. It was one of the few places in the South of Market that survived both the 1906 earthquake and the subsequent firestorm. Much of the housing in the SF-80 Project area would have looked like this at the time it was destroyed. (Courtesy of San Francisco Public Transportation Collection)

18 APRIL 1906

The earthquake and fires of 1906 wrought particular havoc on the South of Market. Neighborhoods of flimsy buildings, built over filled-in marshes and covered creeks were devastated by the quake's energy (Figure 4.8). Scattered fires grew into firestorms that consumed block after block of collapsed wooden structures. Attempts to create firebreaks with dynamite only made things worse, as whole buildings were blown into piles of kindling. By the end of the day, unknown numbers of the South of Market community were dead, and survivors had scattered to outlying areas from the Mission to Oakland.

Many survivors of the 1906 disaster found shelter in small semiportable cabins, soon known as earthquake cottages, which were set up in the city's parks. With few public spaces in the South of Market district, earthquake cottage refugee camps sprang up in Columbia Square and Franklin Square (Figure 4.9). Some residents may have found the cottage life an improvement over the crowded tenements they had lost. As the



Figure 4.9. Earthquake houses for refugees in Columbia Square, May 1906. Earthquake cottages were built across the city and later moved onto vacant lots as conditions permitted. (Courtesy of San Francisco Public Library)

rubble was cleared away, some of these cottages were moved from the parks and set up on private lots to replace the lost housing. This happened in the SF-80 Project area on Block 4, where a cluster of earthquake cottages appeared at the corner of Homer and Chesley streets in 1913. Elsewhere, earthquake cottages were moved to lots where new permanent houses were built alongside. The trend, however, was to build multifamily tenements and apartments to house workers for the growing number of South of Market industries. Blocks 3-5, as shown by the 1913 Sanborn maps, illustrate this tendency. Corner residential hotels were another major part of post-fire construction. A plan by architect Daniel Burnham to redesign the destroyed sections of the city along more Parisian lines was never implemented, as the practical realities of getting the city up and running took precedence.

From Residential Community to Industrial District

The brief period of housing construction after 1906 was soon over, as the South of Market became increasingly industrial. Zoning codes, legalized in 1911 by the Supreme Court, promoted separation of land use—segregating residential neighborhoods from commercial/industrial areas. Zoning, along with postquake fire laws, effectively limited new housing in the district to brick hotel and apartment buildings. Almost no housing at all was built in the project-area blocks between 1913 and 1950. Population South of

Market dropped from 62,000 in 1900 to 24,500, 80 percent consisting of single men, by 1910 (Averbach 1973:203).

More and more industry did move into the project area in the years after the quake, including Sunset Publishing Company, the Overland Freight Transfer depot, and the West Coast Paint Factory on Block 1; the Workman Packing Company cannery on Block 4; Enterprise Foundry on Block 6; and the Western Pacific Railroad freight-yard complex on Blocks 6 through 10. Smaller businesses, including laundry, bakery, icecream-making, metalworking, automotive repair, and junkyard operations were scattered throughout project blocks.

The Depression Years and Beyond: Skid Row to Freeway Construction

The Depression hit the Bay Area hard, as jobless down-and-outers from across the country wound up at the end of the rails in California. The South of Market, already a bleak community of factories and transient men living in cheap hotels, attracted masses of the new economic refugees looking for work, lodging, or even just enough food to get through the day. City-funded soup kitchens, the Salvation Army, the Hebrew Sheltering Society, the Scandinavian Lutheran Mission, and various gospel missions were among those helping the unemployed survive from day to day. When the Depression eventually faded, South of Market's identity as "Skid Row" did not. While the war years brought plenty of jobs, and an influx of African American, Chicano, and Filipino populations previously almost absent, it remained largely a transient community. The postwar years saw an increase in the elderly, occupying the cheap housing left by war workers, and a continuation of the area as a Skid Row, plagued by poverty and alcoholism. "Slum Clearance" efforts by HUD and the San Francisco Redevelopment Agency in the 1960s eventually resulted in the creation of the Yerba Buena Center, but not until displaced tenants had gained some concessions, including the construction of new senior housing units. The portion of Route 80 in the project-area blocks was built in the early 1950s. A bit of verse penned by an early resident in 1926 seems to sum up South of Market history:

> Oh, ye saints look down on this new made town
>
> And tell me, pray, which way to go?
>
> The shoreline's deranged and everything's changed
>
> And never a corner I know.
>
> Now everything's new and the landmarks are few
>
> Oh, ye saints look down on this new made town
>
> And tell me, pray, which way to go?
>
> —*South of Market Journal*, December 1926

RESEARCH DESIGN

The SF-80 Bayshore Viaduct Seismic Retrofit Projects research design and treatment plan (RDTP) has a long history. It is based on those developed for the cities of San Francisco (Praetzellis and Praetzellis, eds. 1993), Sacramento (Praetzellis and Praetzellis 1993), and Oakland (Praetzellis 1994). After its appearance in the RDTP for the SF-80 Bayshore Project (Mc Ilroy and Praetzellis 1997), it was subsequently revised for the cities of San Francisco (Praetzellis and Ziesing 1998; Van Bueren et al. 2003; Walker and Ziesing 2002; Ziesing 1998, 2000), Sacramento (Ziesing 1999), Santa Rosa (Stewart 2002), and Los Angeles (Costello et al. 1996). Archaeologists outside the ASC have adapted the research design for other areas, including Stockton (Costello and Marvin 1999). Some of the projects for which these research designs were written never transpired, while others are still being implemented. Applications of the research design are available for San Francisco (Mc Ilroy, Meyer, and Praetzellis 2001), Sacramento (Praetzellis and Praetzellis 1997; M. Meyer 2002), Oakland (Praetzellis 2001; Praetzellis and Praetzellis, eds. 2004), and Los Angeles (Costello et al. 1998; Costello 1999), among others. As the research design is widely available, it will only be outlined here.

The research design follows a contextual approach. Contextual archaeology emphasizes the specific historical, social, and cultural contexts of behavior rather than the supposed universal influences sought by the practitioners of processual archaeology. This approach parallels the trend in the social sciences in general toward problems of "contextuality, the meaning of social life to those who enact it, and the explanation of exception and indeterminants rather than the regularities in phenomena observed" (Marcus and Fischer 1986:8). Structuralism, symbolism, critical theory, and "meaning" (Leone 1986) are stressed in interpretation. Contextualists also recognize the active role of both material culture and the archaeologist in the (re)creation of the past.

This research emphasizes something some historical archaeologists have known for years: our most effective work is often done at the small scale, emphasizing the commonplace and bringing the lives of the disenfranchised and often poorly documented into focus. It is this very characteristic of the data—their placement in the realm of the small scale, mundane, and personal—that puts household-level historical archaeology in a position to undermine and offer an alternative to universal interpretive models. According to theorist Matthew Johnson (1999:34), the result of processual archaeologists' insistence on finding coherence and pattern in human history through large-scale and normative analyses is masking and homogenizing a diversity of past human experience that can only emerge through small-scale analyses. Historical archaeology, he claims, has access to "a space between often very powerful master narratives of cultural and social identity and much smaller, stranger and potentially subversive narratives of archaeological material" (Johnson 1999:34).

The main framework for the SF-80 Bayshore Project research is a question of longstanding importance to social historians: the processes by which people from traditional, pre-modern cultures—both immigrant and native-born—adapted to life in an industrial society (Gutman 1977). The research design focuses on three main issues: modernization, Victorianism, and working-class culture, each of which has discernible archaeological correlates and relates, on various levels, to the principal research questions.

RESOURCE TYPES

The SF-80 Project followed a consolidated approach to CEQA compliance, in which archaeological resources were identified and then immediately evaluated for eligibility to the California Register of Historical Resources (CRHR). For this reason it was necessary for the RDTP to identify all resource types that might conceivably require evaluation. Some rarely encountered or generally nonsignificant property types were developed in the RDTP, as much in anticipation of ineligibility as eligibility, since it could not be ruled out that extraordinary examples of a given resource type might be discovered. This was felt to be a prudent step in order to avoid having to create a framework for evaluation after fieldwork was under way, which would have been necessary if an unexpected landfill or dump had been encountered in the absence of an evaluative framework.

It is important to note that merely identifying a resource type does not, in itself, render examples of the type significant under CEQA. Once a resource is identified, it must be evaluated by the criteria and data requirements in the RDTP. Historical research for the SF-80 Project suggested that examples of 10 historic-period archaeological property types might have been present within the SF-80 Project area. Many of the archaeological targets were chosen because they had the potential to contain more than one resource type. For example, the industrial sites overlapped with both industrial features and domestic occupation sites.

The resource types identified in the RDTP are listed below; an indication of findings is given where it helps to clarify our categories.

1. Domestic occupation sites comprised the largest number of sites recommended for testing. All of the resulting eligible features were from domestic occupation sites.
2. Domestic architecture was represented by only one site recommended for testing—the Duisenbergs' first Gold Rush-period house, which the family reportedly brought with them from Chile.
3. Commercial sites included 12 stores, 2 stables, and a hotel within the project right-of-way.
4. Institutional sites to be tested focused on a church, the Eighth Street Primary School, Stanford Free Kindergarten, and the Army of Heaven Mission.
5. Industrial structures/architecture were limited to two sites—a stove-elbow factory and a smokehouse. The stove-elbow factory functioned as a backyard, family-owned business. The footing excavation missed this lot, but Privy 41 was discovered on the adjoining parcel. Construction monitoring encountered remains of the smokehouse. Using the RDTP procedures, this feature was identified and evaluated as ineligible.
6. Industrial features comprised the same sample—two sites—as industrial structures above.
7. Gardens and parks were targeted at six footings within the Russ Gardens site. Half of these footings were later dropped from the study because the exposures were inadequate to identify, evaluate, or realize any research values

that might be inherent in these sites. The other three footings were retained, as they were also being monitored for other resource types.

8. Butchering sites were targeted at six footing within the historic Butchertown. All of the Butchertown targets overlapped with either domestic occupation sites or potential prehistoric sites. A cow burial was recovered on Block 6 and bones probably associated with a soap works were recovered on Block 9. The information was realized from these deposits by recording them and they were evaluated as ineligible using the RDTP.
9. Landfills and dumps were not included in the property types recommended for testing; such sites often turn up unexpectedly in filled areas. Refuse associated with the 1906 earthquake and fire was encountered at many of the targeted footings; these materials were evaluated as ineligible using the criteria in the RDTP.
10. Gold Rush-period sites included 10 examples of the property types listed above. As sites from this period are increasingly rare, it was proposed that any Gold Rush-period property type would be considered important. No Gold Rush-period sites were encountered.

RESEARCH THEMES AND QUESTIONS

From the historical issues and approaches mentioned above, the archaeologists constructed research themes, along with research questions associated with each theme. The interested reader is referred to the research design prepared for Caltrans (Mc Ilroy and Praetzellis 1997:161-177) for the complete list.

Due to the use of the consolidated approach wherein archaeological features were identified, evaluated, and treated in one process, the initial goal of the questions as they were phrased in the RDTP was to assess each feature's content and structure to determine if it qualified for evaluation. When these preliminary issues were resolved, the data requirements came into play. In the RDTP, each question was coupled with associated data requirements that were deemed essential if the features/strata being evaluated were to realize their research potential. The archaeological data requirements specified discrete features and/or layer interfaces in broad exposures. More complex questions involving comparative studies also require period interfaces composed of feature and layer interfaces connected with many households. Historical data requirements included historical associations for features/strata, as well as documentary exploration of the historical contexts involved. Besides stratigraphic integrity, artifact and faunal studies required sufficient variety and quantity to be reflective of the behaviors under study. To complete the evaluative process and determine a deposit's eligibility, the AIMS-R principles were applied (see Chapter 5). The RDTP also mentioned the public interpretive potential of remains to remind field archaeologists of the value of isolated artifacts or collections that may be used later for public outreach or developed into teaching collections for schools. This characteristic, however, did not contribute to the assessment of the resources' CRHR eligibility.

Some targeted property types—such as gardens and architecture that required broad exposures—were dropped from the program when it became clear that exposures created by the monitoring program were too small to reveal these types of resources. No eligible landfills/dumps, commercial, institutional, or industrial features were discovered during monitoring. Table 4.1 lists only themes that were found relevant to SF-80 Project resources. Six principal questions are included for each theme. Clearly, human behavior is complex: there are many more questions that could be generated, and their answers simply generate more questions.

All of the CRHR-eligible features proved to be of the domestic-occupation property type. Thus, relevant research themes are limited to Consumer Behavior and Ethnicity/ Urban Subcultures, and—when the sample size is increased by the contribution of other archaeological datasets—to Urban Geography. These themes are explored in Part V.

Table 4.1. SF-80 Bayshore Project Research Themes and Questions

Theme	Principal Questions
Consumer Behavior and Strategies	How did consumer practices vary between various social, occupational, economic, and/or ethnic groups? To what degree do these differences correlate with wealth or other immediately apparent characteristics or with emic social categories? How were households, neighborhoods, and/or cities influenced by fashion, advertising, and/or social movements? How did households manage their finances: did they live within their "means," did they take risks, and were the outcomes of their financial practices visible? How did households respond/adapt to life-cycle changes, stresses, and outside interventions? What role did household wealth or poverty play in consumer behavior?
Ethnicity and Urban Subcultures	What was the influence of the class-based ideology known as Victorianism on various segments of the urban population? To what degree can Victorianism be said to have exerted a "homogenizing" influence on the cultures of ethnic or class subgroups? Is there evidence that other groups co-opted Victorian symbolism? What role did the "cult of domesticity"—including approved modes of child-rearing techniques, genteel entertaining, and social display—have in this household, neighborhood, or city? In what way did barter and "pre-modern" forms of exchange have a role in this household/neighborhood? How were ethnic, economic, and cultural differences expressed in this household/ neighborhood/city?
Urban Geography	Were modifications made to the natural landscape that influenced the city's development and growth? How were these modification processes implemented on individual parcels and blocks? How did households/neighborhoods/cities use/adapt their backyards and open spaces? How did perceptions of the cultural landscape and modifications change over time and how did this impact the parcel/neighborhood/ city? What influence might "place" have on households and their decision-making processes? How are the differences in neighborhoods and cities reflected in the material culture of those who live within them?

CHAPTER 5
CONSTRUCTION MONITORING: METHODS AND FINDINGS

Jack Mc Ilroy and Michael D. Meyer

FIELD METHODS

SCOPE

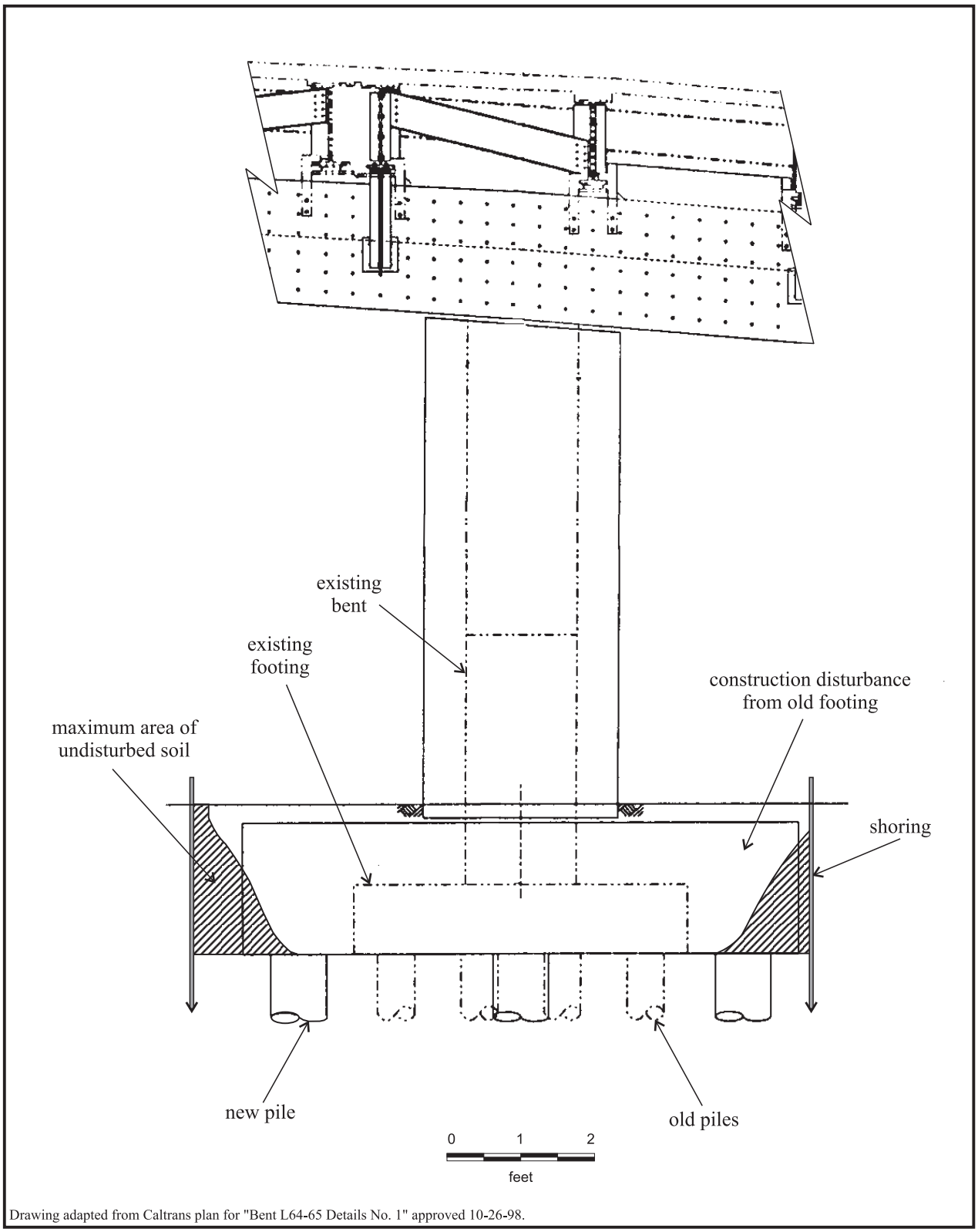
During the planning phase for the SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project), the ASC was advised of the restrictions imposed on the archaeological project. The areas to be monitored were confined to limited exposures of mostly disturbed soils around existing footings. Only a small portion of undisturbed deposits could be examined around each footing, sometimes a strip as narrow as 2- to 3-ft. wide along the edges of a 22-ft.-square footing.

When a feature was located on site (in all cases except for Privy 7), consultations with Caltrans engineers and archaeologists were required to extend the excavation area outside the "pay limits" and create a safe working zone for excavation. Cooperation with Caltrans staff was excellent when these situations arose.

CONSTRUCTION MONITORING

Selection of Monitoring Locations

The Research Design and Treatment Plan (RDTP; Mc Ilroy and Praetzellis 1997) prepared for Caltrans specified a number of archaeological resource types that might be affected by the SF-80 Bayshore Project based on historic documentation. Bent locations were then selected for testing/monitoring based on the likelihood of finding deposits that would meet the data requirements for addressing various research issues. For the prehistoric component, these were areas of sand dunes adjacent to the former marshlands. For the historic component, these were typically refuse deposits that are most often found in the rear or side yards of residences and commercial buildings. For later buildings shown on the Sanborn maps of 1887, and later, the locations are usually very reliable. For buildings shown on U.S. Coast Survey maps of the 1850s, the locations are less accurate. This level of error is compounded by topographical changes resulting from the extensive amount of cutting and filling across the San Francisco landscape and especially within the project area. The documentation also provides a snapshot in time of a given block, rather than a record of every stage and configuration of the built environment through its evolution. Monitoring provided the means of identifying these deposits within the narrow confines of the construction trenches. Typically one archaeologist was on-site to monitor excavation of a given bent. Additional personnel were added as necessary when multiple excavations were conducted simultaneously, or when working in areas likely to have significant deposits. During the course of the construction excavation, the archaeologists were able to revise the monitoring plan and eliminate bents unlikely to contain surviving deposits.



Drawing adapted from Caltrans plan for "Bent L64-65 Details No. 1" approved 10-26-98.

Figure 5.1. Schematic cross section through typical bent, showing footings and piles



Figure 5.2. Monitoring backhoe excavation at Bent L38 on Block 7 after sheet piling inserted

Feature Identification

Since no properties had been identified in the project corridor prior to the start of fieldwork, the RDTP specified that identification strategies would focus on the types of deposits likely to be encountered. These two types of deposits were hollow-filled features and sheet refuse. As predicted, the identification and recovery of sheet-refuse deposits that met the research-design criteria proved difficult. Typically, a 4-ft.-wide trench was excavated around each bent. Due to the size of the original bent construction trench, the undisturbed soil was commonly limited to a 2- to 3-ft.-wide strip at the bottom, which sloped outward and became narrower toward the top (Figure 5.1). Usually, the best-preserved areas of undisturbed soil were found between two bents close enough for shared shoring during the retrofit project, thereby providing a larger area in which to work. The visibility of these features, that is the ability for the archaeologists to identify the deposit and the associated soil stratigraphy, varied greatly throughout the project, as determined by the type of shoring system employed by the contractor (Figure 5.2).

At the outset, Caltrans divided the project into three segments. Within general guidelines, the contractor for each segment was allowed to develop his own strategies for shoring and excavation. In general, a 4-ft.-wide trench was excavated around the bent footing to drive new pilings and connect them to the existing footing. The depth from the modern ground surface to the bottom of the existing footing was typically 5 feet. The actual excavation was conducted with a backhoe or excavator using a bucket with a flat cutting edge. An archaeologist directed the mechanical clearing. For most

bents the soil covering the existing footing was redeposited fill. This fill had little research value, which allowed the contractor to remove the first 2 ft. as quickly as possible. Deeper excavation with the potential of finding intact archaeological features was done by stripping a few inches of soil at a time. The most efficient approach to mechanical clearing was to excavate one side of a footing at a time. Once excavation indicated that there was extensive disturbance from the original bent construction, the fill was removed more aggressively.

Each footing excavation required shoring. Within the SF-80 Bayshore Project there were generally two methods of shoring used, with several variations on the second as described below.

1. Sheet pilings were driven into the ground; the tops were supported with a horizontal steel beam (wale) welded to the pilings. This method of driving sheet piles provided the least visibility of the surrounding stratigraphy. The piles were an elongated U-shape to provide rigidity to the shoring. Intact soils, other than on the bottom of the excavation, were often only observable within the alternating incurvate channels of the shoring. Any deposits cut by and behind the piles were inaccessible.
2. The trench was excavated to a depth of about 3 feet. Holes were augured for vertical steel I-beams and steel plate was slid into the channel. Once in the channel, excavation continued to the necessary depth and the plates were pushed to the bottom of the trench. Variations included completely excavating the trench prior to augering or using a commercially produced trench shield or shoring system. This second method provided the archaeologists with a better understanding of the depositional process. The best case for observing stratigraphy was full excavation to 5 ft., followed by placement of the shoring. This allowed the archaeologists to observe any features and stratigraphy of the surrounding soil matrix. If a feature continued outside the cut, it was still accessible for investigation.

Subsurface deposits around the footings usually consisted of construction-related backfill containing miscellaneous historical artifacts. Once an archaeological deposit was identified, the mechanical clearing was either shifted to another side of the bent or halted entirely at that bent until the nature and extent of the deposit could be determined. If a deposit was identified as a feature that had retained integrity and had the potential to yield a sufficient variety and quantity of artifacts to address research issues, it was tested and evaluated for CRHR eligibility in the field using the criteria from the RDTP.

Soil Corings

Soil corings were drilled after excavation for the bent footing in order to search for buried prehistoric deposits and buried soils (paleosols) that would be disturbed by pile-driving (Figure 5.3). A drilling rig was placed over the corner of the excavation and continuous samples were collected and returned to the lab for analysis. Buried soils indicating the presence of earlier stable ground surfaces were typically located at depths of 10 to 14 ft.; in certain locations, however, these soils were identified at depths of 19 and 27 feet. The maximum coring depth for the project was 40 feet.



Figure 5.3. Geoprobe setting up to drill cores at Bent L72 on Block 3

In-field Adjustments to Monitoring Plan

Historical archaeology targeted footings that would impact the vicinity of rear lot lines shown on the earliest available Sanborn maps (1887; Table 5.1). These are the locations where privies and pits were most likely to be found, while experience has shown these features often contain important collections of artifacts. Pre-Sanborn buildings are shown on the 1857/59 U.S. Coast Survey map for the project area. On the original version, the city of San Francisco is shown on a map that measures about 6 x 3.5 feet. At this scale, the larger city blocks in the project area (Blocks 1 through 5) measure about 1.5 x 1 inch.

Locations of late 1850s buildings were estimated by scanning in the 1857/59 U.S. Coast Survey map, then overlaying the appropriate section of that map with a scanned Sanborn map, lining up the block corners as well as possible. A second comparison was made by projecting a slide of the Coast Survey map onto an enlarged print of the Sanborns, again lining up the corners. The best fit determined from both processes was used to identify early building locations.

Although this process was done as accurately as possible, we could not be certain of the error margin. Consequently, it was not always possible to pinpoint locations of early structures with the degree of confidence available with later Sanborn buildings. This is especially so considering that the archaeologists were dealing with small areas of direct impact, about a 3-ft.-wide strip around four sides of an average 22- x 22-ft. footing excavation. Therefore, it was decided to wait until on-site evidence confirmed the accuracy

Table 5.1. Targeted Footings for Historic and Prehistoric Archaeological Work

Block	Targeted	Historic	Prehistoric	Both H/PH	Dropped
1	6	2	4	0	0
2	18	11	0	1	6
3	31	11	16	1	3
4	29	17	11	0	1
5	3	1	2	0	0
6	9	4	5	0	0
7	4	4	0	0	0
8	2	0	2	0	0
9	4	1	3	0	0
10	2	0	2	0	0
Total	108	51	45	2	10

of these plans before designating specific footings as potentially impacting 1857/59 buildings. Such an assessment was made on site at the first footing excavation monitored at BentG4-58 on Block 4, where Privy 1 was in the northwest corner of the excavation area at 30 in. depth. This was the location of an early house shown on the 1857/59 U.S. Coast Survey map.

With the discovery of Privy 1 suggesting that our projected locations were reasonably accurate, 11 further footing locations were submitted to, and approved by, Caltrans for monitoring. The 1857-59 U.S. Coast Survey map showed buildings in or close to these footing locations. The bent locations added were as follows:

Block 2 - four footings at L78 and R82.

Block 4 - five footings, two at R52 and three at L58, L62, and L64.

Block 7 - two footings, L38L and L38R.

On Block 3, three footings inside the main building at Russ Gardens at L74 and R72 could not be placed with sufficient accuracy due to map distortions and were not included among the additional targets.

As the project progressed, 10 of the 108 targeted footings were dropped based on data from the fieldwork indicating that their archaeological potential was low (Table 5.1). On Block 2, the six dropped footings (L82C1, R80C1, R80C2, R82C1, R82C2, and R85C2) were designated historical targets. On Block 3, of the three dropped footings, two were designated historical targets (L74C1, L74C2 and) and one (R64C1) was a prehistoric target. On Block 4, one prehistoric target was dropped (L64C1).

METHODS FOR FEATURE EVALUATION

Most of the research questions in the treatment plan required finding refuse deposits with good integrity that could be associated with specific households or businesses. The deposits needed to have a sufficient quantity and variety of artifacts that were not disturbed or mixed beyond salvage by later intrusive events, such as freeway-bent construction. A simple mnemonic was found useful in assisting with the field assessment of these features–AIMS-R. Any feature showing good Association, Integrity, Materials, Stratigraphy, and relative Rarity was a candidate for review of its potential California Register-eligibility. Table 5.2 provides findings from construction monitoring at all targeted bents, along with a tabulation of sheet refuse and other deposits that clearly did not meet the data requirements of the RDTP.

When a feature was identified that was likely to meet the eligibility criteria, the surface was cleared, then photographed, drawn, and excavated by half section. All excavation of the historic component of the SF-80 Bayshore Project was done stratigraphically, according to the physical layers of deposition. These layers were given context numbers and recorded on context sheets using the Harris Matrix (Harris 1979; Harris, Brown, and Brown 1993). In many cases previous construction or mechanical clearing impacted the feature, exposing a portion of the interior fill stratigraphy. After the first half of a feature was excavated, the cross section was drawn and photographed. At this point the feature was evaluated and either the feature was abandoned and the artifacts returned to the hole, or the second half was excavated. Feature soils were usually screened through 1/4-in. mesh, unless small items such as beads or fish bone were observed, at which point 1/8-in. mesh was used. Soil samples were taken if seeds were observed to process through nested fine screens. No more than a day-and-a-half was spent in the field excavating and processing a potentially eligible feature. Much of the processing work took place in the lab.

Once the second half of a feature was excavated, it was drawn, photographed, and evaluated again. Evaluation was based on the Criteria for Evaluation, as detailed in the SF-80 Bayshore RDTP (Mc Ilroy and Praetzellis 1997:149-151) and summarized in Chapter 4 above. If the feature was determined to be eligible, excavated materials were returned to the lab for processing and either bent clearing or retrofit construction was resumed. In cases where there was inadequate information to determine potential eligibility in the field, materials were sent to the lab for study and reevaluated after further research. One deposit, Privy 7, was evaluated as ineligible after being brought back to the lab. Typically, a determination of ineligibility was made based on the deposit's insufficient quantity of materials or diagnostic items.

(continued on page 79)

Table 5.2. Findings from Construction Monitoring by Bent – SF-80 Bayshore Project

SF-80 BAYSHORE PROJECT 2				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
Block 1				
L93C1	411 Fifth	Grocery	6.5	Construction and demolition debris above 1906 fire zone on cobble paving of Perry St.
L94C1	256-258 Perry	Prehistoric	30.0	Peat/marsh at 20 ft. covered by sand. No buried soils. *
R90C1	421 Fifth	Prehistoric	25.0	Peat/marsh at 20 ft. covered by sand. No buried soils.
R95C2	750 Bryant	Water Company Yard	25.0	Few street cobbles in disturbed soil to 5 ft. Water table at 8-9 ft.
		Prehistoric	20.0	Peat/marsh at 20 ft. covered by sand. No buried soils.
R100		Prehistoric	43.0	Peat/marsh at 20 ft. covered by sand. No buried soils.
Block 2				
L78C1	405 Sixth	1857-59 House	6.0	Architectural debris and dune sand.
L78C2	405 Sixth	1857-59 House	6.5	Bent-construction debris and dune sand.
L79C1	405 Sixth	House	6.0	Ca. 1880s trash pit at 4 ft. near E corner. Not collected due to paucity of materials.
L82C1	405 Sixth	House	N/A	Dropped; low potential based on results from rest of block.
L82C2	7 & 71/2 Morris	Prehistoric	45.0	Peat/marsh at 10 ft. covered by sand. No buried soils.
L86C1	11 Oak Grove	House	5.0	Demolition and construction fill. Shoring blocked view of section.
L86C2	13 Oak Grove	House	5.0	Sand, and rubble of serpentine and brick. Shoring blocked view of section.
L87C1	13 Madison	House	6.0	Serpentine fill on 1906 layer on sand with brick rubble. Shoring blocked view of section.
L87C2	15 Madison	House	5.0	Demolition debris. Reddish concrete surface at 2.3 ft. Shoring blocked view of section.

*For a definition of buried soil and its potential research value, see Chapters 2 and 3.

Table 5.2. Monitoring Results by Bent *(continued)*

Project 2, Block 2 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
L89C2	16 & 18 Madison	Houses	6.5	Dark gray sand fill at 4 ft. covered by brick rubble and sand.
L90C1	410-412 Fifth	Houses	6.0	Sand and brick rubble with construction fill.
L90C2	412 & 416 Fifth	House & Tenements	5.3	Sand fill at 2.3 ft. covered by serpentine and concrete rubble.
R80C1	11-13 ½ Morris	House		Dropped; low potential based on results from rest of block.
R80C2	11-13 ½ Morris	House		Dropped; low potential based on results from rest of block.
R82C1	22-22 ½ Oak Grove	1857-59 house		Dropped; low potential based on results from rest of block.
R82C2	24 Oak Grove	1857-59 house		Dropped; low potential based on results from rest of block.
R84C2	27 & 27 1/2 Oak Grove	Houses	6.0	1906 demolition rubble from 3 to 6 ft.
R85C2	27 Madison	House		Dropped; low potential based on results from rest of block.
PROJECT 1				
Block 3				
L66C1	Vacant lot	Prehistoric	5.0	Fill to 5 ft. Geoprobe moved to L66C2 due to poor access.
L66C2	Vacant lot	Prehistoric	19.0	Peat/marsh at 10 ft. covered by fill. No buried soils.
L69C2	Vacant lot	Prehistoric	14.7	Dune sand at 4 ft. covered by fill. **Buried soil ~ 11.5 ft.**
L70C2	1047 Harrison	House	5.0	Dune sand at 3.5 to 4.0 ft. covered by fill.
		Prehistoric	16.0	Peat/marsh at 10 ft. **Buried soil ~ 3 ft.**
L72C2	Vacant Lot	Prehistoric	42.6	Dune sand at 7 ft. covered by fill. Peat/marsh at 10 ft. **Buried soil ~ 8.8 ft.**

Table 5.2. Monitoring Results by Bent *(continued)*

Project 1, Block 3 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
L73C1	1027 & 1031 Harrison	Houses	5.0	Sand dune or fill at 1.2 ft. covered by 1906 debris.
L73C2	1031 Harrison, 6 & 6 1/2 Garden	Houses	5.0	**Privy 7, Ineligible.** Sand dune or fill at 4 ft. covered by fill.
L74C1	4 Garden	1857-59 building		Dropped; site of Russ Gardens, too difficult to pinpoint 1857-59 buildings.
L74C2	6-6 ½ Garden	1857-59 building		Dropped; site of Russ Gardens, too difficult to pinpoint 1857-59 buildings.
L75C1	1007-1011Harrison 5 Garden	Houses	5.5	Sand dune at 3 ft. covered by 1906 debris.
L76C1	406 & 408 Sixth	Houses	5.5	Sand dune at 3 ft. covered by 1906 debris. Brick foundation corresponds to Sanborn map.
R64C1		Prehistoric		Dropped; sufficient data obtained from surrounding bents.
R64C2	Duisenberg house	House	7.0	Sand dune at 2.5 to 3.0 ft. covered by 1906 debris.
		Prehistoric	20.0	**Buried soil ~18.4 ft.** Soil or marsh with dunes below.
R65C2	Duisenburg house	House	7.0	Sand dune at 2.5 to 3.0 ft. covered by 1906 debris.
		Prehistoric	26.0	**Buried soils ~18.4 ft.** Soil on dune over soil on dune with marsh below.
R66C2		Prehistoric	20.0	**Buried soil 11.1 ft.** Soil or marsh with dunes below.
R68C2		Prehistoric	20.0	**Buried soil ~10.1 ft.** Soil or marsh with dunes below.
R70C2		Prehistoric	16.4	**Buried soil ~ 10.8 ft.** Peat/marsh at 10 ft. covered by dune to 7.0 ft. covered by fill with two layers of debris separated by sand lens. Older debris 5.5 to 6.0 ft.
R71C1	8 & 10 Garden, 1031 Harrison	Houses	5.5	Dune sand at 5.0 ft. covered by sand fill and 1906 debris in western corner from 3.5 to 4.9 ft.
R71C2	1031 Harrison	House	6.0	**Privy 3, Eligible.** Found at 5 ft.

Table 5.2. Monitoring Results by Bent *(continued)*

Project 1, Block 3 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
R72C1	8 & 10 Garden	1857-59 buildings		Dropped as historic target (Russ Gardens); too difficult to pinpoint 1857-59 buildings.
		Prehistoric	16.1	**Buried soil ~ 11.8 ft.** Peat/marsh at 10 ft.
R72C2	10 & 12 Garden	House	7.0	Ineligible historic pit in dune sand at 2.6 ft.
R74C2	414 1/2 & 416 Sixth	House	10.0	1906 debris at 2 .0 to 2.5 ft.
		Prehistoric	8.0	Core not recovered or described
Block 4				
L53		1857 House	5.0	Fill or dune sand at 4.5 ft covered by 1906 debris 3.0 to 4.5 ft with fill above.
L53C1		Prehistoric	25.0	Dune sand at 8.0 ft. covered by fill. **Possible buried soil ~ 10 ft.**
L54	Eighth St. School	School	6.0	Dune sand at 1.8 ft covered with fill. Brick school foundations cut into dune.
L56		Prehistoric	28.0	Fill with bricks to 10-12 ft. Dune sand below. **Buried soil ~ 15.4 ft.**
L58	20 & 22 Chesley	1857 House	6.0	Brick foundation and 1906 debris at 3.0 ft.
L62	207 & 209 Langton	1857 House	6.0	Dune sand at 4.5 ft. covered by 1906 debris to 2.5 ft and fill above.
L63	406 Seventh	1857 House	14.0	**Septic Tank 35, Ineligible.** Brick foundations.
L64C1		Prehistoric		Dropped; sufficient data obtained from surrounding bents.
L64C3	406 Seventh	1857 House	5.5	Dune sand at 4.0 to 5.0 ft. covered by 1906 debris and fill.
G2A52C1	1070 Seventh	House & Yosemite Flour Mill	25.0	Ground surface on fill sand at 3.1 ft. covered by 1906 debris to 1.9 ft. covered by fill. **Buried soil ~ 3.6 ft.**
		Prehistoric	25.0	Firm dune sand at 8.0 ft. covered by fill. **Possible buried soil**.
G2A53C1	36 Kate	House & School	5.5	**Privy 30, Eligible**. Found under cobblestone paving and 1906 debris layer. Brick foundations also uncovered.

Table 5.2. Monitoring Results by Bent *(continued)*

Project 1, Block 4 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
G2A55NC1	Eighth St. School &Eldridge St.	1857 House, 1887 Outbuilding	6.0	Wooden wall, possible privy shaft remains 3.2 to 7.4 ft. disturbed by bent construction in fill or dune sand at 2.7 ft.
		Prehistoric	30.0	Dune sand at 8 ft. covered by fill. **Possible buried soil.** Core not recovered or described.
G2A56NC1	18-20 Chesley & 7 Boyd	House	5.0	Dune or fill sand from 2.5 to 5.0 ft. covered by fill with cobbles.
G3-61C1	414 – 416 1/2 Seventh	House	6.0	**Privy 40, Ineligible.** Truncated and filled with sand. **Privy 41, Eligible**. At 414 Seventh. Historic ground surface at 3 ft.
G4-56	Chesley, Boyd, & Homer	House	6.5	Dune sand at 6.0 ft. covered by fill.
G4-58	3 Maria / 1 Chesley	1857 House	5.0	**Privy 1, Eligible**. 3 Maria. Dune/fill sand at 2.8 ft. covered by gravel and sand fill.
		Prehistoric	18.0	Compact dune sand at 8.0 ft. **Possible buried soil ~ 13.1 ft.**
G4-60	1123 Harrison & 208 Langton	House	9.5	Fill or dune sand from 2.8 to 4.0 ft. with fill above.
G4-62	117 &119 Harrison, 400 – 402 Seventh	Smokehouse	5.0	Brick smokehouse foundation and ash deposits on sand dune.
		Prehistoric	15.0	**Buried Soil ~ 13 ft.** Soil on dune.
G4-63	400-402 Seventh	1857 House	3.0	Disturbed fill and live electrical conduits. Excavation halted.
		Prehistoric	15.0	**Buried Soil ~ 3.6 ft.** Soil on dune.
R52C1 (L)	31 Kate	1857 House	7.0	Fill or dune sand from 5.5 to 6.0 ft. with fill above. Bottom of brick foundation at 7 ft.
R52C1 (R)	31 Kate	1857 House		**Privy 38, Eligible. Privy 39, Eligible.** Top of brick foundation wall at 2.5 ft.
R54	28 Chesley	Prehistoric	28.0	**Buried soil ~ 6 ft.** Under sand dune.

Table 5.2. Monitoring Results by Bent *(continued)*

Project 1, Block 4 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
R58	228 Langton	Prehistoric	23.0	**Buried soil ~ 14.5 ft.** 1906 burn zone at 2.5 ft.
R60	219-225 Langton	Prehistoric	19.0	**Buried soil ~ 11 ft.** Under sand dune.
PROJECT 3				
Block 5				
L49	501 Eighth	Prehistoric	20.0	**Buried soil ~ 3 ft.** Soil or marsh with dunes below.
R48	505-507 Eighth, 4 Decatur	Houses	6.0?	Sand fill below construction and demolition debris.
R49	1071 Bryant	Prehistoric	20.0	**Buried soil ~ 3.9 ft.** Soil or marsh with dunes below.
Block 6				
L41R		Prehistoric	5.0	Sheet piles in place prior to monitoring, demolition debris to 5 ft.
		Prehistoric	20.0	**Buried soil ~ 12.8 ft.** Soil or marsh with dunes below.
L44L		Prehistoric	45.0	**Buried soil ~ 12.5 ft.** Soil or marsh with dunes below.
L45L	522 1/2 Eighth	House	5.0	Sheet piles in place around both bents prior to monitoring. Possible burn layer 3.5–5.0 ft. covered by disturbed fill
		Prehistoric	20.0	**Buried soil ~ 10.8 ft.** Soil or marsh with dunes below.
L45R	522 Eighth	House	5.0	Cow skeleton at 5 ft. in combined trench with L45L.
L46L	520 Eighth	House	6.0	**Privy 20, Eligible.** Found at 5 ft. below fill. About 2 ft. of privy remained. 1906 debris, 3-in. thick at 3.3 ft. on sand dune. Sheet piles in place before monitoring.
		Prehistoric	20.0	Marsh at 10 ft. on dunes. **Buried soil ~ 4.5 ft.**
R43R		Stanford Free Kindergarten	5.0	Brick foundation at 5 ft. Disturbed fill and rubble. Sheet piles in place before monitoring.

Table 5.2. Monitoring Results by Bent *(continued)*

Project 3 *(continued)*				
Bent	**Sanborn Address**	**Archaeological Sensitivity**	**Depth (ft.)**	**Findings (measurements = depth below surface)**
Block 7				
L36L	925-927 1/2 Brannan	Army of Heaven Mission, Tesla Stable	5.5	Fill debris.
L36R	925 Brannan	Army of Heaven Mission	5.0	Fill rubble. Sheet piles in place before monitoring.
L38L	925 Brannan	1857 House	6.0	Fill rubble. Sheet piles in place before monitoring.
L38R	925 Brannan	1857 House	5.5	Fill rubble. Sheet piles in place before monitoring.
Block 8				
L28		Prehistoric	30.0	**Buried soil ~ 12.8 ft.** Peat at 13 ft., Colma formation at 23 ft.
L31		Prehistoric	30.0	**Buried soil ~ 19 ft.** Peat at 13 ft., Colma formation at 27 ft.
Block 9				
L21		Prehistoric	15.0	**Buried soil ~ 7.9 ft.** Colma formation at 13 ft.
L22	106 &108 San Bruno	House	6.5	Construction fill.
L23	106 San Bruno	Prehistoric	15.0	**Buried soil ~ 10.2 ft.** Colma formation at 13 ft.
L25	Lucy Soap Works	Prehistoric	20.0	**Buried soil ~ 7.5 ft.** Marsh/Colma formation at 17 ft. Historic bone associated with soap factory.
Block 10				
R13		Prehistoric	13.0	**Buried soil ~ 7 ft.** Colma formation at 7 ft.
R16		Prehistoric	30.0	**Buried soil ~ 20.1 ft.** Peat at 18 ft., Colma formation at 28 ft.

FINDINGS: BLOCK SUMMARIES

This section contains a short summary of each block history from the RDTP followed by a brief review of the archaeological monitoring results.

BLOCK 1

Summary

The natural site of Block 1 was originally marshlands bordering Mission Bay, which remained unfilled in 1857. By 1864 it was filled land and several houses were built along Harrison Street. Perry Street was laid out by 1868. Before the 1906 fire, Block 1 consisted of a mixture of housing along Perry and Harrison streets, and industry along Bryant. All of the block burned in the 1906 fire, but Block 1 was mostly reconstructed by 1913. Only a few houses, along Harrison and Perry, and the Mizpah Presbyterian Church were rebuilt. Housing types ranged from two- and three-story flats to a single two-story dwelling at 843 Harrison, and a pair of converted earthquake cottages at 283 Perry. By contrast, the new Sunset Publishing Company printing works occupied a substantial Mission-style building on Fourth Street. Much of the block was given over to lumberyards and drayage companies, with the large Overland Freight Transfer depot covering a large lot that extended from Perry all the way to Bryant. In the later 1910s and the 1920s, additional industries appeared on what had been vacant lots in 1913. The northeast corner of Perry and Fifth became the site of the new West Coast Paint Factory, and automobile garages reflected the replacement of horses by machines.

Because Block 1 was selected as the terminus for the West Bay approaches to the San Francisco Bay Bridge in the early 1930s, the entire block was carefully photographed at that time. These pictures of the block show long, expanses of corrugated-iron siding interspersed with more substantial industrial buildings. Here and there, the bay windows of a house or set of flats can be seen. The Mizpah Church appears as a wooden copy of a Greek temple.

The church site, together with the entire Fifth Street frontage of the block, was cleared of structures by the mid-1930s and developed as the landscaped entranceway to the Bay Bridge. At the same time, construction for the gradually rising elevated bridge approaches cleared a large swathe in the middle third of block as far as Fourth Street. By 1950 all that remained of Block 1 was a row of industrial buildings, between Harrison and Perry, and a few gas stations.

Block 1 Archaeological Monitoring

Block 1 is also Block 11 of the SFOBB West Approach Project; two privies (1600 and 1601) were found on that project approximately 7 ft. below current ground surface at 207-209 Perry, close to Fourth Street. At that point modern ground is at about 11 ft. 10 in. amsl. No eligible features were found during monitoring in the SF-80 Bayshore impact zone (Figure 5.4). Bent L93C1 was located on the edge of the building line on Block 1. At this bent the 1906 fire debris was recorded at 5.5 ft., lying on top of the old basalt-cobble Perry Street surface, which was found at 6 ft. below current grade. This seems like a

great depth for Perry Street, but a 1932 report on subsidence in San Francisco (Whitworth 1932:59) shows that the street grade at the corner of Harrison and Fourth at the other end of Block 1 was 10 ft. higher in 1930 than it was in 1854. So a 6-ft. depth for old Perry Street is not unexpected but may indicate the street was laid out before the block was filled, in contrast to what has been noted above. The cobble surface may also slowly be sinking into the marsh.

Peat marsh covered by sand fill was found at 20 ft. in four Geoprobe borings, L94C1, R90C1, R95C2, and R100. Groundwater was encountered at 8 to 9 feet.

Based on the privies and the bent monitoring, historic archaeological features can be expected to have survived at depths of 6 ft. or so below grade on this block.

BLOCK 2

Summary

The natural site of this block consisted partly of dry land and partly of shallow marshlands. Mostly vegetable gardens in 1857, the block contained four 100-vara lots planted with cultivated gardens. This block acquired several houses along Harrison Street by 1864. The 1868 Gifford bird's eye view (Mc Ilroy and Praetzellis 1997: Plate 11) shows row-housing along both Fifth Avenue and Park Avenue cutting through the interior of the block. The 1867/69 Coast Survey map shows both of these streets entirely built up. By 1869 only the central section of the block remained undeveloped, with Oak Grove Street not yet opened.

Mostly residential prior to 1906, all of the block burned in the 1906 fire. It was only about half rebuilt by 1913. Along the west side of Madison Avenue, houses and flats recreated something of the pre-fire residential pattern, but this was almost the only part of the block to be rebuilt with housing. The great majority of the block was used for various draying operations and for outdoor storage, with a few woodworking industries and several machine shops and ironworks appearing on the 1913 Sanborn map. By the early 1930s, many more substantial industries had located on the block. Along Fifth Street, a large commercial laundry, a paint manufactory, a wire-fence warehouse, a sheet-metal shop, and an electric shop stood side by side. The interior streets also became the site of small industrial buildings, with many spaces used for outdoor storage and junk yards, displacing virtually all of the housing built immediately after the 1906 fire on the west side of Merlin (Madison). By 1950 the only residents of Block 2, except for a few people living above shops and corner saloons, lived in a three-story hotel at the corner of Sixth and Harrison.

Block 2 Archaeological Monitoring

Excavation at Block 2 showed generally a combination of deep disturbance extending into a high water table. This was a poor combination in terms of archaeological survival, which is considered only relatively moderate in the area between Morris Street and Sixth Street and low elsewhere. Unlike the rest of Block 2, this area was always dry land. During monitoring at footing L78C2 on Sixth Street, groundwater was not encountered

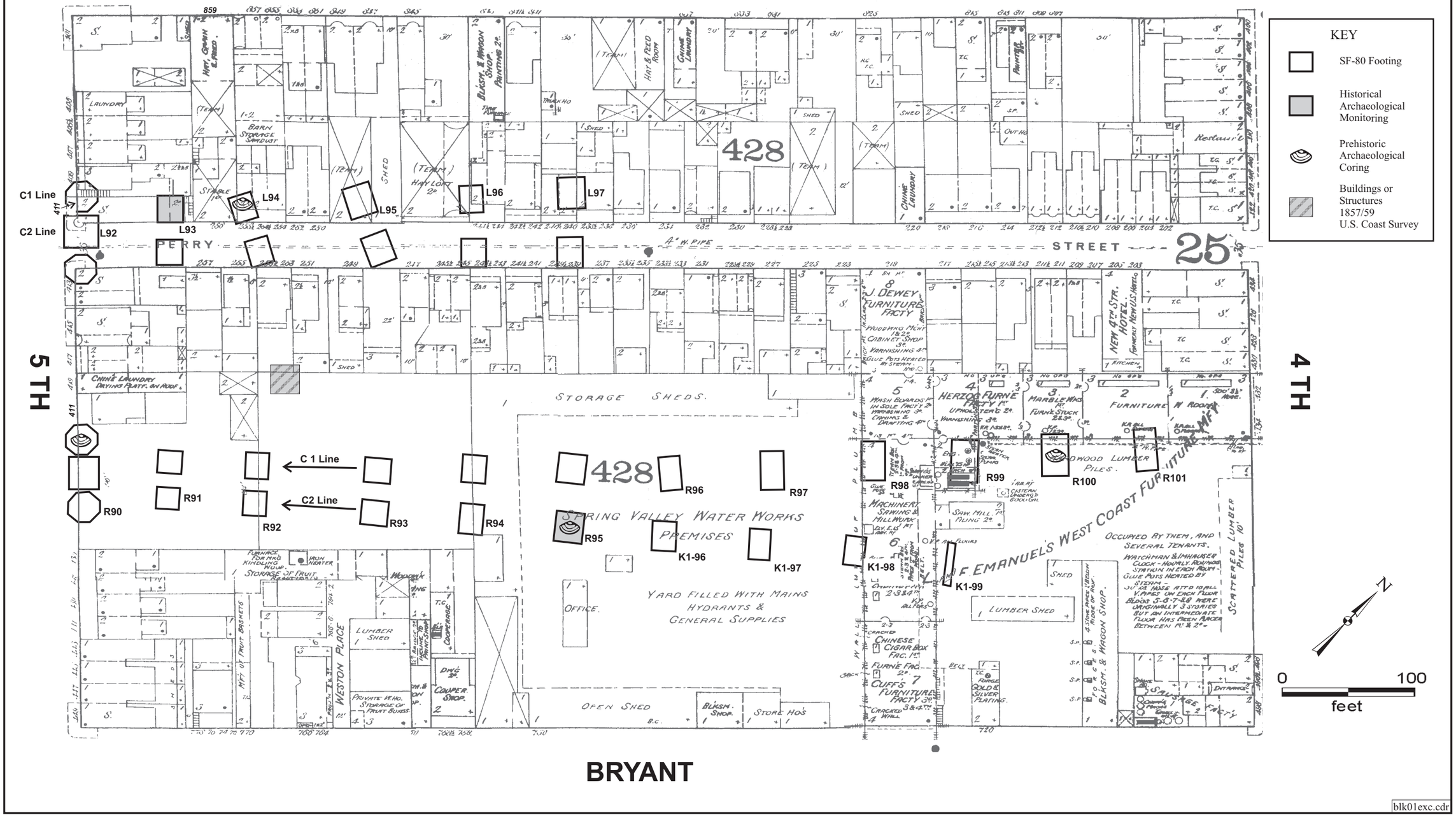


Figure 5.4. SF-80 Bayshore Block 1, 1887 Sanborn map, showing archaeological coring and monitoring locations

in the 6.5-ft.-deep excavation. The potential for survival of historical archaeological features is relatively high in this area.

In the excavations around nine footings between Morris Street and Fifth Street, a high water table was encountered at a 3- to 4-ft. depth, with demolition debris extending into the water table (Figure 5.5). The only archaeological features located were a ca. 1880s trash pit with very few materials at L79C1, the fragmentary remains of a concrete floor, probably dating to the 1930s, in the side of a trench at Bent L87C2, and concrete floors from a 1930s laundry at L89C2. Much of Block 2 between Morris Street and Fifth Street was originally marshland, or low-lying ground adjacent to marsh, as shown on the 1857/59 U.S. Coast Survey map. This explains the high water table. The 1906 horizon was visible in two borings on Block 2, L87C1 and R84C2, from about a 2- to 6-ft. depth. This suggests that much of the evidence for the earthquake and fire may have been destroyed by post-fire construction. The demolition debris appeared generally related to demolition of post-1906 buildings for the construction of the approach to the Bay Bridge. Sand fill was noted in three other borings between 2.3 and 4 ft. in depth. Peat marsh was found at a 10-ft. depth in L82C2; it was covered with sand fill.

Six footings, L82C1, R80C1, R80C2, R82C1, R82C2, and R85C2, were removed from the monitoring list based on field results in adjacent areas. It was considered likely that excavation at these footings between Morris and Oak Grove would show subsurface conditions similar to the previously examined footings. Based on the field information to date, Caltrans was advised that there was no need to further monitor construction on this block, because the footings were expected to have low information potential.

BLOCK 3

Summary

The natural site of Block 3 consisted mainly of marshland located between sandy dry ground near Harrison/Sixth and Bryant/Seventh. The natural site was fairly level and was believed to have remained so. Of all the project blocks, Block 3 was the least altered by filling and grading.

The site of Russ Gardens and the Duisenberg estate in 1857, this block was partially urbanized by the opening of Garden Street in the mid-1860s, with houses along both Sixth and Garden streets appearing on the 1868 Gifford view and the 1867/69 Coast Survey. The opening of the Sixth & Brannan Street horse-car line in the late 1860s facilitated urbanization.

The two 100-vara lots that formed the Duisenberg estate in the 1850s through the 1890s became the Southside Playground following the 1906 fire. The playground remained, with its baseball diamonds and grassy fields, until the building of SF-80 in the 1950s. As such, it represents the only large project-area site not to have been built up with dense housing or industries at one point or another since the founding of the city.

The tenement district on both sides of Harriet (formerly Garden Street) was only partially rebuilt after it burned in 1906. Along Harrison Street, both east and west of Harriet, three-story shops with lodging were constructed, as were some flats along Harriet

Street. By 1950 most of these had been replaced by industries, notably a large commercial bakery and an ice-cream factory. The south half of the block, facing Bryant Street, became the site of a school after 1906, and later of the new Hall of Justice, built in the mid-1950s following the completion of SF-80.

Block 3 Archaeological Monitoring

The 1906 horizon was recorded at seven footings on Block 3—at depths of less than 1 ft. (L73C1) to about 3.5 to 4.9 ft. (R71C1) (Figure 5.6). Two archaeological features, Privy 3 (at R71C2), associated with the Duisenberg family, and Privy 7 (L73C2) were also found at a 5 ft. depth or less. Privy 3 was considered to be CRHR–eligible (Figure 5.7) (see BTR, Chapter 7), but Privy 7, heavily truncated and cut into by footing L73C2, had too few materials to be eligible (see discussion below). A historic pit in dune sand at footing R72C2 was considered ineligible due to lack of materials. Peat/marsh was found in several borings at about 10 to 12 ft. depth covered by sand dune and/or sand fill, which could be found from 2.5 ft. depth. Archaeological preservation and potential are both expected to be good across this block at and below the 1906 demolition debris and dune- or fill-sand interface.

BLOCK 4

Summary

The natural site of Block 4 was marked by sand hills up to 40 ft. high, sloping down to marshlands near Bryant and Seventh. As late as 1864, sand hills still occupied much of this block, with some houses along Harrison Street. In 1868 the sand hills were mostly leveled, though some remained a barrier to the opening of Eighth Street, and hence to the development of the western part of the block. But in the intervening four years, a new grammar school had been built fronting on Eighth Street, and the frontage of Seventh Street was mostly filled by houses. The pond that appeared on the 1857/59 Coast Survey at the corner of Seventh and Bryant was filled in during the 1860s.

The fire of 1906 leveled all of Block 4 except for the southwest frontage on Bryant Street, where a house at 1070 Bryant survived, along with at least part of the complex making up the Yosemite Flour Mills and the California Italian Paste Company. Exceptional within the SF-80 Bayshore Project area, the immediate post-fire reconstruction on the block did rebuild much of the working-class housing along the interior streets. By 1913 Homer and Boyd alleys had much the same look as they had before the fire, with probably a very similar population. A cluster of four earthquake cottages, probably removed from Columbia Square, was sited at the corner of Homer and Chesley.

But even in 1913, new industrial buildings were appearing, with a machine shop occupying the former site of the Golden Gate Flour Mill stables, while a bolt factory replaced residential structures near the corner of Eldridge and Chesley. This pattern of increasing industrial use accelerated in the 1920s and later years. A very large cannery complex, the Workman Packing Company, was built along the middle of the Seventh Street frontage of the block, reaching back to Langton Street.

HARRISON

6 TH

5 TH

MORRIS

OAK GROVE

MADISON

AVENUE

BRYANT

435

C1 Line
C2 Line
L79
L80
R77
C1 Line
R78
C2 Line
L81
L82
L83
L84
R79
R80
R81
R82
L85
L86
L87
L88
R83
R84
R85
R86
L89
L90
L91
R87
R88
R89

KEY

- SF-80 Footing
- Historical Archaeological Monitoring
- Prehistoric Archaeological Coring
- Buildings or Structures 1857/59 U.S. Coast Survey

0 100 feet

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Figure 5.5. SF-80 Bayshore Block 2, 1887 Sanborn map, showing archaeological coring and monitoring locations

HARRISON

KEY

- SF-80 Footing
- Historical Archaeological Monitoring
- Prehistoric Archaeological Coring
- Buildings or Structures 1857/59 U.S. Coast Survey
- **PRIVY 3** CR-eligible
- *Privy 7* CR-ineligible

7 TH

6 TH

BRYANT

0 100 feet

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Figure 5.6. SF-80 Bayshore Block 3, 1887 Sanborn map, showing archaeological coring and monitoring locations



Figure 5.7. Excavation of Privy 3 in hazmat gear and confined-space conditions at Bent R71C2 on Block 3

Many of the houses on Block 4 gave way to industries in the years between 1913 and 1950. All of Homer Street east of Chesley was closed sometime after 1913, and substantial two- and three-story commercial buildings were built extending from Boyd north to Harrison, and reaching back as far as Langton. The Eighth Street Grammar School was reconstructed about 1910 in a substantial, reinforced-concrete building typical of modern city schools of that time. It remained in operation until demolished for the construction of SF-80.

Block 4 Archaeological Monitoring

The 1906 horizon was recorded at seven footings on Block 4 at depths from 1.9 ft. (G2A52C1) to 4 to 5 ft. (L64C3) with dune sand below (Figure 5.8). The brick foundations of the Eighth Street Primary School shown on the 1887 Sanborn were uncovered at L54, helping to assess and verify the accuracy of the Sanborn overlay on the modern construction plan. The foundations of a brick smokehouse were uncovered at Bent G4-62. Geoprobe borings identified a buried soil at 13 ft. in depth overlying a dune at this bent. Borings also identified buried soils at 9 ft. (G4-63); at 27 ft. below a sand dune (R54); at 14.5 ft. (R58); and at 11 ft., beneath a sand dune (R60) (Figure 5.9). Five CRHR–eligible privies were identified. Privy 1, dating to ca. 1870, was located at G4-58; Privy

30, dating to 1882, was located in a clear stratigraphic sequence below a cobblestone surface and the 1906 burn and debris layer at G2A53C1; and Privy 38, dating to 1882, and was located adjacent to Privy 39 (also dating to 1882) at R52C1 (R). Eligible Privy 41 (dating to 1882) was located at G3-61C1, in a location where the historic ground surface remnant survived at 3 ft. in depth (Figure 5.10) (see BTR, Chapter 8). It was adjacent to Privy 40, also at G3-61C1, which was heavily truncated with few materials and consequently ineligible. Septic tank 35 at Bent L63, which had at first appeared to be a privy, was ineligible, with sterile sand fill. Archaeological features were the most numerous on this block. Based on the above results, the potential for survival of historical archaeological features is considered high across this block at and below the 1906 demolition-debris and dune-sand interface.

BLOCK 5

Summary

The Block 5 natural site consisted of sand hills extending down to the shore of Mission Bay. Only the area at the corner of Bryant and Eighth lies within the SF-80 Bayshore Project APE. In 1857 this area exceeded 20 ft. in elevation above mean low tide before grading. This area remained undeveloped through 1867/69 but buildings appeared by 1874. Densely packed one- and two-story row houses and shops were built only to be burned in the 1906 fire. They were replaced with a three-story hotel building occupying the corner lot, with two-story flats along Harrison as far as Decatur. By 1950 the hotel and a corner saloon at Harrison and Decatur remained, but lots that remained vacant in 1913, or had been rebuilt with individual dwellings, became the site of industrial buildings. The remainder of the block, outside of the APE, was mostly devoted to large draying stables and freight storage yards by 1913, which gave way to large industrial buildings by 1950.

Block 5 Archaeological Monitoring

The project corridor just clipped the western corner of Block 5 at Eighth and Bryant streets. Three footings were monitored. Bent R48 was monitored for evidence of historical archaeological survival and revealed only sand fill below construction and demolition disturbance. Geoprobe borings at Bents L49 and R49 located buried soils on marsh at a 12 ft. depth, with dune sand below (Figure 5.11). Apart from the buried soils, there are insufficient data from this small impact area to comment on the archaeological potential of this block

BLOCK 6

Summary

The Block 6 natural site consisted of sand hills in the northern portion of the block extending towards Bryant Street. Tidelands bordered the Brannan Street frontage with Mission Creek passing just outside the corner of Brannan and Ninth. Block 6 was filled by the mid-1850s, the sand hills leveled after 1857, and the present grade established by the 1860s.

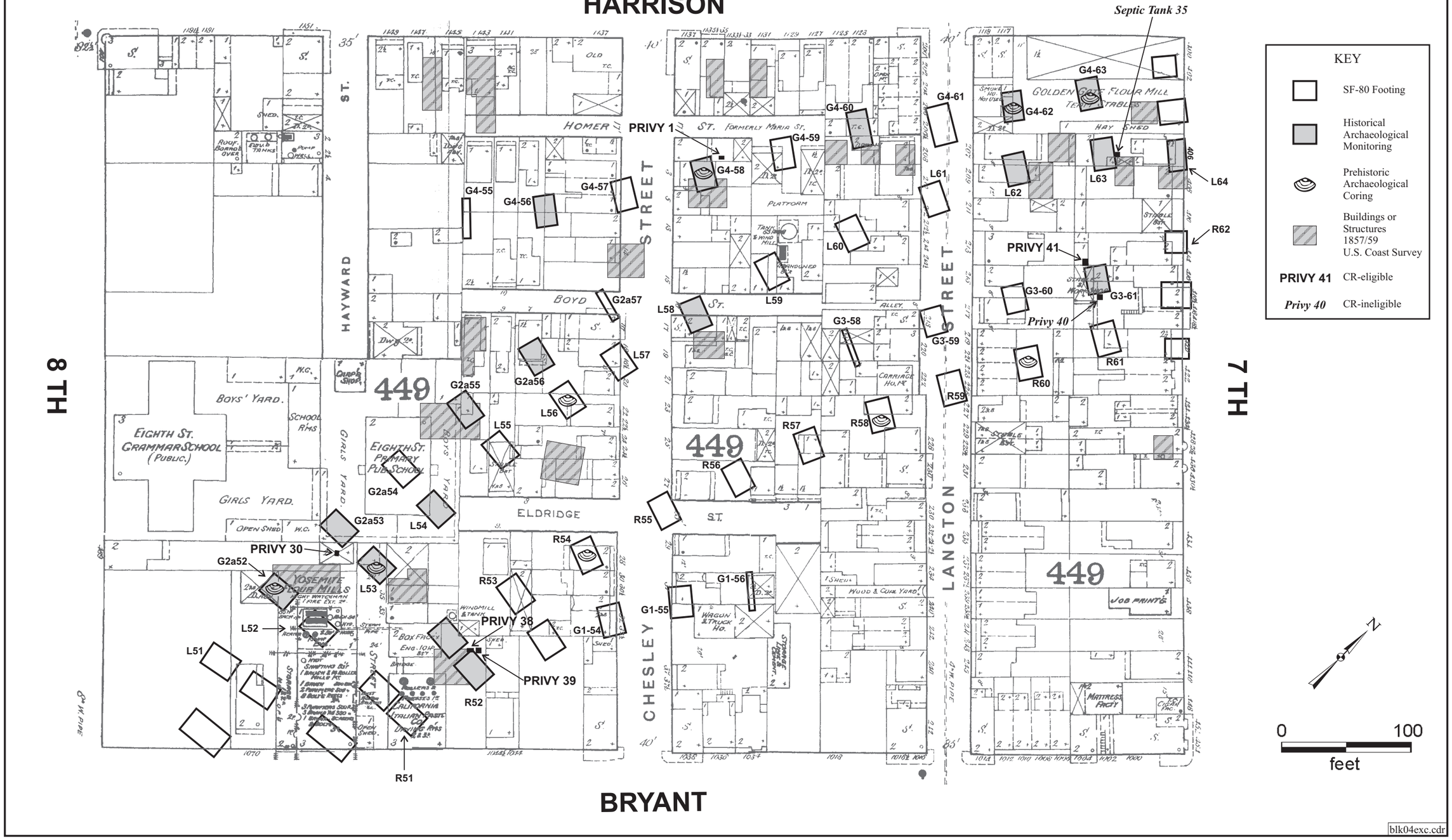

Figure 5.8. SF-80 Bayshore Block 4, 1887 Sanborn map, showing archaeological coring and monitoring locations



Figure 5.9. Monitoring augering at Bent G4-58 on Block 4



Figure 5.10. Bent G2a53 on Block 4. Privy 30 is on the right below the 1906 burn-layer and cobblestone paving.

Within the SF-80 Bayshore Project APE, Block 6 was mostly still vacant in 1887, with the exception of the North German Hotel at the corner of Eighth and Brannan and six houses along Eighth and Converse streets. The site of the hotel, built around 1875-76, is marked—for reasons that are obscure—as the Stanford Free Kindergarten on the 1887 Sanborn. This hotel structure, shown on pre-fire Sanborn maps, reappears on the 1913 Sanborn with the same dimensions. In its isolated corner location, away from surrounding buildings, it may well have escaped damage in the 1906 fire. City business directories show it in operation as the North German Hotel up through 1916-1917. At that time, wartime anti-German sentiment doubtless resulted in a change of name.

Major industry moved onto Block 6 between 1905 and 1913, with the large Enterprise Foundry occupying a site on Brannan Street; the foundry had been burned out of its pre-fire Tar Flat location, and like many foundries rebuilt in an outlying location.

Around 1910 the new Western Pacific Railroad, built to compete with the dominant Southern Pacific on the Salt Lake City to Oakland route, opened its freight yard on this block. The new freight yard covered half of the block, and connected, through tracks over Blocks 7 and 8, to a tunnel under Potrero Hill. The Western Pacific planned to extend this line down to San Jose to hook up with its main line to Salt Lake City, but the costly connection was never built, and the tracks in San Francisco were connected to Oakland through car ferries.

By 1948 the North German Hotel had been demolished and replaced with a gas station, and the Enterprise Foundry was also gone.

Block 6 Archaeological Monitoring

The 1906 horizon was recorded at two locations (Figure 5.12). At Bent L45L a possible burn layer extended from 3.5 to 5 ft. depth and at Bent L46L a 3-in.-thick burn layer was found at 3.3 ft. depth. Both deposits lay beneath disturbed fill and overlaid dune or fill sand. CRHR–eligible Privy 20, dating to ca. 1880, was located at a 5 ft. depth at Bent L46L (see BTR, Chapter 9). Buried soils or marsh deposits were located at depth from 10 ft. to 14 ft. in Geoprobe borings at three locations. Brick foundations were also recorded at a 5 ft. depth at Bent R43R at the back corner of the North German Hotel (Stanford Free Kindergarten) at Eighth and Brannan. The presence of foundations and the privy suggest a strong probability that other historical archaeological features survived on this block.

BLOCK 7

Summary

Mission Creek flowed through the natural site of Block 7. In 1874 the creek was closed above the Ninth Street bridge. Butchertown, dating back to 1854, was centered around Ninth Street and there was the possibility of finding associated cultural materials within the block, although locations could not be specified. With filling, the block was dominated by the large Spreckels Sugar Refinery, built in 1868 and adapted to use as wine vaults and a syrup factory by 1905. The block was undamaged by the 1906 fire. The Western Pacific Railway acquired the block, and by 1913 had laid out yard tracks,

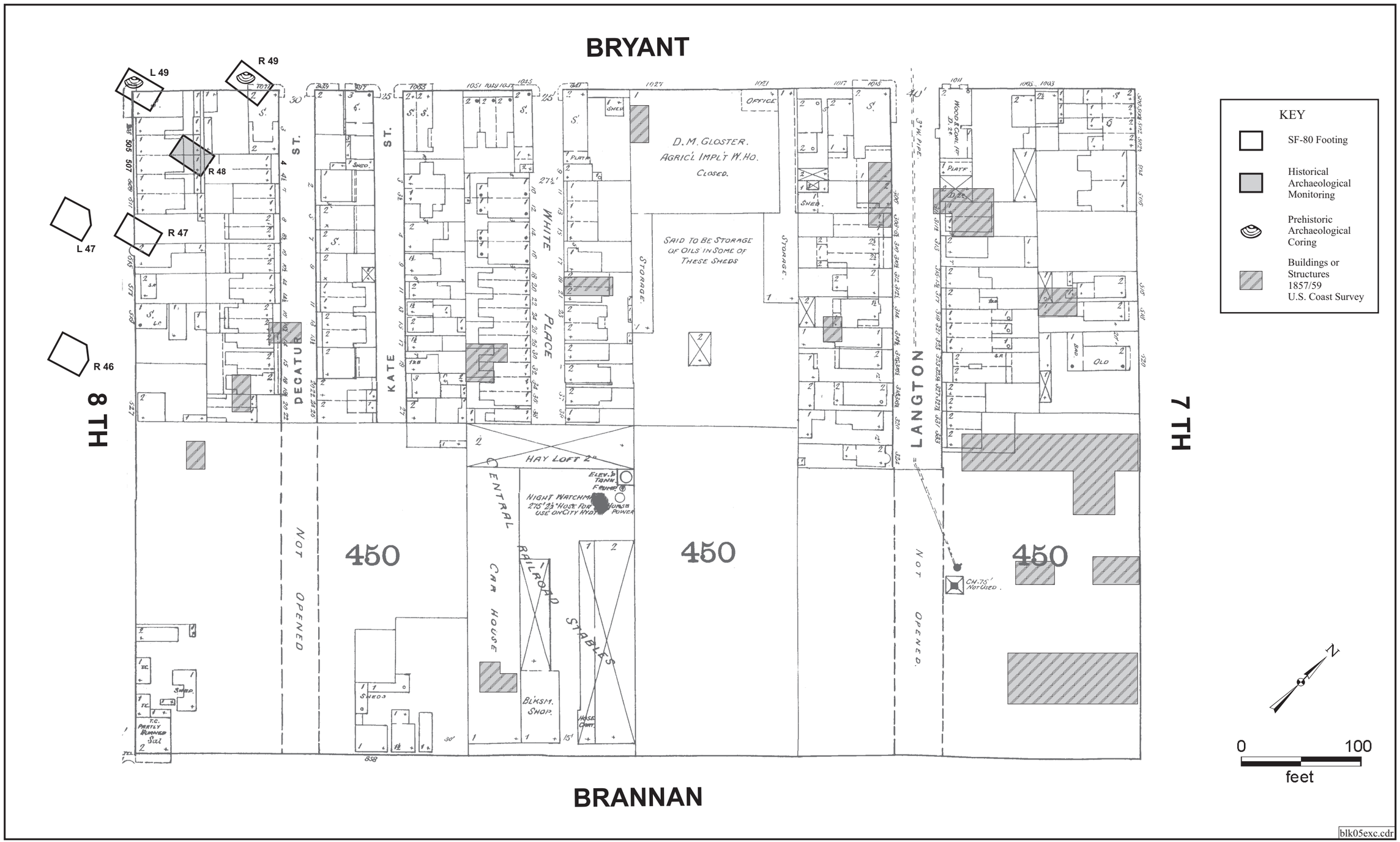

Figure 5.11. SF-80 Bayshore Block 5, 1887 Sanborn map, showing archaeological coring and monitoring locations

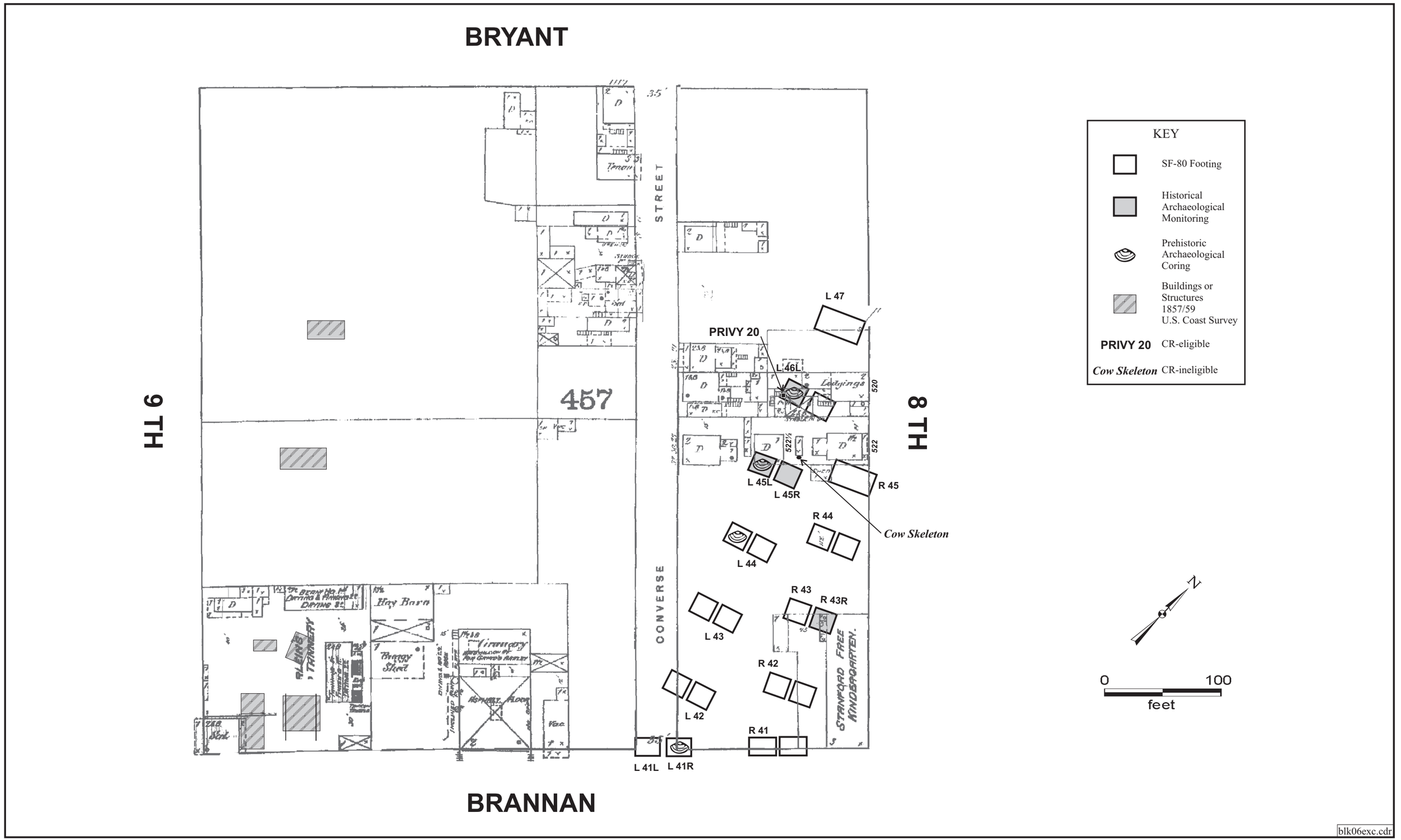

Figure 5.12. SF-80 Bayshore Block 6, 1887 Sanborn map, showing archaeological coring and monitoring locations

demolishing part of the Spreckels Sugar Refinery complex. Another portion of the sugar-refinery buildings remained in use as a warehouse until demolished in the 1950s for the construction of SF-80. The block shows little change in 1948, except for the construction of a chemical and paint warehouse on the site of the turn-of-the-century Army of Heaven Mission.

Block 7 Archaeological Monitoring

Four footings were monitored on this block, targeting structures associated with the Army of Heaven Mission shown on the 1887 Sanborn (Figure 5.13). Three had sheet piles in place before excavation began. This made it impossible to observe stratigraphy around the edges of the excavation area. In all four cases only fill rubble was observed to depths of 5 to 6 ft. Based on monitoring observations, it is possible that fill rubble extends across the block to this depth, but experience on both the other SF-80 Bayshore blocks and the West Approach Project in San Francisco, along with the Cypress Project in Oakland, suggests there can be substantial variation in ground disturbance within a city block. While the available evidence for archaeological survival is negative, it is also insufficient to reach definitive conclusions about the remainder of the block.

BLOCK 8

Summary

The natural site of Block 8 consisted primarily of a free-flowing tidal creek and marshlands, which flooded at high tide. Structures possibly connected with Butchertown appear on the 1864 Gifford's bird's-eye view, but it was impossible to locate them accurately on modern maps. Close to Butchertown and noxious industries such as soap factories, it would have attracted few residents. Too far away to appear distinctly in either of Gifford's bird's-eye views, Blocks 8, 9, and 10 remained geographically distinct from the rapidly urbanizing South of Market during the 1860s. Horse-car lines were not extended south past Eighth and Brannan, and the building of the railroad line across Block 8 created a barrier to further development. The block was probably filled in by the 1870s. It was not until 1874 that the portion of Mission Creek above Ninth Street was officially vacated as a navigable stream (Sharpsteen 1942:115).

From the 1876 Muybridge panoramic photograph, the area of Block 8 can be seen to be treeless and bleak. The earliest available Sanborn, which dates to 1899, shows the block as industrial, with Southern Pacific Railroad tracks and a lumberyard. The project footings were located mostly over rail tracks, a coal yard, and a warehouse. A wagon house and shed on Vermont and Alameda are shown in 1899 with a small house outside the block boundary at this corner. A lumberyard operated at San Bruno and Division. Untouched by the 1906 fire, the most significant post-fire change for Block 8 was the coming of the Western Pacific Railway, whose right-of-way crossed the existing SPRR tracks in 1913. The block was still traversed by rail tracks in 1950, with a hardware warehouse at the corner of San Bruno and Alameda.

Block 8 Archaeological Monitoring

The retrofit project had minimal historical archaeological impact and no footings were selected for monitoring. Geoprobe borings at Bent L28 identified peat at 13 ft., a buried soil at 19 ft., and the Colma formation at 23 ft. At Bent L31, the only change was that the Colma formation was located at a depth of 27 feet (Figure 5.14). Apart from the 1864 structures, the historical archaeological potential on this block is considered low.

BLOCK 9

Summary

The original site of Block 9 bordered marshland towards Vermont. Its development history would have been similar to Block 8. The 1899 Sanborn shows the northern end of the block dominated by the George Lucy & Co. soap works, with five houses mid-block, mostly facing San Bruno. Although not destroyed by the 1906 fire, the block may have seen severe ground disturbance in the 1906 earthquake. The rending and cracking in Dore Street, just west of Block 9, and the leaning of houses along the street, were extensively photographed at the time. The middle of the block remained residential through at least 1913; flats and a rooming house had been added by that time, along with tenement housing, numerous outbuildings, narrow passageways, and a small maze of courts and yards. They were still surrounded by industry, which persisted through 1950.

Block 9 Archaeological Monitoring

One footing, Bent L22, was monitored for historical archaeological features (Figure 5.15). It traversed the backyards of two houses along San Bruno in 1899. Sheet piling was inserted around the excavation area before trenching began, making it impossible to record stratigraphy in the side of the trench. Only construction backfill of sand, clayey sand, and demolition rubble was observed in the excavation area. Geoprobe borings at Bents L21, L23, and L25 identified buried soils from a 9 to 13 ft. depth, overlying the Colma foundation from 13 to 17 feet. The available evidence from Bent L22 is negative for archaeological survival on this block, but it is also insufficient to reach definitive conclusions about the remainder of the block. This is especially so as the 1899 Sanborn map shows six residences along with the soap works.

BLOCK 10

Summary

The natural site of Block 10 was mostly marshland. The earliest available 1887 Sanborn shows the Metropolitan Match Co. occupying most of the block. A pond covers the corner of 15th and Vermont. The 1887 Sanborn shows Chinese Quarters attached to the Match Company and a single residence on 15th and San Bruno in 1887; both are of potential historical archaeological interest. The block, which was untouched by the 1906 fire, remained largely industrial though 1950.

BRANNAN

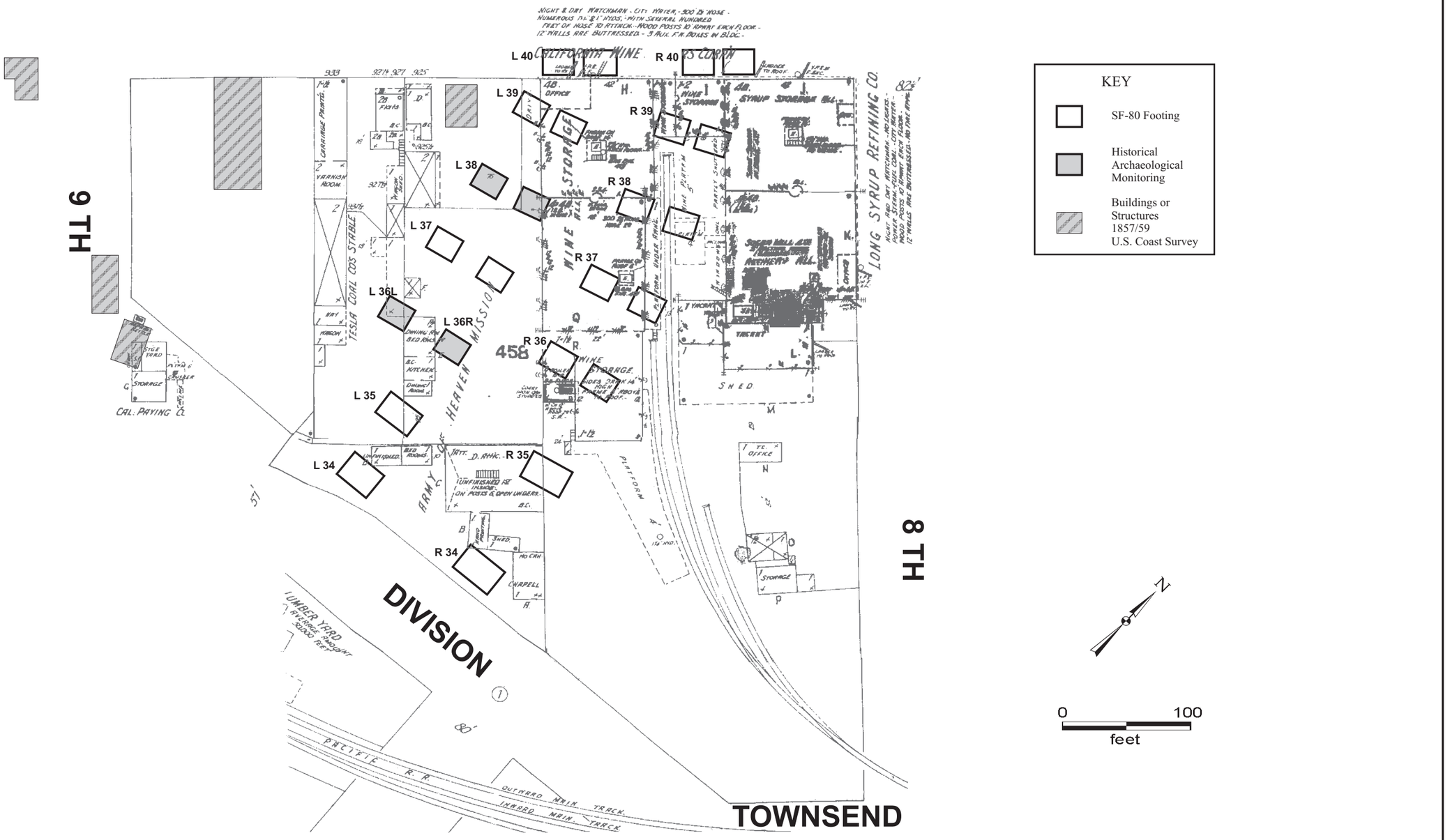

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Figure 5.13. SF-80 Bayshore Block 7, 1899 Sanborn map, showing archaeological monitoring locations

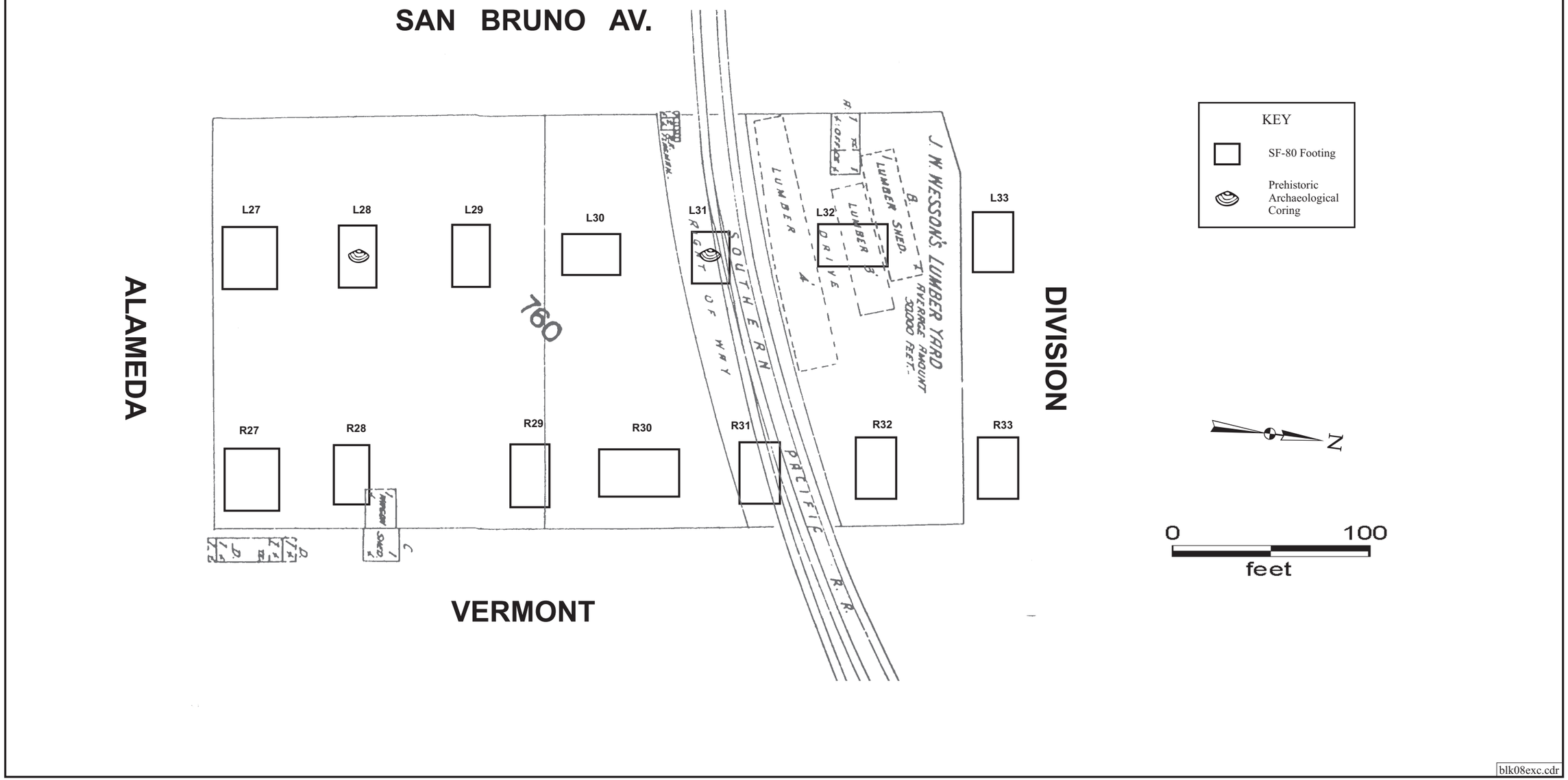


Figure 5.14. SF-80 Bayshore Block 8, 1899 Sanborn map, showing archaeological coring locations

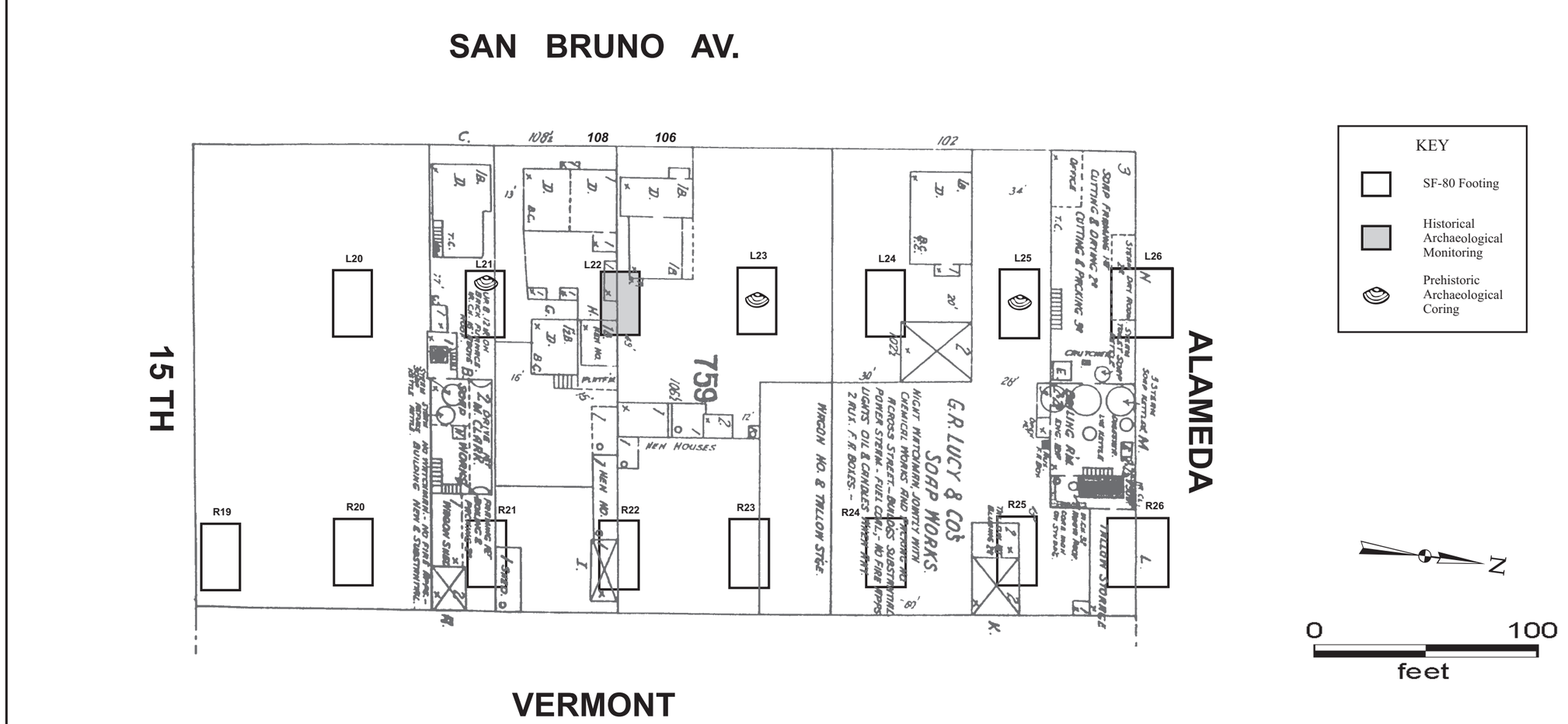


Figure 5.15. SF-80 Bayshore Block 9, 1899 Sanborn map, showing archaeological coring and monitoring locations

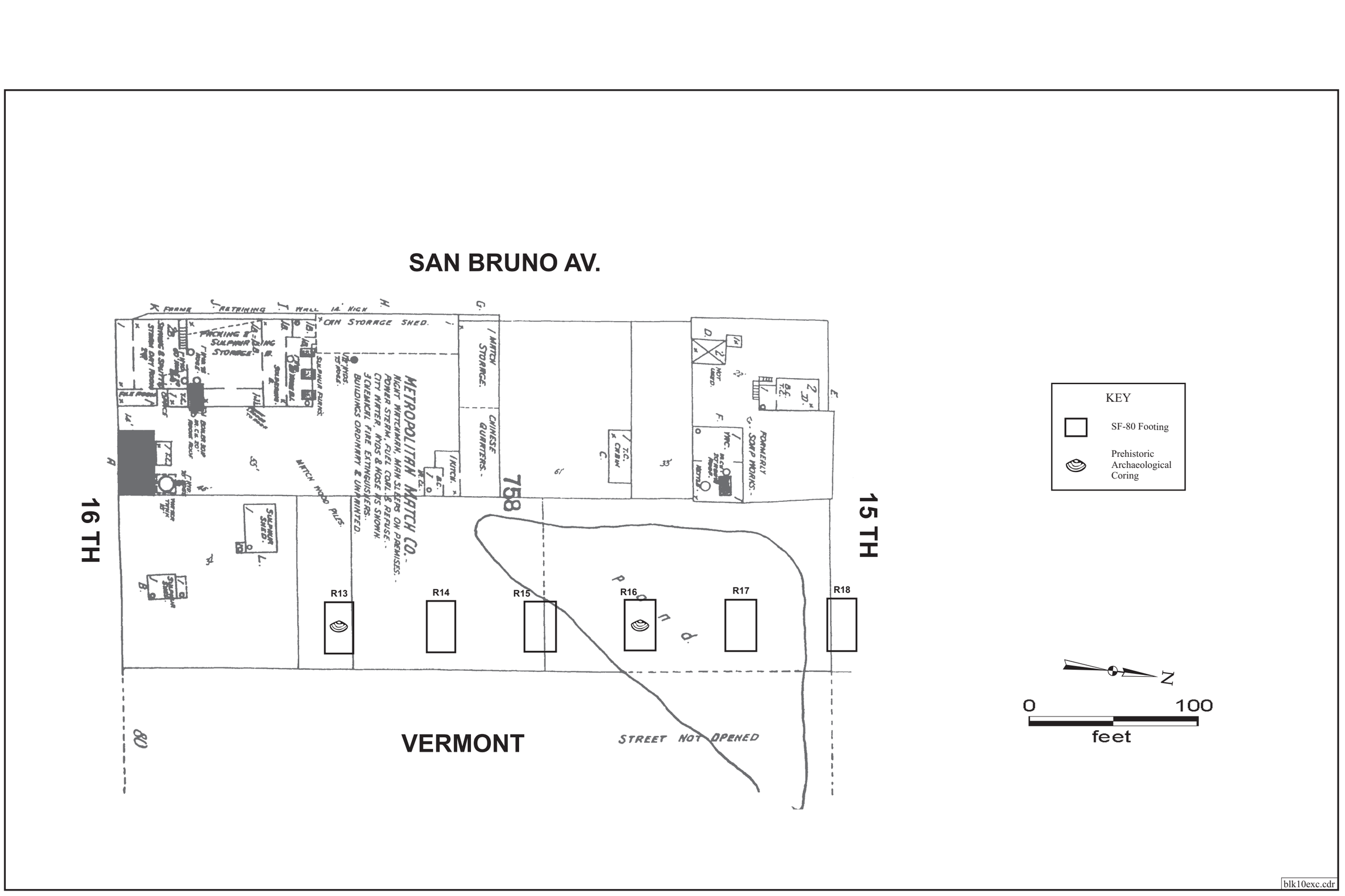


Figure 5.16. SF-80 Bayshore Block 10, 1899 Sanborn map, showing archaeological coring locations

Block 10 Archaeological Potential

The footing retrofit did not impact any of the areas or structures with historical archaeological potential, and monitoring for historical archaeological features was not recommended. The historical archaeological potential of this block remains undetermined. Geoprobe borings at Bent R13 identified a buried soil at 7 ft. on top of the Colma formation. At Bent R16 Geoprobe borings identified a buried soil at 13 ft., peat at 18 ft., and the Colma formation at 28 feet (Figure 5.16).

CALIFORNIA REGISTER EVALUATIONS

As per the SF-80 Bayshore Project RDTP, the majority of significance evaluations were made in the field as features/strata were uncovered during construction. Sheet-refuse deposits associated with the 1906 earthquake and fire are tabulated on Table 5.2 and discussed below. The surfaces available in the bent constructions were not large enough for these strata to achieve research importance beyond that of stratigraphic markers. Two trash pits, a septic tank, and a privy contained very few materials and were evaluated as ineligible using the AIMS-R criteria in the field. The features contained few, if any, datable items; lacked integrity and focus; and could not be linked with historical associations.

Caltrans archaeologists frequently visited the construction site, particularly when archaeological deposits were encountered. They participated in the on-site evaluations. Monitoring findings and significance evaluations were documented in detailed monthly reports to Caltrans.

Privy 7 was returned to the lab for evaluation, where it was determined to be ineligible. Seven privy features meet the AIMS-R criteria and possessed sufficient integrity and focus to address the project research questions. These are listed on Table 5.3 and described in detail in Part IV.

INELIGIBLE FEATURES

1906 Deposits

The 1906 earthquake and fire led to a massive episode of dumping and filling as much of the city was cleared away and rebuilt. Despite the event's significance in the history of San Francisco, fill materials associated with it are not necessarily CRHR-eligible. They may be more likely to be so if associated with a particular structure or household. Sites that date to this period may assume legal importance in the future; for now, they serve effectively as a reliable stratigraphic time marker. Deposits related to the 1906 fire and earthquake were present in 19 footings. They were visible only in the sides of excavated trenches and were represented by construction rubble, black burnt wood, and sand oxidized red by in-situ burning. Only occasional ceramics or broken and burnt bottles were visible. Surface exposures were limited to no more than a few inches of deposit, as the trench section was straightened for drawing and photography. Despite the in-situ sand burning, there was no way of determining if the materials in the 1906 deposits

Table 5.3. Filled Archaeological Features Evaluated for the SF-80 Bayshore Project

Block	Feature	Address	Bent	Comments / Association	Date	CR-Eligibility[1]
2	Pit	405 Sixth	L79C1	Too few materials, no context number assigned.	1880s	Ineligible
3	Pit	10 & 12 Garden	R72C2	Too few materials, no context number assigned.		Ineligible
3	Privy 3	1031 Harrison	R71C2	Family of German merchant Charles Duisenberg.	1888	Eligible
3	Privy 7	6 Garden	L37C2	Too few materials to assign date or association.	1880s	Ineligible
4	Privy 1	3 Maria	G4-58	Family of Irish glass-cutter Thomas O'Neil.	1870s	Eligible
4	Privy 30	36 Kate	G2A53C1	Family of Irish widow Anne Mills.	1882	Eligible
4	Septic tank 35	406 Seventh	L63	Sterile sand fill.		Eligible
4	Privy 38	31 Kate	R52C1(R)	Family of Irish laborer Anthony Dean.	1882	Eligible
4	Privy 39	31 Kate	R52C1(R)	Family of German express-man John Wendt.	1882	Eligible
4	Privy 40	414-416½ Seventh	G3-61C1	Severely truncated, sterile sand fill.		Ineligible
4	Privy 41	414 Seventh	G3-61C1	Family of Irish porter Andrew Buckley.	1882	Eligible
6	Privy 20	520 Eighth	L46L	Lodging house, mainly Irish laborers.	ca. 1880	Eligible
6		522 Eighth	L45R	Cow skeleton. No artifacts.		Ineligible

[1]Eligible features are discussed in Part IV, Chapters 7-9.

were local to the footing area or had been transported by heavy equipment to this location following post-fire demolition. Lack of artifacts, lack of deposit volume, and lack of provenience meant that the deposits served as effective time-markers but as little else, and the few recovered artifacts were of curiosity or display value only. Neither the artifacts nor the deposits could effectively contribute to research questions, which would seem to require substantial open-area exposure of provenienced 1906 deposits.

Privy 7

Privy 7 was discovered during monitoring at Block 3, Bent L73C2, with archaeological targets of 1031 Harrison and 6 and 6-1/2 Garden Street (Figure 5.17). This 7.5-ft.-long by at least 3-ft.-wide by 1-ft. 4-in.-deep privy was severely truncated at the top by freeway construction and on the west side by the cut for the adjacent concrete freeway footing, which had removed a large part of it. It contained one major sand fill,



Figure 5.17. Privy 7 between the footing and the shoring at Bent L73C2 on Block 3

Context 181, overlying four smaller sand fills, Contexts 183, 184, 185, and 186. The feature may have been open for a while prior to filling, and some of these fills may have been wind-deposited. Context 181 was impacted by construction rubble. Most of the artifacts were found in Contexts 184 and 186: ceramics, bottles, lamp and flat glass, bone, buttons, cut nails, and slag—all in low quantities with no tight diagnostics. This deposit appeared to be a furnace or stove cleanout. Context 186 had a similar variety of materials, including an octagonal aqua Cathedral bottle but, again, in low quantities. The wood lining was in poor condition and collapsing inward from the weight of overburden. The artifacts concentrated around the perimeter, thinning out towards the center. The bottom of the privy was irregular, varying by up to 5 inches. There was no evidence of primary privy deposit.

The privy was located at 6 and 6-1/2 Garden Street behind one of the tenements built by Adolph Russ in the 1860s. Historical research determined that Irish butcher Michael Whearty lived at 6 Garden with his wife and three children from 1876 to 1880.

Roger Carlisle, an Irish laborer, lived at 6-1/2 Garden in 1880 with his wife and mother-in-law. No earlier tenants could be found in documentary sources for either address.

The materials were brought to the ASC lab, where they were washed and preliminarily cataloged. Only one marked item was recovered: a Hope & Carter saucer dating from 1862 to 1880. The collection included a total of 166 items, with an MNI of 56 (Table 5.4). The faunal material was low status, with a lot of pork. Much of it was burned/calcined. With no firm historical association and limited artifact quantity, Privy 7 was evaluated as ineligible to the CRHR due to a lack of visibility and focus and an inability to address the SF-80 Bayshore Project's research questions.

Table 5.4. Ineligible Privy 7 – Artifact Descriptions by Group and Category

Group and Category	Description	Count	MNI
ACTIVITIES			
Games			
-	Bone Domino	2	1
Subtotal Games		2	1
Writing			
-	Graphite Pencil Lead	1	1
-	Slate Pencil	4	3
-	Slate Tablet	1	1
Subtotal Writing		6	5
DOMESTIC			
Food			
Closure	Aqua Glass Club-sauce Stopper	1	1
Container	Aqua Glass Pepper-sauce Bottle	1	1
Subtotal Food		2	2
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Cordial Glass	1	1
Drinking Vessel	Colorless Glass Goblet	2	1
Drinking Vessel	Colorless Glass Stemware	1	1
Drinking Vessel	Colorless Glass Tumbler	1	1
Drinking Vessel	Porcelain Cup	3	1
Drinking Vessel	White Improved Earthenware Cup	3	3
Serving	Porcelain Sugar?	4	1
Tableware	Copper-alloy Spoon	2	1
Tableware	Porcelain Plate	1	1
Tableware	Porcelain Plate, 7"	7	1
Tableware	White Improved Earthenware Plate, ~ 7 1/2"	2	1
Tableware	White Improved Earthenware Plate, ~ 9"	6	1
Tableware	White Improved Earthenware Saucer	7	1
Subtotal Food Prep/Consumption		40	15
Heating/Lighting			
Lamp	Colorless Glass Chimney	12	1
Subtotal Heating/Lighting		12	1
INDEFINITE USE			
Indefinite			
-	Cinder Waste	14	
-	Coal Fuel	2	
-	Colorless Glass Caster? Bottle?	1	1
-	Colorless Glass Disk	3	1
-	Colorless Glass Hollow	1	1
-	Colorless Glass Lamp?	9	1
-	Ferrous and Rubber Pulley Wheel? Closure?	1	1
-	Porcelain Hollow	1	1
-	Slag Waste	24	

Table 5.4. Ineligible Privy 7 – Artifact Descriptions *(continued)*

Group and Category	Description	Count	MNI
Indefinite *(continued)*			
-	White Opaque Glass Hollow	1	1
Subtotal Indefinite		57	7
Misc. Containers			
-	Aqua Glass Bottle	8	4
-	Colorless Glass Bottle	4	2
-	Colorless Glass Bottle?	1	1
-	White Opaque Glass Jar	1	1
Subtotal Misc. Containers		14	8
Misc. Metal Items			
-	Copper-alloy Strap? Hinge?	1	1
Subtotal Misc. Metal Items		1	1
PERSONAL			
Clothing			
Fastener	Copper-alloy Hook	1	1
Fastener	Porcelain Button	4	4
Subtotal Clothing		5	5
Grooming			
Closure	Aqua Glass Perfume/Cologne Bottle	12	1
Subtotal Grooming		12	1
Social Drugs - Alcohol			
Container	Olive Glass Alcoholic-beverage Bottle	2	1
Subtotal Social Drugs - Alcohol		2	1
Toys			
-	Porcelain Doll	2	2
Tea set	Porcelain Cup	2	2
Tea set	Porcelain Saucer	1	1
Subtotal Toys		5	5
STRUCTURAL			
Hardware			
-	Copper-alloy Door Key	1	1
-	Ferrous Cut Nail	3	3
Subtotal Hardware		4	4
Material			
-	Colorless Glass Window	2	
Subtotal Material		2	
UNDEFINED USE			
-	Amorphous Glass	2	
Subtotal Undefined Use		2	
TOTAL		166	56

Part IV: Historical Archaeology Block Technical Reports

The purpose of the BTR is to assemble, organize, and present the technical data that concern the CRHR-eligible features discovered on a particular city block. A BTR includes all the information that an archaeologist would need in order to reconstruct the conduct of the investigation, to assess the accuracy of ASC's interpretations, and to use the raw data for comparison with other sites. Each BTR chapter is organized hierarchically in three parts, from the broadest information to the most specific. Information is presented in tables and graphics, with narrative kept to a minimum.

- The first part is a block overview, which provides a brief summary of the results of the investigation. Included are a thumbnail history of the land use of the block and block maps through time.
- The second part presents information on the level of a parcel or group of related parcels containing important feature(s). Presented are a summary of occupation and ownership history, and a summary of the important features or analytical units on the parcel.
- The third level focuses on the features or analytical units themselves, providing sufficient data to allow researchers to evaluate ASC's interpretations. Thus, the section presents descriptions of the feature's structure and stratification, relationship to other features, content, date of deposition, and historical associations, and provides detailed tables describing each feature's artifact assemblages.





CHAPTER 6
LABORATORY AND RESEARCH METHODS

LABORATORY METHODS

The laboratory methods for the SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project) were developed for use on late-19th- to early-20th-century stratified urban deposits, in which the most common features to be excavated are privies, pits, and wells containing large quantities of artifacts. These hollow features are usually filled over a relatively brief period of time, often representing a single event. The sections below describe the methods used to process and catalog the collections. The Anthropological Studies Center (ASC) has been using these methods for over a decade on dozens of sites, resulting in a suite of archaeological databases that are truly comparative.

All artifacts and other recovered cultural materials remain the property of Caltrans; the collection will be permanently curated at the Archaeological Collections Facility at Sonoma State University, Rohnert Park, California. In addition to the artifacts and the faunal and floral remains, the facility will also archive copies of the field notes and drawings and the final report.

PROCESSING PROCEDURES

For each context (numbered field stratum) from an CRHR-eligible feature, all recovered materials were taken to the laboratory facilities of the ASC at Sonoma State University, where they were cleaned, sorted by material type, permanently labeled with a number, and cataloged. A provenience-based numbering system that includes two elements was used: the main catalog number represents the context, or layer, from which the artifact was recovered, while the subcatalog number is an assigned sequential number, beginning with 1 for each artifact or lot (group of like artifacts), within a context.

Once labeled, the artifacts were grouped by feature and cataloged. As each material class (ceramic, glass, metal, and other) was laid out, artifacts were first crossmended within contexts and then throughout the feature. Information on crossmends between contexts and features was subsequently used, in conjunction with stratigraphic data, to interpret the history of the deposit. Ceramics were grouped by fabric and then sorted by form, function, and decoration. Makers' marks and identifiable patterns were researched to ascertain origin and date range.

Glass artifacts were initially sorted by color and then by form: tableware/serving/drinking use, bottles, or windowpane. Tableware/serving/drinking items were cataloged by color, form, function, and decoration. Bottles were cataloged by color and function, where bottle shape, finish type, or embossment was used to determine original bottle contents. Temporally diagnostic manufacturing techniques were noted where applicable. Embossed and marked items were researched to identify manufacturer, contents, origin, and date range. Window glass was counted, weighed, and discarded.

Metal artifacts were identified by material and function. Complete nails were counted and measured while fragments were sorted, nail heads counted, and the lot weighed before being discarded. Marked items were researched, identified, and dated where possible. Nondiagnostic items were counted, weighed, and discarded. Other artifacts—such as buttons, slate pencils, tobacco pipes, and game pieces—were identified by material and function. Marked items were researched to identify manufacturer, origin, and date.

Once the collection was processed, photography began. Artifacts from the seven privy features were laid out and photographed as a group, and close-up vignettes were taken of selected artifact groupings. Both were photographed in black-and-white prints and color slides.

FUNCTIONAL CATEGORIES

The artifacts are presented in the artifact catalogs and summary tables according to a general functional classification based on Stanley South's (1977) categories, which have been modified and expanded for use with mid-19th- to early-20th-century sites in the western United States. The materials are separated into broad Group divisions and then further split into Class and Subclass. For the purposes analytical research and intrasite comparison, the Class division is the most versatile level, allowing a comprehensive range of functions while maintaining a manageable aggregate of categories.

Most group and class names have been used by the ASC for nearly two decades, while some have been slightly altered over time. A new label, Social Drugs, was recently chosen to replace Indulgences—an outmoded and somewhat ambiguous term. Table 6.1 provides a list of the classifications used to define functional types for this project.

MINIMUM NUMBER OF ITEMS (MNI)

When artifacts are quantified in a standard analytical manner, they can be used for intrasite and intersite comparison and analysis. MNIs are the minimum number of individual items (not the number of fragments) represented in an artifact collection (e.g., a bottle broken into 10 fragments is still only 1 item). The kind of artifact-dense deposits encountered on the SF-80 Bayshore Project investigations lend themselves particularly well to determining item counts, as so many objects were discarded intact.

After crossmending was completed, the artifacts were cataloged and the MNI was determined. Each intact object (e.g., complete unbroken bottle) received an MNI of 1. Items that crossmended and were reconstructable, with no missing pieces, were also given an MNI of 1. The remaining artifacts were carefully studied to ascertain whether non-crossmending items could be from the same item. For example, saucer rim sherds that did not physically mend but were of the same material, curvature, thickness, glaze, and decoration were considered associated and given an MNI of 1 for the lot. Similarly, fragments representing unique decorative patterns or forms would each be given an MNI of 1. When it was determined that items conceivably could be from the same object, an MNI of 1 was assigned to the group. All items with markers' marks that could

Table 6.1. Artifact Catalog Categories, SF-80 Bayshore Project

Group	Class	Subclass Examples
Activities	Advertising	pins, signs
	Animal Husbandry	horseshoes
	Collecting	stalactites, coral
	Commerce	coins, banks, scale pans
	Entertainment	music (e.g., harmonicas), games (e.g., checker pieces, dominos)
	Firearms	guns, ammunition
	Painting	paint brushes, paint cans
	Pets	bird feeders, dog collars
	Tools	axes, files, folding rulers
	Transportation	carriage parts, harness parts
	Writing	pens, pencils, ink bottles
Domestic	Clothing/Footwear Maintenance	needles, bluing balls, shoe polish bottles
	Food Prep/ Consumption	kitchen (e.g., baking pans, skillets), serving (e.g., platters, teapots), tableware (e.g., plates, forks), drinking vessels (e.g., tumblers, stemware, cups)
	Food/Food Storage	canning jars, crocks, retail food containers (e.g., pickle bottles, Worcestershire sauce bottles)
	Furnishings	furniture, flower pots, vases, pictures
	Heating/Lighting	lamps and chimneys, light bulbs, candle holders
Indefinite Use	-	identified items with more than one potential original use
	Misc. Beads	beads with more than one potential original use
	Misc. Closures	closures associated with contents of indefinite use
	Misc. Containers	bottles, jars, and cans with unidentified contents
	Misc. Metal Items	hardware metal artifacts (e.g., wire, sheet metal) items with more than one potential original use (e.g., bells)
Industrial	Machinery	spark plugs, gears
Personal	Accoutrements	purses, eyeglasses, jewelry
	Clothing	garments, buttons, clothing buckles
	Footwear	shoes, shoe eyelets
	Grooming/Health	toiletry items (e.g., perfume bottles, brushes, chamber pots), medicine bottles (e.g., patent/ proprietary, pharmacy, bitters, vials), syringes
	Social Drugs	retail alcoholic-beverage containers and closures (e.g., wine, beer, champagne, distilled beverages), spittoons, pipes, opium lamps
	Toys	dolls, tea sets, marbles
Structural	Fixtures	sinks, toilets
	Hardware	hinges, brackets, nails
	Materials	window glass, brick
Undefined Use	-	unidentified items (e.g., melted glass, amorphous metal), slag, coal

not be associated with other items in the feature received an MNI count. Unmarked/ Nondiagnostic fragments that conceivably could be associated with marked/ diagnostic items did not receive an MNI. Artifact fragments that exhibited form, color, material, or function unique to a feature were assigned an MNI of 1 (e.g., a single cobalt-blue glass bottle body fragment where there was no other cobalt-blue glass in the feature).

Artifacts that always would have been used together also received on MNI of 1 (e.g., teapot and lid, lid with drainer and dish of a soap-dish drainer). Using this criterion, objects of different materials could be combined and given an MNI of 1 (e.g., a glass nursing bottle with its associated ceramic cap, a glass beer bottle and its associated ferrous crown cap). Items that are often considered a set but not always used or even purchased together, such as a cup and saucer or a washbasin and pitcher, were each given a separated MNI. Shoes were given MNIs based on pairs (e.g., 3 shoes of the same size, 2 left and 1 right, were given and MNI of 2); shoe-related paraphernalia, such as eyelets, were not given an MNI when located in contexts with shoes. Since eyelets were used with items other than shoes, they were each given an MNI when not found in a context with shoes. Similarly, individual buttons were given MNIs, as it was not feasible to assign button counts to separate items of clothing. Another artifact type for which it is difficult to determine MNI counts is beads: for example, a single lamp whimsy could container hundreds of beads of various styles and colors. When a function could not be determined, each bead received an MNI of 1.

Building material was sampled in the field and, unless marked or of architectural interest, was not brought back for cataloging. Nails were also sampled in the field. Without knowing the original window size, it is difficult to establish an MNI for window glass; therefore, fragments were counted but not assigned an MNI. Finally, amorphous items (e.g., melted glass, rusted metal lumps) were not assigned MNIs. The proportion of Undefined items varies due to differential preservation within features; since they cannot be identified, they were not given MNI counts.

DATING METHODS

All artifacts were studied to determine if they were temporally diagnostic. When present, ceramic makers' marks were noted and researched to ascertain manufacturer's dates of operation; named decorative patterns were also investigated and dated where possible. Where relevant, decorative techniques with known dates of production were noted (e.g., decalcomania became popular in the 1890s). As a result of the McKinley Tariff Act in 1891, all foreign-made items, including ceramics, were required to bear the name of the country of origin. Marks without country of origin must date before this act and were assigned an end date of 1891 or earlier. Ceramic Registry marks—assigned to ceramic patterns and shapes that were registered with the Patent Office in London—functioned as a form of patent protection and were good for a period of three years from date of issue. For dating purposes, when a Registry mark was present on a ceramic artifact, the date range assigned was three years from the date of Registry mark issue. Thus a Registry mark of August 22, 1856, would have a date range of 22 August 1856-1859. When makers' mark end dates were later than the date that the lot address was open for deposition, the date of lot closure was used as the end date. For example, if an

item with a ceramic mark utilized between 1885 and 1946 was found in a feature on a lot that was paved over in 1938, the date range would be 1885-1938.

Glass artifacts with embossments and/or makers' marks were noted and researched to determine place of origin, contents, and production date ranges. Date ranges were based on when the company was formed, when it changed ownership or moved to a new address as listed in the embossment, and when the product was patented. By using both the bottle manufacturer and the bottle contents manufacturer, date ranges were refined. Temporally diagnostic manufacturing techniques were also used for dating. For instance, the crown cap was introduced in 1892; if a bottle company was in business from 1880 through 1920 and the bottle had a crown finish, a beginning date of 1892 would be assigned. Pressed-glass patterns were studied and identified where possible. Occasionally patterns could be dated or assigned a probable manufacturer. Finally, some glass items retain patent dates (e.g., glass illuminators), which were recorded.

ARTIFACT TABLES

The artifacts from each analytical unit (either a single context or a group of related contexts) are described in several types of tables that focus on different descriptive attributes, such as function, decoration, and dating information, while specific functional types are presented in their own tables where appropriate. Some artifact types—such as building material, window glass, buttons, beads, and amorphous items—are not included in the artifact group summary tables, although they are mentioned in the MNI section. These types of items may help understand the circumstances of deposition, but are often otherwise meaningless and tend to skew comparisons between deposits. Likewise, each food-refuse subclass (seeds, shell, and bones) is summarized in its own individual table. Inclusion of counts from even relatively small assemblages of these remains can potentially multiply total counts manifold, reducing all other artifact types to a small percentage of the total. Further, the presence or absence of small ecofacts, such as fish bone or seeds, can be a function of differing preservation or varied sampling strategies among features, greatly reducing the comparative research value of this information.

FOOD-REFUSE ANALYSIS: FAUNAL REMAINS

The methods used for processing and analyzing faunal material from the SF-80 Bayshore Project developed from those used on the Cypress Archaeological Project. Both were based on the BABAS system (Bone and Butchering Analysis System) developed by Sherri Gust (2001). The technology has been improved in the form of new and more useful software standards, while the specific recording methods also evolved, with changes in the measuring, quantifying, and application of meat data. The development of the system resulted in a change in both the appearance and content of the faunal tables and worksheets from those used originally on the Cypress Project. Detailed below are the methods of identification and analysis.

Two of the primary goals of the analyses were the calculation of meat weight and the determination of the price range of the meat cuts represented. Arriving at these

determinations, which became the basis for the meat-weight analysis system, required a great deal of research. The source material needed to quantify meat type and retail cut was assembled by Sherri Gust from United Sates Department of Agriculture diagrams (e.g., Anonymous 1929b; Dowell and Bjorka 1941; Edinger 1933; Hall 1912; U.S. Agriculture Adjustment Administration [USAAA] 1940), supplemented by information from analysis of butchering patterns. Weights of wholesale and retail cuts of major meat animals were obtained from a variety of sources (Anonymous 1929b; Ashbrook 1955; Dowell and Bjorka 1941; Edinger 1933; Hall 1912; USAAA 1940).

Other information had to be acquired on a project-specific basis, including regional and temporal factors that must be taken into account when ranking meat weights by price. In this case, prices were obtained from 19th-century Oakland and San Francisco butchers. Sherri Gust garnered the information from numerous Oakland repositories and local newspapers for the late 19th century. Based on this information, various retail cuts from each major meat animal were ranked High, Moderate, and Low.

For animals that were usually purchased whole, such as small mammals and birds, meat weights were calculated as the mean number of individuals (MNI) multiplied by the net quantity of usable meat for the particular species. These values were obtained from a variety of sources (Eschmeyer and Herald 1983; White 1953). Meat weights for these animals and for the major meat animals are estimates only, based on market-weight averages for the meat type, and retail cut.

The faunal specimens were received by the faunal lab in clean condition, labeled and sorted by context. Items that could not be labeled because of small size or poor condition were contained in bags labeled with the appropriate provenience information. All faunal materials were processed by block number and by the features within that block designation. As a statistical standard, 100 was chosen as the minimum number of identifiable specimens required for analysis. In the first step of the process, all the labeled faunal material was removed from its packaging and spread out on a table. The initial sort involved grouping by general animal categories (avian elements, small and very small mammal, medium and large mammal, fish, shellfish). The medium to large dietary animals (cow, sheep, pig, and occasionally cervid) were further divided by element during the first sort. All fish remains were separated from the collection at this time and rough-sorted.

Information on provenience (archaeological block, feature, and level), taxon (cow, sheep, etc.), element (humerus, femur, rib, etc.), portion (part of an element), side, epiphyseal-fusion status (degree of bone-suture closure, to determine age at death), butchering cuts, tool marks (saw, knife, ax, etc.), taphonomic factors (burning, weathering, and gnawing), and cultural modification (shaping, polishing, etc.) were recorded for each specimen within the computerized BABAS data-entry form. In addition, specifics on meat type (beef, mutton, pork, etc.), retail cut (porterhouse, sirloin, brisket, etc.), and chunk (cuts appropriate for roasts, steaks, soups and stews, or indeterminate) and steak equivalents were recorded. The MNI was determined during the hands-on identification and data-entry process. The MNI is based on the number of a particular element or portion of an element, by side, while taking the age and size of the specimen into consideration. The comparative collections of the ASC and the California Academy

of the Sciences, Department of Ornithology and Mammology in Golden Gate Park, San Francisco, were used for identification. Whenever possible, identifications were made to at least class or family level. None of the specimens was weighed.

Once all the bone from a given feature had been identified and all pertinent data had been entered, the number of identified specimens (NISP) was calculated, and taphonomic data, butchering information, actual meat weights, and price distribution were recorded. Access database software was used to provide the data-entry form and the database environment. This program is merely a means to an end: to generate the numbers needed to plug into a meat-weight worksheet.

In order to accurately assess the portions of meat being consumed and their associated price-ranking, it was necessary to discontinue the use of the standard Minimum Butchering Unit method and change the way meat was calculated. The most useful information from urban sites is how many pounds of meat the specific bones of various animals represent. The usefulness of the system also depends on a measure of consistency that crosses all three major meat animals. Sherri Gust developed the Steak Equivalents method to improve accuracy and to address research questions more pertinent to mid- to late-19th-century urban sites. In developing and using this method, the historical data gathered on meat weights, retail cuts, and butchering patterns mentioned above was used to determine the usual number of steaks in each portion of a major-meat animal's carcass. The resulting number of steaks for each cut was then divided into the meat weight for that particular cut to get real meat weights in pounds for each steak. While specimens were being processed, each bone was measured perpendicular to the normal plane of butchering and given a number of steak equivalents. The standard used for beef is about 1 inch for a steak, and a measurement of 1/2 inch is used for the medium meat animals (sheep and pig).

To address the consistency of retail cuts across all major meat animals, the terminology for each retail cut was changed to match those for beef. In most cases the translation is quite logical, and the boundaries for the transition from one retail-cut to another is the same. In this way, specific status issues and statistical analysis across meat type are more straightforward. The analyst is comparing apples and apples instead of apples and oranges. In features with a high percentage of steaks, this change in method also made the data easier to understand and use in the interpretation. It is also important to recognize cuts of meat specific to a certain animal; for example, if the faunal data reflect the consumption of a large number of hams or legs of mutton, this needs to be noted and discussed. The extrapolation of chunk percentages becomes a greater part of the analytic discussion as well. Many cuts of meat around the vertebrae and ribs are not clearly identifiable in terms of the type of cut they may have come from, or the method in which they may have been prepared. In most cases, the cut bone from these elements may be attributed to noncommercial traditional preparation and use. Even in assemblages with a large number of unknowns, however, the numbers of identifiable chunks often reflect trends in preferences for steaks, roasts, and soup bones.

Since determining household economic status and actual proportional meat weights is the end game in this process, much attention needs to be paid to where those factors shift on the skeletal element itself. In some cases, the location of an element/subelement

within a series must also be identified. The definition of the chunk steak equivalents, and appropriate retail cuts are crucial to defining the research questions. In the case of ribs, the transition from chuck rib to rib is very important and suggests a tendency more towards moderate- or high-cost meat. Likewise, the thoracic vertebra must be identified within series for the same reason. The sacral region must also be pinned down to sirloin or rump whenever possible to maintain data that will clarify the discussion. In cases where a whole or nearly whole element was present—usually one that was appropriate for a roast, such as a femur or humerus—the entire element and its steak equivalents were attributed to the predominant retail cut. For instance, if a whole femur is represented, the meat that surrounded that bone would have included rump on the proximal end, round in the center, and hindshank on the distal end, all with differing meat-cost implications. It is more likely that a roast of this sort was purchased and sold as a round, and the meat weight should be correctly placed in that category.

Another area where the analyst must make efforts to maintain the accuracy of the data is in the mending of the faunal material in those portions where two elements occupy a cut of meat. In the case of ribs for both medium meat animals and cow, a rib is roughly equivalent to a steak. This makes it vitally important for the analyst to spend the time making mends to determine the true number of individual rib portions represented. Due to the very nature of rib bone, the specimens are often recovered in a fragmentary state, resulting from the time spent in the ground or the vagaries of excavation. For this reason, if more time and care were not taken on the ribs for each animal, an over-count and a resulting overestimation of meat weight and associated cost would skew the results.

The previously described scenario is not the only area in which overestimation can occur. A number of cuts of meat are comprised of a couple of different bones. The sirloin can present the ilium from the pelvis, and portions of the sacrum. The rump can have the ischium or pubis in combination with a proximal femur. A neck cut can include portions of the humerus, scapula, and cervical vertebra. In addition, the hindshank for all animals includes the patella, and in the case of pigs a fibula, in combination with the tibia. The foreshank also is in this category, bearing both the radius and ulna. If during identification these elements are not looked at with possible association in mind, the number of steak equivalents attributed to those bones could be twice what they should be.

Visual inspection and the information recorded for element, subelement, piece code, and segment were used to apply a retail cut to each specimen. That information, combined with any information pertaining to cut marks, and the note fields for each database record were used to detail the chunk type and appropriate quantity of steak equivalents. The steak equivalents by retail cut and major meat animal were tabulated and the results were entered into a computerized worksheet. From here, built-in formulas calculated the weight totals by retail cut and cost.

RESEARCH METHODS

Historical research for the SF-80 Bayshore archaeological investigations has moved through several phases, from a preliminary survey of historical documents for each block of the study area through ongoing, lot- and feature-specific research. The research for this phase of the project builds on that compiled for earlier phases.

The historical research repositories visited for the Bayshore Project, and the resources used, are substantially similar to those detailed in *Guide to Historical Research in San Francisco, for Project SF-480 Terminal Separation Rebuild* (Olmsted 1991). The research for the current phase of the project builds upon research that was done for the Research Design and Treatment Plan (Mc Ilroy and Praetzellis 1997). The additional research conducted for this phase, and the challenges encountered, are discussed below.

Doing research on San Francisco properties presents a special challenge, because many of the pre-1906 records were destroyed by fire. For example, the earliest available Sanborn map for San Francisco is 1887. A Sanborn map created in 1877 once existed; although numerous archives on both the East and West coasts have been checked, including the Library of Congress, no one has yet found a copy of the map. A City of San Francisco Land-Use map from 1874 shows that some of the city blocks had alleys that no longer existed in 1887, and that the residential pattern of some blocks had a different configuration.

The earliest Tax Assessor's Block Book available for San Francisco is 1894. Most of the archaeological features excavated and evaluated had associations at least a decade earlier. Pre-1906 deeds are also not available, limiting the ability to find early landowners.

On the other hand, San Francisco has an excellent collection of San Francisco city directories from the 1850s onward, water-tap records dating back to the 1860s, early Great Register of Voters, and numerous photographic collections. These records have their quirks, however. The tap records were re-organized sometime after 1890. Although the rewritten records contain the information from the hookups as far back as the 1860s, the addresses used are not necessarily the addresses at the time of the hookup. Instead, the street number at the time the records were recompiled was used. The Great Register of Voters also had to be used with care. It was determined that the information contained therein was accurate to the date that the individual originally registered to vote, rather than to the date of the register. The date of actual registration and the date of the yearly register could differ by as much as 10 years.

Determining associations for features dating from the 1860s through the 1880s, although a challenge, can be achieved by using multiple lines of evidence. The 1870 U.S. Census does not have street addresses, and the 1880 U.S. Census addresses do not always correspond to those addresses and structures indicated on the 1887 Sanborn. However, using city directories, tap records, block books, the 1874 Land-Use map, and the 1887 Sanborn map in conjunction with censuses, it was possible to reconstruct the census enumerator's path and locate the individuals residing on the property at the time of the archaeological features' deposition.

Other sources utilized to research these individuals included the *San Francisco Morning Call* for birth, death, and marriage records; county histories, and various documents at the Bancroft Library and the California Historical Society. One unique source, *The South of Market Journal,* provides a window into the life of the South of Market neighborhood at the turn of the 20th century. The journal was first published in 1925 by The South of Market Boys Association, a group of men who had grown up in the neighborhood during the 19th and early 20th centuries. The journal published numerous accounts through the 1940s based on the memories of these men—what the neighborhoods looked like, stories about their neighbors, and accounts of ordinary activities, as well as special events, as far back as the 1870s. Some of the people associated with the archaeological features were mentioned in this journal.

The following archives were used during this phase of the SF-80 Project historical research:

- California Historical Society (Municipal Records; *South of Market Journal*)
- San Francisco Public Library (tap records, block books, city directories, San Francisco newspapers, maps, photographs, Great Register of Voters)
- Bancroft Library (manuscript collection; photographs)
- Schulz Information Center at Sonoma State University (city directories)
- Sonoma County Public Library (censuses, city directories, Great Register of Voters)
- On-line Databases (censuses, city directories, Sanborn maps, Panoramic maps; *San Francisco Call* index).

CHAPTER 7
SF-80 BAYSHORE PROJECT BLOCK 3

Michael D. Meyer

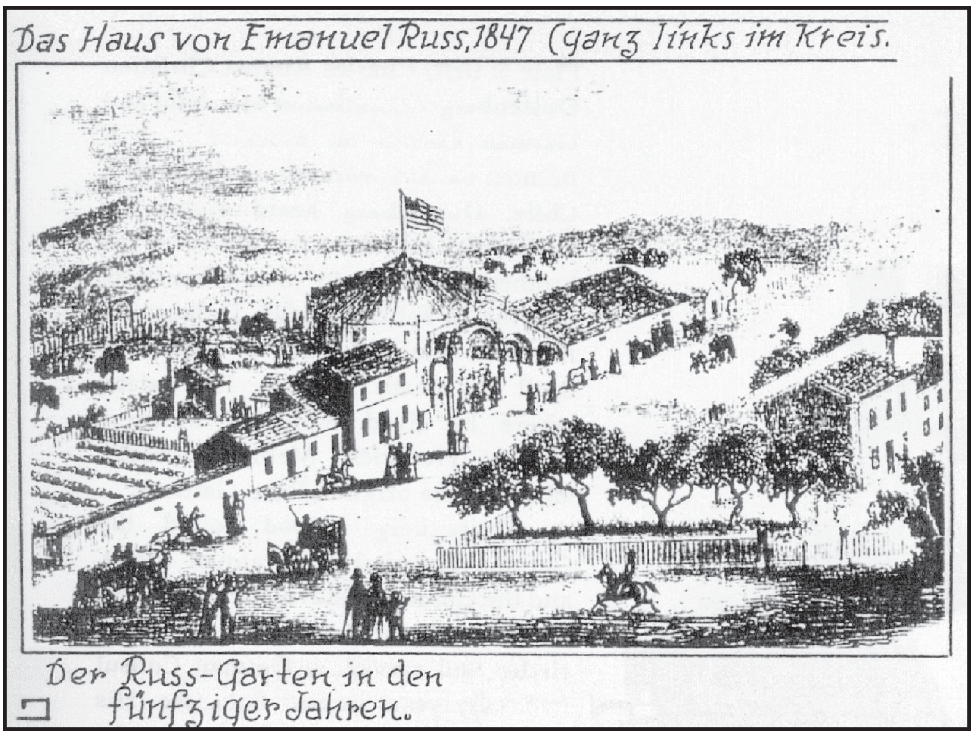
BLOCK OVERVIEW

Block 3 of the SF-80 Bayshore Project is bounded by Harrison, Bryant, Sixth, and Seventh streets; it was crossed by Garden Street in the 1860s. Garden Street was renamed Harriet by 1899. Block 3 was the site of Gold Rush-period settlement and of the Russ Gardens, the first public pleasure grounds in San Francisco in the mid-1850s. A public playground covered much of the project corridor for many years, preserving some historic ground surfaces. The Charles Duisenberg family lived on Block 3 from the mid-1850s to the mid-1890s. The first Duisenberg house was a primary target of the original testing program, as was their second home, built around the corner on Harrison Street in the late 1860s.

The natural site of Block 3 consisted mainly of marshland located between sandy, dry ground. The marsh formed part of an extended drainage into Mission Bay that stretched back as far north as Mission Street; the dry land on the block formed part of two long, sand ridges that trended generally southwards. Early documentary evidence suggests that much of the area shown as marshlands on the 1852/53 United States Coast Survey map was dry most of the time, except during the winter months. The natural site of Block 3 was virtually level, and has remained so with little grading or filling. Although some filling took place in the 1850s, the transformation of the block into dry land would appear to be the product of improved drainage of the surrounding areas.

Two small structures are shown on the block as early as 1852, while documentary accounts indicate that there were also informal shanties or encampments present at this time. Some of these structures are associated with Prussian jeweler Charles Emanuel Christian Russ, who purchased property on Harrison Street for his family; he built a home and landscaped it with imported fruit trees and gardens. He entertained so lavishly that he quickly built a home across the street and turned his original place into a pleasure garden, open to the public for a fee. Russ Gardens was one of the earliest festive watering places in the South of Market area. In 1853 the Germans celebrated May Day: "somewhere about eighteen hundred persons of German blood…leaped, balanced and twirled, danced, sang, drank, smoked and made merry, as only such an enthusiastic race of mortals could" (Soule, Gihon, and Nisbet 1855:455). Russ Gardens provided a respectable destination in a boomtown whose principal entertainments took place in saloons, gambling halls, and variety theaters. It was essentially a German beer garden adapted to the broader, cosmopolitan culture of Gold Rush San Francisco, featuring beer, dancing, performances, and picnic grounds.

Another prominent German family also settled on Block 3 in the 1850s: Edward and Charles Duisenburg, sons of a prominent Bremen merchant, arrived in San Francisco via Chile during the early Gold Rush. Along with Fredrick Mebius, they ran a successful

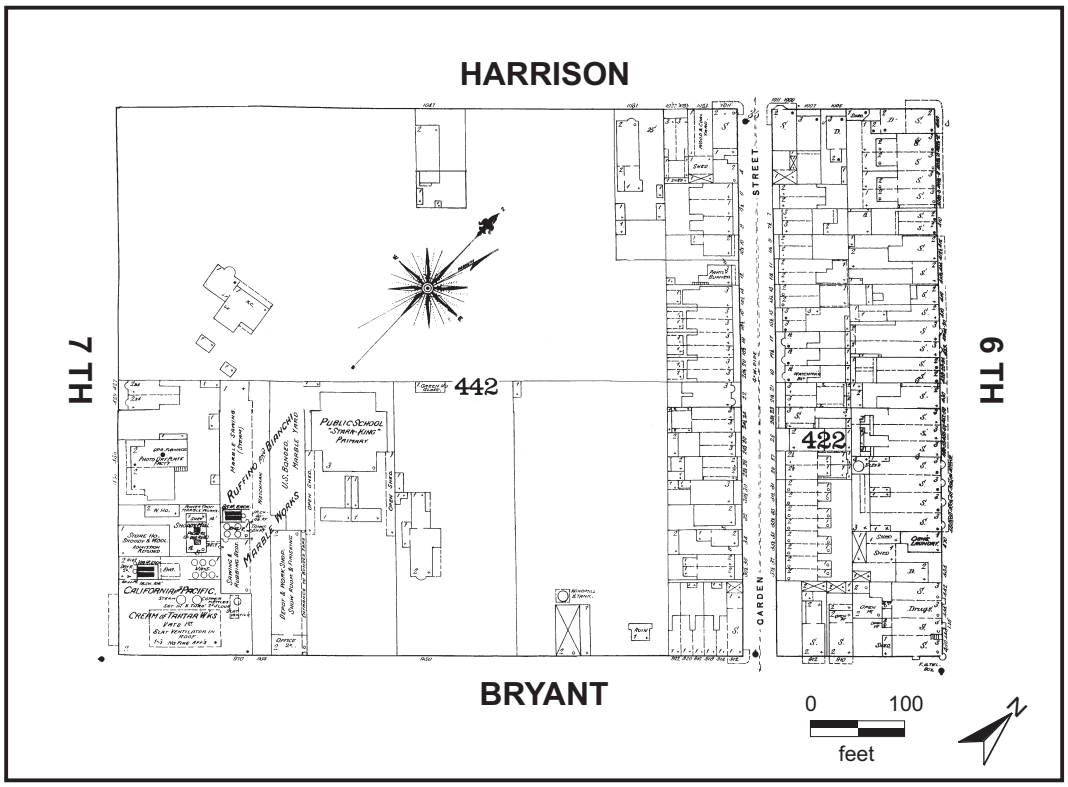


Russ Gardens, May Day 1853 (Courtesy San Francisco National Maritime Historic Park)

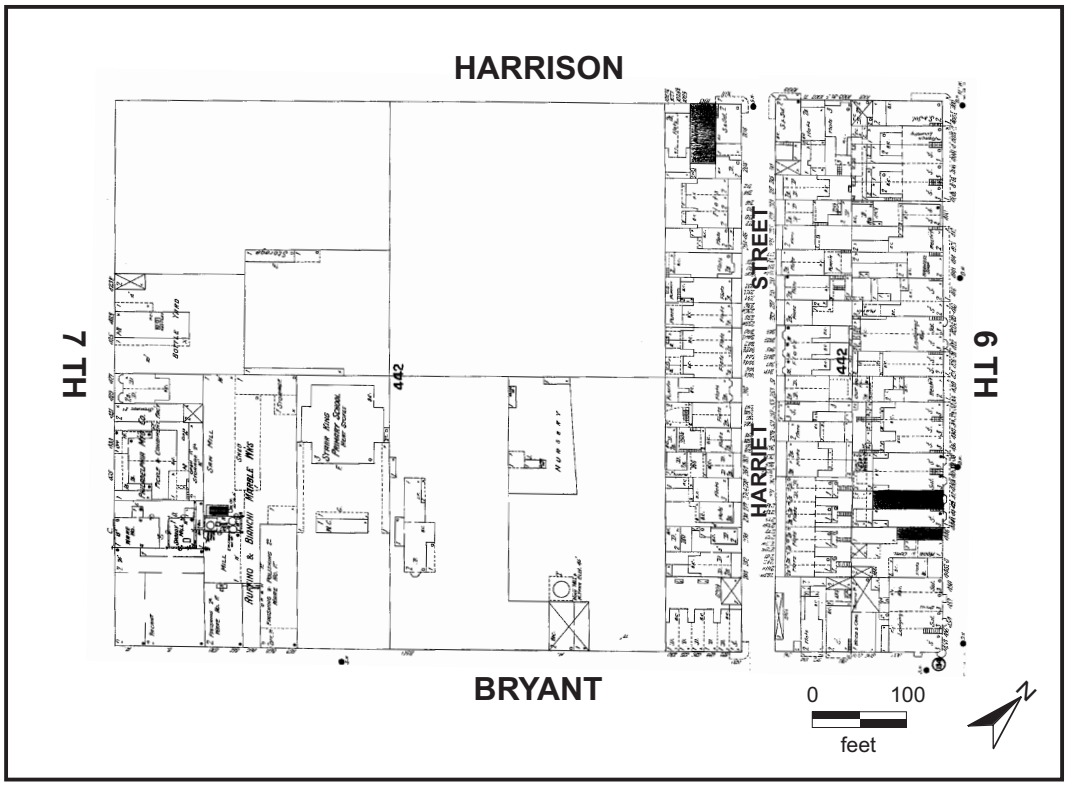
importing firm on Kearny, between Pacific and Jackson, despite being burned out twice by waterfront fires in 1851 and 1852. Charles Duisenburg, who served for many years as the German Consul in San Francisco, lived on Block 3 until his death in 1894.

The Russ Gardens burned in 1861 and Aldoph Russ, Charles's son, developed tenements on small lots, much like those in New York, where he had lived previously. A map depicting land use in 1874 (Figure 4.4) shows the Harrison Street frontage already developed with a pattern of open space and buildings that persisted through the making of the 1887 Sanborn map. By the 1880s, Garden Street had become a predominately Irish neighborhood made up of large working-class families. The residents appear only slightly more prosperous than the Irish community living along Boyd alley on Block 4. Most of the Garden Street residents sampled could read and write, and few had been out of work for as long as the Boyd Street workers during the previous year. Irish heads of household on Boyd Street listed their occupations more often as laborers than did the Garden Street residents.

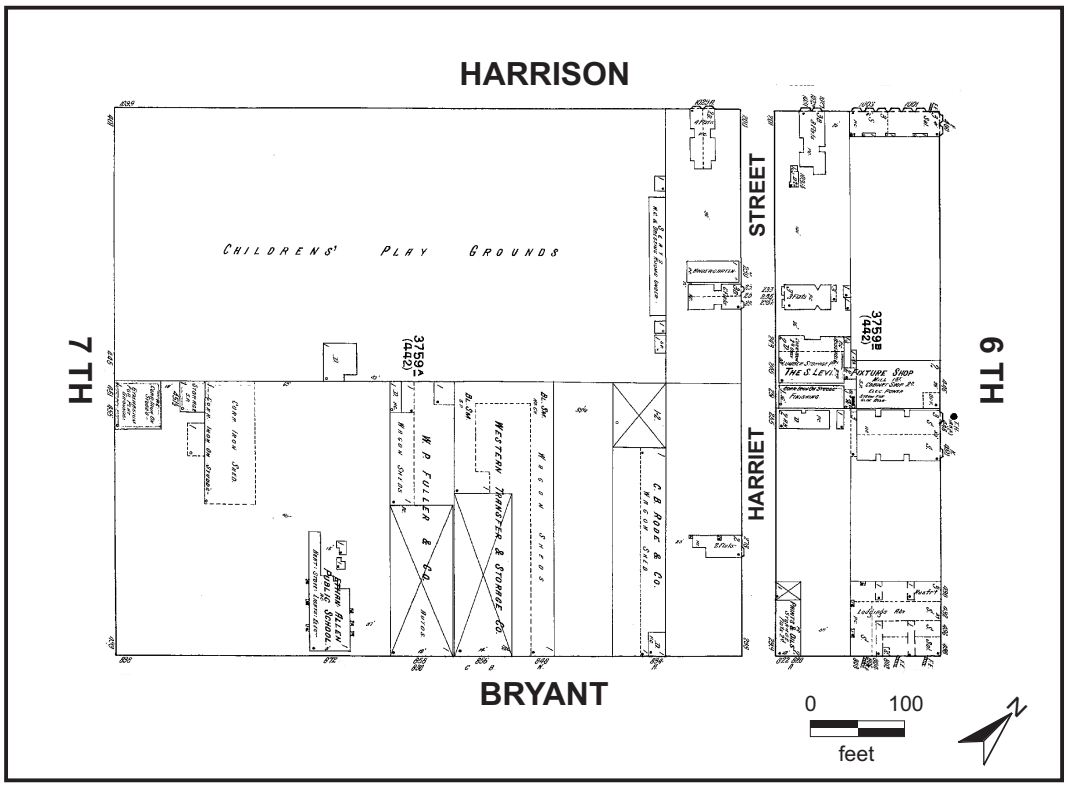
All the structures on Block 3 burned in the 1906 fire, and most of the block subsequently passed into public ownership. The former Duisenberg estate became the Southside Playground, until it was removed for construction of the SF-80 Bayshore viaduct and the San Francisco Hall of Justice in the 1950s.



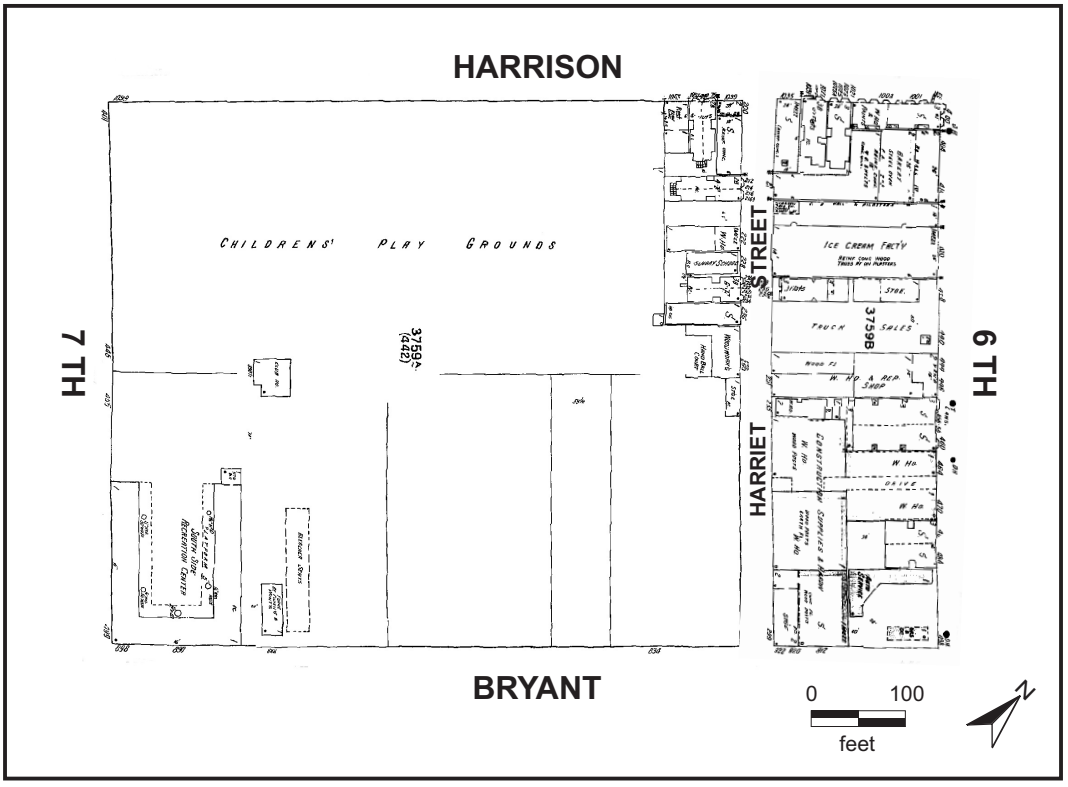
SF-80 Bayshore Project, Block 3, 1887 Sanborn Map



SF-80 Bayshore Project, Block 3, 1899 Sanborn Map



SF-80 Bayshore Project, Block 3, 1913 Sanborn Map



SF-80 Bayshore Project, Block 3, 1949 Sanborn Map

PARCEL OVERVIEW

1031 Harrison Street (Bayshore Block 3)

Charles A.C. Duisenberg Family Residence

By the time Charles Duisenberg died, the growth of San Francisco had effected radical changes to his neighborhood. During the 1850s, Duisenberg's house, oriented on magnetic bearing rather than the city grid, stood overlooking Russ Gardens. The entrance to the Gardens shown in the 1853 lithograph (below) of the German May Day celebration was near the future location of Garden Street. Duisenberg's later house at 1031 Harrison was built near the edge of the Russ property. When the Gardens burned down in 1861, the Russ family developed Garden Street with densely packed tenements providing housing for the working classes.



Russ Gardens, May Day 1853 (Courtesy San Francisco National Maritime Historic Park)

Born in the city of Bremen in 1825, Charles August Christian Duisenberg was the son of a prominent merchant; he went to work in a bank at age 15. Upon the bank's failure, he joined the North German Lloyd Steamship Company, with whom he maintained a connection for the remainder of his life. In 1847 Charles left Bremen to join his brother, Edward, in Valparaiso, Chile. A few years later, Charles again followed his brother, this time to California, where he became a partner in Mebius, Duisenberg, and Company in 1849. The Duisenberg brothers were joined by their mother and grandmother in 1851. As commission merchants, the partners benefited from the high prices created by the Gold Rush, although they also were harmed by its vagaries, being burned out in consecutive waterfront fires in 1851 and 1852. They established stores in the mining districts in El Dorado County and along the middle and north forks of the American River (Anonymous 1929a:8-9; Phelps 1881:416-417).

In 1853 Charles Duisenberg was appointed Consul for Bremen. An active member of the San Francisco German community, he participated in the affairs of the German Hospital on Brannan Street and the German Benevolent Association, as well as serving as president of the German church of St. Markus and of the first German school in San Francisco. The Duisenberg family lived on Block 3 from the early 1850s; their estate covered two of the original 100-vara lots into which the block was surveyed (the area later covered by the "children's playground"). It is probably not a coincidence that so many German families built homes near that of Charles Russ and his German beer garden. They appear to have longstanding connections; in fact, one of Russ's daughters later married into the Mebius family. The Duisenbergs built a large residence near Seventh Street, shown at an angle to the street grid on the 1887 Sanborn map. In 1860 Charles resided here with his mother, Sophie Duisenberg, his grandmother, Rebecca Mensing, and a coworker, S. Mebius. The household included two female servants and a male gardener. C.F. Mebius and his family lived next door.

Charles Duisenberg frequently traveled to Europe on business. On a protracted trip he married Minna Gross Schupf, the daughter of his host in Switzerland in 1867. While in Berlin, he was formally appointed San Francisco Consul of the North German Federation. He returned with his bride to San Francisco in 1869, by which time his brother, mother, and grandmother had all died. The residence at 1031 Harrison seems to have been constructed at this time, as a home for Charles' new family. The 1869/70 City Directory lists Duisenberg at 1031 Harrison Street. The 1870 U.S. Census population schedule lists Charles as an importer of wines, with considerable worth in real estate ($33,750) and personal property ($8,975), living with his wife, young daughter, a domestic servant, and a child's nurse.



Charles August Christian Duisenberg

In 1875 Charles was listed as the president of the German Benevolent Society and of Charles Duisenberg & Co., with his office at 314 Sacramento Street. The 1880 Census provides another look at the household. Charles, then 54, was listed as a Prussian-born commission merchant. His wife, Minna, age 30 from Hanover, was listed as keeping house. All of the four children were California-born with the two eldest—daughter Augusta, age 11, and son Charles, age 8—at school. The two

younger children—son Eddy, age 6, and daughter Virginia, age 3—were too young for school. There were three servants to assist Minna Duisenberg with the house and the children. Lena Laukinan was age 21 from Prussia, Mary Herman, age 17 from Hanover, and Nicolaus Newhouse, age 22 from Holland. Other records indicate that there were other Duisenberg children, including Ottilie, who died in 1877 at age 6, and Walter, born in 1880, likely after the census was taken.

In 1887 Block 3 still contained a great deal of open space, although the Duisenbergs, in their newer house at 1031 Harrison, were adjacent to the numerous tenements along Garden Street. A short walk to Sixth Street provided access to stores packed tightly like the tenements behind. The tenements also housed workers for nearby industries, including those occupying the corner of Seventh and Bryant around the corner.

In 1890 Charles Duisenberg & Company was listed as commission merchant and importer, and as the sole agents for Dykenhoff Portland Cement Company, North German Lloyd Steamship Company, and the American Steamship Companies. In 1893 Charles was still listed as importer, merchant, and agent for the steamship companies. Charles, Jr., was a clerk that year with Henry Cowell & Co., while Edward was listed as a student with H.A. Schulz.

The elder Charles died in 1894 at the age of 70. Neighborhood boys later recalled that "he always had the German flag flying on the outside and it seemed funny to us kids as it was the only flag flying in the neighborhood" (*South of Market Journal [SOMJ]*, March 1926:16). The Assessor's Block Book for that year indicates that the property was owned by W.E. Dean and included most of the Gold Rush-era holdings. It is likely that the property was sold after Charles's death that year. The 1895 directory listed the Duisenbergs (with the exception of Augusta, at 3216 Jackson Street), still residing at the Harrison Street address. The family may have been in transition at the time the directory was being printed. By the 1896 directory, they were all residing at the Jackson Street address in Presidio Heights. An accomplished writer, Minna published two books on California flowers and wrote poetry in German (Duisenberg n.d.). Miss Augusta W. was a notary public, Edward G. a surveyor, and Charles F.W. had no occupation listed.

The family spared no expense in their new home on Jackson Street, which included at a minimum a pantry, kitchen, servant's room, basement, billiard room, dining room, reception hall, parlor, den, five bedrooms, and one bathroom. The residence survived the 1906 earthquake and fire, but required costly repairs and upgrading to meet new electrical codes (Duisenberg Papers, Box 1, Folder 15).

Despite the generous proportions of the Duisenberg home at 1031 Harrison Street, it was an anomaly. When the family moved away, the neighborhood was decades past its fashionable heyday. In 1887 there were three other large houses on the block, including the Duisenbergs' earlier residence. By 1899 the sole remaining large home was at 850 Bryant next to the Starr King Primary School. The Duisenberg house had been removed and the lot was vacant. By 1905 the lot was a portion of the Morton Draying Company's operation. After the 1906 earthquake and fire, the parcel became part of the Southside Playground and was never developed until construction of the SF-80 Bayshore viaduct.

There was one California Register of Historical Resources (CRHR) feature excavated from the lot, Privy 3, with a *terminus post quem* (TPQ) date of 1888. The privy was probably filled after the death of Charles Duisenberg in 1894, as the family prepared to move to a more fashionable neighborhood.

Tap records indicate that the water connection date was 29 May 1865. In Duisenberg's personal papers is a receipt dated 7 June 1867 for payment of sewer construction along Harrison Street. The sewer connection is apparently for storm sewers in the street rather than sanitary connections from the house. It is unusual that the privy was open until the 1890s. In all likelihood there was so much space available in the yard that filling the privy was an unnecessary task. The structure undoubtedly was of quality construction, like the house, and it would have been effectively abandoned by shutting the door. Although the privy may have remained in use, it was more likely an effective backup in case of problems with either sewer or water. Events such as the 1868 earthquake, which caused disruption to services in many areas, may have been reason for leaving the privy intact. In addition, the Duisenbergs may have had no desire to reuse the building or space for another purpose.

1031 Harrison Street (Bayshore Block 3) – PARCEL PLAN

Charles A.C. Duisenberg Family Residence

1887 parcel boundary

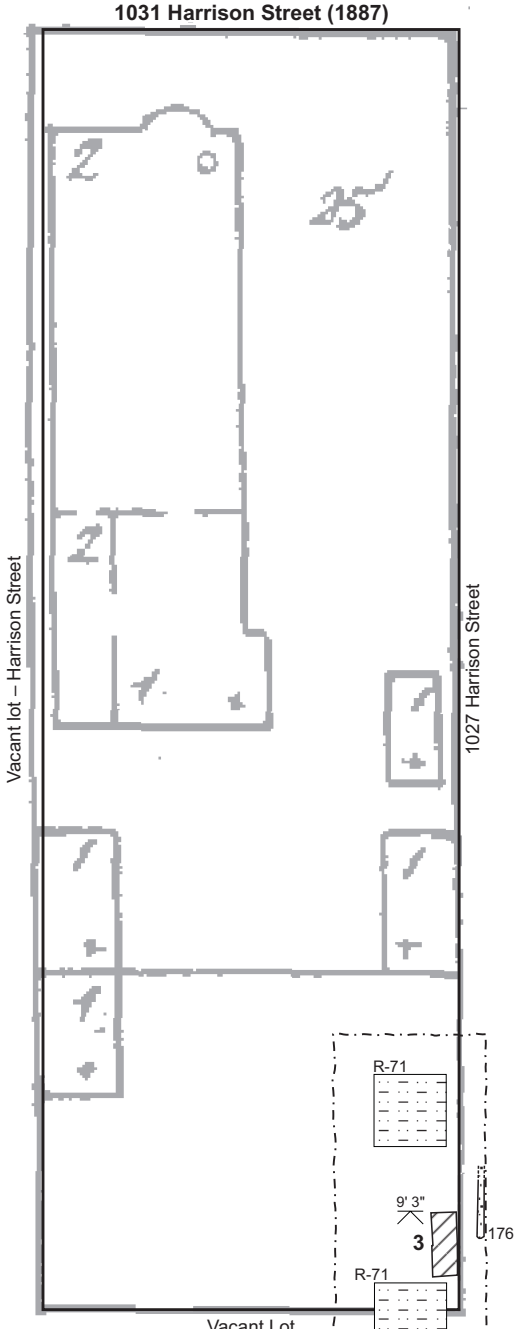
1857/59 Coast Survey
vacant—no buildings
on the 1887 Sanborn parcel



1887 Sanborn Map

1887 parcel boundary

1899 Sanborn Map
vacant



1887 parcel boundary

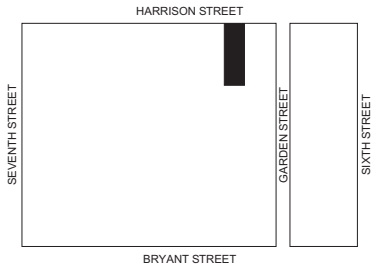
1913 Sanborn Map
vacant

1887 parcel boundary

1949 Sanborn Map
vacant

KEY

- CRHR-eligible
- Footing
- Concrete
- Parcel Line
- Limit of Excavation
- Elevation in Feet amsl
- 3 Privy Number



DOCUMENTARY RESEARCH TABLE

1031 Harrison Street (Bayshore Block 3)

Charles A.C. Duisenberg Family Residence

ABSTRACT

Building:

1852/53	Sand dunes near the tidal marshes of Mission Bay
1857/59	Vacant lot next to Russ Gardens
1874	Large rectangular building
1887	Large two-story detached dwelling with bay windows slightly set back from the street. One-story addition abutting narrow two-story addition at rear. Three rear outbuildings with additional outbuilding in fenced rear yard
1899	Vacant lot
1905	Morton draying company, two-story corrugated metal building
1913	Children's playground, one-story building and seats
1949	Children's playground

Residence/Occupation/Use

+1869-1895	Charles A. C. Duisenberg, commission merchant, and family

Ownership:

+1894+	W. E. Dean
+1906+	City & C[ount]y of S.F
+1909+	City Property

DOCUMENTARY TIME LINE

1850	**City Directory** – Duisenberg, Chas. of Mebins, D. & Co. Kearney b[etween] J and P
1852	**City Directory** – *Off Site– Duisenberg not listed*
1852/53	**Coast Survey Map** – Sand dunes near the tidal marshes of Mission Bay
1857/59	**Coast Survey Map** – Vacant lot next to Russ Gardens
1860	**City Directory** – Duisenberg, Charles & Co., importers and commission merchants, 70 California, r. SE cor Harrison and Seventh; Duisenberg, Charles A.C., Consul of Bremen, 70 California, r. SE cor Harrison and Seventh; *Off Site – Mebius C.F. importer and commission merch[ant], and agent Bremen Board Underwriters, 70 California, r. cor Harris and Bryant; Mebius L. book-keeper with M. Waterman, r. corner Harris and Bryant*
1860	**US Census** – (District 10, Page 193) *Off Site – **Residents:** S. Mebius, 39, Oldenberg, Germany, clerk, $1500 personal property; C. Morpe[?], 30, female, Hanover, servant; C. Duisenberg, 34, Bremen, Germany, commission merchant, $12,000 real estate, $2,000 personal property; Sophie Duisenberg, 56, Bremen, Germany; Rebecca Mensing, 75, Bremen, Germany; Michael Ford, 25, Ireland, gardener; Kate Mayer, 25, Ireland, servant*

Documentary Research Table, 1031 Harrison Street *(continued)*

1860	*Off Site – [next house, Duisenberg's partner] – Mebius Family:* ***Head:*** *C.F., 37, Lubeck, Germany, com[mission] Merchant, $2,000 personal property;* ***Wife:*** *Eliza, 27, Germany;* ***Son:*** *Fred K.,7, CA, attended school within census year;* ***Daughter:*** *Eliza, 5, CA, attended school within census year*
1861	**City Directory** – *Off Site –Duisenberg, SE cor. Harrison & 7th [larger house, not 1031 Harrison]*
1861/62-63/64	**City Directory** – Duisenberg, Charles & Co., importers and commission merchants, 218 California, r. SE cor Harrison and Seventh; Duisenberg, Charles A.C., consul for Bremen, office 218 California, r. SE cor Harrison and Seventh; *Off Site– Mebius C.F. importer and commission merch[ant], and agent Bremen Board Underwriters, and acting Hanoverian consul, 308 Clay, r. cor 1019 Folsom; Mebius L. book-keeper with M. Waterman, r. 1019 Folsom*
1864/65-67/68	**City Directory** – Duisenberg, Charles & Co., importers and commission merchants, office 205 California, r. SE cor Harrison and Seventh; Duisenberg, Charles A.C., consul for Bremen, office 205 California, r. SE cor Harrison and Seventh
1868	**Receipt** – From Pacific Warehouse for various furnishings including 4 chairs, bedstead and spring mattress, pair looking glass and frame and 2 pictures, dated 19 February 1868. (Duisenberg Papers MSS 97/139c, Box 1, File 15, Bancroft Library, UC Berkeley)
1868/69	**City Directory** – Duisenberg, Charles & Co., importers and commission merchants, 312 Commercial, r. SE cor Harrison and Seventh
1869/70	**City Directory** – Duisenberg, Charles & Co., importers and commission merchants, 314 Sacramento; Duisenberg, Charles A.C., consul North German Confederation (*and Charles Duisenberg & Co.)* Office 314 Sacramento, r. 1031 Harrison
1870	**U.S. Census** – (Ward 9, Page 35) Duisenberg Family – **Head:** Charles A.C., 42, Bremen, importer of wines, $33,750 real estate, $8,975 personal property; **Wife:** Augusta D.W., 20, Hanover, keeping house; **Daughter:** Augusta, 7 months, born Nov., CA; **Domestic:** Wilhelmina Rein, 25, Bavaria; **Child's Nurse:** Henrietta Lehman, 26, Prussia
1874	**Land Use Map** – Large rectangular building
1875	**City Directory** – Charles A. C. Duisenberg, president German General Benevolent Society (and Charles Duisenberg and Co), 314 Sacramento, r. 1031 Harrison
1877	***San Francisco Morning Call*** – "Duisenberg-In this city, February 28, at 6 o'clk A.M., Ottille Louise Pauline, beloved daughter of Charles A.C. and Minna Duisenberg, aged 6 years, 8 months and 10 days. Relations and friends of the family are respectfully invited to attend the funeral, tomorrow (Friday) at 1 o'clock P.M., from the residence of the parents **1053** Harrison street, between Sixth and Seventh." (*Francisco Morning Call*, 1 March 1877 4:5)
1879/80	**City Directory** – Duisenberg, Charles A.C. (Charles Duisenberg & Co.) r. 1031 Harrison; Duisenberg, Charles & Co. importers and commission merchants, and agents North German Lloyd Steamship Co., 314 Sacramento
1880	**U.S. Census** (Ward 9, Sheet 552) – Duisenberg Family. **Head:** Ch[arle]s., 54, com[mission] merchant, Prussia; **Wife:** Minna, 30, keeping house, Hanover; **Sons:** Charles, 8, at school; Eddy, 6; both CA; **Daughters:** Augusta, 11, at school; Virginia, 3; both, CA; **Servants:** Lena Laukinan, 21, Prussia; Mary Herman, 17, Hanover; Nicolaus Newhouse, 22, Holland ***San Francisco Morning Call*** – "Duisenberg-In this city, September 29, to the wife of C.A.C. Duisenberg, a son" (*San Francisco Morning Call*, 30 September 1880 4:3)

Documentary Research Table, 1031 Harrison Street *(continued)*

1885	**City Directory** – Charles A. C. Duisenberg., com[mission] mer[chant], 314 Sacramento, r. 1031 Harrison
1886	**Will** – Property: three dwelling houses built on the two hundred vara lots No. 235 & 252, also outhouses, etc and being numbered 1031, 1047, & 1047 ½ (and 1053) and situated on Harrison Street between Garden and Seventh Streets; two lots in Visitation Valley Homestead Ass. No. 98 & 99; four lots in Lynn, East Oakland N.17/20; (also no [number?] shares in the Merchant Exchange Association); his interest in his business under the firm of Chas. Duisenberg & Co. in San Francisco; $10,000 Connecticut Life Insurance Policy and $10,000 Mutual Reserve Fund Life Association. One half to "my beloved wife Minna or Wilhelmina Doreatha Johanna Duisenberg, nee Gussenschupf", the other half of my remaining property to go to our children Augusta Minna Emilie Duisenberg, Carl Fredrick Wilhelm Duisenberg, Edward George Herman Duisenberg, Virginia Emily Rebecca Martha Duisenberg, Gustav Adolf Walter Duisenberg or other children of which we may have at the time of my demise. Children to receive their share when become of age, until that time the property shall be secured by mortgage or otherwise in America or Germany in their name and the interest of said mortgage or investments go to wife. All household furniture and personal property shall not be sold but remain property of wife. Wife to be executrix without bonds, and taking for adviser his brother in law Mr. Edward Kruse of this city or any other good friend. Signed 18 November 1886. (Duisenberg Papers MSS 97/139c, Box 1, File 12, Bancroft Library, UC Berkeley)
1887	**Sanborn Map** – Large two-story detached dwelling with bay windows slightly set back from the street. One-story addition abutting narrow two-story addition at rear. Three rear outbuildings with additional outbuilding in fenced rear yard
1889	**City Directory** – Charles A.C. Duisenberg, importers and commission merchants, and agents Dyckerhoff Portland Cement, and North German Lloyd Steamship Co. 314 Sacramento; Arnold Munnich, bookkeeper Charles Duisenberg & Co.; both r. 1031 Harrison
1890	**City Directory** – Charles A. C. Duisenberg, r 1031 Harrison; Charles Duisenberg & Co. (Charles A. C. Duisenberg) imp. & com[mission] mer[chant], sole agents Dykerhoff Portland Cement and North German Lloyd and American Steamship Companies, 314 Sacramento; Arnold Munnich, bookkeeper Charles Duisenberg & Co., r. 1031 Harrison **Great Register** – Charles Duisenberg, 65, Ger[many], merchant, 1031 Harrison, naturalized 1876 S. F. CA., US Dist; Lost P[apers], registered 18 Oct 1890, Dist 38/ Pct 14
1890-91	**City Directory** – Charles A.C. Duisenberg, 314 Sacramento, 1031 Harrison, importers and commission merchants, and sole agents Dyckerhoff Portland Cement, and North German Lloyd Steamship Co. 314 Sacramento
1893	**City Directory** – Charles A. C. Duisenberg, Charles Duisenberg & Co (Charles A. C.) Imp[orters] & com[mission] Mer[chants] & Pacific Coast agents North German Lloyd and American Steamship Companies, 505 California above Montgomery; Charles Duisenberg Jr., with Henry Cowell & Co; Edward G. Duisenberg, student H. A. Schultz, all r. 1031 Harrison; Charles A.C. Duisenberg, notary public, 505 California
1894	**Block Book** – Ass. Block 397. W.E. Dean, includes most of the western half of the block between Seventh and Garden, except lots running along Garden **City Directory** – Charles A. C. Duisenberg, clerk; Charles F. Duisenberg, clerk; Edward G. Duisenberg, clerk; Minna, widow; all r. 1031 Harrison [business not listed in white or "yellow" pages]

Documentary Research Table, 1031 Harrison Street *(continued)*

1894 ***San Francisco Call*** – Obituary. Charles A.C. Duisenberg, "one of the best known German citizens of this city" died 1 February 1894 at his residence, 1031 Harrison Street. He was 70. Duisenberg arrived in San Francisco in 1849. "He came from Bremen in a sailing vessel and brought his house with him." He was 25. In 1850 he formed a partnership with Mr. Moebins, the firm name Moebins & Duisenberg. He was German council for 25 years and during that term was also the agent for North German Lloyds. He fought during the Mexican war. "At one time he was president of the German General Benevolent Society, of which he had been a member for many years up to the time of his death." He leaves a widow, three sons and two daughters. His funeral will take place from his late residence. (*San Francisco Call*, 2 February 1894 3:6)

San Francisco Morning Call – "Duisenberg- In this city, February 1, 1894, C.A.C. Duisenberg, beloved husband of Minna Duisenberg, and father of Augusta, Charles, Edward, Virginia and Walter Duisenberg, a native of Bremen, Germany, aged 68 years 6 months and twelve days." (*San Francisco Morning Call*, 2 February 1894 10:6)

1895 **City Directory** – *Off Site – Charles F. Duisenberg, clerk; Edward G. Duisenberg, clerk; Minna Duisenberg, widow; Miss Augusta W. Duisenberg, notary public, 508-512 California; all r. 3216 Jackson*

1896 **City Directory** – *Off Site – Miss Augusta W. Duisenberg, notary public, 508-512 California; Charles F. W. Duisenberg, Edward G. H., surveyor, Emma [sic?] Duisenberg, widow; all r. 3216 Jackson*

1899 **Sanborn Map** – Vacant lot

1900 **U.S. Census** – *Off Site – Did not locate [no building at this address]*

1905 **Sanborn Map** – Morton draying company, two-story corrugated metal building

1906 **Block Book** – Ass. Block 397. City & C[ount]y of San Francisco, includes most of the block between Seventh and Garden, except lots running along Harriet [Garden]

1909 **Block Book** – Ass. Block 397 City Property, includes most of the western half of the block between Seventh and Garden, except lots running along Harriet [Garden]

1913 **Sanborn Map** – Children's playground, one-story building and seats

1949 **Sanborn Map** – Children's playground

Biographical Information

Phelps, Alonzo

1881 *Contemporary biography of California's representative men*. A. L. Bancroft, San Francisco. Pages 416-419.

Charles August Christian Duisenberg was born in the free Hanseatic town of Bremen July 20, 1825. He was the son of a prominent merchant who went to work in a banking house when he left school at 15. On its failure he went to work for the North German Lloyd Steamship Company. In 1847 he left Bremen to join his brother Edward in Valparaiso, Chile who worked in large German mercantile house. Upon his arrival he worked in the same mercantile house. In 1849 he followed his brother to California. Shortly after his arrival in September 1849, he entered a partnership in the "commission business" with a friend C. F. Mebius as Mebius, Duisenberg and Company. The company was burned out first in the fire of 1851 and then in the fire of 1852. He had been joined in 1851 by his mother and grandmother in San Francisco. After the second fire, he established a store at Coloma, El Dorado County and in partnership with several others established other stores on the middle and north forks of the American River. By 1853

Documentary Research Table, 1031 Harrison Street *(continued)*

he was again in business as a merchant in San Francisco and was appointed Consul for Bremen. He was active in the affairs of the German community in San Francisco such as the German hospital and the German Benevolent Society. In 1875 he became president of the society, which then had 2,800 members. In 1869 after a lengthy trip to Europe during which in 1868 he had married Minna Gussenschupf in Goslar, Germany, he became San Francisco consul for the North German Federation. He served as consul until 1874 when it became a professional position under the new German empire. He was at various times president of the German church of St. Markus, of the first German school as well as a director of the Society of California Pioneers. In 1871 he had conferred on him the knightly cross of the order of Philip des Grossmuthigen by the Grand Duke of Hesse. In 1874 he received from Emperor William the royal order of the Krone for his services as consul.

Detwiler, Justice B. (editor)
1928-29 *Who's Who in California. A biographical Directory 1928-29.* San Francisco. Page 61.

Visited Germany in 1854 but soon returned to San Francisco as German Counsel and remained in diplomatic service many years. Lutheran.

No author
1929 *The Americana: A Universal Reference Library*: Biographies. Americana Corporation, New York. Pages 8-9.

Father was Carl August Christian Duisenberg, a prominent merchant of Bremen, and of Sophie Rebecca (Ludowick) (Mensing) Duisenberg. Because of the 1851 and 1852 fires that had destroyed his previous businesses in San Francisco, Duisenberg established a regulation Company store at Colma, El Dorado County. "He was joined in this undertaking by two partners, and a series of stores at several places on the middle and North forks of the American River presently resulted from their combined efforts." His brother, who owned a joint interest in the firm of Probst, Smith and Company, was in China in the early 1850s. By 1853 Mr. Duisenberg was again established in San Francisco with a prosperous business and was receiving large quantities of merchandise from Germany and France. Mr. Duisenberg was in Europe on business in 1857-59. Due to his business interests he was again in Europe in 1867. He had six children, five of whom survive: Augusta W. Duisenberg; Charles F. Duisenberg; Edward G. Duisenberg; Virginia R. Duisenberg, now Mrs. H. A. Isenberg of Honolulu, Hawaii; and Walter C. Duisenberg.

Millard, Bailey
1924 *History of the San Francisco Bay Region.* 3 vols. The American Historical Society, Inc., Chicago. Pages 147-48; Portrait, Page 146.

Reared in the mercantile business. With C.F. Mebius established the mercantile firm of Mebius & Duisenberg, on Kearney St. Worshipped at the services of St. Mark's Church and "was one of its most generous and prominent members." Married Minna Gross Schupff, a native of Germany and the daughter of one of its prominent men, on 7 December 1868. Minna Duisenberg was "a writer of note, and among her best-known works are two books on the beautiful flowers of California."

Duisenberg, Minna
n.d. *Erinnerungen von Minna Duisenberg*. E. Piersons (n.d.), San Francisco and Dresden, 141p, illus. On file at the California Historical Society (Call #S11 D88 S). [Book of poetry, in German, by Minna Duisenberg]

PRIVY 3 - FEATURE SUMMARY

1031 Harrison Street (Bayshore Block 3)

Charles A.C. Duisenberg Family

Privy 3 was wood-lined, with two 4-ft.-square chambers that had been converted to a single toilet fixture. There was about 3 ft. of fill intact within the wood lining. A 3-in.-diameter drain connected to the main sewer line, presumably a vent stack. The privy was filled for conversion to a flushing toilet at the same location. The southern chamber was cut by the builders' trench for freeway bent R-71.

The fills within each chamber were given different context numbers due to differences between the lower layers of each. The soil below the privy was hard-packed sand covering a 6-in.-thick layer of peat from the marsh of 1850. The soil surrounding the privy was loosely compacted sand, probably redeposited dune sand. The privy had indications of several mucking-out episodes. The north chamber had a greater quantity of primary fill, suggesting it may have been used longer or more often than the south chamber after the final mucking-out, or that it had not been mucked-out to a similar depth as the other chamber prior to backfilling.

The privy and sewer were covered by Layer 153, a mixed fill of demolition rubble that extended past the limits of the wood lining. The uppermost layer within the privy lining was Layer 154 in the south chamber and 166 in the north chamber. The layers were uniformly mottled, brown silty sand, around the vertical sewer in the north chamber where both pipe and fill extended through the lining to the east. The layer was present outside the intact lining of the southern chamber, where it was designated Layer 164. Below Layer 166 was Layer 167, mottled light- and dark-brown striated silty sand with charcoal, bits of mortar, and brickbats. It also extended through the lining in the north chamber, where it was identified as Layer 165 outside the wood lining on the south half of the privy. Within the south chamber it was identified as Layer 157. The Sewer Pipe 168, was constructed at the level of Layers 158 in the south chamber and 170 in the north chamber. Both layers were dark-brown sandy loam with mortar, bricks, charcoal, and slag. In the north chamber, Pipe 168 was constructed on top of 1-in.-thick x 24-in.-wide redwood boards, designated Context 169, which extended from the 3-in. elbow to the 4-in. vertical elbow. The purpose of the board was likely to support the joints from sinking in the sandy fills, in order to maintain proper flow; it may also have kept out sand while mortaring the pipe joints during construction.

In the north chamber there were two fills, Layers 172 and 171, above another layer of 4- to 12-in.-wide x 1-in.-thick redwood boards, Context 173, across the entire north chamber; these may have been a first attempt at converting the privy to sewer, or it may have served as a platform on what would have been rather recent primary privy fill. There were artifact crossmends from above and below the boards. Layer 172 was a wedge-shaped deposit of dark-brown sandy loam similar in composition to Layer 161 on the other side. Layer 171 was greenish brown sand that minimally extended into the southern chamber as Layer 159. It was initially believed that this was primary fill in the north chamber, although two fills, Layers 174 and 175, were discovered below Boards 173.

Layers 174 and 175 were very similar primary privy fills: mottled gray, light-brown, green, and orange sand with a thin layer of lighter brown sand that may have blown or silted in between the layers. Layer 175 may have been mucked-out along the west wall due to the presence of artifacts at that location prior to the filling of Layer 174. These two layers were different from the south chamber, where it appeared the privy had been mucked-out prior to back filling. An arbitrary distinction was made in the south chamber between Layers 158 and 161 extending across from Layer 159, although 161 was similar in appearance and composition to Layer 158. The bottom primary privy fill in the south chamber was Layer 162. It consisted of greenish light-brown silty sand with few artifacts. It was unclear how many of the amorphous metal lumps were concretions from the soil below. The subsoil directly below the privy was mottled orange and brown friable sand. This layer was only 2 in. to 4 in. thick and on top of peat soil, Context 180, from the historic marsh. The soil surrounding the privy was dune sand with poor stability. When the feature was almost completely excavated, vibration from hoe rams and other heavy equipment combined with freeway traffic collapsed one side of the privy. At that point, it appeared that the builder's trench, consisting of primarily loose sandy fill, had been excavated at nearly a one-to-one slope.

The feature has a TPQ of 1888 based on a U.S. quarter dollar in a lower layer of fill. The date is rather late for connection to the city sewer. The date of deposition is probably 1894, after the death of Charles Duisenberg in February of that year. After Charles's death, the family moved to Jackson Street, and the Harrison Street property was purchased by W.E. Dean. There are 6,981 artifacts representing 2,436 items. The volume of material is impressive, apparently reflecting the Duisenbergs' legendary hospitality. The collection includes 129 items of serving and tableware vessels and an additional 47 drinking vessels. This quantity and variety of items discarded suggests a massive household cleanout.

Artifacts from the Duisenberg collection are likely to represent unwanted items from throughout the 25 years spent at this location, with the possibility that Charles had owned some of the items from his arrival as a Forty-niner or purchased them soon thereafter. By the time the items were discarded, most of the Duisenberg children were adults. The two youngest, Walter at 15, Virginia at 18, and their older siblings had outgrown the toys, including dolls, play tea sets, marbles, and the toy pistol. There were even 11 deciduous teeth discarded, although those had been outgrown, or rather grown out, many years prior. Either the sentimental value had been lost or the teeth were not noticed when discarding other items.



The Mrs. Winslow's Soothing Syrup bottles, advertised for quieting babies (as laudanum is apt to do), has a production beginning date of 1880. These bottles may have been used for some of the younger children and left in the medicine cabinet. The apothecary bottles from Fowler and Searby have end dates of 1887. These items may

have been used by any of the family. Mr. Duisenberg may have been suffering some joint pain, as indicated by the Kennedy's Salt Rheum, an ointment for treating rheumatism or gout, and probably arthritis. There were a variety of pitchers and basins, hair combs and brushes, and dental-hygiene items—including a toothbrush, dentifrice, and sozodont bottles—indicating a level of personal hygiene expected of a family of wealth and stature in the community.



Clothing-related items were well-represented in this feature. The ubiquitous men's wool-felt hat was retrieved, along with 2 trouser buckles, 1 fancy vest or trouser buckle, 1 corset stay, and parts of at least 15 pair of hooks and eyes. Additional garment identification can be inferred from two different artifact types—textiles and buttons. There were at least four outergarments and four lightweight outergarments (either dresses, waists, or shirts) that were all constructed from various weaves of wool. Remnants of a fancy, tabby-weave, black silk woman's shawl or dress, along with a woman's dress or waist of a green floral print on a white silk background bedecked Mrs. Duisenberg. The numerous buttons left behind by the well-dressed Duisenberg family provide more elaborate testament for at least 76 garments. Apart from the typical shirt, trouser, and general-use buttons, there are those from more decorative and better clothes: six different black-glass buttons for dresses or outergarments, including one with a Star of David; two pairs of gloves fitted with small buttons of black or dark-blue glass, and two other pairs fastened with copper-alloy buttons; four shell buttons from baby or children's clothes or woman's undergarments; a brass, possibly U.S. Navy, button from the cuff of an outergarment; and many other decorative porcelaneous buttons typically sewn to women's and or children's garments for this period.



A minimum of three pairs of footwear, two belonging to either a woman or child, were identified—one worn on one side of the heel. One boot was high-laced with linen upper and leather functional accents; the other was also laced, in similar fashion. Two safety pins, one ferrous and one copper alloy, were also discarded into the privy along with a pair of scissors and many copper-alloy and steel straight pins. Straight pins were often thrown away when bent, corroded, or broken, or when marking a place to adjust on altered clothes. The variety of single unusual buttons suggests more than those that fall off during rough cleaning. This robust collection suggests, instead, the culling of a button box that held odds and end collected over many years.

Other personal items discarded included bits of jewelry. Among the decorative furnishings discarded were pieces of porcelain figurines and possibly a vase or bowl for display. A large quantity of lamp chimneys and a few globes or shades were discarded, an action that often coincides with changing the type of lighting. In the case of a cleanout, however, it may be more practical to simply purchase new chimneys than clean soot from the old.

The tableware recovered from Privy 3 included many pieces with molded patterns that were fashionable in the 1860s but would have been dated by 1894. New sets may have been purchased for the new home, for both family and servants. Most of the ceramic vessels (63.0%) are white improved earthenware (WIE), although the amount of porcelain (23.4%) is still relatively high. Almost three-quarters of the porcelain (69.4%) is decorated, whereas just over a third (35%) of the WIE bears decoration. The number of Chinese porcelain vessels, two plates, is unexpectedly low for someone importing merchandise from across the Pacific; brother Edward Duisenberg is known to have traveled there. The low volume may represent a few pieces broken during packing, with a larger collection moved to the house on Jackson Street.

Only three kitchen vessels were discarded. The durability of kitchen vessels and their use within the private spaces of the house resulted in long use lives; updating tableware, used in the public spaces for entertaining guests, was of a much higher priority. Of the 193 discarded vessels, 19% were used for serving, 48% were tableware, and 24% were drinking vessels. Many of the vessels, both ceramic and glass, were paneled. There were also a variety of pieces—including dishes, a tumbler, and stemware of pressed glass—in the Honeycomb pattern. Several pieces of gilded porcelain may have been from the same set. Despite the somewhat mixed lot of vessels, it is apparent that at least some effort was made to have matched settings at the table. The numerous serving vessels are indicative of serving multi-course meals. The quantity of drinking vessels also reflects the ability to entertain guests in the appropriate style of the Victorian era.



The collection of alcoholic-beverage bottles from the privy is more impressive by its diversity than its quantity. The marked bottles include a European Schnapps bottle, not surprising given Mr. Duisenberg's German heritage and his stature within the local German community. Schiedam Aromatic Schnapps is often found in 19th-century deposits in California. There were also 1 locally bottled bourbon, 3 to 4 unmarked whiskeys, 3 flasks, 10 ale or beer bottles, 11 wine or champagnes, and 3 bottles of unknown alcoholic content. Some of the liquor may have been consumed while partaking of tobacco: there were 22 pipes in the fill and a spittoon for those who preferred to chew rather than smoke.

The collection of faunal remains may be the greatest testament to the Duisenbergs' wealth and hospitality. A total of 1,634 pounds of meat are represented by the bones.

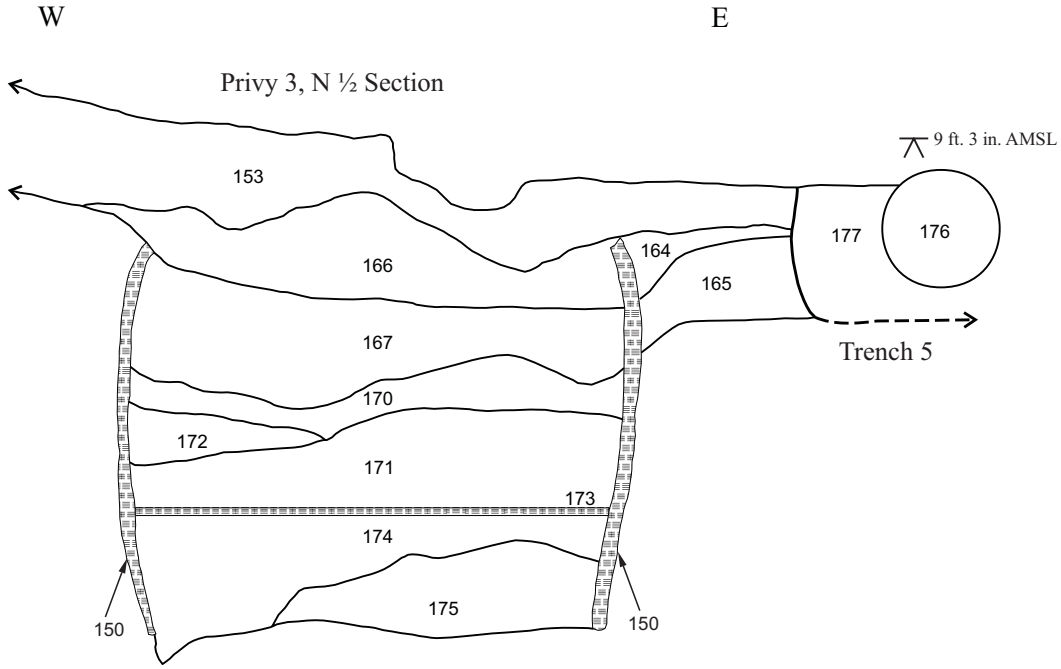
Most of the meat is beef (66.5%) followed by mutton (22.4%) and pork (11.1%). Fowl constituted a very small portion of the meat weight, with four domestic chickens and two turkeys comprising 38 pounds. The Duisenbergs did have a large variety of game birds, including goose, ducks, and quail, along with a red-shafted flicker that was probably not used for food. While most of the birds could have been purchased, the quantity and diversity of ammunition suggest that at least some of the birds were hunted; hunting may also account for the black-tailed jackrabbit.

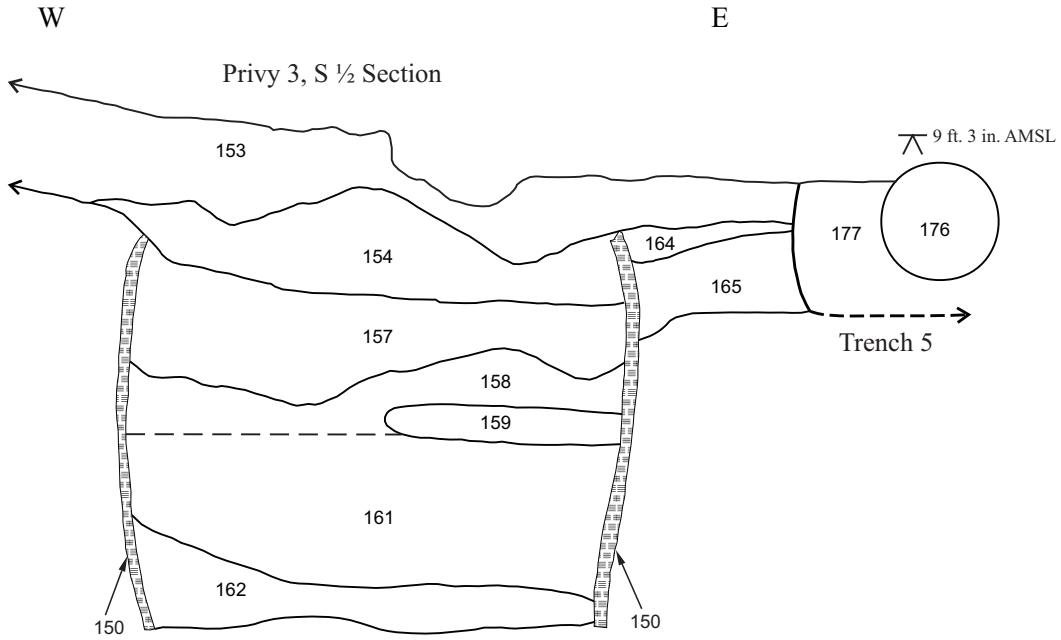
Within the mammal group, beef cuts were primarily low (48.1%) and moderate (40.9%) priced, with few (11.0%) high-priced cuts. Mutton was more high (34.2%) and moderate (45.5%), with few (20.3%) low-priced cuts. Pork was evenly distributed, with more high (38.0%) than moderate (33.1%) or low-priced (28.9%) cuts. The meat values may skew to lower values due to the presence of cuts associated with making soups and stews. The abundance of these lower cuts may be directly related to the Duisenbergs' reputed hospitality. This would have been a less-expensive means of providing meals to a large number of guests at reasonable expense. Soup was also a mainstay first course of Victorian dining.

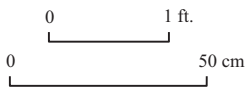
A few incidental mammals were found in the privy, including three Norway rats and a mouse. Gnawing on the bones was primarily from rodents, with a few marks from cats and dogs. The gnawing indicated that many of the bones had been exposed prior to being buried in the privy. An adult cat and six neonate kittens were also found in the fill. This may have been a pet or stray dying during birth.

Privy 3 was filled relatively late for connection to city sewer, however, the quantity of items inside is testimony to the Duisenbergs' wealth. Without further excavation of the entire lot, we may never know if there was an earlier sewer connection and if this late connection was specifically related to the buildings in the back of the lot. Perhaps after decades of using a privy there was reluctance to change. The presence of several chamber pots and the bedpan may indicate the privy was still in use until it was abandoned and filled.

Privy 3 – EXCAVATION PROFILE
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family





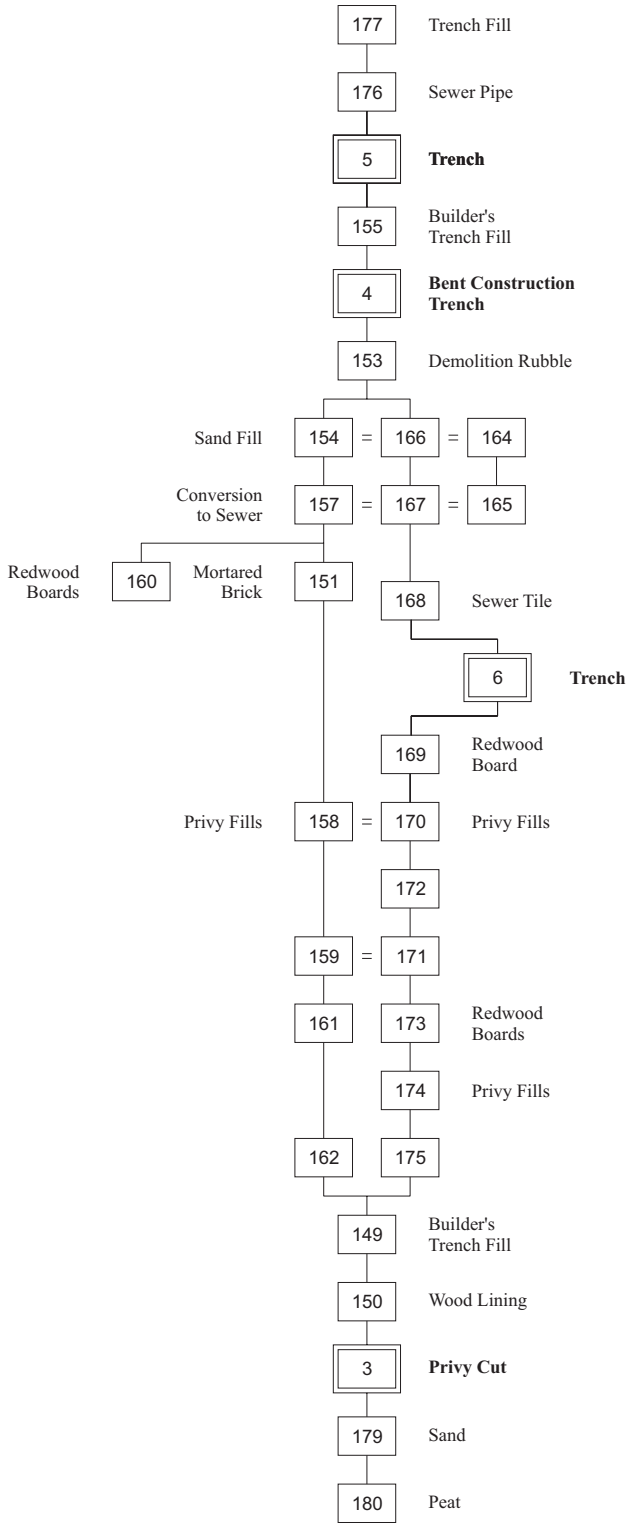


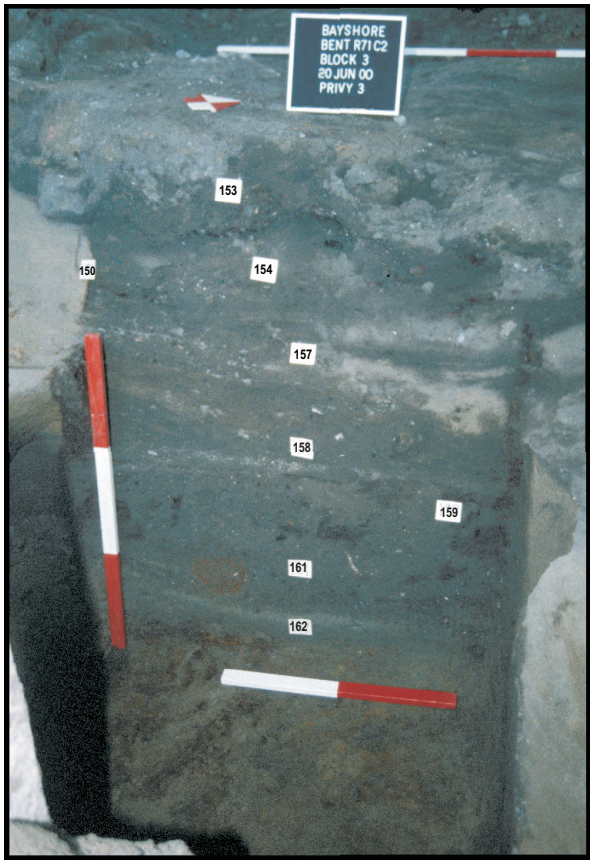
KEY
— — Arbitrary Boundary

Privy 3 – MATRIX AND EXCAVATION PROFILE

1031 Harrison Street (Bayshore Block 3)

Charles A.C. Duisenberg Family





Privy 3, South Chamber (scale increments = 1 foot)

Privy 3 – FEATURE SUMMARY TABLE
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

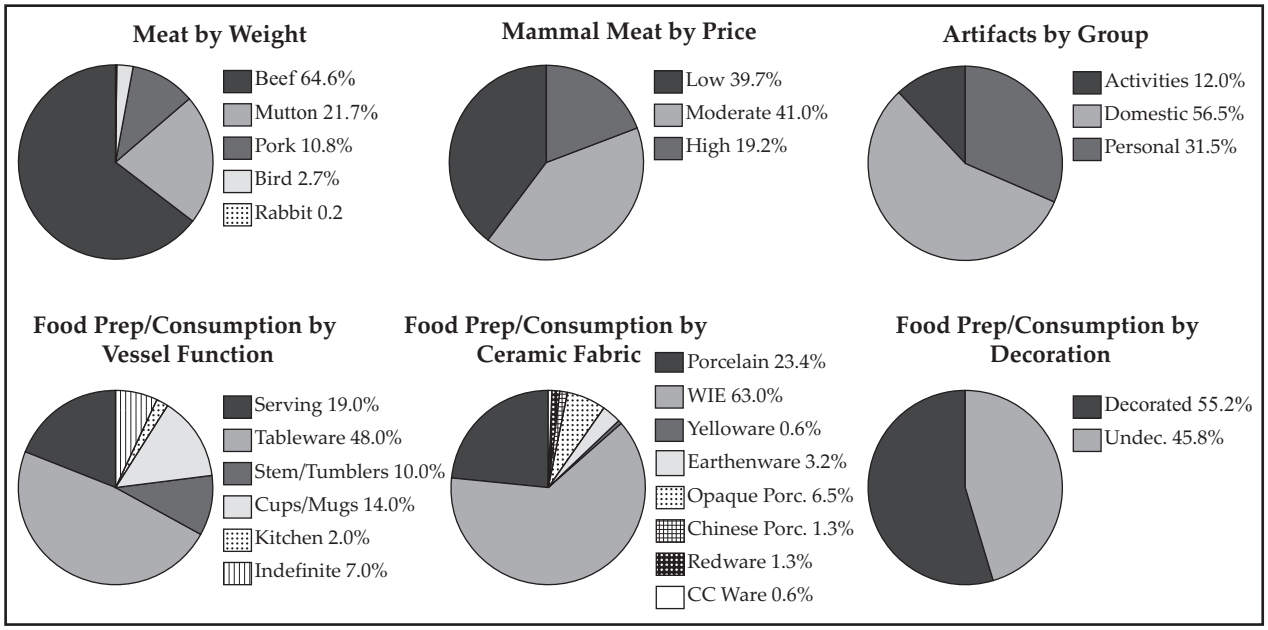
HOUSEHOLD

Name:	Charles A.C. Duisenberg Family
Birthplace:	Bremen (Germany)
Ethnicity or Race:	German
Occupation:	Merchant, German Consul
Period of Residence:	ca. 1869-1894
Terminus Post Quem/Basis:	1888 (U.S. quarter dollar)
Mean Ceramic Mark Date/*n*:	1869.8 (n = 22)
Estimated Date of Deposition:	1894

ANALYTICAL UNIT

Context Numbers: 158, 159, 161, 162, 170, 171, 172, 174, 175

ARTIFACTS





Privy 3 – ARTIFACT LAYOUT PHOTOGRAPH, 1031 Harrison Street (Bayshore Block 3), Charles A.C. Duisenberg Family. Artifacts from the Duisenberg collection likely represent the disposal of unwanted, outdated, and outgrown items accumulated over the 25 years the family lived at this location. The TPQ of 1888 is based on a U.S. quarter dollar found in a lower fill layer, and the date of deposition is probably 1894, following the death of the family patriarch, Charles Duisenberg. The volume of material from the feature is impressive, with 6,981 pieces representing 2,436 items. The Duisenbergs were known for their hospitality and the 127 serving and tableware vessels and an additional 46 drinking vessels reflect their ability to serve multi-course meals and entertain guests in a style appropriate to the Victorian era. The variety of pitchers, basins, hair-combs, brushes, and dental-hygiene items indicate the family maintained the level of personal appearance expected of the respectable well-to-do.

Privy 3 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Group and Category	Description	Count	MNI
ACTVITIES			
Collecting			
-	Coral	1	1
-	Large Cowry	1	1
Subtotal Collecting		2	2
Commerce			
-	Ferrous and Copper-alloy Cash Register Key?	1	1
Coin	Copper-alloy Nickel	1	1
Coin	Copper-alloy Quarter	1	1
Coin	Metal	1	1
Subtotal Commerce		4	4
Entertainment			
Music	Copper-alloy Instrument	3	2
Subtotal Entertainment		3	2
Firearms			
Ammunition	Copper-alloy .22 Shell Casing	4	4
Ammunition	Copper-alloy .22 Short Shell Casing	13	13
Ammunition	Copper-alloy .25 or .30 Shell Casing	1	1
Ammunition	Copper-alloy .30 Short Shell Casing	1	1
Ammunition	Copper-alloy .32 Long Shell Casing	1	1
Ammunition	Copper-alloy .32? Bullet	1	1
Ammunition	Copper-alloy .38 Bullet	1	1
Ammunition	Copper-alloy .58 Bullet	2	2
Ammunition	Copper-alloy Bullet and Case	3	1
Ammunition	Copper-alloy Rifle Cartridge	3	2
Ammunition	Copper-alloy Shell Casing	1	1
Ammunition	Lead Shot	5	3
Subtotal Firearms		36	31
Painting			
-	Horsehair? Paint Brush? Bristles	0	1
Subtotal Painting		0	1
Tools			
-	Copper-alloy Carpenter Ruler	1	0
-	Ferrous Box Wrench?	2	1
-	Ferrous Wrench	1	1
-	Wood and Copper-alloy Carpenter Ruler	1	1
Subtotal Tools		5	3

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Writing			
-	Graphite Pencil Lead	10	4
-	Slate Pencil	45	23
-	Slate Tablet	29	2
Subtotal Writing		84	29
DOMESTIC			
Clothing Maintenance			
Sewing	Copper-alloy Safety Pin	2	1
Sewing	Copper-alloy Straight Pin	49	26
Sewing	Ferrous Safety Pin	2	1
Sewing	Ferrous Scissors	1	1
Sewing	Steel? Straight Pin	13	7
Subtotal Clothing Maintenance		67	36
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Goblet	3	1
Drinking Vessel	Colorless Glass Goblet?	1	1
Drinking Vessel	Colorless Glass Stemware	11	6
Drinking Vessel	Colorless Glass Stemware/Tumbler	11	0
Drinking Vessel	Colorless Glass Stemware/Tumbler?	1	0
Drinking Vessel	Colorless Glass Tumbler	39	11
Drinking Vessel	Colorless Glass Tumbler?	1	1
Drinking Vessel	Earthenware Cup	2	1
Drinking Vessel	Opaque Porcelain Cup	3	1
Drinking Vessel	Porcelain Cup	6	5
Drinking Vessel	Porcelain Motto Cup	1	1
Drinking Vessel	White Improved Earthenware Cup	27	18
Drinking Vessel	White Improved Earthenware Motto Cup	3	1
Indefinite	Colorless Glass Dish	1	1
Indefinite	Colorless Glass Dish/Lid	1	1
Indefinite	Colorless Glass Dish?	1	1
Indefinite	Colorless Glass Hollow	5	5
Indefinite	Ferrous Knife Blade	1	1
Indefinite	Light-green Glass Hollow	1	1
Indefinite	Opaque Porcelain Hollow	2	1
Indefinite	Porcelain Bowl? Plate?	1	1
Indefinite	White Improved Earthenware Bowl	1	1
Indefinite	White Improved Earthenware Plate? Dish?	1	1
Indefinite	Yellow-green Glass Lid?	1	1
Kitchen	Redware Hollow	1	1
Kitchen	Redware Pot	1	1
Kitchen	Yellowware Indefinite	1	0
Kitchen	Yellowware Nappie	1	1
Serving	CC Ware London Bowl	5	1
Serving	Colorless Glass Berry Dish	2	1
Serving	Colorless Glass Caster	3	1

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Serving	Colorless Glass Decanter Stopper	1	1
Serving	Colorless Glass Dish	13	2
Serving	Colorless Glass Dish and Lid	6	1
Serving	Colorless Glass Dish/Lid	1	1
Serving	Colorless Glass Lid	1	1
Serving	Colorless Glass Lid? Finial?	1	1
Serving	Earthenware Teapot	9	2
Serving	Earthenware Teapot and Lid	3	1
Serving	Opaque Porcelain Dish	1	1
Serving	Opaque Porcelain Handle	1	1
Serving	Opaque Porcelain Pitcher/Creamer	1	1
Serving	Opaque Porcelain Platter?	1	1
Serving	Porcelain Hollow	1	1
Serving	Porcelain Slop Bowl	1	1
Serving	Porcelain Teapot? Sugar?	1	1
Serving	White Improved Earthenware Bowl	5	2
Serving	White Improved Earthenware Creamer	8	1
Serving	White Improved Earthenware London Bowl	1	1
Serving	White Improved Earthenware Oval Dish	19	2
Serving	White Improved Earthenware Oval Platter	1	1
Serving	White Improved Earthenware Pitcher	1	1
Serving	White Improved Earthenware Platter	5	2
Serving	White Improved Earthenware Slop Bowl	19	4
Serving	White Improved Earthenware Sugar? Teapot?	1	1
Serving	White Improved Earthenware Tureen	4	1
Tableware	Bone/Ferrous Knife	2	1
Tableware	Chinese Porcelain Medium/Large Plate	1	1
Tableware	Chinese Porcelain Small Plate	1	1
Tableware	Copper-alloy Spoon	3	1
Tableware	Earthenware Saucer	1	1
Tableware	Opaque Porcelain Plate	1	1
Tableware	Opaque Porcelain Plate?	1	1
Tableware	Opaque Porcelain Saucer	2	2
Tableware	Porcelain Egg Cup	3	2
Tableware	Porcelain Plate	13	6
Tableware	Porcelain Plate, ~ 8"	2	1
Tableware	Porcelain Plate, 8-1/4"	17	3
Tableware	Porcelain Saucer	17	13
Tableware	Porcelain Saucer?	1	1
Tableware	White Improved Earthenware Dish	10	2
Tableware	White Improved Earthenware Plate	51	26
Tableware	White Improved Earthenware Plate, 10"	13	1
Tableware	White Improved Earthenware Plate, 8"	3	1
Tableware	White Improved Earthenware Plate, 8-1/2"	10	2

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Tableware	White Improved Earthenware Plate, 8-3/4"	6	1
Tableware	White Improved Earthenware Plate, 9"	10	2
Tableware	White Improved Earthenware Plate, 9-10"	3	1
Tableware	White Improved Earthenware Plate?	4	4
Tableware	White Improved Earthenware Saucer	20	12
Tableware	White Improved Earthenware Saucer, 6-1/4"	4	1
Tableware	White Improved Earthenware Small Dish	4	1
Tableware	White Improved Earthenware Soup Plate	6	4
Tableware	White Improved Earthenware Soup Plate, ~9-10"	2	1
Tableware	White Improved Earthenware Soup Plate, 9"	10	1
Subtotal Food Prep/Consumption		466	196
Food/Food Storage			
Closure	Aqua Glass Club Sauce Stopper	1	1
Closure	Earthenware Crock Lid	1	1
Closure	Stoneware Lid	1	1
Container	Aqua Glass Bottle	4	0
Container	Aqua Glass Canning Jar	2	2
Container	Aqua Glass Olive-oil Bottle	6	1
Container	Aqua Glass Pepper-sauce Bottle	3	1
Container	Aqua Glass Pickle Bottle	13	2
Container	Aqua Glass Soda-water Bottle	1	1
Container	Aqua Glass Spice Bottle	9	4
Container	Blue Glass Soda-water Bottle	1	1
Container	Chinese Porcelain Ginger Jar	2	1
Container	Chinese Stoneware Ginger Jar	1	1
Container	Colorless Glass Jar	8	1
Container	Colorless Glass Mustard Bottle	22	3
Container	Redware Crock	1	1
Container	Redware Jug?	2	1
Container	Stoneware Crock	1	1
Container	Stoneware Preserve Jar	9	2
Subtotal Food/Food Storage		88	26
Furnishings			
-	Common-pottery Flowerpot	22	5
-	Glass Mirror	42	4
-	Porcelain Indefinite	1	1
-	Scroddled Ware Door Knob	3	1
-	Wool Shag Rug?	1	1
Decorative Item	Parian Porcelain Figurine?	1	1
Decorative Item	Porcelain Figurine	1	1
Decorative Item	Porcelain Hollow	2	1
Decorative Item	Porcelain Indefinite	1	0

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Furnishings *(continued)*			
Furniture	Brass Drawer Pull/Door Plate?	1	1
Furniture	Brass Hinge	1	1
Furniture	Copper-alloy Upholstery Tack	1	1
Furniture	Porcelain Drawer Pull	2	2
Subtotal Furnishings		79	20
Heating/Lighting			
Lamp	Brass Thumbscrew	1	1
Lamp	Colorless Glass Chimney	230	43
Lamp	Colorless Glass Globe	39	2
Lamp	Copper-alloy Burner	5	2
Lamp	White Glass Shade	3	1
Subtotal Heating/Lighting		278	49
Indefinite			
-	Chinese Porcelain Hollow	2	1
-	Colorless Glass Indefinite	1	1
-	Earthenware Hollow	2	2
-	Porcelain Hollow	2	1
-	Redware Hollow	2	2
-	Refined-earthenware Hollow	1	1
-	White Improved Earthenware Hollow	3	3
-	Yellowware Hollow	2	1
Subtotal Indefinite		15	12
INDEFINITE USE			
Food or Health			
Container	Stoneware Mineral-water Bottle	3	2
Subtotal Food or Health		3	2
Indefinite			
-	Aqua Glass Tube	1	1
-	Black Glass Bead? Button?	2	2
-	Black Glass Hollow Tinkler?	3	1
-	Blue Glass Rod	1	1
-	Bone Disk	1	1
-	Bone Disk and Handle	2	1
-	Bone Knob	1	1
-	Bone Shaft	1	1
-	Bone Tube	3	1
-	Chinese Brown Glazed Stoneware Pan	6	3
-	Clay? Indefinite	2	1
-	Cobalt Glass Rim	1	1
-	Colorless /White Glass Lid/Base?	1	1
-	Colorless Glass Body	489	0
-	Colorless Glass Bottle/Chimney	21	0
-	Colorless Glass Flat	1	1

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Indefinite *(continued)*			
-	Colorless Glass Hollow	1	1
-	Colorless Glass Lens	2	2
-	Copper-alloy Chain	5	1
-	Dark Reddish-purple Glass Body	5	1
-	Ferrous Handle?	1	1
-	Ferrous/Copper-alloy Strip	3	0
-	Glass Flat	1	0
-	Glass Indefinite	66	0
-	Graphite Battery Rod	1	1
-	Lime	3	0
-	Mica	1	0
-	Mohair? Clump	1	1
-	Opaque Aqua Glass Hollow	1	1
-	Opaque Porcelain Hollow	1	1
-	Opaque Porcelain Pitcher	4	1
-	Porcelain Body	2	0
-	Porcelain Body and Base	2	0
-	Porcelain Hollow	6	2
-	Porcelain Indefinite	1	1
-	Purple Glass Body	1	1
-	Red Glass Button/Jewelry? Inset	1	1
-	White Glass Lamp Shade?	3	1
-	White Improved Earthenware Body	55	0
-	White Improved Earthenware Handle	4	4
-	White Improved Earthenware Indefinite	1	1
-	White Improved Earthenware Lid? Handle	1	1
-	White Improved Earthenware Pitcher	1	1
Subtotal Indefinite		710	41
Materials			
-	Cut Stone	1	1
Subtotal Materials		1	1
Misc. Beads			
-	Black Glass Bead	73	34
-	Ceramic Bead	2	2
-	Cobalt Glass Bead	5	4
-	Colorless Glass Bead	35	34
-	Dark Glass Bead	27	27
-	Glass Bead	30	30
-	Green Glass Bead	6	6
-	Light-blue Glass Bead	1	1
-	Opaque-blue Glass Bead	1	1
-	Opaque Glass Bead	2	2
-	Yellow Glass Bead	1	1
Subtotal Misc. Beads		183	142

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Beads?			
-	Black Glass Bead?	2	2
-	Colorless Glass Bead?	2	2
-	Unidentified Bead?	2	2
Subtotal Misc. Beads?		6	6
Misc. Closures			
-	Black Glass Stopper	5	1
-	Chinese Brown Glazed Stoneware Small Storage Vessel Lid	1	1
-	Colorless Glass Lid?	1	1
-	Cork Cap Insert/Liner	1	1
-	Ferrous Lid	3	2
-	Porcelain Finial	1	1
Subtotal Misc. Closures		12	7
Misc. Containers			
-	Aqua Glass Bottle	74	12
-	Chinese Brown Glazed Stoneware Barrel Jar	7	1
-	Chinese Brown Glazed Stoneware Large Storage Vessel	13	3
-	Chinese Brown Glazed Stoneware Small Storage Vessel	1	1
-	Colorless Glass Bottle	66	17
-	Ferrous Can	129	13
-	Ferrous Can?	2	1
-	Light-blue Glass Bottle	12	2
-	Opaque Porcelain Jar	2	1
Subtotal Misc. Containers		306	51
Misc. Containers and Closures			
-	White Improved Earthenware Pot and Lid	3	2
Subtotal Misc. Containers and Closures		3	2
Misc. Fasteners			
-	Brass Rivet	1	1
-	Copper-alloy Rivet	2	2
-	Copper-alloy Tack	1	1
-	Copper-alloy Tack?	1	1
-	Ferrous Eye Screw	3	3
-	Ferrous Eye Screw?	1	1
-	Ferrous Screw	1	1
-	Ferrous Tack	73	73
Subtotal Misc. Fasteners		83	83

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Metal Items			
-	Brass Disk	1	1
-	Brass Gear	1	1
-	Brass Knob	1	1
-	Brass Strip	2	1
-	Copper-alloy Bell	1	1
-	Copper-alloy Brad	1	1
-	Copper-alloy Coin? Disk?	2	2
-	Copper-alloy Collar	5	3
-	Copper-alloy Collar?	1	1
-	Copper-alloy Disk	1	1
-	Copper-alloy Disk/Flange	4	1
-	Copper-alloy Disk?	2	2
-	Copper-alloy End Cap	1	1
-	Copper-alloy Indefinite	13	1
-	Copper-alloy Molding	2	1
-	Copper-alloy Plate	3	1
-	Copper-alloy Ring	6	4
-	Copper-alloy Rivet	3	3
-	Copper-alloy Strap	1	1
-	Copper-alloy Strip	1	0
-	Copper-alloy Tube	4	3
-	Copper-alloy Wire	5	2
-	Copper-alloy/Leather Ring	2	1
-	Copper-alloy? Indefinite	2	1
-	Ferrous Buckle?	1	1
-	Ferrous Can/Sheet Metal	83	0
-	Ferrous Collar	2	1
-	Ferrous Crank Handle	1	1
-	Ferrous Hook	2	2
-	Ferrous Hook?	1	1
-	Ferrous Key	2	2
-	Ferrous Latch?	1	1
-	Ferrous Mesh	1	1
-	Ferrous Pipe	2	1
-	Ferrous Ring	3	1
-	Ferrous Sheet Metal	113	0
-	Ferrous Strap	1	1
-	Ferrous Strapping	26	1
-	Ferrous Strip	23	2
-	Ferrous Tube	2	1
-	Ferrous Washer	1	1
-	Ferrous Wire	3	2
-	Gold Leaf	1	1
-	Lead Bar? Stock?	1	1
-	Lead Pipe	4	1

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Metal Items *(continued)*			
-	Lead Sheet Metal	1	1
-	Lead Slab	2	1
-	Lead Strip	6	2
-	Lead Tube	1	1
-	Lead Tube?	3	1
-	Lead? Knob	1	1
-	Lead? Tube/Cap	1	1
-	Zinc? Sheet Metal	3	1
Subtotal Misc. Metal Items		357	67
PERSONAL			
Accoutrements			
-	Bone Fan	5	1
-	Celluloid Hair Clip, Women's	1	1
-	Colorless Glass Watch/Jewelry Cover	4	3
-	Copper-alloy Purse	1	1
-	Copper-alloy Purse Frame	1	1
-	Copper-alloy Purse?	1	1
-	Copper-alloy Watch? Jewelry?	1	0
-	Ferrous Purse	3	1
-	Hard-rubber Hair Comb, Women's	4	2
Jewelry	Bone Cuff Link	2	1
Jewelry	Bone Ring	1	1
Jewelry	Brass Brooch	1	1
Jewelry	Copper-alloy Brooch	1	1
Jewelry	Ferrous and Copper-alloy Pin?	1	1
Jewelry?	Copper-alloy Part	1	1
Subtotal Accoutrements		28	17
Clothing			
-	Silk Dress/Waist	7	1
-	Silk Fabric	1	1
-	Silk Fabric Tape	1	1
-	Silk Outergarment Lining	5	0
-	Silk Outergarment Lining/Dress/Waist	2	1
-	Silk Waist/Shawl	1	1
-	Wool Outergarment	6	4
-	Wool Outergarment/Dress/Shirt	5	4
-	Wool Felt Hat	1	1
Fastener	Black Glass Button	10	9
Fastener	Black Glass Button Inset	1	1
Fastener	Black Porcelain Button	4	3
Fastener	Blue Glass Button	4	2
Fastener	Bone Button	4	4
Fastener	Bone Button Inset	1	1
Fastener	Bone? Button	2	2

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Clothing *(continued)*			
Fastener	Brass Button	3	2
Fastener	Brown Porcelain Button	2	2
Fastener	Colorless Glass Button	4	4
Fastener	Copper-alloy Brace/Hose Support Buckle	3	2
Fastener	Copper-alloy Buckle	1	1
Fastener	Copper-alloy Button	12	10
Fastener	Copper-alloy Hook and Eye	34	19
Fastener	Copper-alloy Hose Support Buckle	3	2
Fastener	Ferrous Buckle	2	2
Fastener	Ferrous Button	13	13
Fastener	Ferrous Button?	1	1
Fastener	Ferrous Corset Hardware	1	1
Fastener	Ferrous/Copper-alloy Button	9	6
Fastener	Ferrous? Button	1	1
Fastener	Hard-rubber Button	5	5
Fastener	Pink Glass Button	1	1
Fastener	Porcelain Button	148	137
Fastener	Shell Button	4	4
Fastener	White Glass Button	3	2
Subtotal Clothing		305	251
Clothing/Footwear			
-	Leather Shoe/Boot or Glove	1	0
Subtotal Clothing/Footwear		1	0
Footwear			
-	Copper-alloy Tack	8	0
-	Ferrous Tack	1	0
-	Leather Shoe/Boot	6	1
-	Leather Shoe/Boot, Women's/Children's	2	2
-	Leather/Copper-alloy Boot	3	0
-	Linen Shoe	2	0
Fastener	Copper-alloy Grommet	28	0
Subtotal Footwear		50	3
Footwear Maintenance			
-	Ferrous Boot Plate	1	1
Subtotal Footwear Maintenance		1	1
Grooming/Health			
-	Colorless Glass Syringe	12	1
Closure	Colorless Glass Perfume Bottle Stopper	2	0
Closure	White Improved Earthenware Cold-cream Lid	1	1
Container	Aqua Glass Bitters Bottle	8	1
Container	Aqua Glass Bottle	7	5

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Grooming/Health *(continued)*			
Container	Aqua Glass Florida-water Bottle	1	1
Container	Aqua Glass Ointment Bottle	1	1
Container	Aqua Glass Pain-killer Bottle	1	1
Container	Aqua Glass Pills Bottle	4	1
Container	Aqua Glass Syrup Bottle	3	3
Container	Aqua Glass Tricopherous Bottle	1	1
Container	Aqua Glass Vial	1	1
Container	Aqua Glass Witch-hazel Bottle	8	1
Container	Cobalt Glass Bottle	9	2
Container	Colorless Glass Bottle	12	3
Container	Colorless Glass Dentifrice Bottle	2	1
Container	Colorless Glass Perfume Bottle	6	2
Container	Colorless Glass Pharmaceutical Bottle	31	10
Container	Colorless Glass Sozodont Bottle	2	1
Container	Colorless Glass Vial	2	2
Container	Colorless Glass Vial?	1	1
Container	Porcelain Jar	1	1
Toiletry	Bone Toothbrush	1	1
Toiletry	Hard-rubber Comb	14	6
Toiletry	Hard-rubber Hair Pin	4	2
Toiletry	Light-green Glass Hollow	1	1
Toiletry	Opaque Porcelain Dish	1	1
Toiletry	Opaque Porcelain Lid	1	1
Toiletry	Porcelain Basin	5	1
Toiletry	Porcelain Dish	1	1
Toiletry	White Improved Earthenware Basin?	1	0
Toiletry	White Improved Earthenware Bed Pan?	2	1
Toiletry	White Improved Earthenware Chamberpot	3	3
Toiletry	White Improved Earthenware Hollow	2	1
Toiletry	White Improved Earthenware Lid	1	1
Toiletry	White Improved Earthenware Pitcher	1	1
Subtotal Grooming/Health		154	63
Indefinite			
-	Black Glass Button/Jewelry Inset	1	1
-	Black Glass Button/Jewelry? Inset	1	1
-	Unidentified Inset	1	1
Subtotal Indefinite		3	3
Misc. Containers			
-	Amber Glass Bottle	3	1
-	Aqua Glass Bottle	1	1
-	Brown Glass Bottle	8	2
-	Cobalt Glass Bottle	1	0
Subtotal Misc. Containers		13	4

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Social Drugs – Alcohol			
Container	Amber Glass Bourbon Bottle	14	1
Container	Amber Glass Flask	17	1
Container	Amber Glass Flask?	1	1
Container	Amber Glass Whiskey Bottle	12	1
Container	Brown Glass Alcoholic-beverage Bottle	4	1
Container	Brown Glass Bourbon Bottle	3	2
Container	Brown Glass Schnapps Bottle	1	1
Container	Brown Glass Whiskey Bottle	3	2
Container	Colorless Glass Flask	6	1
Container	Dark-olive Glass Ale/Beer Bottle	104	8
Container	Light-green Glass Alcoholic-beverage Bottle	1	1
Container	Olive Glass Alcoholic-beverage Bottle	1	1
Container	Olive Glass Ale/Beer Bottle	7	1
Container	Olive Glass Wine/Champagne Bottle	92	11
Container	Stoneware Ale/Beer Bottle	2	1
Container	Yellow-green Glass Whiskey? Bottle	1	1
Subtotal Social Drugs – Alcohol		267	33
Social Drugs – Tobacco			
-	Ball Clay Pipe	45	18
-	Meerschaum Pipe	8	3
-	Porcelain Spittoon	1	1
-	Red Earthenware Pipe	1	1
Subtotal Social Drugs – Tobacco		55	23
Toys			
-	Ceramic Marble	2	2
-	Clay Marble	3	3
-	Ferrous Pistol	1	1
-	Glass Marble	4	4
-	Porcelain Doll	15	10
-	Porcelain Marble	13	10
-	Rubber Ball	39	1
-	Rubber Doll	7	1
Tea set	Porcelain Cup	2	2
Tea set	Porcelain Doll Plate	1	1
Tea set	Porcelain Gravy Boat?	1	1
Tea set	Porcelain Hollow	5	4
Tea set	Porcelain Lid	1	1
Tea set	Porcelain Saucer	1	1
Subtotal Toys		95	42

Privy 3 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
STRUCTURAL			
Hardware			
-	Brass Door Lock and Handle	2	1
-	Copper-alloy Nail	1	1
-	Copper-alloy Screw	1	1
-	Ferrous Cut Nail	910	428
-	Ferrous Nail	1,785	717
-	Ferrous Spike	37	17
-	Ferrous Spike?	1	1
-	Ferrous Wire Nail	14	1
-	Scroddled Ware Door Knob	1	1
-	Unidentified Screw	1	1
Subtotal Hardware		2,753	1,169
Materials			
-	Brick	29	3
-	Brick T-Joint	1	1
-	Cement Mortar	1	1
-	Clay Brick	21	6
-	Colorless Glass Window	374	0
-	Common-pottery Sewer Pipe	8	0
-	Mortar/Cement	2	0
-	Mortar? Clay?	1	0
-	Red Bodied Earthenware Brick?	1	1
-	Sandstone Mortar	25	1
-	Stone Architectural Stone	2	1
Subtotal Materials		465	14
TOTAL		6,981	2,436

Privy 3 – SUMMARY OF ARTIFACTS BY GROUP
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Description	Total Count	MNI	Percent of MNI
Activities	134	72	12.0
Domestic	993	339	56.5
Personal (other than Clothing)	667	189	31.5
Subtotal	1,794	600	100.0
Indefinite Use	1,663	402	
Personal Clothing	305	251	
Structural	3,218	1,183	
Undefined Use	440	0	
TOTAL	7,421	2,436	

Privy 3 – SUMMARY OF ARTIFACTS BY CATEGORY
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Description	MNI	Percent
Accoutrements	17	1.4
Clothing	251	20.0
Clothing Maintenance	36	2.9
Collecting	2	0.2
Commerce	4	0.3
Entertainment	2	0.2
Firearms	31	2.5
Food or Health	2	0.2
Food Prep/Consumption	196	15.6
Food/Food Storage	26	2.1
Footwear	3	0.2
Footwear Maintenance	1	0.1
Furnishings	20	1.6
Grooming/Health	63	5.0
Heating/Lighting	49	3.9
Indefinite	56	4.5
Material	1	0.1
Misc. Beads	142	11.3
Misc. Beads?	6	0.5
Misc. Closures	7	0.6
Misc. Containers	55	4.4
Misc. Containers and Closures	2	0.2
Misc. Fasteners	83	6.6
Misc. Metal Items	67	5.3
Painting	1	0.1
Social Drugs - Alcohol	33	2.6
Social Drugs - Tobacco	23	1.8
Tools	3	0.2
Toys	42	3.4
Writing	29	2.3
TOTAL	1,253	100.1

Privy 3 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Bitters Bottle	Walker's Vinegar Bitters	1	
	Bottle		2	
	Druggist/Apothecary Bottle	Fowler, H.	1	
		Langley, C.	1	
		Redington & Co.	1	
		Searby, W.M.	2	
	Grooming Bottle	Murray & Lanman Florida Water	1	
		Perfume	1	
		Sozodont	1	
		Witch Hazel	1	
	Grooming Lid	Cold Cream	1	
	Patent Medicine Bottle	Ayer's Pill's	1	
		Barry's Tricopherous	1	
		Bonn's Dentrifice	1	
		Davis' Pain Killer	1	
		Kennedy's Ointment	1	
		Mrs. Winslow's Soothing Syrup	3	
Subtotal Labeled Items			21	51
Unlabeled Items				
	Bottle		7	
	Druggist/Apothecary Bottle		7	
	Jar		1	
	Perfume Bottle		1	
	Vial		4	
Subtotal Unlabeled Items			20	49
TOTAL			41	100
Food or Health Items				
	Mineral-water Bottle		2	

Privy 3 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	36	19
Tableware (plates, bowls, saucers, etc.)	93	48
Stemware and Tumblers	20	10
Cups and Mugs	27	14
Kitchen (mixing bowls, bakers, etc.)	3	2
Indefinite	14	7
TOTAL	193	100

Privy 3 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			154	80
Porcelain	36	23.4		
Opaque Porcelain	10	6.5		
Chinese Porcelain	2	1.3		
White Improved Earthenware	97	63.0		
Earthenware	5	3.2		
CC Ware	1	0.6		
Yellowware	1	0.6		
Redware	2	1.3		
Ceramic Subtotal	154	99.9		
Glass			39	20
TOTAL			193	100

Privy 3 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
CC Ware	London Bowl			1
Chinese Porcelain	Medium/Large Plate	Handpainted	1	
Chinese Porcelain	Small Plate	Handpainted	1	
Earthenware	Cup	Annular	1	
Earthenware	Saucer	Sponge	1	
Earthenware	Teapot	Variegated glaze	1	
Earthenware	Teapot	Variegated glaze, Sided	1	
Earthenware	Teapot and Lid	Rebekah at the Well	1	
Opaque Porcelain	Cup	Paneled	1	
Opaque Porcelain	Dish	Molded - Lily Shape	1	
Opaque Porcelain	Handle	Molded	1	
Opaque Porcelain	Hollow			1
Opaque Porcelain	Pitcher/Creamer			1
Opaque Porcelain	Plate	Molded	1	
Opaque Porcelain	Plate?	Molded	1	
Opaque Porcelain	Platter?			1
Opaque Porcelain	Saucer			2
Porcelain	Bowl? Plate?	Handpainted, Decal - floral	1	
Porcelain	Cup			3
Porcelain	Cup	Gilded	1	
Porcelain	Cup	Paneled, Gilded	1	
Porcelain	Egg Cup			2
Porcelain	Hollow	Molded	1	
Porcelain	Motto Cup	Gilded	1	
Porcelain	Plate			5
Porcelain	Plate	Blue sprig, Paneled	1	
Porcelain	Plate, ~ 8"	Blue sprig, Paneled	1	
Porcelain	Plate, 8-1/4"	Molded, Scalloped	3	
Porcelain	Saucer	Blue sprig, Paneled	1	
Porcelain	Saucer	Gilded	3	
Porcelain	Saucer	Gilded, Handpainted floral	1	
Porcelain	Saucer	Handpainted band	2	
Porcelain	Saucer	Paneled	4	
Porcelain	Saucer	Paneled, Gilded	1	
Porcelain	Saucer	Paneled, Handpainted, Gilded	1	
Porcelain	Saucer?	Gilded	1	
Porcelain	Slop Bowl	Gilded	1	
Porcelain	Teapot? Sugar?			1
Redware	Hollow			1
Redware	Pot			1

Privy 3 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic *(continued)*				
WIE	Bowl	Annular	2	
WIE	Bowl	Blue scenic transfer	1	
WIE	Creamer			1
WIE	Cup			11
WIE	Cup	Luster	1	
WIE	Cup	Paneled	6	
WIE	Dish			1
WIE	Dish	Scalloped	1	
WIE	London Bowl	Annular	1	
WIE	Motto Cup	Green transfer	1	
WIE	Oval Dish			2
WIE	Oval Platter			1
WIE	Pitcher			1
WIE	Plate			22
WIE	Plate	Black transfer, Paneled	2	
WIE	Plate	Molded	1	
WIE	Plate	Molded – Fig	1	
WIE	Plate, 10″	Molded – Memnon Shape	1	
WIE	Plate, 8″			1
WIE	Plate, 8-1/2″			2
WIE	Plate, 8-3/4"	Molded - Prairie	1	
WIE	Plate, 9"	Molded - Wheat	2	
WIE	Plate, 9-10"	Molded - beaded rim	1	
WIE	Plate?			4
WIE	Plate? Dish?	Black transfer, Paneled	1	
WIE	Platter	Molded	1	
WIE	Platter	Sided	1	
WIE	Saucer			8
WIE	Saucer	Brown transfer	1	
WIE	Saucer	Gaudy type	1	
WIE	Saucer	Molded	1	
WIE	Saucer	Paneled	1	
WIE	Saucer, 6-1/4"	Paneled	1	
WIE	Slop Bowl			2
WIE	Slop Bowl	Molded	1	
WIE	Slop Bowl	Paneled	1	
WIE	Small Dish	Molded - Fig	1	
WIE	Soup Plate			4
WIE	Soup Plate, ~9-10"			1
WIE	Soup Plate, 9"			1
WIE	Sugar? Teapot?	Sided	1	
WIE	Tureen	Black transfer, Paneled	1	
Yellowware	Nappie			1
Ceramic Subtotal			72	82

Privy 3 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecor MN
Glass				
Colorless Glass	Berry Dish	Pressed - Roman Key	1	
Colorless Glass	Caster			1
Colorless Glass	Decanter Stopper			1
Colorless Glass	Dish	Pressed - Honeycomb	1	
Colorless Glass	Dish	Pressed - Inverted fern	1	
Colorless Glass	Dish	Pressed, Frosted	1	
Colorless Glass	Dish and Lid	Pressed - Loop and Dart	1	
Colorless Glass	Dish/Lid	Pressed	1	
Colorless Glass	Dish/Lid	Pressed - Honeycomb	1	
Colorless Glass	Dish?	Pressed - Honeycomb	1	
Colorless Glass	Goblet	Pressed - Bohemian	1	
Colorless Glass	Goblet?	Paneled	1	
Colorless Glass	Hollow			2
Colorless Glass	Hollow	Pressed - diamonds	1	
Colorless Glass	Hollow	Pressed - facets	1	
Colorless Glass	Hollow	Pressed - flutes	1	
Colorless Glass	Lid	Pressed - flutes	1	
Colorless Glass	Lid? Finial?			1
Colorless Glass	Stemware			1
Colorless Glass	Stemware	Cut panels, Etched floral	1	
Colorless Glass	Stemware	Painted Red	1	
Colorless Glass	Stemware	Pressed - Honeycomb	3	
Colorless Glass	Tumbler			1
Colorless Glass	Tumbler	Cut panels (10)	2	
Colorless Glass	Tumbler	Cut panels (6)	1	
Colorless Glass	Tumbler	Paneled	2	
Colorless Glass	Tumbler	Pressed	1	
Colorless Glass	Tumbler	Pressed - Ashburton	1	
Colorless Glass	Tumbler	Pressed – Thumbprint type	1	
Colorless Glass	Tumbler	Pressed panels (6)	1	
Colorless Glass	Tumbler	Pressed panels (8)	1	
Colorless Glass	Tumbler?	Pressed - Honeycomb	1	
Light-green Glass	Hollow	Color, Etched floral	1	
Yellow-green Glass	Lid?	Color, Pressed	1	
Glass Subtotal			32	7
TOTAL			104	89

Privy 3 – SOCIAL DRUGS SUMMARY
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage	3	
	Ale/Beer Bottle	10	
	Bourbon Bottle	1	
	Flask	2	
	Flask?	1	
	Schnapps Bottle	1	
	Whiskey Bottle	3	
	Whiskey? Bottle	1	
	Wine/Champagne Bottle	11	
Subtotal Alcohol		33	59
Tobacco			
	Pipe	22	
	Spittoon	1	
Subtotal Tobacco		23	41
TOTAL		56	100

Privy 3 – ANIMALS REPRESENTED IN FAUNAL REMAINS
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Common Name	Scientific Name	NISP	MNI	MW (lbs.)
MAMMALS				
Major Meat Mammals				
cow	*Bos taurus*	619	9	1,087.1
sheep	*Ovis aries*	607	7	365.5
pig	*Sus scrofa*	332	4	181.5
artiodactyl	artiodactyla	16		
Minor Meat Mammals				
Blacktail jackrabbit	*Lepus californicus*	12	2	3.0
Incidental Mammals				
Domestic cat	*Felis catus*	24	*7	
Norway rat	*Rattus norvegicus*	10	3	
House mouse	*Mus musculus*	2	1	
Human	*Homo*	**11	1	
TOTAL MAMMALS		1,622	27	1,637.1
BIRDS				
Domestic Poultry				
chicken	*Gallus gallus*	65	4	8.0
turkey	*Meleagris gallopavo*	10	2	30.0
Game Birds				
Canada goose	*Branta canadensis*	3	1	4.0
Northern pintail	*Anas acuta*	7	2	4.0
large duck, indet.	Anas sp.	5		
duck, indet.	Anatidae	4		
California Quail	*Callipepla californica*	19	3	
Incidental Birds				
Red-shafted Flicker		3	1	
TOTAL BIRDS		116	13	46.0
GRAND TOTAL		1,738	40	1,683.1

* This number includes one adult and 6 very young kittens (neonate).
** Deciduous human teeth.

Privy 3 – MEAT WEIGHT BY PRICE
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
BEEF				
high			11.0	
porterhouse	45.6	4.2		
sirloin	36.9	3.4		
prime rib	37.6	3.5		
moderate			40.9	
crossrib	121.8	11.2		
round	18.9	1.7		
rump	41.4	3.8		
blade	53.4	4.9		
roundbone	8.8	0.8		
chuckrib	200.0	18.4		
low			48.1	
neck	263.4	24.2		
plate	98.6	9.1		
brisket	93.6	8.6		
hindshank	14.8	1.4		
foreshank	52.5	4.8		
Total	1,087.3	100.0		66.5
MUTTON				
high			34.2	
porterhouse	46.2	12.6		
sirloin	24	6.6		
rump	29.3	8.0		
round	25.5	7.0		
moderate			45.5	
rib	47.9	13.1		
crossrib	19.6	5.4		
blade	44.4	12.1		
roundbone	9.0	2.5		
chuckrib	45.4	12.4		
low			20.3	
neck	45.3	12.4		
plate	1.6	0.4		
brisket	10.8	3.0		
hindshank	2.8	0.8		
foreshank	13.7	3.7		
Total	365.5	100.0	100.0	22.4

Privy 3 – Meat Weight by Price *(continued)*

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
PORK				
high			38.0	
porterhouse	28.7	15.8		
sirloin	9.8	5.4		
rib	29.1	16.0		
round	1.4	0.8		
moderate			33.1	
rump	12.5	6.9		
blade	9.5	5.2		
roundbone	0	0.0		
chuckrib	38.2	21.0		
low			28.9	
neck	2.9	1.6		
crossrib	4.8	2.6		
brisket	3.6	2.0		
plate	2.0	1.1		
foreshank	2.5	1.3		
forefoot	2.6	1.5		
hindshank	11.3	6.2		
hindfoot	2.1	1.2		
head	12.3	6.7		
jowl	8.5	4.7		
Total	181.8	100.0	62.0	11.1
GRAND TOTAL	1,634.6			100.0

Privy 3 – SHELLFISH REMAINS
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Shellfish	MNI
Barnacle	1
Clam	14
Crab	2
Limpet	3
Mussel	58
Oyster	7
Sanddollar	1
Scallop	2

Privy 3 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
1031 Harrison Street (Bayshore Block 3)
Charles A.C. Duisenberg Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items								
158 017	White Improved Earthenware	Plate	1	Impressed mark: THOMAS HUGHES/ BURSLEM/ 1	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44, mark 142
161 035	Opaque Porcelain	Dish	1	(molded - Lily Shape)	Burgess, Henry (attributed to)	Staffordshire	1860s (1864) - (1892)	Kowalsky and Kowalsky 1999:135, 400
161 039	White Improved Earthenware	Plate, 8"	1	Impressed mark: THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44, mark 142
161 041	White Improved Earthenware	Small Dish	1	Impressed marks: (illegible Registration mark); (in figure 8) DAVENPORT/ (anchor)/ IRONSTONE CHINA; 10-67	Davenport	Staffordshire	1867, October - 1867, October	Godden 1991: 190, mark 1189; Wetherbee 1996:96
162 005	White Improved Earthenware	Plate	1	Printed mark: (standing Royal Coat of Arms)			-	
170 015	White Improved Earthenware	Plate	1	Printed mark: (fragmentary Royal Coat of Arms)			-	
170 019	White Improved Earthenware	Oval Platter	1	Impressed mark: [THOM]AS HUGHE[S/ BURSLEM]	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44, mark 142
170 021	White Improved Earthenware	Saucer	1	Impressed mark: (illegible)			-	
171 010	White Improved Earthenware	Plate	1	(molded - Fig Pattern)	Davenport or Wedg(e) Wood, J.	Staffordshire	1856 - 1887	Wetherbee 1996:106,110; Praetzellis et al. 1983:27
171 020	White Improved Earthenware	Plate?	1	Printed mark: [(Royal Coat of Arms)/ CORK/ ED]GE & M[ALKIN..]	Cork, Edge, and Malkin	Staffordshire	1860 ca - 1871	Kowalsky and Kowalsky 1999:1620163
171 026	White Improved Earthenware	Plate	1	Printed mark: (seated Royal Coat of Arms)/ [STONE CH]INA/ [E. & C. CHALLI]NOR	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18, mark 49
172 007	White Improved Earthenware	Plate	1	Printed mark: (crown/ lion in shield)/ [THOMAS HUGHE]S/ [ENGLAND]	Hughes, Thomas	Staffordshire	1862 - 1894	Praetzellis et al. 1983:44, mark 140
172 009	White Improved Earthenware	Plate?	1	Printed mark: [STONE CHINA]/ (seated Royal Coat of Arms)/ HOPE AND CA]RTER/ [BURSL]EM	Hope and Carter	Staffordshire	1862 - 1880	Praetzellis et al. 1983:43, mark 135

Privy 3 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
174 004	White Improved Earthenware	Plate, 8-1/2"	1	Printed mark: IMPERIAL (in ribbon)/ (eagle and shield)/ FRENCH PORCELAIN (in ribbon)/ THOS. HUGHES; Impressed mark: THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45, marks 138 and 142
174 005	White Improved Earthenware	Plate, 10"	1	(molded - Memnon Shape)	Meir, John & Son (registered to)	Staffordshire	1857, Feb - 1891	Wetherbee 1996:74; Godden 1991:430
174 014	White Improved Earthenware	Saucer	1	Impressed mark: (illegible Registration mark)		England	1843 - 1883	Godden 1991:527
174 018	White Improved Earthenware	Plate, 8-3/4"	1	Printed mark: IRONSTONE CHINA/ (standing Royal Coat of Arms)/ POWELL & BISHOP (in ribbon)	Powell & Bishop	Staffordshire	1867 - 1878	Praetzellis et al. 1983:68-69, mark 208; Wetherbee 1996:98
174 019	White Improved Earthenware	Soup Plate, 9"	1	Printed mark: (seated Royal Coat of Arms)/ STONE CHINA/ JAMES EDWARDS & SON/ DALEHALL; Impressed mark: JAS. EDWARDS & SON/ DALEHALL	Edwards, James and Son	Staffordshire	1851 - 1882	Praetzellis et al. 1983:32-33, marks 102 and 103
174 021	White Improved Earthenware	Plate?	1	Printed mark: (standing Royal Coat of Arms)/ ..			-	
174 023	White Improved Earthenware	Slop Bowl	1	Impressed mark: DAVENPORT/ (anchor)	Davenport	Staffordshire	1830 ca - 1887	Kowalsky and Kowalsky 1999:167; Praetzellis et al. 1981:27
174 033	White Improved Earthenware	Creamer	1	Impressed mark: (standing Royal Coat of Arms)/ IRONSTONE/ CHINA/ E. & C. CHALLINOR	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18, mark 48
175 011	White Improved Earthenware	Plate, 9"	1	(molded - Wheat pattern)	Furnival, Jacob? (attributed to J.F.)	Staffordshire	1845 ca - 1870	Wetherbee 1985:80; Praetzellis et al. 1983:36
175 017	White Improved Earthenware	Lid	1	(molded - Fig pattern)	Davenport or Wedg(e) Wood J.	Staffordshire	1856 - 1887	Wetherbee 1996:106,110; Praetzellis et al. 1983:27
175 022	White Improved Earthenware	Plate?	1	Impressed mark: [JAS.] EDWARDS [& SON]/ DALEHALL	Edwards, James and Son	Staffordshire	1852 - 1882	Praetzellis et al. 1983:32-33, mark 102
175 023	White Improved Earthenware	Plate, 8-1/2"	1	Impressed mark: [(standing Royal Coat of Arms)/ IRONSTONE/ CHINA/]E. & C. CHALLINOR	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18, mark 48
175 024	White Improved Earthenware	Plate, 9"	1	Printed mark: (standing Royal Coat of Arms)/ ..; (molded - Wheat pattern)	Furnival, Jacob? (attributed to J.F.)	Staffordshire	1845 ca - 1870	Wetherbee 1985:80; Praetzellis et al. 1983:36

Privy 3 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items								
157 014	Aqua Glass	Bottle	1	..GA..			-	
157 022	Colorless Glass	Pharmaceutical Bottle	1	..H. FOWLER/ [APO]THECARY/ [SAN FR]ANCISCO	Fowler, Monmouth H. or George H.	San Francisco	1867 - 1887	San Francisco City Directories
158 029	Aqua Glass	Canning Jar	1	..NOV..			-	
158 033	Aqua Glass	Syrup Bottle	1	MR[S. WINSLOW'S// SOOTHING SYRUP// CURTIS & PERKINS// PROPIETORS]			1849 ca - 1906	Wilson and Wilson 1971:98, 145-146; Fike 1987:231
161 046	Amber Glass	Bourbon Bottle	1	TRADE[MARK] (in arc above circle)/ (in circle) BARKHOUSE [BR]OS. & CO./ (horse)/ GOLDDUST/ KENTUCKY/ BOURBON/ (in arc below circle) JOHN VAN BERGEN & CO./ SOLE AGENTS	Van Bergen & Co.	San Francisco	1871 ca - 1874	Thomas 1977:47
161 062	Aqua Glass	Pain-killer Bottle	1	[DAVIS// VEGETABLE// PAI]N KILL[ER]	Davis, Perry	Providence, RI	1854 ca - 1984 (adv)	Wilson and Wilson 1971:112; Fike 1987:130-131
161 074	Colorless Glass	Pharmaceutical Bottle	1	W. M. SEARBY/ (monogram)/ SAN FRANCISCO	Searby, William M.	San Francisco	1867 - 1887	San Francisco City Directories
161 075	Colorless Glass	Perfume Bottle	1	..EUR/ P[AR]IS		Paris	-	
162 011	Aqua Glass	Spice Bottle	1	J.W. HUNNEWELL & Co// BOSTON	Hunnewell, J. W. & Co.	Boston	1852 ca - 1921	Zumwalt 1980:253; Hales 1979:64-64
162 012	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 014	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 015	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 016	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 017	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 019	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
162 022	Aqua Glass	Pills Bottle	1	AYER'S// [LO}WELL/ [M]ASS.// PILLS	Ayer	Lowell, MA	1865 ca - 1935 (adv)	Wilson and Wilson 1971:105; Fike 87:201
162 026	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
166 030	Colorless Glass	Bottle	1	REDINGTON & CO/ MANUFACTURERS/ SAN FRANCISCO (vertical)(front)	Redington & Co.	San Francisco	1860 ca - 1908	Fike 1987:75
166 034	Colorless Glass	Dish and Lid	1	(pressed - Loop and Dart Pattern)			1869 ca -	Lee 1960: 451-453, plates 148, 149; McCain 1982: 82-83
166 035	Aqua Glass	Soda-water Bottle	1	..O			-	
166 037	Aqua Glass	Bottle	1	..ORN../ ..ECT../ ..			-	

Privy 3 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
166 038	Aqua Glass	Bottle	1	..M..			-	
166 045	Colorless Glass	Pharmaceutical Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
166 049	Aqua Glass	Syrup Bottle	1	[M]RS. [WINSLOW'S SOOTHING SYRUP/ CURTIS & PERKINS/ PROPRIETORS]		1849 ca	- 1906	Wilson and Wilson 1971:98, 145-146; Fike 1987:231
170 029	Amber Glass	Bottle	1	(fragmentary)			-	
170 036	Aqua Glass	Canning Jar	1	T..			-	
171 030	Amber Glass	Flask	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
171 032	Aqua Glass	Tonic Bottle	1	BARRY'S// TRICOPHEROUS/ FOR THE SKIN/ AND HAIR// NEW YORK// DIRECTIONS/ (three horizontal waves) (italics) IN THE (three horizontal waves)/ PAMPHLET		1870 ca	- 1882	Wilson and Wilson 1971:22, 106
171 033	Colorless Glass	Sozodont Bottle	1	SOZODONT/ FOR THE// TEETH/ &/ BREATH		1848	-	Fike 1987:181,182,184; Wilson and Wilson 1971:139
174 041	Olive Glass	Ale/Beer Bottle	1	/// 3			-	
174 043	Aqua Glass	Florida-water Bottle	1	AGUA DE FLORIDA/ MURRAY Y LANMAN/ DROGUISTAS/ NEW YORK///	Murray and Lanman	New York	1842 - 1858	Fike 1987:244; Wilson and Wilson 1971:107, 130
174 044	Colorless Glass	Dentifrice Bottle	1	(arch)(upper front) DENTIFRICE/ (horizontal) J.V. BONN/ (arch)(lower front) PARIS/// AC 2728	Bonn, J.V.	Paris	-	
174 046	Colorless Glass	Pharmaceutical Bottle	1	W.M SEARBY/ SAN FRANCISCO	Searby, William M.	San Francisco	1867 - 1887	San Francisco City Directories
174 047	Aqua Glass	Syrup Bottle	1	MRS. WINSLOW'S/ SOOTHING SYRUP/ CURTIS & PERKINS/ PROPRIETORS/// 8		1880 ca	- 1906	Wilson and Wilson 1971:98, 145-146; Fike 1987:231
174 048	Aqua Glass	Ointment Bottle	1	(upper arc) KENNEDY'S/ (horizontal) SALT RHEUM./ (lower arc) OINTMENT	Kennedy, Donald or George	Roxbury, MA	1848 ca. - 1923 (adv)	Wilson and Wilson 1971:50, 123; Fike 1987:109,198
174 049	Brown Glass	Schnapps Bottle	1	UDOLPHO WOLFE'S// AROMATIC/ SCHNAPPS// SCHIEDAM	Wolfe, Udolpho	Schiedam	1848 - 1932	Fike 1987:187; Schulz et al. 1980:37-38; Wilson and Wilson 1971:99-100,146
174 050	Brown Glass	Bourbon Bottle	1	(arch, upper front) C.P. MOORMAN/ (horizontal) ONLY/ MANUF'R OF/ J.H. CUTTER/ OLD BOURBON/ A.P. HOTALING & CO./ SOLE AGENTS/ S.F.	Cutter, J.H./Hotaling A.P.	San Francisco	1873 ca - 1879	Thomas 1977:60-61
174 063	Aqua Glass	Witch-hazel Bottle	1	..S'/ WITCH HAZEL			-	
174 065	Aqua Glass	Bitters Bottle	1	/// J. WALKER'S/ V.B.	Walker, J.	Stockton/San Francisco	1866 - 1923 (adv)	Fike 1987:185; Schulz et al. 1980:66-68

Privy 3 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
174 068	Aqua Glass	Bottle	1	[N]EW Y[ORK]			-	
174 069	Aqua Glass	Bottle	1	CH(raised and underlined)S..			-	
174 072	Colorless Glass	Tumbler	1	(pressed - Ashburton pattern)			1840s - 1880s	Lee 1960:9-15, plates 2,3
174 073	Colorless Glass	Goblet	1	(pressed - Bohemian pattern)	Bakewell, Pears, & Co.	Pittsburgh	1836 - 1882	Lee 1960:plate 24; McKearin and McKearin 1969:138-139
174 087	Colorless Glass	Flask	1	..RO/ ..AD			-	
174 093	Colorless Glass	Bottle	1	[C. L]angley// WHOLESALE DRUGGIST/ SAN FRANCISCO// CALIFORNIA	Langley, C.	San Francisco	1854 - 1879	San Francisco City Directories
174 098	Colorless Glass	Chimney	2	E. B. & CO.			-	
174 100	Colorless Glass	Chimney	1	S.B. & CO. PATD// JUNE 23 ..8			-	
175 031	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-27
Marked Other Items								
158 061	Hard-rubber	Comb	1	I. R. COMB CO. GOODYEAR 1851	India Rubber Company	New York	1856 - 1898	Woshner 1999:55,268
158 063	Ball Clay	Pipe	1	THO. WHITE & CO.// EDINBURGH	White, Thomas & Co.	Edinburgh, Scotland	1823 - 1876	Bradley 2000:117
161 106	Ball Clay	Pipe	2	W. WHITE// GLASGOW	White, William	Glasgow, Scotland	1805 - 1891	Cook 1989:187
161 109	Ball Clay	Pipe	1	J & G PRINCE// IN GOUDA.	Prince, J & G	Gouda, Holland	1773 - 1891	Bradley 2000:118; Humphrey 1969:20
161 115	Hard-rubber	Button	1	N. R. Co./ GOODYEAR'S P=T 1851	Novelty Rubber Co.	New Brunswick, NJ	1853 - 1872	Woshner 1999:267
161 116	Hard-rubber	Button	1	N. R. Co./ GOODYEAR'S P=T	Novelty Rubber Co.	New Brunswick, NJ	1872 - 1886	Woshner 1999:267
161 168	Ferrous	Button	1	PATENT/ (wreath of leaves)			-	
161 171	Copper-alloy	Quarter	1	(stars around seated Liberty)/ 1888// UNITED STATES OF AMERICA/ (eagle)/ QUAR.DOL.	United States Mint		1888 - 1888	Yeoman 1977:116
161 179	Copper-alloy	.32 Long Shell Casing	1	H	Winchester Repeating Arms Co.	New Haven, CT	1861 ca - 1900s early-mid	Barnes 1969:277; Rosenberg and Kvietok 1982:83
162 042	Copper-alloy	.30 Short Shell Casing	1	(.30 short, rimfire)			1860 - 1919	Barnes 1969:276
166 099	Brass	Button	1	(U.S. Navy button)			1852 - 1941	Hughes and Lester 1993: 716-18, fig. 45

Privy 3 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Other Items (continued)								
166 113	Copper-alloy	.22 Short Shell Casing	13	/// US	United States Cartridge Company	Lowell, MA	1869 - 1936	Hogg 1982:151
166 118	Copper-alloy	Nickel	1	(stars) Liberty Head/ 1887// V	United States Mint		1887 - 1887	Yeoman 1977:91
167 068	Ball Clay	Pipe	1	McDOUGALL// [GL]ASGOW	McDougall, Duncan and Sons	Glasgow, Scotland	1847 - 1891	Cook 1989:187
170 064	Ball Clay	Pipe	1	W. WHITE// GLASCOW			1805 - 1955	Cook 1989: 187
171 096	Hard-rubber	Button	1	NOVELTY RUBBER CO.	Novelty Rubber Co.	New Brunswick, NJ	1872 - 1886	Woshner 1999:267
171 103	Brass	Hinge	1	P			-	
171 115	Copper-alloy	Buckle	1	PATENT JAN 8(?) 1867			1867, Jan -	
174 132	Hard-rubber	Button	1	N. R. Co.// GOODYEAR's P=T	Novelty Rubber Co.	New Brunswick, NJ	1872 - 1886	Woshner 1999:267
174 133	Hard-rubber	Button	1	N. R. Co.// GOODYEAR's P.T	Novelty Rubber Co.	New Brunswick, NJ	- 1886	Woshner 1999:267
174 162	Ball Clay	Pipe	1	CHRIST[IE// G]LASGOW	Christie	Glasgow, Scotland	- 1891	
174 172	Ball Clay	Pipe	1	GAMBLER (around stem)	Gambier	Paris	1780 - 1891	Bradley 2000:118
174 174	Ball Clay	Pipe	1	T.D./// W.WHITE// GLASGOW	White, William	Glasgow, Scotland	1805 - 1891	Cook 1989:187
174 177	Ball Clay	Pipe	1	THO. WHITE// EDINBURGH	White, Thomas	Edinburgh, Scotland	1823 - 1876	Bradley 2000:117
174 216	Copper-alloy	Button	1	DENT'S/ D/ ..	Dent's		-	Hughes and Lester 1993:680

CHAPTER 8
SF-80 BAYSHORE PROJECT BLOCK 4

Michael D. Meyer

BLOCK OVERVIEW

The natural site of Block 4 was marked by sandhills, ranging as high as 20 to 40 feet above mean low tide, and extending over the alignments of both Harrison and Bryant streets. Near the corner of Bryant and Seventh, the sandhills sloped steeply down to the marshlands. When Sixth Street was filled in, these marshlands became the pond that appears on the 1857/59 Coast Survey map (see Figure 4.2)

The first houses on Block 4 date back to the mid-1850s and the construction of George Gordon's San Francisco Sugar Refinery, just outside the project area at the northwest corner of Harrison and Eighth streets (Figure 4.3). Workers moved into cheap accessible housing amid the wilderness of San Francisco's sandhills. By 1857, 23 distinct buildings are shown across the block. The topography of this block was dramatically rearranged in the years that followed. The sandhills were leveled down and the pond filled up, to something very near the current grades of the surrounding streets. With the grading of the block in the 1860s, houses and some tenements began to fill the interior streets and alleyways, accompanied by two public schools to educate the ever-growing student population (see Figure 4.4). By the 1887 Sanborn map, Block 4 had a more complex labyrinth of interior streets and alleyways than any other project block.

With the exception of the southwest frontage of Bryant Street near Eighth, all structures on Block 4 burned in 1906; immediate post-fire land use included rebuilding the schools on the same sites and constructing a mixture of wood-framed flats and light-industrial buildings elsewhere on the block, while many lots remained vacant. By the 1920s, a general trend towards industrial land use throughout the South of Market brought larger industrial buildings to replace post-fire housing on Block 4.

PEOPLE IN RESIDENCE ON BLOCK 4

From the 1850s until the 1906 fire razed most of the wood-frame buildings, Block 4 was primarily an Irish neighborhood. As shown on the 1857/59 U.S. Coast Survey map, Blocks 4 and 5 had the most development within the project area. While the primary early development on Block 5 focused on the gold and silver refinery, Block 4 began with an overall more residential character. For those early residents who were able to purchase land on the block and wait for the expanding city to increase property values, Block 4 was an avenue to financial success. For wage laborers with fewer resources, the area may have had little to offer.

Some of the early landowners on the block were tradesmen, able to build their own home or barter their trade specialty with their neighbors. Near the corner of Harrison

and Eighth, at what would become the interior corner of Harrison and Hayward, Irish carpenter Owen Casey built a two-story house and took in boarders, many of whom were working diagonally across the street at the sugar refinery. Casey's legacy extended to his sons, Owen and Tom, who remained landowners on the block. In 1898 Tom Casey ran a saloon on the corner of Bryant and Chesley.

Chesley was the main interior street on Block 4, running north to south at mid-block. Two smaller north-south streets, Langton and Kate (which crossed Bryant to Block 5), were built-up with densely packed houses on the north half of that block. Chesley had three smaller, side streets running perpendicular to it: Maria (later Homer), Boyd, and Eldridge. At the corner of Chesley and Maria, lived Thomas O'Neil, a glass cutter listed as living on the block by 1861. He worked for others until 1867, when he was listed at his own business downtown. James O'Neil lived next door at a Chesley address. He was a policeman with $2,000 worth of real estate. Both the Thomas and James O'Neil families were no longer on the block by 1880. Another O'Neil, Edward, was likely living with his family directly behind their former residences, on the second floor of the building. Edward, a stableman, and his wife, Mary, were U.S.-born of Irish parents. Mary's mother lived with them and their seven daughters. In the 1870s, other Chesley landowners included Jeremiah Finn, a teamster who had amassed real estate worth $15,000. He and his wife were Irish, their oldest child Michigan-born and the rest born in California. Although a majority of the residents in 1870 were Irish, there were several neighbors born of other European countries. Between the Finns and O'Neils was a rental property with three families of sugar-refinery workers, all from Hanover.

By 1880 the residents of Chesley and its cross streets on Block 4 were almost exclusively of Irish descent. Many had experienced at least a few months of unemployment, although several had been out of work for the entire year. More adult women than men could not read or write, but it was rare for a U.S.-born person in the neighborhood to lack these skills. Children of age six or older typically attended school. Three Italian households at 5 Chesley broke the Irish monopoly on the Chesley interior streets. Despite having the same address, all were living in separate buildings. The men were all fruit dealers. A. Barsotti lived with his wife, Louisa, and California-born daughter, Mary, age 1. L. Beani, his wife, and three children were all Italian-born, and N. Ambroza lived alone.

The street frontages of Block 4 were less developed than the interior. Eighth Street had large open spaces and the yards of the Eighth Street Grammar School. The residence at 489 Eighth next to the school appears to have been preceded by a large building, possibly a carriage works in the early 1870s that was replaced by the smaller home of police officer Peter Fox in the 1880s, and eventually rebuilt as a store. Around the corner at 1070 Bryant was the home of longtime resident Peter McCann, a wholesale butcher, and his family and servant. In 1880 McCann's closest neighbors on Bryant Street were other longtime block residents, the O'Briens and the Sullivans. Patrick O'Brien was a carriage- and housepainter living at 1060 Bryant. His oldest sons worked for him at 498 Eighth across the street. The O'Briens owned $6,000 worth of real estate in 1870, possibly several lots on Bryant and along the interior Kate Street. The head of the Sullivan household was John, a blacksmith. He was listed with various employers, including the Central Pacific Railroad and the local Central Railroad on Block 5. The Sullivans listed no

real estate or personal property in 1870. O'Brien and Sullivan had been listed on Kate Street as well as Bryant.

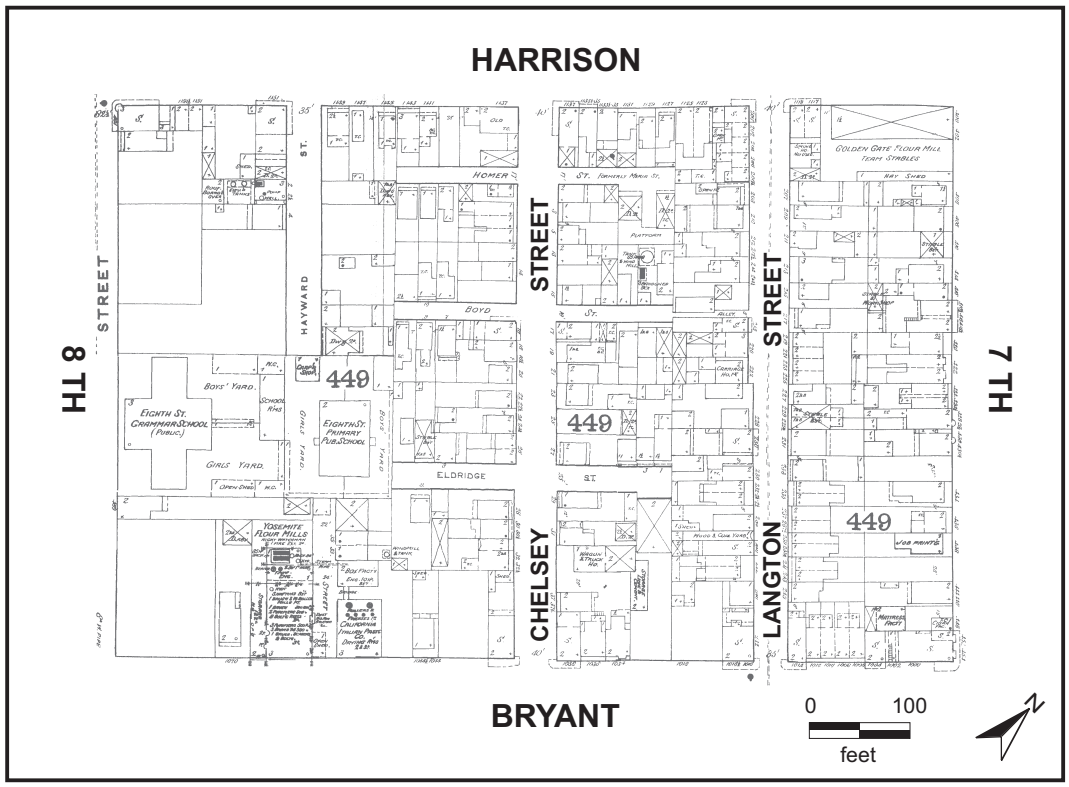
In 1880 the Kate Street residents of Block 4 were similar to those on the other interior streets. Most were of Irish descent and many had been unemployed for part of the preceding year. John Wendt, at 31 Kate, was an express-wagon driver from Germany; his wife, Mary, was Irish. Also on the lot was the Dean family. Anthony Dean was an Irish laborer; his wife, Bridget, could not read or write, but their older children were all in school. At the end of Kate Street were two households headed by widowed washerwomen: Mary Miles at 35 Kate, and Anne Mills with her two children at 36. Elizabeth Gilbert was a widow living at 34 Kate. She was born in Alsace, although her husband had likely been Irish. She lived with Elizabeth Hammell, a boarder, who was at least the second generation of her family born in Louisiana. Only two of the Kate Street residences were still present in 1887, five years after Cesar Splivalo purchased the land for his California Italian Paste Company and Yosemite Flour Mills. Splivalo was of Italian and Croatian ancestry. Patrick O'Brien apparently had owned much of the property. After selling to Splivalo, he moved his family to a nicer neighborhood, near the panhandle of Golden Gate Park, and moved his business downtown.

The Seventh Street frontage of Block 4 was mostly residential, with a few stores, businesses, and vacant lots. In 1870 John Collins, a brickmaker with $3,000 worth of real estate and $600 of personal property, lived at 414 Seventh Street. He and his wife, Hannah, were Irish, while their four children were all born in California. The city directory also listed Timothy Collins, a brickmason at the same address. Next door at 416 was Joseph Kelly, an Irish farmer with $7,500 worth of real estate and $1,500 of personal property. His oldest son, Thomas at 14, was a New York-born dry-goods clerk. The younger children were born in California. Joseph Kelly was listed as a drayman. The next listed address was 424 Eighth, where Dennis Noonan, an Irish clerk for the gas company, lived with his wife, Ellen, and their California-born children. The oldest, Daniel age 16, was clerking for a lawyer. They reported no real estate or personal property.

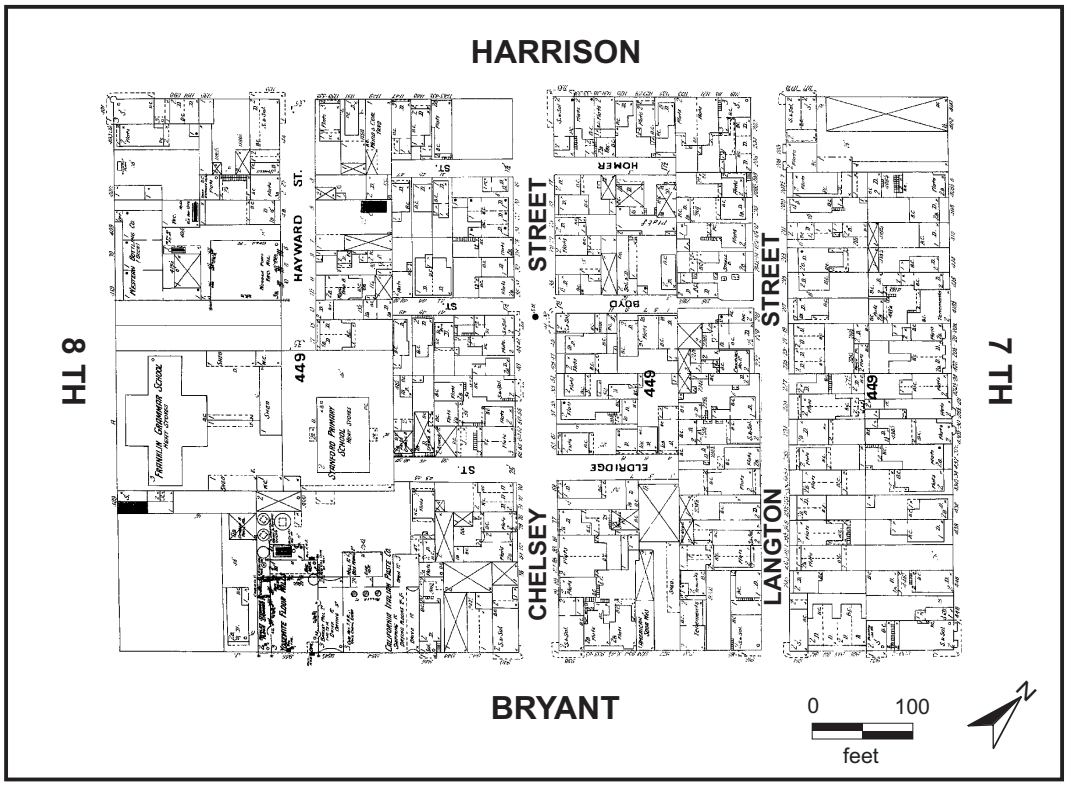
By 1880 more residences were in place, increasing the housing density, although some stables were still present on Seventh Street in 1887. The Seventh Street residents were ethnically more diverse than their interior-block neighbors; many still were sharing the experience of prolonged unemployment. Alex McDonald, a ship's carpenter from Nova Scotia, had been unemployed five months. He lived with his Irish wife and their children at 408 Seventh. Andrew Buckley, an Irish liquor-store porter, had full employment, although Andrew Jr., a printer, had been unemployed for six months. The lot at 416 to 418 Seventh Street had several two-story buildings and a stable and workshop at the rear. Two of the buildings in 1887 had the 416 Seventh address housing multiple families and individuals. The primary listing at 416 was William Wehmoller, a native of Hanover, and his wife and adult daughter. He was fully employed as an ironworker making patented corrugated-metal elbows. In 1868 he was a cooper for the sugar refinery, and in 1889 he was listed as the proprietor of the Pacific Corrugated Stove Pipe Elbow Factory, the workshop at the back of the lot. In 1894 Anna Wehmoller, his wife, was listed as the owner on the Seventh Street frontage, including 416 through 424. In contrast to the three Wehmollers in their two-story house, the smaller building next door, 418 Seventh Street, housed 17 individuals. August Vahlbusch was a furniture decorator from

Hanover. His wife, Mary, was born in Maryland of Bavarian parents. They had three sons—ages 5, 3, and 1—born in New York, California, and Oregon. Listed separately were two Irish widows: Jane Daywall, age 43, a ladies nurse; and Mary Boston, age 55. The Bradley family, also living at 418, was of English descent. William, a laborer, was seven months unemployed. His wife, Mary, had been born in Australia, their children, in California. Boarding with them was Francis Hester, an English laborer. The other residents were Mary Kane, an Irish widow, age 40; Kate Callahan was also Irish but married, although her husband was not listed. James Mullen, a blind Irish widower age 50, was living with his son Daniel, age 22, who was California-born and working in a foundry. With a few exceptions, primarily from Germany and Canada, the rest of the neighbors from mid-block to Bryant Street were of Irish descent.

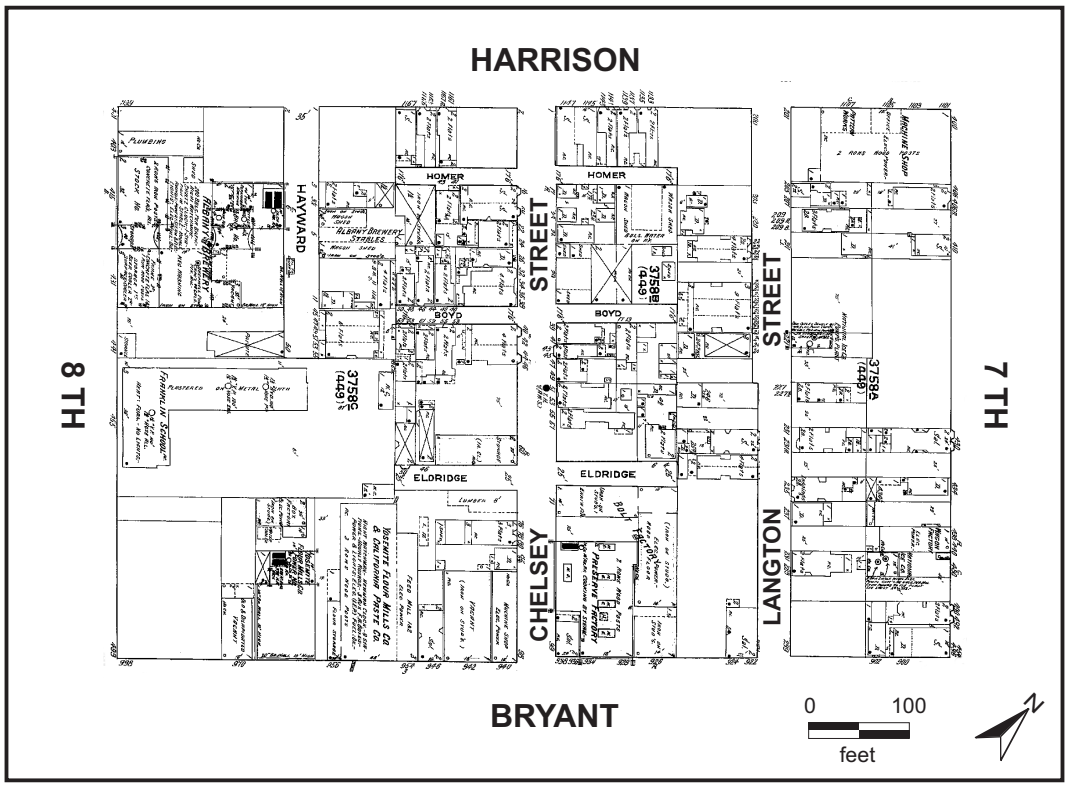
In contrast to the few large landowners of nearby Blocks 3 and 6, Block 4 was divided into smaller landholdings. In the 1850s the land was desirable as high ground above the tidal marshlands. The industries situated on adjacent blocks offered employment for both skilled and unskilled labor, with the sugar refinery across the street employing many of the early German and Irish immigrant residents of Block 4. The most well-off residents were typically those who owned property and rented to tenants and boarders to supplement their trade income, such as Patrick O'Brien, Thomas O'Neil, and William Wehmoller. Owen Casey took in boarders and provided services, such as operating a saloon for thirsty workers. While the Casey and Wehmoller families remained fixtures on the block, the O'Briens took advantage of Cesar Splivalo's desire to consolidate his operations and used the profits to move both business and home to more upscale surroundings. For many of the wage laborers residing on the block during the late 1870s to early 1880s, success was measured by having full employment and the ability to feed and shelter their families. While there was disparity between the residents on the block, many of the poorer residents had provided their children with education and literacy—something many of their own parents had not been able to supply.



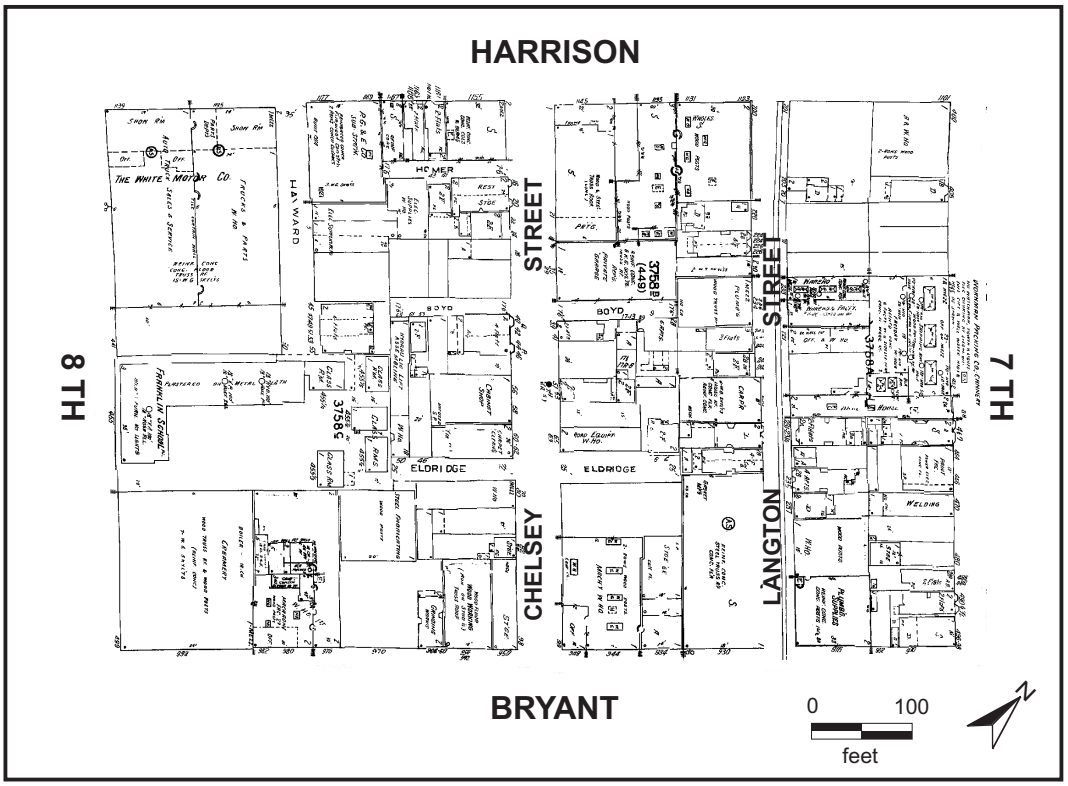
SF-80 Bayshore Project, Block 4, 1887 Sanborn Map



SF-80 Bayshore Project, Block 4, 1899 Sanborn Map



SF-80 Bayshore Project, Block 4, 1913 Sanborn Map



SF-80 Bayshore Project, Block 4, 1949 Sanborn Map

PARCEL OVERVIEW

3 Maria Street (Bayshore Block 4)

Thomas O'Neil Family Residence

The U.S. Coast Survey map of 1857/59 shows a building in the approximate location of the northeast corner of Maria (Mary) and Chesley streets, although at that time it was on a meandering road that followed topographic contours across the block. The 1861 street directory lists the interior streets of Chesley, Boyd, and Mary, even though the sandhills were not leveled until the mid-1860s. There is an apparent directional misprint, however, as Mary is actually perpendicular to Chesley, rather than being south of it as listed. The directory lists Maria Street several blocks to the north, on the north side of Howard, between Seventh and Eighth. By 1869 the street directory listing is for Maria, or Mary, on the east and west sides of Chesley between Harrison and Bryant. By publication of the 1874 Land-Use Map (see Figure 4.4), all of Block 4's buildings are shown oriented to the city grid, but Maria Street is not clearly defined. The 1879 street directory again lists Maria, or Mary, Street on the east and west sides of Chesley between Harrison and Bryant.

The 1860 city directory lists Thomas O'Neil as a glass cutter residing on the south side of Mary Street near Price (Eighth) Street. Subsequent directories listed his residence on various streets within the same block until 1875, when the address is given as 3 Maria. The address remains the same until 1878, when Thomas is no longer listed on the block. From 1861 until 1866, O'Neil worked for Mallon & Company, the sole glass cutters listed in the city directory in 1861. Mallon was listed at the Chace & Company Saw and Planning Mills, located at the corner of Beale and Market streets, apparently supplying windows to the expanding city. By 1867 O'Neil was self-employed. He must have enjoyed some success, as in 1870 the U.S. Census valued his real-estate holdings at $10,000 and his personal property at $300. Jeremiah Finn, a neighboring teamster, had the highest value of real estate at $15,000 and $1,000 of personal property. John Billstedl, a sugar-refinery laborer, had the highest amount of personal property at $4,000 and an equal value of real estate. The sugar refineries—Gordon's across the corner of Eighth and Harrison, and Spreckel's on Block 7—were the largest employers of neighborhood residents.

In 1870 Thomas was living with his wife, Maria, and their four children. It is possible that the street was named or renamed after Mrs. Maria O'Neil. The children, ages 4 to 12, were all born in California, indicating the O'Neils' arrival as prior to 1858. Next door, at 3 Chesley in 1870, lived the James O'Neil family. James, six years older than Thomas, was listed as a policeman. His real-estate holdings were a more modest $2,000, with $100 worth of personal property. James lived with his wife and six daughters, ages 2 to 18. The O'Neil men may have been brothers. James' eldest daughter was born in New York, as was Thomas' wife. Thomas O'Neil's last listing in the city directory was for 1877-78. A "Thomas O'Neil" died in Oakland on 24 April 1877 (*S.F. Morning Call*, 25 April 1877 3:2); this maybe our householder, although O'Neil was a common name.

The 1880 U.S. Census lists James Barry, a peddler, at 3 Maria with his wife, Fanny, both age 50, and their two teenaged sons. The elder, James, was a clerk in a store, while

Joseph, the younger, was at school. A roomer, Catherine Carroll, age 56, was also living in the house. She was listed as a servant and had been unemployed for 10 months of the previous year; James had also spent 6 months without work in the year.

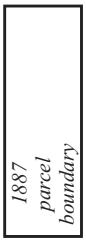
The 1887 Sanborn map provides the first details of what may be the same early building. The two-story wood-frame dwelling at the corner of Chesley and Homer (formerly Mary, or Maria) is not numbered. Based on directory and census research, it is presumed to be the 3 Maria Street address. Comparison of the Sanborn maps with the 1880 U.S. Census suggests that 3 Maria was at the corner with 1 and 2 Maria, being the addresses of the second-story dwellings in the two buildings in front of the platform at the end of the alley. A subsequent listing for 1 Chesley may be this building or the building next door and may represent a lodger's address. The corner building (presumed to be 3 Maria) has a porch across the back, and there is a two-story outbuilding, about half the size of the dwelling, at the rear of the lot. Tap records indicate that J. Tracy connected both 1 and 3 Chesley to city water in 1884. Jonathon Tracy appears to have owned both the corner house and 3 Chesley in 1894. Edmund Tracy owned the lot next door at 5 Chesley. The Tracys owned these lots at least through 1909.

The 1899 Sanborn map indicates a numbering change on the corner from 1 Chesley to 17 Chesley. The rear outbuilding is also shown as a wider, one-and-a-half story building extending partially behind 19 (formerly 3) Chesley. This is likely the same building, more accurately reported than on the earlier map. There is a small addition centered on the front of the outbuilding. This configuration remained through the 1905 Sanborn map. The buildings did not survive the 1906 earthquake and fire. By 1913 the three lots were combined with the two corner lots occupied by four "earthquake cottages" (see Figure 4.9) and a small outbuilding from 17 to 23A Chesley. The adjacent lot had a larger one-story building, with a small addition to the side, facing the cottages. By 1950 the lots, including the adjacent portion of Homer Street, were covered with a three-story, concrete commercial building that extended to Harrison Street.

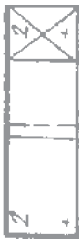
One CRHR-eligible feature was recovered from 3 Maria: Privy 1, filled in the early 1870s and associated with the Thomas O'Neil family. Its location near the back of the house shown on the 1887 Sanborn map may indicate changes to the layout of the house or to other earlier buildings on the lot that predate the Sanborn map.

3 Maria Street (Bayshore Block 4) – PARCEL PLAN

Thomas O'Neil Family Residence



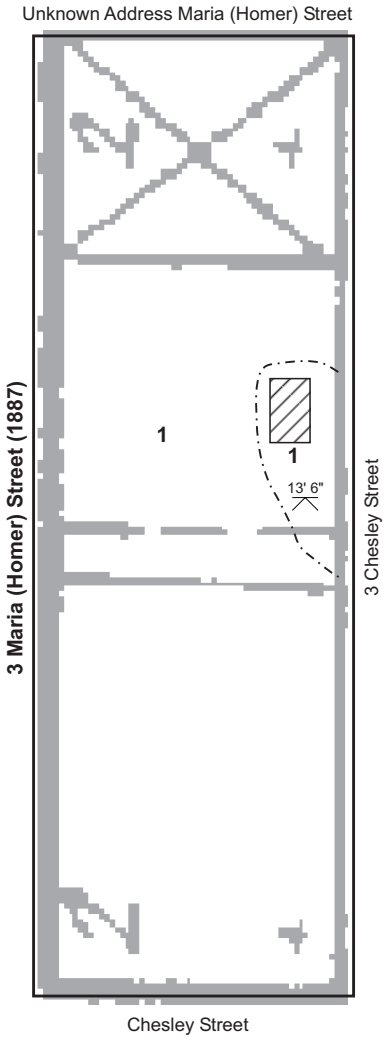
1857/59 Coast Survey
vacant—no buildings
on the 1887 Sanborn parcel

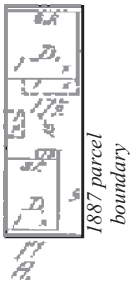


1887 Sanborn Map

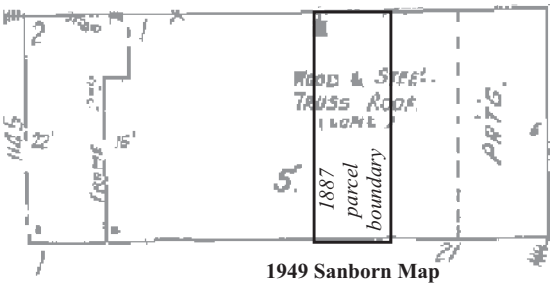


1899 Sanborn Map

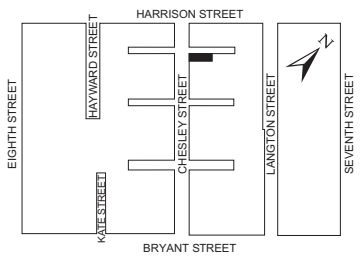


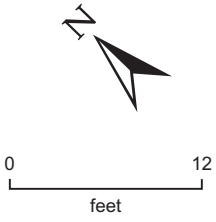


1913 Sanborn Map



1949 Sanborn Map





KEY

CRHR-eligible

Parcel Line

Limit of Excavation

Elevation in Feet amsl

1 Privy Number

DOCUMENTARY RESEARCH TABLE

3 Maria Street, 1-3 Chesley Street [15-17 Chesley] (Bayshore Block 4)

Thomas O'Neil Family Residence

ABSTRACT

***Building*:**

1857/1859	Building on meandering road in approximate location of Maria and Chesley streets
1887	Two-story wood-frame dwelling with back porch; two-story detached outbuilding at rear of lot
1899	Main building same; rear building replaced or remodeled into 1 ½-story extending across old lot line into rear of 19 Chesley
1905	Residence unchanged from 1899
1913	Buildings replaced with one-story "earthquake cottages" in front and rear with a small outbuilding in between
1949	Three-story concrete commercial building

Residents/Occupation/Use:

1860–1878	Thomas O'Neil, glass cutter, and family
1864–1882	James O'Neil, wagon driver and policeman, and family
1874–1877	Patrick Bohen, special policeman
1878–1883	Hugh McGruery, laborer and family; John Moran, laborer, and family
1884–1896	John Tracey, teamster
1900–1901+	William J. Lee, dry goods clerk, and family

Ownership:

?1860–1878?	Thomas O'Neil
+1884	Odd Fellows Savings Bank
1884–1909+	John Tracey

DOCUMENTARY TIME LINE

1857	**Coast Survey Map** – Building on meandering road near future location of Chesley and Maria streets.
1860	**City Directory** – Thomas O'Neil, glass cutter, Ss of Mary near Price (Eighth Street); James O'Neil, laborer, r. Es Chelsea[sic] nr. Harrison
1861	**City Directory** – Thomas O'Neil, (John Mallon & Co.) glass-cutters Chace's Mills cor. Beale & Market, r. Harrison and Seventh; James O'Neil, furniture wagon, r. Es Chester[sic] b. Harrison and Bryant
1863	**City Directory** – Thomas O'Neil, (John Mallon & Co.) glass-cutters Chace's Mills corner Beale and Market, r. Mary near Harrison

Documentary Research Table, 3 Maria (Mary) Street *(continued)*

1864/65	**City Directory** – Thomas O'Neil, (John Mallon & Co.) glass-cutters Chace's Mills corner Beale and Market, r. Mary between Seventh and Eighth; James O'Neil, express wagon, Es Chesley b. Harrison & Bryant
1865/66	**City Directory** – Thomas O'Neil, (John Mallon & Co.) glass-cutters Chace's Mills corner Beale and Market, r. Ss of Mary bet. Seventh and Eighth; James O'Neil, jobwagon, SW cor. Market & 3rd, r. SE cor. Chesley & Mary
1867/68	**City Directory** – Thomas O'Neil, glasscutter, 31 Fremont, r. Ss of Mary bet. Seventh and Eighth; James O'Neil, express wagon, Es Chesley b. Harrison & Bryant
1868/69	**City Directory** – James O'Neil, teamster, Es Chesley b. Harrison & Bryant
1869/70	**City Directory** – Thomas O'Neil, glasscutter, 10 Stevenson, r. Ss of Mary bet. Seventh and Eighth; James O'Neil, special policeman, r. Es Chesley b. Harrison & Bryant
1870	**U.S. Census** – (Ward 11, Pgs 109-110, SH 476A-B) *Address?* – O'Neil Family: **Head:** Thomas, 40, glass cutter, Ireland, $10,000 real property, $300 personal property; **Wife:** Maria, 36, NY; **Sons:** Peter, 5; at school; Thomas, 4; both CA; **Daughters:** Kate, 12; Maria, 10; both CA, at school
	3 Chesley (?) – O'Neil Family: **Head:** James, 46, policeman, Ireland, $2000 real property, $100 personal property: **Wife:** Margaret, 35, Ireland, keeping house: **Daughters:** Mary, 18, NY, dressmaker; Ellen, 16; Sarah, 13; Josephine, 9; Margaret, 7; all CA, at school; Kate, 2, CA.
1870/71	**City Directory** – James O'Neil, special policeman, r. Es Chesley nr. Harrison
1875/76-76/77	**City Directory** – James O'Neil, special policeman, r. 3 Chesley Street
1874	**City Directory** – Patrick Bohen, saloon, r. 3 Chesley
1875/76	**City Directory** – Thomas O'Neil, ornamental glasscutter, 10 Stevenson, r. 3 Maria; Patrick Bohen, special policeman, r. 1 Chesley
1876	**Great Register** – James O'Neil, 42, Ireland, Expressman, Chesley, Nov. 1, 1864, Renssalaer Co., NY Jus; registered June 12, 1868
1876–77	**City Directory** – Patrick Bohen, special policeman, r. 1 Chesley
1877	**Great Register** – Patrick Bohen, 35, Ireland, special police, 1 Chesley, registered April 19, 1875 in Marin
	San Francisco Call – Died. "O'Neil – In Oakland, April 24, Thomas O'Neil." (*San Francisco Morning Call*, 25 April 1877 3:2)
1877–1878	**City Directory** – Thomas O'Neil, ornamental glasscutter, 118 Main, r. 3 Maria; James O'Neil, local policeman, r. 3 Chesley
1878/79	**City Directory** – James O'Neil, local policeman. r. 3 Chesley
1878/79–1883	**City Directory** – Hugh McGruery, laborer, 1 Chesley; John Moran, laborer, 1 1/2 Chesley
1879/80–1882	**City Directory** – James O'Neil, lamplighter SF Gas Light Co., r. 3 Chesley
1880	**U.S. Census** – (ED 151, SH 72) 1 Chesley – McGrury Family: **Head:** Hugh, 46, laborer, 8 months unemployed, Ireland; **Wife:** Margaret, 37, keeping house, Ireland; **Daughters:** Catherine, 5; Bridget, 1; both CA

Documentary Research Table, 3 Maria (Mary) Street *(continued)*

1880	1 1/2 Chesley – Moran Family: **Head:** John, 45, laborer, 12 months unemployed, Ireland; **Wife:** Mary, 43, keeping house, Ireland: **Sons:** James, 16, works in rolling mill, MA; John T., 9, at school, CA; **Daughters:** Susan, 13; Emma, 7; both at school, CA
	(ED 151 SH 74) 3 Maria – Barry Family. **Head:** James, 50, peddler, 6 months unemployed, Ireland; **Wife:** Fanny, 50, keeping house, Ireland; **Sons:** James H., 16, clerk in store; Joseph F., 13, at school; both CA; **Roomer:** Catherine Carroll, 56, single, servant, 10 months unemployed, illiterate, Ireland
1884	**San Francisco Newsletter** – "On Friday, January 4th, Odd Fellows Savings Bank to John Tracey, NE Chesley, 77:6 SE Harrison, Se 40 x 60 Vara 272, $1,000."
	Tap Record – J. Tracy, 1–3 Chesley, 12′ W of E line of St., 10′ S of Homer, March 11, 1884
	City Directory – John Tracey, teamster, r. 1 Chesley
1885–1887	**City Directory** – John Tracey, teamster, r. 3 Chesley
1887	**Sanborn** – Two-story wood-frame dwelling with back porch; two-story detached outbuilding at rear of lot
1888–1896	**City Directory** – John Tracy, teamster, r. 3 Chesley
1894	**Block Book** – John Tracy
1899	**Sanborn** – Two-story wood-frame dwelling with back porch, 17 Chesley; rear building replaced or remodeled into 1 1/2 story extending across old lot line into rear of 19 Chesley
1900	**U.S. Census** – (ED 57, Page 5, Sheet 239B) 15 Chesley – Lee Family: **Head:** William, 27, single, CA, clerk (dry goods), rents; **Mother:** Mary, 66, widow, 1 of 5 children living, Ireland, immigrated 1854; **Nephew:** William Fowler, 5, CA
1900–1901	**City Directory** – Mary Lee, widow; William J. Lee, clerk City of Paris Dry Goods Co.; both r. 15 Chesley.
1905	**Sanborn** – Two-story wood–frame dwelling with back porch, 17 Chesley; rear building replaced or remodeled into 1 1/2 story extending across old lot line into rear of 19 Chesley
1906	**Block Book** – John Tracy
1909	**Block Book** – John Tracy
1913	**Sanborn** – One-story wood-frame "earthquake cottages" in front and rear with a small outbuilding in between
1929	**Tap Record** – Retap January 19, 1929; address change from 1–3 Chesley to 17–23 Chesley
1949	**Sanborn** – Three-story concrete commercial building

PRIVY 1 - FEATURE SUMMARY

3 Maria Street (Bayshore Block 4)

Thomas O'Neil Family

Privy 1 was wood-lined and measured 4 ft. x 2 ft. 6 in. x 2 ft. 6 in. deep. The privy had been severely truncated by the cut for freeway bent G4-58 and Sewer Trench 2, which may have been cut through the parking-lot paving. There was one layer of yellow sandy fill with artifacts, Layer 106. The sand directly below Layer 106 had a greenish hue and was sampled as Layer 107. Layer 107 contained no artifacts and may have been discolored due to leaching from the privy.

The TPQ is 1865 based on a G.W. Laird Perfumer cream bottle, and 1864 for a U.S. two-cent coin. There was also a "Hamilton with Leaf" molded tumbler dated to the late-1860s, if American manufactured; the date may be earlier if the piece was imported. The pattern is based on a Waterford cut-glass pattern (Lee 1960:177). The date of deposition is presumed to be sometime between the earthquake of October of 1868 to as late as mid-1878, by which time the Thomas O'Neil family had left this address. The property was not connected to city water until 1884. Considering the later connection date, lack of chamber pots in the fill, and earlier artifacts, a deposition date and association after the O'Neil family departed is unlikely. There are a few structural items in the fill suggesting some sort of remodeling, including a doorknob, window glass, and plaster. Some miscellaneous items—such as a hinge or hasp, a ferrous strap, and some sheet metal—may have been associated with the remodeling. A small doorknob and drawer pull were more likely from furniture.

Due to disturbance from bent construction, only a fraction of the original privy remained intact. A total of 394 artifacts representing a minimum number of 107 items were recovered. Of that total, 48 items were either structural, personal clothing, or of indefinite use, and are not considered further for comparisons of artifact category. The remaining items, which are described and compared in the artifact tables, were predominantly domestic (56.7%) or personal (35%), with the remainder (8.3%) in the activities group. There were insufficient identifiable faunal remains recovered from Privy 1 for faunal analysis (i.e., under 100).

There were 30 pieces of food preparation/consumption artifacts, 3 of which were metal—including a teapot, a spoon, and a serving spoon. The remaining glass and ceramic items had a high proportion of drinking vessels (33%) to tableware (52%), with serving vessels the remainder (15%). There were no kitchen items, such as bowls for food preparation. This may indicate the O'Neils were modernizing their table presentation with more current dishes, although the Corn and Oats cup and saucer were close to their mean manufacture date when deposited in the privy and their 1863 production start date was the latest of the marked tablewares. The cup and saucer along with 3 pressed-panel goblets were the only decorated matched sets of tableware. There were 3 pieces each of porcelain and opaque porcelain tableware, 1 of earthenware, and 14 pieces of white improved earthenware, suggesting the discards were mainly middle- to lower-priced items. The single earthenware vessel was a Rockingham-type teapot, typical of the time period.

The personal items did not include the typical chamber pots, basins, and ewers usually associated with cleanout and conversion from privy vault to city sewer. The grooming and health items consisted of 5 bottles, including the opaque-white glass Laird cream bottle. There were 10 alcohol bottles and 3 ball-clay tobacco pipes. Two were marked T.D. on the bowl and originated in Scotland. The only toy found in the privy was a tiny porcelain saucer.





Little remains of the clothing and footwear worn by the Thomas O'Neil family. Pieces of a wool felt hat, part of a typical man's outdoor apparel, were recovered along with buttons from utilitarian clothing. A more elaborate button of pressed colorless-glass with a sunburst or flower design was probably sewn to a dress or waist belonging to one of the females in the family. A copper-alloy eyelet and a porcelaneous, brown button represented two different shoes or boots. A buckle and two beads may have been from clothing as well. A lone straight pin was the only clothing maintenance item. It may have been an unintentional discard, like the two-cent coin. A few other miscellaneous items include a thermometer fragment, a brass bell, a graphite pencil, and a lead shot. A single glass lamp-chimney was recovered indicating that the deposition was not likely associated with a major cleanout, indicating the change of lighting to gas or electric. Features with those events often contain multiple chimneys, sometimes in the dozens.

In 1870 the census listed the O'Neil family as Thomas, age 40, Irish-born and working as a glass cutter. His wife, Maria, age 36, was born in New York. Their four children were all born in California, indicating that the O'Neils had arrived in state by the late 1850s. The three oldest children—Kate, age 12, Maria, age 10, and Peter, age 5—were attending school. Thomas, age 4, was at home.

The O'Neils were better off financially than many of their neighbors. Although about half of those listed nearby on the census were owner-occupants of their homes, many appeared to have had boarders to make ends meet. O'Neil's $10,000 value of real estate was one of the highest on the block, with many other households at a half to a quarter of that amount. It is not known how much, if any, of that amount represents the business property downtown. For those listing personal property, the O'Neils' $300 was in the low range.

When the O'Neils moved to Block 4, the neighborhood was just beginning to change from a rural enclave on the sand dunes above the adjacent pond, with the tidal marshlands of Mission Creek and Mission Bay only a block away, to a semi-urban residential area. Gordon's Sugar Refinery was the initial impetus for housing on Block 4, ahead of the city expanding west from Rincon Hill and south from Market Street. By the late 1870s when the O'Neils left, Block 4 had undergone considerable change, both in topography and demography. Although less bucolic at the end of their tenure, the value of their property had likely increased as the city expanded. Thomas O'Neil had benefited from this expansion, as he went from employee to proprietor of his own glass-cutting business, producing a variety of decorative glass for the thriving building industry. Based on the collection of artifacts from the privy, it appears that the O'Neils may have been aptly described as "land-rich and cash-poor," although the context of the privy filling suggests a somewhat different story. Privy 1 was more likely filled as part of a remodeling effort than as abandonment for conversion to toilet or as the result of the family moving from the block. As such, the collection probably represents disposal of unwanted items in the house and upgrading of the tableware during the O'Neils' continuing occupation—a reflection of the family's growing affluence.

Privy 1 – MATRIX AND EXCAVATION PROFILE

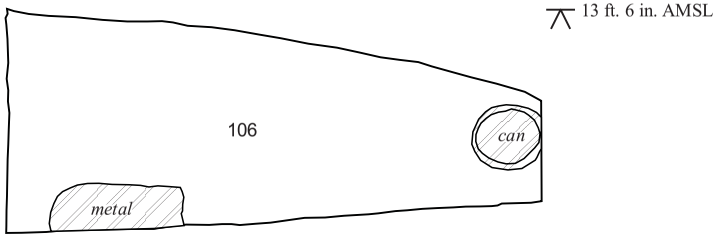
3 Maria Street (Bayshore Block 4)

Thomas O'Neil Family

100	Asphalt
101	Gravel Base
102	Gravel Base
114	Sewer Trench Fill
112	Sewer Pipe
2	**Sewer Trench**
103	Sand Fill
106	Privy Fills
107	
115	Builder's Trench Fill
108	Wood Lining
1	**Privy Cut**
104	Sand Fill
105	Wind Deposited Sand
109	Dune Sand
110	Humic (may be old surface)
111	Dune Sand



W E



0 1 ft.

0 50 cm

Privy 1 – FEATURE SUMMARY TABLE
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

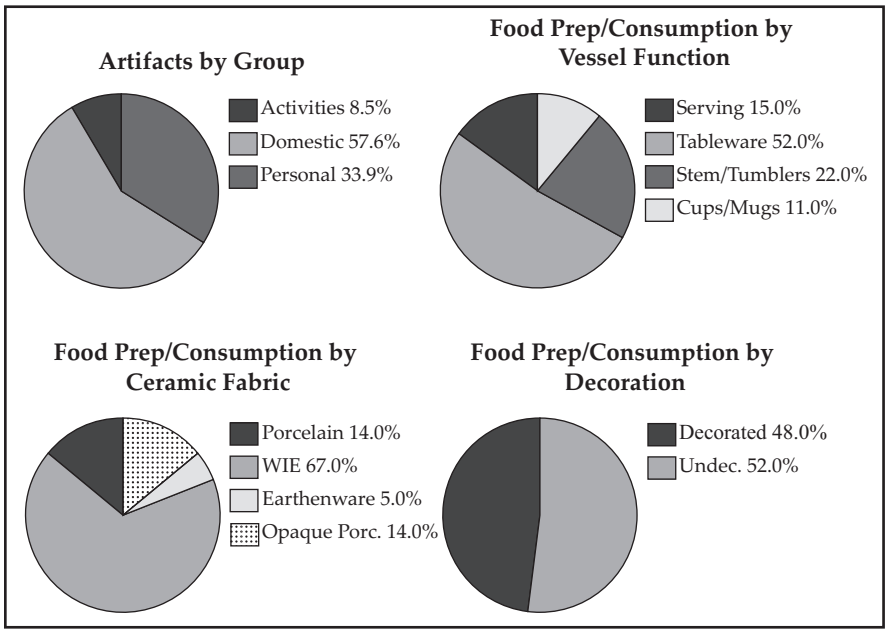
HOUSEHOLD

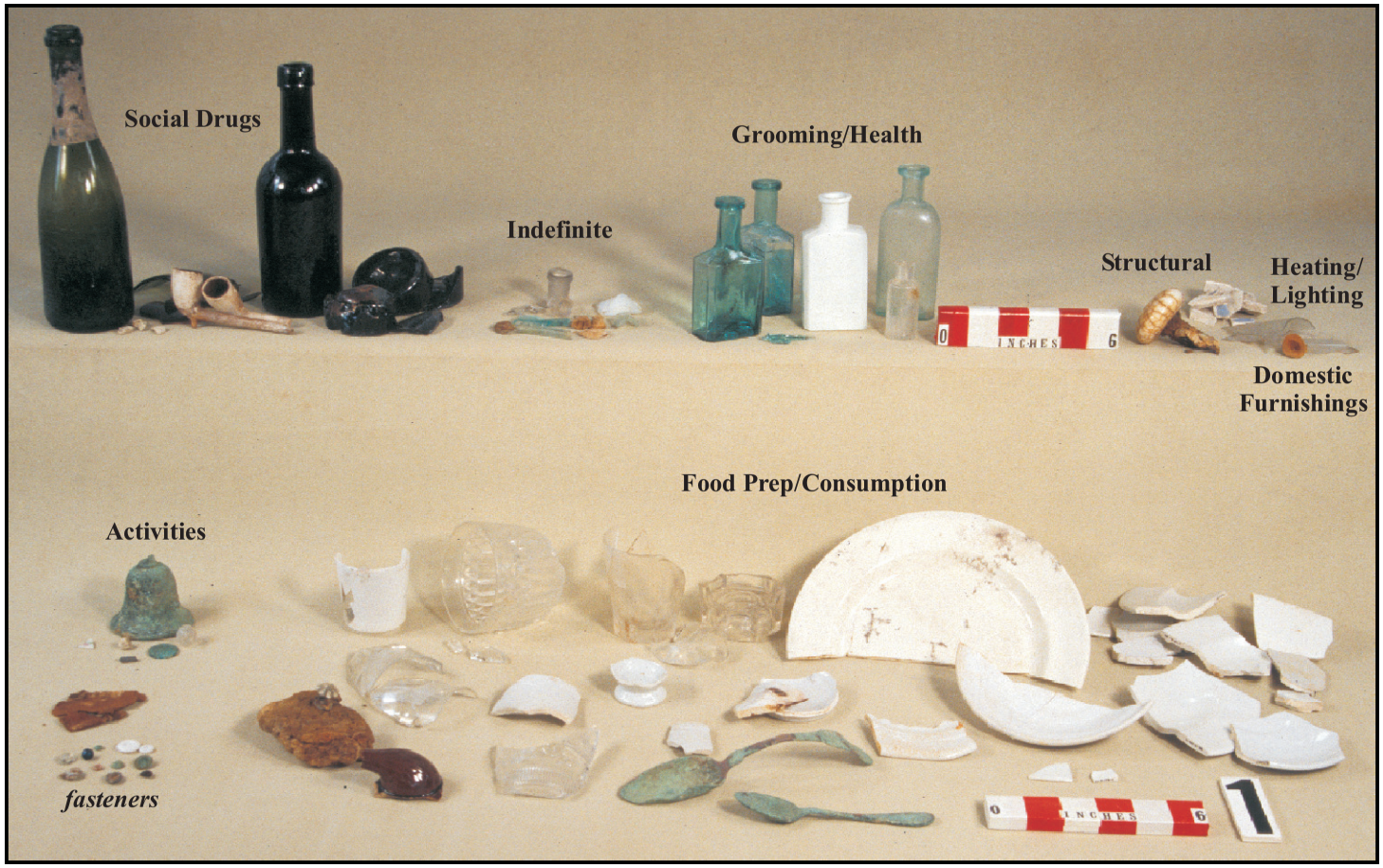
Name:	Thomas O'Neil Family
Birthplace:	Ireland
Ethnicity or Race:	Irish
Occupation:	Glass cutter
Period of Residence:	1860-1878
Terminus Post Quem/Basis:	1865 (G.W. Laird cream bottle)
Mean Ceramic Mark Date/N:	1874.6 (n = 5)
Estimated Date of Deposition:	1868 - 1877

ANALYTICAL UNIT

Context Numbers:	106

ARTIFACTS





Privy 1 – ARTIFACT LAYOUT PHOTOGRAPH, 3 Maria Street (Bayshore Block 4), Thomas O'Neil Family. At first glance, the artifacts from Privy 1 suggested that the O'Neils may have been "land rich and cash poor." It is much more likely, however, that the privy was filled with unwanted and outdated items during a remodeling effort. The structural items—a doorknob, window glass, and plaster, as well as the hinge, a ferrous strap, and some sheet metal-reinforce the idea of a household remodel.

Privy 1 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY

3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Group and Category	Description	Count	MNI
ACTIVITIES			
Commerce			
-	Copper-alloy Two Cent Coin	1	1
Subtotal Commerce		1	1
Firearms			
-	Lead Shot	1	1
Subtotal Firearms		1	1
Indefinite			
-	Colorless Glass Thermometer	1	1
-	Copper-alloy Hand Bell	1	1
Subtotal Indefinite		2	2
Writing			
-	Graphite Pencil	1	1
Subtotal Writing		1	1
DOMESTIC			
Clothing Maintenance			
-	Ferrous Straight Pin	1	1
Subtotal Clothing Maintenance		1	1
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Goblet	9	2
Drinking Vessel	Colorless Glass Tumbler	7	4
Drinking Vessel	Porcelain Cup	1	1
Drinking Vessel	White Improved Earthenware Cup	7	2
Serving	Copper-alloy Spoon	1	1
Serving	Earthenware Teapot	1	1
Serving	Ferrous and Copper-alloy Teapot and Lid	19	1
Serving	Opaque Porcelain Pitcher	1	1
Serving	White Improved Earthenware Platter	1	1
Serving	White Improved Earthenware Slop Bowl? Creamer?	2	1
Tableware	Copper-alloy Spoon	1	1
Tableware	Opaque Porcelain Saucer	1	1
Tableware	Opaque Porcelain Soup Plate	1	1
Tableware	Porcelain Plate	2	1
Tableware	Porcelain Soup Plate	1	1
Tableware	White Improved Earthenware Plate	7	5
Tableware	White Improved Earthenware Plate, 9 1/4"	2	1
Tableware	White Improved Earthenware Plate/Saucer	1	1
Tableware	White Improved Earthenware Saucer	4	3
Subtotal Food Prep/Consumption		69	30

Privy 1 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Furnishings			
-	Porcelain/Ferrous Doorknob	1	1
-	Ferrous Drawer Pull	1	1
Subtotal Furnishings		2	2
Heating/Lighting			
Lamp	Colorless Glass Chimney	9	1
Subtotal Heating/Lighting		9	1
INDEFINITE USE			
Indefinite			
-	Aqua Glass Tube	1	1
-	Opaque White Glass Hollow	1	1
-	Rubberized Canvas Indefinite	4	1
Subtotal Indefinite		6	3
Misc. Beads			
-	Colorless Glass Bead	1	1
-	Dark Opaque Glass Bead	1	1
Subtotal Misc. Beads		2	2
Misc. Closures			
-	Cork Stopper	3	0
-	Ferrous Can Lid	1	0
Subtotal Misc. Closures		4	0
Misc. Containers			
-	Aqua Glass Bottle	3	2
-	Colorless Glass Bottle	4	2
-	Ferrous Can	82	6
Subtotal Misc. Containers		89	10
Misc. Fasteners			
-	Ferrous Buckle	1	1
Subtotal Misc. Fasteners		1	1
Misc. Metal Items			
-	Ferrous Hasp/Hinge	4	2
-	Ferrous Strap	3	1
-	Zinc Sheet Metal	13	1
Subtotal Misc. Metal Items		20	4
PERSONAL			
Clothing			
-	Wool Felt Hat	5	1
Fastener	Colorless Glass Button	1	1
Fastener	Copper-alloy Button	4	4
Fastener	Porcelain Button	2	2
Fastener	Shell Button	1	1
Subtotal Clothing		13	9

Privy 1 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Footwear			
Fastener	Copper-alloy Eyelet	1	1
Fastener	Brown Porcelain Shoe Button	1	1
Subtotal Footwear		2	2
Grooming/Health			
Container	Aqua Glass Bottle	14	3
Container	Colorless Glass Bottle	1	1
Container	Opaque White Glass Cream Bottle	1	1
Subtotal Grooming/Health		16	5
Social Drugs - Alcohol			
Container	Brown Glass Alcoholic-beverage Bottle	3	2
Container	Dark-olive Glass Ale/Beer Bottle, 12 oz.	4	3
Container	Olive Glass Alcoholic-beverage Bottle	1	1
Container	Olive Glass Wine Bottle	1	1
Container	Olive Glass Wine/Champagne Bottle	6	3
Subtotal Social Drugs - Alcohol		15	10
Social Drugs - Tobacco			
-	Ball Clay Pipe	5	3
Subtotal Social Drugs - Tobacco		5	3
Toys			
Tea set	Porcelain Saucer	1	1
Subtotal Toys		1	1
STRUCTURAL			
Materials			
-	Clay Brick	3	1
-	Colorless Glass Window	55	1
-	Ferrous Nail	63	15
-	Plaster	12	1
Subtotal Materials		133	18
UNDEFINED USE			
-	Coal Fuel	1	0
Subtotal Undefined Use		1	0
TOTAL		394	107

Privy 1 – SUMMARY OF ARTIFACTS BY GROUP
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Description	Total Count	MNI	Percent of MNI
Activities	5	5	8.3
Domestic	81	34	56.7
Personal (other than Clothing)	39	21	35.0
Subtotal	125	60	100.0
Indefinite Use	122	20	
Personal Clothing	13	10	
Structural	133	18	
Undefined Use	1	0	
TOTAL	394	107	

Privy 1 – SUMMARY OF ARTIFACTS BY CATEGORY
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Description	MNI	Percent
Clothing	9	10.1
Clothing Maintenance	1	1.1
Commerce	1	1.1
Firearms	1	1.1
Food Prep/Consumption	30	33.7
Footwear	2	2.2
Furnishings	2	2.2
Grooming/Health	5	5.6
Heating/Lighting	1	1.1
Indefinite	5	5.6
Misc. Beads	2	2.2
Misc. Containers	10	11.2
Misc. Fasteners	1	1.1
Misc. Metal Items	4	4.5
Social Drugs - Alcohol	10	11.2
Social Drugs - Tobacco	3	3.4
Toys	1	1.1
Writing	1	1.1
TOTAL	89	99.6

Privy 1 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES

3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Grooming	Laird's Cream	1	
Subtotal Labeled Items			1	20
Unlabeled Items				
	Bottle		4	
Subtotal Unlabeled Items			4	80
TOTAL			5	100

Privy 1 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION

3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	4	15
Tableware (plates, bowls, saucers, etc.)	14	52
Stemware and Tumblers	6	22
Cups and Mugs	3	11
TOTAL	27	100

Privy 1 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC

3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			21	78
Porcelain	3	14		
Opaque Porcelain	3	14		
White Improved Earthenware	14	67		
Earthenware	1	5		
Ceramic Subtotal	21	100		
Glass			6	22
TOTAL			27	100

Privy 1 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Earthenware	Teapot	Rockingham	1	
Opaque Porcelain	Pitcher			1
Opaque Porcelain	Saucer			1
Opaque Porcelain	Soup Plate			1
Porcelain	Cup			1
Porcelain	Plate			1
Porcelain	Soup Plate			1
WIE	Cup			1
WIE	Cup	Molded - Corn and Oats	1	
WIE	Plate			4
WIE	Plate	Molded - Fig	1	
WIE	Plate, 9 1/4"			1
WIE	Plate/Saucer			1
WIE	Platter			1
WIE	Saucer	Molded - Corn and Oats	1	
WIE	Saucer	Molded - Lily of the Valley	1	
WIE	Saucer	Paneled	1	
WIE	Slop Bowl?	Paneled, Molded - floral	1	
Ceramic Subtotal			7	14
Glass				
Colorless Glass	Goblet	Pressed - Diamonds and Prisms	1	
Colorless Glass	Goblet	Pressed panels	1	
Colorless Glass	Tumbler	Pressed - Hamilton with Leaf	1	
Colorless Glass	Tumbler	Pressed panels	3	
Glass Subtotal			6	
TOTAL			13	14

Privy 1 – SOCIAL DRUGS SUMMARY
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage Bottle	3	
	Ale/Beer Bottle, 12 oz.	3	
	Wine Bottle	1	
	Wine/Champagne Bottle	3	
Subtotal Alcohol		10	77
Tobacco	Pipe	3	23
TOTAL		13	100

Privy 1 – SHELLFISH REMAINS
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Shellfish	MNI
Oyster	10

Privy 1 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
3 Maria Street (Bayshore Block 4)
Thomas O'Neil Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items								
106 007	White Improved Earthenware	Plate	1	(molded - Fig Pattern)	Davenport (registered by)	Staffordshire	1856 - 1887	Wetherbee 1996:110; Praetzellis et al. 1983:27
106 008	White Improved Earthenware	Cup	1	(molded - Corn and Oats Pattern)			1863 - 1891	Sussman 1985:55-57; Wetherbee 1996:96
106 009	White Improved Earthenware	Saucer	1	(molded - Corn and Oats Pattern)			1863 - 1891	Sussman 1985:55-57; Wetherbee 1996:96
106 010	White Improved Earthenware	Saucer	1	(molded - Lily of the Valley Pattern)	James Edwards and Son	Staffordshire	1861, Feb. 27 - 1882	Wetherbee 1996:124; Godden 1991:230
106 011	Opaque Porcelain	Soup Plate	1	Green printed mark: [(rampant lion)/VITR]IFIED (in banner)/[MAD]OCK & SONS/[EN]GLAND	John Maddock and Sons	Staffordshire	1856 - 1896	Godden 1991:406
Marked Glass Items								
106 026	Colorless Glass	Tumbler	1	(pressed - Hamilton with Leaf pattern)			1860's late -	Lee 1960:177, plate 57; McCain 1982:402, plate 196
106 030	Opaque White Glass	Cream Bottle	1	G.W. LAIRD/PERFUMER/NEW YORK (vertically, front)	G.W. Laird	New York	1865 - 1915 (adv)	Fike 1987:170
106 033	Aqua Glass	Bottle	1	../SAN…			-	
Marked Other Items								
106 070	Copper-alloy	Two Cent Coin	1	[UNITED STATES] OF AMER[ICA]/(wheat sheaves around) 2 CENTS//[IN GOD WE TRUST (in banner)/(shield and arrow design)]			1864 - 1873	Yeoman 1977:86-87
106 074	Ball Clay	Pipe	1	T D (on bowl)/78 W.WHITE//GLASGOW	White, William	Glasgow	1805 - 1891	Cook 1989:187,190
106 075	Ball Clay	Pipe	1	T D (on bowl)/THO. WH[ITE//EDINB]URGH			-	

PARCEL OVERVIEW

36 Kate Street (Bayshore Block 4)

Anne Mills Family Residence

(**Note**: Privies 30 and 38 and 39, related to 29, 31, 33-36 Kate Street on Block 4, share a composite pair of graphics: a Parcel History graphic showing the evolution of land use on these lots, and a single Parcel Plan using the 1887 Sanborn map.)

The 1887 Sanborn, which postdates the residential use of the lot under study, shows the location of Privy 30 as being under the two-story stable behind the Yosemite Flour Mills on Bryant. A variety of other sources, however, provide an indication of the earlier use of this area. First is the 1857/59 Coast Survey map, which shows three buildings on the two parcels, but these locations could not be precisely identified (see Figure 4.2). The 1874 Land-Use Map shows the corner of Eighth and Bryant as an open lot, except for a long building at 489 Eighth (intruding slightly into the westernmost parcel) and two small buildings to the south, on the west side of Kate Street. Across Kate Street there is a narrow building, or row of buildings, abutting a wider building or buildings fronting Bryant Street (see Figure 4.4).

In the 1860s, the privy location was in an open yard. The city directory for 1867/68 lists John C. Craig as a carriage manufacturer at the east side of Eighth near Bryant, most likely the long 489 Eighth Street building. Craig's residence was listed as on the west side of Kate. The following year Craig's residence was listed as Bryant between Seventh and Eighth, although it was probably the same residence as the previous year.

Comparison of the 1870 U.S. Census to city directories suggests that only the O'Brien and Sullivan families were listed on Kate Street on Block 4. The directories for that year listed both on the east side of Kate, and only O'Brien owned real estate, $6,000 worth. The city directory of 1874 indicates that homestead lots 1-1/2 to 2 miles from the business district, such as on Block 4, could still be purchased for $800 to $1,500. Considering four years of inflated prices, O'Brien's real-estate holdings in 1870 may have included the 489 Eighth Street lot, the corner, and possibly his shop across the street.

The 1880 U.S. Census lists two households on the west side of Kate Street north of Bryant, at 34 and 36. These are presumably the two buildings shown on the 1874 map. The widow Anne Mills and her two children occupied the northern building nearest Privy 30 at 36 Kate. In 1870 Anne had been living elsewhere with her husband, William, who was an express-wagon driver. At the time, she was listed as a washerwoman. They owned no real estate, but did have $2,000 worth of personal property. Anne and William were both born in 1830. Anne was born in Ireland, while her husband had been born in Ohio. Both of their children were in California—son George in 1868, and daughter Annie in 1871.

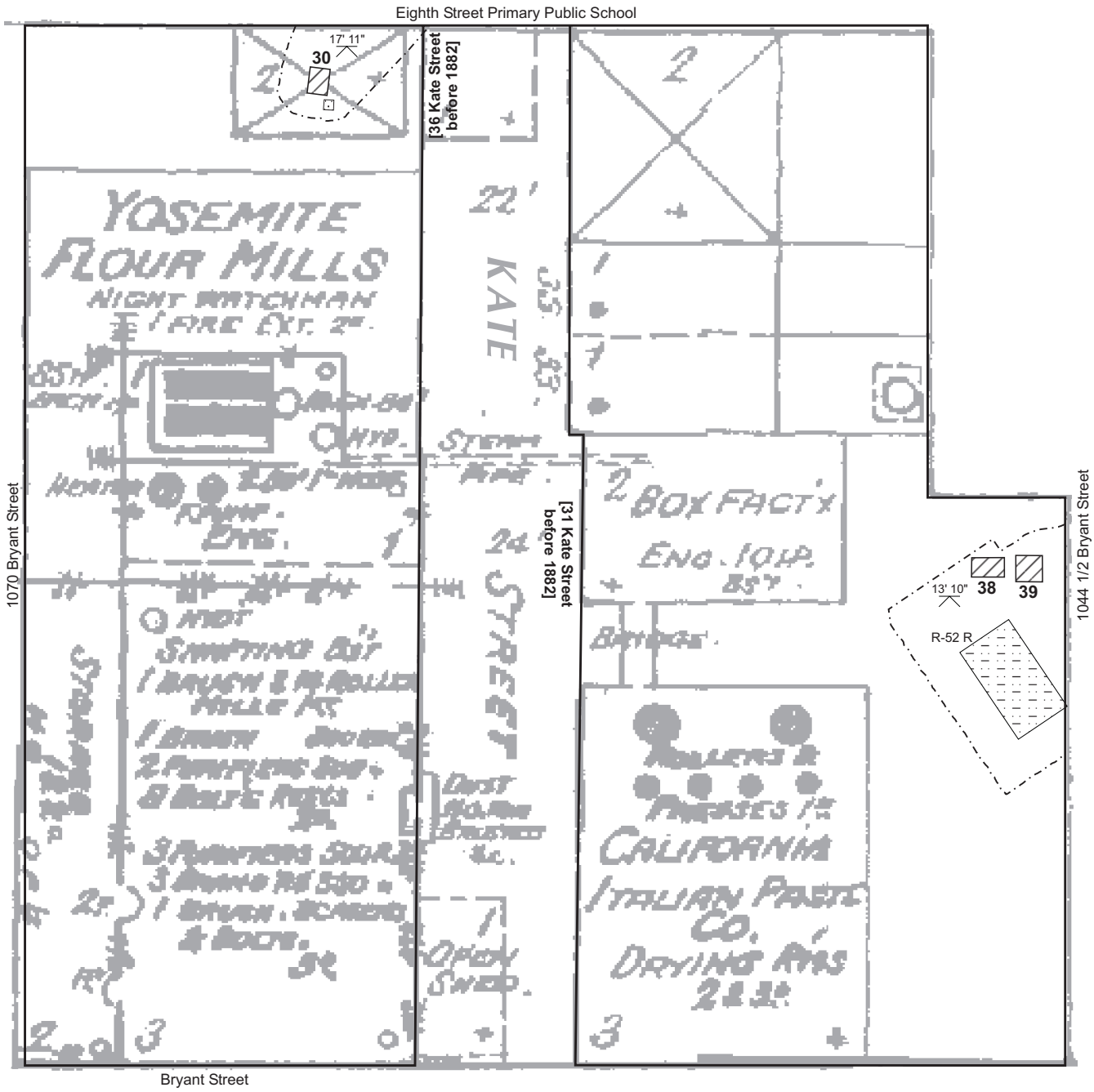
The Mills likely moved from Kate Street about 1882, when the property was sold to Caesar Splivalo for the Yosemite Flour Mills and California Paste Factory operations. The 1887 Sanborn map shows the extent of the factory operations. The map is a bit misleading, as the property boundary at 489 Eighth ends at the northeast edge of 1070 Bryant. It is clear that a smaller house had replaced the larger building shown on the

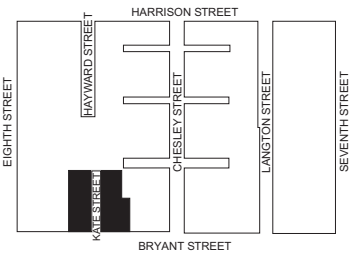
1874 view at 489 Eighth. The open space from 1874 in the area of Privy 30 is mostly covered with a two-story outbuilding and there is another, smaller building at the end of Kate Street.

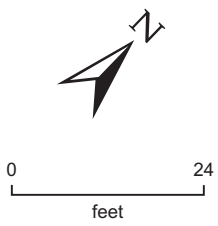
By 1899 the mill had expanded and a new larger building, which remained unchanged to 1905, is shown atop the privy location. It appears that only minor damage occurred in 1906. In 1913 the house next door at 970 (formerly 1070) Bryant is listed as old and dilapidated, presumably the same building from early maps. The back of the lot in the location of Privy 30 is the new location of the box factory that used to be across Kate Street behind the factory. In 1950 the lot contained a Macaroni Factory limited to this lot, rather than the expansive operations of decades past.

There was one CRHR-eligible feature recovered from the lot, Privy 30. The TPQ date is 1876, based on a U.S. Centennial goblet. The privy was likely filled about 1882, when the Mills family moved from the property prior to its sale and the construction of the Yosemite Flour Mill.

29, 31, 33-36 Kate Street; 1060, 1062 Bryant Street (Bayshore Block 4) – PARCEL PLAN
Anne Mills, John Wendt, and Anthony Dean Family Residences



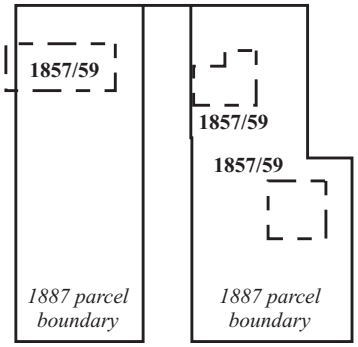




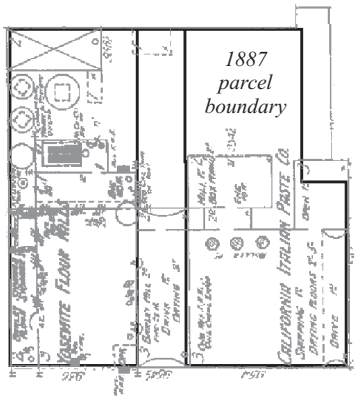
KEY

- CRHR-eligible
- Footing
- Concrete
- Parcel Line
- Limit of Excavation
- Elevation in Feet amsl
- 30 Privy Number

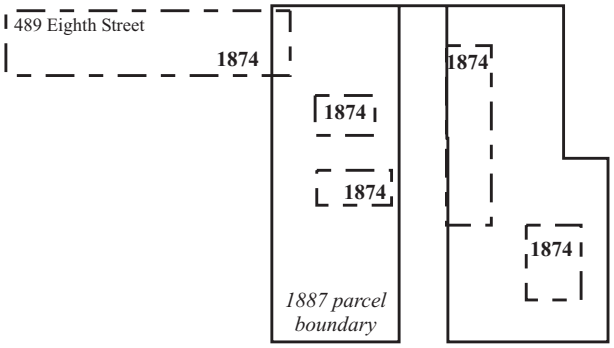
29, 31, 33-36 Kate Street; 1060, 1062 Bryant Street (Bayshore Block 4) – PARCEL HISTORY
Anne Mills, John Wendt, and Anthony Dean Family Residences



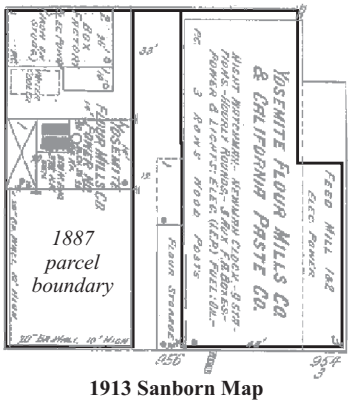
1857/59 Coast Survey
buildings on the
1887 Sanborn parcel



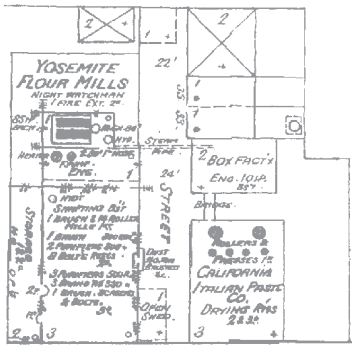
1899 Sanborn Map



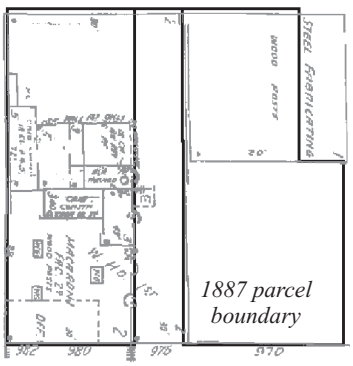
1874 Land-Use Map
buildings on the
1887 Sanborn parcel



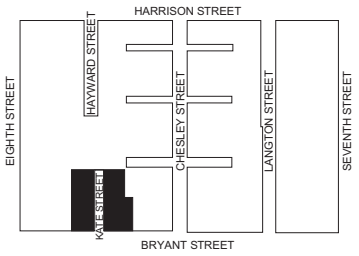
1913 Sanborn Map



1887 Sanborn Map



1949 Sanborn Map





See Parcel Plan

DOCUMENTARY RESEARCH TABLE

36 Kate Street (Bayshore Block 4)

Anne Mills Family Residence

ABSTRACT

Building:

1852/53	Sand dunes near tidal marshes of Mission Bay
1857/59	Building near end of Kate Street, west sided
1874	Smaller building closer to Bryant
1887	Yosemite Flour Mills, with a two-story outbuilding at the end of Kate Street, west side, and a one-story building at the end of, and in Kate Street
1899	Similar to 1887, but with new, larger outbuilding in the northwest corner
1905	Same building as 1887 with additions, listed as 954 Bryant
1913	Yosemite Flour Mills Co. box factory (formerly east of Kate) now at this location
1949	Open yard at back of 980 and 982 Bryant

Residents/Occupation/Use:

1880	Anne Mills, widow, and family
+1887-1913+	Yosemite Flour Mills
+1913+	Yosemite Flour Mills box factory
+1949+	Open lot behind macaroni factory

Ownership

+1894-1909+	C.R. Splivalo & Co

DOCUMENTARY TIME LINE

1852/53	**Coast Survey Map** – Sand dunes near tidal marshes of Mission Bay
1857/59	**Coast Survey Map** – Buildings shown on parcel
1870	**U.S Census** (Ward 10, Page 70) *Off Site – Mills Family:* ***Head:*** *William, 40, OH, drives express wagon, $2000 personal property;* ***Wife:*** *Ann, 40 Ireland, washerwoman;* ***Son:*** *George, 2, CA*
1871	**City Directory** – *Off Site –Ann(e) Mills not listed; William Mills not listed; no Mills at address*
1872	**City Directory** – *Off Site –Ann(e) Mills not listed; William Mills, express wagon, cor Market and Fifth [no r. listed]; no Mills at address*
1873	**City Directory** – *Off Site –Ann(e) Mills not listed; William Mills, express wagon, 739 Market [no r. listed]; no Mills at address*
1874	**Land-Use Map** – Smaller building closer to Bryant

Documentary Research Table, 36 Kate Street *(continued)*

1875	**City Directory** – *Off Site –Ann(e) Mills not listed; William Mills not listed; no Mills at address*
1876	**City Directory** – *Off Site –William Mills, expressman, r. 2 Annie [two other Williams not at address]; Ann(e) Mills not listed; no Mills at address*
1877-80	**City Directory** – *Off Site – Ann(e) Mills not listed; William Mills, expressman, not listed [other Williams not at address]; no Mills listed at address*
1880	**U.S. Census** (ED 151, page 33) 36 Kate – Mills Family: **Head:** Anne, widow, 50, keeping house, cannot write, Ireland; **Son:** George, 12, at school; CA, both parents born Ireland; **Daughter:** Annie, 9, attended school during the census year, CA, both parents born Ireland
1883	**City Directory** – *Off Site – Ann(e) Mills not listed; Anna Mills, widow, r. 1 Boardman Place; no Mills listed at address*
1884	**City Directory** – *Off Site – Ann(e) Mills not listed; no Mills listed at address*
1885	**City Directory** – *Off Site – Ann(e) Mills, widow, r. 117 Julian Avenue; no Mills listed at address*
1887	**Sanborn Map** – Yosemite Flour Mills, with a two-story outbuilding at the end of Kate Street, west side, and a one-story building at the end of, and in Kate Street
1894	**Block Book** – C.R. Splivalo & Co
1895	***San Francisco Call*** – "Mills – In this city, December 30, 1894, Annie Mills, aged 24 years" (*San Francisco Morning Call*, 1 January 1895 10:7)
1899	**Sanborn Map** – Similar to 1887, but with new, larger outbuilding in the northwest corner
1905	**Sanborn Map** – Same building as 1887 with additions, listed as 954 Bryant
1906	**Block Book** – C.R. Splivalo & Co.
1909	**Block Book** – C.R. Splivalo & Co.
1913	**Sanborn Map** – Yosemite Flour Mills Co. box factory (formerly east of Kate) now at this location
1949	**Sanborn Map** – Open yard behind macaroni factory

PRIVY 30 - FEATURE SUMMARY

36 Kate Street (Bayshore Block 4)

Anne Mills Family Residence

Privy 30 was wood-lined and measured 3 ft. by 4 ft. by 4 ft. deep. The north corner of the privy had been impacted by the builders' trench for freeway bent G2a53. The top of the privy was 3 ft. below the present asphalt ground surface. Below the asphalt and gravel base was a layer of about 2 ft. of mixed fill, Layer 220, comprised of sandy gravel and rubble; the layer presumably represents leveling the block at the time of bent construction and subsequent paving for the parking lots. Below this layer was a historic ground surface of cobble paving, Context 218, on top of Privy 30 and extending east. Due to the limited area of exposure, the extent of the cobble paving was not determined; it may have been floor paving for one of the buildings shown on the Sanborn maps. The paving had been disturbed by bent construction. The cobbles sat on Layer 216, a dark, gray-brown silty sand layer with fire-affected artifacts. These fire-affected materials may date to 1906 or could instead be associated with an earlier event prior to construction of the building superimposed over the privy. Layers 216, 217, and 205 were all fire affected and extended beyond the limits of the privy. Layer 217 was a bright-reddish brown silty sand layer, while Layer 205 was a nearly black silty sand. The wood lining, Context 214, was also charred at the top, indicating the elevation of the historic ground surface at that time. The wood lining had also been disturbed post-fire. This disturbance is probably associated with clean-up activities and grading prior to paving, which would account for some privy fills being redeposited outside the lining.

Layer 207 was the uppermost fill that had not been disturbed by grading above the privy; it was also the lowest fill disturbed by bent construction. It was composed of mottled brown and yellowish-brown silty sand, with a large quantity of rusted metal. Layer 210 was mottled yellowish brown fine silty sand with siltation striations at the top of the layer. Layer 211 was similar to Layer 210, but with more of a gray-brown mottling. This bottom fill was similar to the layers above, but with fewer artifacts. There was no indication of organic, primary privy fill suggesting that the privy had been mucked out just prior to filling with refuse.

The TPQ for Privy 30 is 1876, based on a U.S. Centennial goblet. The date of deposit is probably about 1882 when the property was sold to Cesar Splivalo for his flourmill and paste factory. The 1880 U.S. Census indicates the Mills family was living at 36 Kate, and they were the most likely people to have filled the privy. When the privy was filled, Anne Mills was a widow living with her son and daughter. Her deceased husband, William, had been an express-wagon driver, and in 1870 they had owned $2,000 worth of personal property but no real estate. In 1880 the Mills children, George, age 12, and Annie, age 9, both attended school. Anne Mills was listed as keeping house, but was probably also washing clothes, as she had listed her occupation in 1870. In 1880 her neighbor across the street, Mary Miles, took in laundry.

Anne Mills and her children's stay on Kate Street may have been a short one. Much of the tableware may have been purchased secondhand, or bought new many years before, and many items were outdated goods, not worth moving. The tableware was

predominately of white improved earthenware (WIE) at 77%, with a modest amount of porcelain (12%). The porcelain was split evenly between decorated and undecorated vessels, at four items each. All four of the opaque porcelain vessels were undecorated, as were 77% of the WIE vessels. Eight of the WIE decorated vessels were paneled and may have come from the same set. At the time of deposition in the early 1880s, the paneled ceramic vessels would have been going out of fashion. Many of the paneled patterns for WIE were registered in the 1840s and 1850s (Dieringer and Dieringer 2001). The paneled glass tumblers that were recovered would have complemented the paneled dishes. The other glassware was an eclectic mix, with a Liberty Bell centennial goblet, a Huber pattern pressed goblet, and a cup and cordial with red stain and etching.

Serving ware was relatively well-represented, with several WIE bowls, platters, and dishes; a possible slop bowl, sugar bowl, and from three to five tea pots may represent habitual tea drinking and a moderately formal tea service. In fact, drinking cups are present in abundance, with fragments representing 18 separate vessels. Other indications of the diet are found in the food and food-storage vessels, which included a variety of seasonings, including peppersauce, Worcestershire, mustard, and two unknown spices. There was also an olive-oil bottle, a bean pot, several crocks, and canning jars. The Chinese ginger jar may have been acquired for its contents, as a useful storage vessel, or as a fashionable decorative item. There was also a Chinese brown-glazed barrel jar among the miscellaneous containers.



The faunal remains from Privy 30 clearly indicate the use of less expensive cuts of meat. Of the total meat weight, 155 pounds were from major meat mammals, while an additional 8 pounds were from 4 chickens. Beef was the most common type with 89 pounds, of which only 17% were high-priced cuts, 22% were medium-priced cuts, and the remaining 61% were the lowest-priced cuts. Of the 33 pounds of mutton, only 4% were high-priced cuts, with 29% in the moderate-price range and the remaining 67% from the lowest-priced cuts. Pork had no high-priced cuts and only 19% moderate cuts, leaving 81% within the low-price range.

Leg portions are slightly more prevalent within the retail cuts from beef, followed by a preference for chuck and loin. A preference for steaks and cuts appropriate for soups and stews top the list of identified cuts of meat for beef. Pork is comprised mostly of meat cuts from the skull and jowl, followed by moderate contributions from the ham and shoulder, much in a form appropriate for soups and stews. A preference for chuck was identified in retail cuts of mutton, where a partiality for roasts and cuts appropriate for soups and stews dominated. For the Mills family, this may have been the most effective way to extend their food budget.

The Mills' personal items included a toothbrush and a hard-rubber comb, indicating a certain level of care regarding personal hygiene. There were a few patent-medicine bottles that could have been used for a variety of ailments. The chamber pots in the fill



may indicate that their new home was connected to the city sewer. There were a few personal accoutrements, including a purse frame, a pair of pocketknives, and the tip to a cane or walking stick. The toys consisted of a porcelain doll, five marbles, and a tea set cup. One railroad spike was recovered; this item, along with the piece of petrified wood, may have been collected by a child as a novelty. The six pencils, five slate tablets, and five inkbottles represent considerable writing activity, perhaps mostly related to the children's homework. The presence of Mrs. Winslow's Soothing Syrup (for teething infants), along with the feeding bottle, suggest that these items had been among the family things for nearly a decade, when daughter Annie was a baby; alternatively another, younger, child may have been living in the Mills household around the time of their move.

A variety of alcoholic-beverage bottles were recovered from Privy 30. Included were 5 ale or beer bottles, 3 whiskey bottles, 9 wine or champagne bottles, and 4 of undetermined contents. The relatively large number of wine/champagne bottles, generally associated with more well-to-do or professional households, is particularly interesting. Drinks would have been served in the four glass goblets, the seven colorless glass tumblers, or the glass cordial. Thirteen soda-water bottles may represent an accompaniment for the whiskey, or simply soft drinks for Anne and the children. There were also three ball-clay tobacco pipes, presenting the possibility that Anne Mills or her guests were smokers, or that her husband had only recently died.

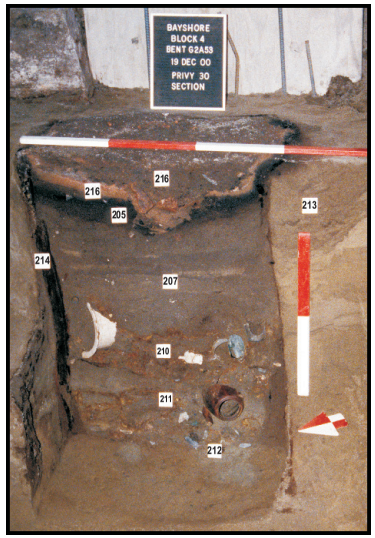
Parts of six pairs of footwear recovered were mainly for adults, with one or two worn by either a woman or child; three showed signs of wear. These personal items were overshadowed in quantity by clothing-related artifacts, including 2 men's wool hats, pair of suspenders, man's belt, and at least 66 garments. Various weights of wool are represented along with bi-color twill, a plaid, and two fancy weaves. While outer-garments were the most common, fabric associated with dresses, shirts, trousers, vests, sleepwear, and undergarments were also recovered. Buttons not represented by the textile remains would be those typically associated with other shirts, undergarments, and basic clothing. The only artifact potentially associated with clothing construction, alteration, or maintenance were fragments of black twill tape.

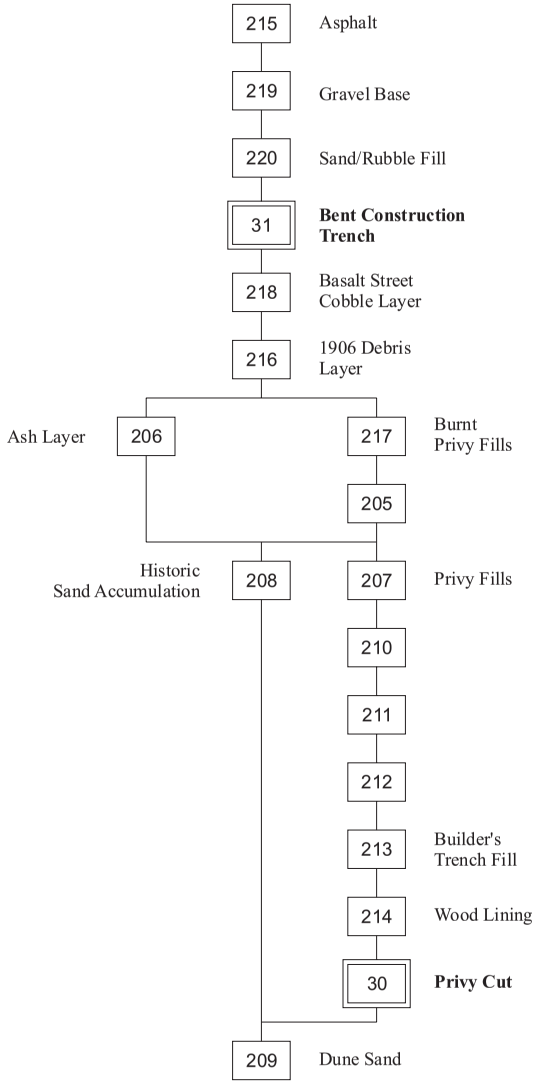
While her husband was still alive, Mrs. Mills worked as a washerwoman and may have continued this strenuous job, or she may have retrained herself as a seamstress to command a higher income. Some of the individual buttons recovered from this feature could have fallen off of shirts and other washable garments as they were being cleaned. Of the 59 cloth garments, 6 were made from inexpensive material and 4 were of nice quality, with the remainder being moderately priced. Such a large amount of moderate-priced items could have came into the Mills family through second-hand stores; they could either have been worn unaltered or, more likely, remade into something more fashionable or totally refashioned into something for one of the children.

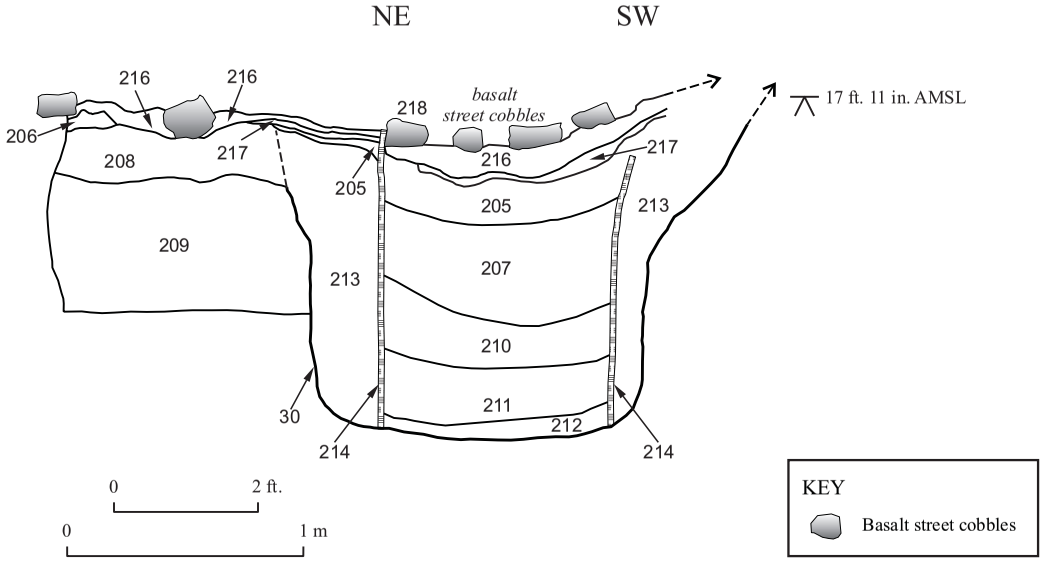
Privy 30 – MATRIX AND EXCAVATION PROFILE

36 Kate Street (Bayshore Block 4)

Anne Mills Family







Privy 30 – FEATURE SUMMARY TABLE
36 Kate Street (Bayshore Block 4)
Anne Mills Family

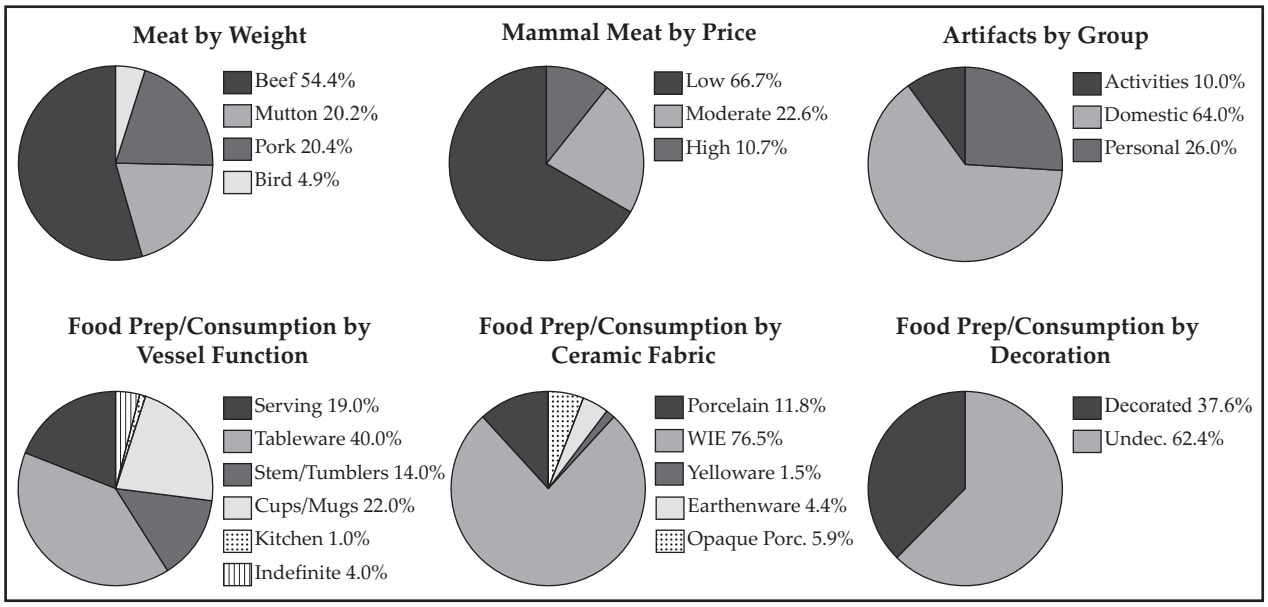
HOUSEHOLD

Name:	Anne Mills Family
Birthplace:	Ireland
Ethnicity or Race:	Irish
Occupation:	Housekeeping
Period of Residence:	ca. 1880
Terminus Post Quem/Basis:	1876 (U.S. Centennial goblet)
Mean Ceramic Mark Date/N:	1875.3 (n = 16)
Estimated Date of Deposition:	1882

ANALYTICAL UNIT

Context Numbers:	207, 210, 211, 212

ARTIFACTS





Privy 30 – ARTIFACT LAYOUT PHOTOGRAPH, 36 Kate Street (Bayshore Block 4), Anne Mills Family. The assemblage from this privy probably represents the disposal of unwanted items prior to moving, following the sale of the house. Much of the tableware, after years of use, may not have been worth packing and moving. Several food and food-storage vessels were disposed of in the privy, including bottles once containing peppersauce, Worcestershire sauce, mustard, and olive oil. Several crocks and canning jars were found as well. The disposal of the chamber pots may indicate that the home was connected to the city sewer.

Privy 30 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Group and Category	Description	Count	MNI
ACTIVITIES			
Advertising			
-	Colorless Glass Sign	1	1
Subtotal Advertising		1	1
Collecting			
-	Petrified Wood	1	1
Subtotal Collecting		1	1
Firearms			
Ammunition	Copper-alloy .44 Cartridge Shell	1	1
Ammunition	Copper-alloy Shotgun Shell?	1	1
Subtotal Firearms		2	2
Misc. Metal Items			
-	Copper-alloy Bell	1	1
Subtotal Misc. Metal Items		1	1
Painting?			
-	Wood/Fiber Brush	5	1
Subtotal Painting?		5	1
Tools			
-	Ferrous Shovel	3	1
Subtotal Tools		3	1
Writing			
-	Slate Pencil	11	6
-	Slate Tablet	22	5
Container	Aqua Glass Ink Bottle	7	4
Container	Brown Glass Ink Bottle	1	1
Subtotal Writing		41	16
DOMESTIC			
Food/Food Storage			
Closure	Colorless Glass Gravitating Stopper	2	1
Closure	White Improved Earthenware Feeding Bottle Cap	1	1
Container	Aqua Glass Bottle	26	3
Container	Aqua Glass Canning Jar	11	1
Container	Aqua Glass Canning Jar?	10	1
Container	Aqua Glass Oil Bottle?	8	1
Container	Aqua Glass Pepper-sauce Bottle	1	1
Container	Aqua Glass Soda-water Bottle	29	8
Container	Aqua Glass Spice Bottle	20	2

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food/Food Storage *(continued)*			
Container	Aqua Glass Worcestershire Bottle	17	1
Container	Chinese Stoneware Ginger Jar	2	1
Container	Cobalt Glass Soda-water Bottle	9	5
Container	Colorless Glass Decanter	8	1
Container	Colorless Glass Mustard Bottle	13	2
Container	Earthenware Bean Pot	3	1
Container	Stoneware Crock	5	4
Container	Stoneware Crock?	3	1
Subtotal Food/Food Storage		168	35
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Cordial	9	1
Drinking Vessel	Colorless Glass Cup	10	1
Drinking Vessel	Colorless Glass Goblet	43	4
Drinking Vessel	Colorless Glass Tumbler	41	7
Drinking Vessel	Opaque Porcelain Cup	5	4
Drinking Vessel	Porcelain Motto Cup	6	1
Drinking Vessel	White Improved Earthenware Cup	25	13
Indefinite	Colorless Glass Hollow	2	2
Indefinite	Hard-rubber Utensil Handle	1	1
Indefinite	Sun-tinted Amethyst Hollow	1	1
Kitchen	Yellowware Bowl	1	1
Serving	Colorless Glass Master Salt	1	1
Serving	Copper-alloy Spoon	1	1
Serving	Earthenware Teapot	19	3
Serving	Porcelain Small Platter	1	1
Serving	Porcelain Teapot/Sugar Lid	1	1
Serving	White Improved Earthenware Bowl	4	1
Serving	White Improved Earthenware Bowl?	1	1
Serving	White Improved Earthenware Oval Dish	1	1
Serving	White Improved Earthenware Platter	4	1
Serving	White Improved Earthenware Platter/Dish	1	1
Serving	White Improved Earthenware Slop Bowl?	2	1
Serving	White Improved Earthenware Sugar Bowl	6	1
Serving	White Improved Earthenware Teapot?	1	1
Serving	White Improved Earthenware Vegetable Dish	1	1
Serving?	White Improved Earthenware Hollow	2	1
Tableware	Copper-alloy Spoon	4	2
Tableware	Porcelain Plate, 7"	2	1
Tableware	Porcelain Plate, 8 1/2"	5	1
Tableware	Porcelain Saucer	8	2
Tableware	Porcelain Saucer/Dish	1	1
Tableware	White Improved Earthenware Plate	31	5
Tableware	White Improved Earthenware Plate, 10 1/4"	31	3
Tableware	White Improved Earthenware Plate, 11″	4	1
Tableware	White Improved Earthenware Plate, 8 1/2″	4	2

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Tableware	White Improved Earthenware Plate, 8 1/2-9″	1	1
Tableware	White Improved Earthenware Plate, 9 1/2″	9	3
Tableware	White Improved Earthenware Plate, 9″	2	2
Tableware	White Improved Earthenware Platter	4	1
Tableware	White Improved Earthenware Saucer	6	2
Tableware	White Improved Earthenware Saucer, 6 1/2″	10	5
Tableware	White Improved Earthenware Saucer, 6″	1	1
Tableware	White Improved Earthenware Saucer, 7″	1	1
Tableware	White Improved Earthenware Soup Plate	1	1
Tableware	White Improved Earthenware Soup Plate, 10 1/2″	9	1
Subtotal Food Prep/Consumption		324	89
Furnishings			
-	Colorless Glass Mirror	1	1
Decorative Item	Common-pottery Flowerpot	6	3
Subtotal Furnishings		7	4
Heating/Lighting			
-	Copper-alloy Candlestick Cup	1	1
Lamp	Colorless Glass Chimney	234	21
Lamp	Colorless Glass Font	6	1
Subtotal Heating/Lighting		241	23
Indefinite			
-	Porcelain Hollow	2	2
-	Red –bodied Earthenware Hollow	1	1
-	White Improved Earthenware Hollow	2	0
Subtotal Indefinite		5	3
INDEFINITE USE			
Indefinite			
-	Aqua Glass Tube	1	1
-	Colorless Glass Bottle/Tumbler	1	1
-	Colorless Glass Flat	1	1
-	Colorless Glass Handle	1	1
-	Colorless Glass Hollow	3	3
-	Colorless Glass Lamp/Bottle	258	0
-	Opaque Porcelain Hollow	2	0
-	Opaque Porcelain Pitcher	3	1
-	Porcelain Hollow	2	1
-	Stoneware Hollow	2	2
-	Stoneware Tile	3	1
-	White Improved Earthenware Hollow	2	2
-	White Improved Earthenware Misc.	4	0
-	Wool Fabric	1	0
Subtotal Indefinite		284	14

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Materials			
-	Marble Slab	1	1
Subtotal Materials		1	1
Misc. Beads			
-	Black Glass Bead	1	1
-	Blue Glass Bead	2	2
-	Blue Opaque Glass Bead	1	1
Subtotal Misc. Beads		4	4
Misc. Closures			
-	Colorless Glass Stopper	1	0
-	Cork Stopper	3	0
Subtotal Misc. Closures		4	0
Misc. Containers			
-	Aqua Glass Bottle	45	17
-	Aqua Glass Jar	3	1
-	Brown Glass Large Bottle?	1	1
-	Chinese Brown Glazed Stoneware Barrel Jar	4	1
-	Colorless Glass Bottle	33	11
-	Ferrous Can	5	4
-	Ferrous Pan	4	1
-	Light-green Glass Bottle	1	1
-	White Glass Bottle?	1	1
Subtotal Misc. Containers		97	38
Misc. Metal Items			
-	Copper-alloy Ball	1	1
-	Copper-alloy Blade	2	1
-	Copper-alloy Wire	1	0
-	Ferrous Handle	2	1
-	Ferrous Sheet Metal	7	0
-	Ferrous Sheet Metal/Can	120	0
-	Ferrous Strap	29	0
-	Ferrous Tube	1	1
-	Ferrous Wire	13	1
-	Lead Flange/Fitting	1	1
-	Lead Seal?	1	1
-	Lead Strip	2	1
-	Metal Rocker?	1	1
Subtotal Misc. Metal Items		181	9

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
PERSONAL			
Accoutrements			
-	Copper-alloy Cane End Cap	1	1
-	Copper-alloy Purse Frame	3	1
-	Copper-alloy/Ferrous Pocketknife	6	2
-	Hard-rubber Hair Comb, Women's	1	1
Subtotal Accoutrements		11	5
Clothing			
-	Leather Belt, Men's	5	1
-	Silk Dress/Waist/Vest	1	1
-	Silk Dress/Waist/Outergarment Lining	1	0
-	Wool Shirt, Children's or Women's Dress/Waist	1	1
-	Wool Dress/Outergarment	1	1
-	Wool Dress/Shirt/Lightweight Outergarment	17	2
-	Wool Dress/Shirt/Waist/Lightweight Outergarment	8	1
-	Wool Dress/Trouser/Lightweight Outergarment	12	2
-	Wool Dress/Trouser/Outergarment	7	3
-	Wool Dress/Waist	35	1
-	Wool Dress/Waist/Lightweight Outergarment	2	2
-	Wool Dress/Waist/Shawl	15	1
-	Wool Fabric	12	2
-	Wool Hat	17	2
-	Wool Lightweight Dress/Trouser/Outergarment	2	1
-	Wool Lightweight Outergarment	5	1
-	Wool Outergarment	27	5
-	Wool Outergarment Lapel	0	1
-	Wool Shirt/Sleepwear	2	1
-	Wool Sleepwear/Dress/Shirt/Lightweight Outergarment	3	1
-	Wool Trouser/Men's Outergarment	2	1
-	Wool Undergarment	1	1
-	Wool Vest/Fancy Dress/Waist/Trouser/ Lightweight Outergarment	2	1
-	Wool Winterweight Outergarment	13	3
-	Wool Winterweight Trouser/Outergarment	1	1
-	Wool Women's? Outergarment	16	1
-	Wool? Horsehair? Outergarment/Corset Shoulder Pad	1	1
Fastener	Black Glass Button	2	1
Fastener	Black Porcelain Button	1	1
Fastener	Copper-alloy Button	2	2
Fastener	Copper-alloy Suspender Buckle	2	1

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Clothing *(continued)*			
Fastener	Copper-alloy/Ferrous Button	2	1
Fastener	Copper-alloy/Glass Button	1	1
Fastener	Ferrous Button	3	3
Fastener	Hard-rubber Button	3	3
Fastener	Porcelain Button	28	28
Fastener	Shell Button	1	1
Subtotal Clothing		254	81
Clothing/Footwear			
-	Wool Laced Shoe Upper/Garment	4	1
Subtotal Clothing/Footwear		4	1
Footwear			
-	Leather Shoe/Boot, Adult's	1	1
-	Leather Shoe/Boot, Men's	2	2
-	Leather Shoe/Boot	44	0
-	Leather Shoe/Boot, Women's	1	1
-	Leather Boot, Women's/Child's	24	1
-	Leather Shoe/Boot, Women's/Child's	1	1
Subtotal Footwear		73	6
Grooming/Health			
Container	Amber Glass Bitters Bottle	1	1
Container	Aqua Glass Bottle	1	1
Container	Aqua Glass Discovery Bottle	1	1
Container	Aqua Glass Syrup Bottle	1	1
Container	Aqua Glass Vial	1	1
Container	Colorless Glass Bottle	2	1
Container	Colorless Glass Pharmaceutical Bottle	1	1
Container	Colorless Glass Vial	6	2
Toiletry	Bone Toothbrush	1	1
Toiletry	CC Ware Chamberpot	1	1
Toiletry	Hard-rubber Comb	2	1
Toiletry	Opaque Porcelain Chamberpot Lid	1	1
Toiletry	White Improved Earthenware Chamberpot	5	3
Toiletry	White Improved Earthenware Chamberpot Lid	2	0
Toiletry	White Improved Earthenware Pot	1	1
Subtotal Grooming/Health		27	17
Indefinite			
-	Blue Glass Inset	1	1
-	Colorless Glass Inset	1	1
-	Yellow Glass Inset	1	1
Subtotal Indefinite		3	3

Privy 30 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Social Drugs - Alcohol			
Container	Amber Glass Alcoholic-beverage Bottle	2	0
Container	Amber Glass Whiskey? Bottle	10	1
Container	Amber-green Glass Alcoholic-beverage Bottle	1	1
Container	Brown Glass Alcoholic-beverage Bottle	84	1
Container	Brown Glass Bottle	2	0
Container	Brown Glass Whiskey Bottle	22	2
Container	Dark-olive Glass Ale/Beer Bottle	14	3
Container	Dark-olive Glass Ale/Beer Bottle, 24 oz.	2	1
Container	Olive Glass Alcoholic-beverage Bottle	32	2
Container	Olive Glass Wine/Champagne Bottle	150	9
Container	Stoneware Ale/Beer Bottle	1	1
Subtotal Social Drugs - Alcohol		320	21
Social Drugs - Tobacco			
-	Ball Clay Pipe	10	3
Subtotal Social Drugs - Tobacco		10	3
Toys			
-	Porcelain Doll	1	1
-	Porcelain Marble	5	5
Tea set	Porcelain Cup	1	1
Subtotal Toys		7	7
STRUCTURAL			
Hardware			
-	Ferrous Angle Bracket	1	1
-	Ferrous Brace	1	1
Fastener	Copper-alloy Screw	1	1
Fastener	Ferrous Bolt?	2	2
Fastener	Ferrous Cut Nail	69	52
Fastener	Ferrous Nail	321	191
Fastener	Ferrous Railroad Spike	1	1
Fastener	Ferrous Spike	18	15
Fastener	Ferrous Spike/Nail	47	31
Fastener	Ferrous Wire Nail	24	14
Subtotal Hardware		485	309
Materials			
-	Glass Window	200	0
Subtotal Materials		200	0
Undefined Use			
-	Coal Fuel	13	0
-	Lime	3	0
-	Slag Waste	8	0
Subtotal Undefined Use		24	0
TOTAL		2,788	696

Privy 30 – SUMMARY OF ARTIFACTS BY GROUP
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Description	Total Count	MNI	Percent of MNI
Activities	54	23	10
Domestic	745	154	64
Personal (other than clothing)	455	63	26
Subtotal	1,254	240	
Indefinite Use	571	66	
Personal Clothing	254	81	
Structural	685	309	
Undefined Use	24	0	
TOTAL	2,788	696	

Privy 30 – SUMMARY OF ARTIFACTS BY CATEGORY
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Description	MNI	Percent
Accoutrements	5	1.3
Advertising	1	0.3
Clothing	81	20.9
Clothing/Footwear	1	0.3
Collecting	1	0.3
Firearms	2	0.5
Food Prep/Consumption	89	23.0
Food/Food Storage	35	9.0
Footwear	6	1.6
Furnishings	4	1.0
Grooming/Health	17	4.4
Heating/Lighting	23	5.9
Indefinite	20	5.2
Materials	1	0.3
Misc. Beads	4	1.0
Misc. Containers	38	9.8
Misc. Metal Items	10	2.6
Painting?	1	0.3
Social Drugs - Alcohol	21	5.4
Social Drugs - Tobacco	3	0.8
Tools	1	0.3
Toys	7	1.8
Writing	16	4.1
TOTAL	387	100.1

Privy 30 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Bitters Bottle	Hostetter's	1	
	Druggist/Apothecary Bottle	C. Langley & Co.	1	
		Joseph T. Brown & Co.	1	
	Patent Medicine Bottle	Mrs. Winslow's Soothing Syrup	1	
		Pierce's Discovery	1	
Subtotal Labeled Items			5	56
Unlabeled Items				
	Bottle		1	
	Vial		3	
Subtotal Unlabeled Items			4	44
TOTAL			9	100

Privy 30 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	15	18
Serving?	1	1
Tableware (plates, bowls, saucers, etc.)	34	40
Stemware and Tumblers	12	14
Cups and Mugs	19	22
Kitchen (mixing bowls, bakers, etc.)	1	1
Indefinite	3	4
TOTAL	85	100

Privy 30 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			68	80
Porcelain	8	11.8		
Opaque Porcelain	4	5.9		
White Improved Earthenware	52	76.5		
Yellowware	1	1.5		
Earthenware	3	4.4		
Ceramic Subtotal	68	100.1		
Glass			17	20
TOTAL			85	100

Privy 30 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Porcelain	Motto Cup	Handpainted, Gilded	1	
Porcelain	Plate, 7"			1
Porcelain	Plate, 8 1/2"			1
Porcelain	Saucer	Handpainted, Gilded	1	
Porcelain	Saucer	Ribbed, Handpainted, Gilded	1	
Porcelain	Saucer/Dish	Orange luster, Handpainted	1	
Porcelain	Small Platter			1
Porcelain	Teapot/Sugar Lid			1
Opaque Porcelain	Cup			4
WIE	Bowl			1
WIE	Bowl?			1
WIE	Cup			9
WIE	Cup	Molded	1	
WIE	Cup	Paneled	3	
WIE	Hollow			1
WIE	Oval Dish			1
WIE	Plate			4
WIE	Plate	Molded	1	
WIE	Plate, 10 1/4"			3
WIE	Plate, 11"			1
WIE	Plate, 8 1/2"			2
WIE	Plate, 8 1/2-9"	Molded - Corn and Oats	1	
WIE	Plate, 9 1/2"			2
WIE	Plate, 9 1/2"	Paneled	1	
WIE	Plate, 9"			1
WIE	Plate, 9"	Paneled	1	
WIE	Platter			1
WIE	Platter	Paneled	1	
WIE	Platter/Dish			1
WIE	Saucer			1
WIE	Saucer	Paneled	1	
WIE	Saucer, 6 1/2"			4
WIE	Saucer, 6 1/2"	Paneled	1	
WIE	Saucer, 6"			1
WIE	Saucer, 7"			1
WIE	Slop Bowl?			1
WIE	Soup Plate			1
WIE	Soup Plate, 10 1/2"			1
WIE	Sugar Bowl	Molded - Pharaoh	1	

Privy 30 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic *(continued)*				
WIE	Teapot?			1
WIE	Vegetable Dish			1
Yellowware	Bowl			1
Earthenware	Teapot	Rebekah	3	
Ceramic Subtotal			19	49
Glass				
Colorless Glass	Cordial	Red stain, Cut, Etched	1	
Colorless Glass	Cup	Red stain, Etched	1	
Colorless Glass	Goblet			2
Colorless Glass	Goblet	Pressed - Huber	1	
Colorless Glass	Goblet	Pressed - Liberty Bell	1	
Colorless Glass	Hollow	Pressed	2	
Colorless Glass	Master Salt			1
Colorless Glass	Tumbler			1
Colorless Glass	Tumbler	Pressed panels	5	
Colorless Glass	Tumbler	Pressed panels (9)	1	
Sun-tinted Amethyst	Hollow	Pressed	1	
Glass Subtotal			13	4
TOTAL			32	53

Privy 30 – SOCIAL DRUGS SUMMARY
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage	4	
	Ale/Beer Bottle	4	
	Ale/Beer Bottle, 24 oz.	1	
	Whiskey Bottle	2	
	Whiskey? Bottle	1	
	Wine/Champagne Bottle	9	
Subtotal Alcohol		21	88
Tobacco	Pipe	3	13
TOTAL		24	101

Privy 30 – ANIMALS REPRESENTED IN FAUNAL REMAINS
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Common Name	Scientific Name	NISP	MNI	MW (lbs.)
MAMMALS				
Major Meat Mammals				
cow	*Bos taurus*	40	3	88.7
sheep	*Ovis aries*	33	2	33.0
pig	*Sus scrofa*	20	2	33.3
artiodactyl	artiodactyla	1		
Incidental Mammals				
Domestic cat	*Felis catus*	8	1	
Black rat	*Rattus rattus*	1	1	
TOTAL MAMMALS		103	9	155.0
BIRDS				
Domestic Poultry				
chicken	*Gallus gallus*	12	4	8.0
TOTAL BIRDS		12	4	8.0
GRAND TOTAL		115	13	163.0

Privy 30 – MEAT WEIGHT BY PRICE
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Meat Type	Meat Wt. (lbs.)	Percent within meat	Percent within price	Percent of total
BEEF				
high			17.3	
porterhouse	7.2	8.1		
sirloin	6.8	7.6		
prime rib	1.4	1.6		
moderate			21.6	
crossrib				
round				
rump				
blade	5.5	6.2		
roundbone	1.7	1.9		
chuckrib	12.0	13.5		
low			61.1	
neck	7.8	8.8		
plate				
brisket	1.4	1.6		
hindshank	23.3	26.2		
foreshank	21.8	24.5		
Total	88.9	100.0	100.0	57.2
MUTTON				
high			3.6	
porterhouse	1.2	3.6		
sirloin				
rump				
round				
moderate			28.9	
rib	0.8	2.4		
crossrib				
blade	1.9	5.6		
roundbone	4.8	14.5		
chuckrib	2.1	6.4		
low			67.4	
neck	19.0	57.6		
plate				
brisket	0.8	2.4		
hindshank	1.8	5.3		
foreshank	0.7	2.0		
Total	33.1	100.0	100.0	21.3

Privy 30 – Meat Weight by Price *(continued)*

Meat Type	Meat Wt. (lbs.)	Percent within meat	Percent within price	Percent of total
PORK				
high				
porterhouse				
sirloin				
rib				
round				
moderate			19.1	
rump	5.5	16.5		
blade				
roundbone				
chuckrib	0.9	2.6		
low			80.9	
neck				
crossrib	0.3	0.8		
brisket				
plate				
foreshank	0.1	0.3		
forefoot	0.7	2.0		
hindshank	5.5	16.6		
hindfoot	0.7	2.1		
head	9.8	29.4		
jowl	9.9	29.6		
Total	33.4	100.0	100.0	21.5
GRAND TOTAL	155.0			100.0

Privy 30 – SHELLFISH REMAINS
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Shellfish	MNI
Abalone	1
Oyster	6

Privy 30 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
36 Kate Street (Bayshore Block 4)
Anne Mills Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Commercial Containers								
210 011	White Improved Earthenware	Pot	1	Printed mark: NINE HIGHEST PREMIUMS/ AWARDED/ ALSO/ A/ PRIZE-MEDAL/ AT THE/ WORLDS FAIR/ LONDON 1851/ TO/ X. BAZIN/ PHILADELPHIA	Bazin, X.	Philadelphia	1850s late - 1887	Wilson and Wilson 1971:106
Marked Ceramic Items								
207 010	White Improved Earthenware	Plate	1	Printed mark: (seated Royal Coat of Arms)/ (in ribbon) E. & C. C[HALLINOR]/ IRONSTONE [CHINA]/ (below ribbon) F[ENTON]	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18-19, mark 52.
207 012	White Improved Earthenware	Plate, 8 1/2-9"	1	(molded - Corn and Oats)			1863 -	Sussman 1985:55-56
207 013	White Improved Earthenware	Saucer	1	Impressed mark: [THOMAS HU]GHES/ [BURSLEM]	Hughes, Thomas	Staffordshire	1860 - 1891	
207 015	White Improved Earthenware	Saucer, 7"	1	Printed mark: (garter and crown) IRONST[ONE]/ CHINA (in shield on garter)/ (in ribbon) POWELL & B[ISHOP]	Powell and Bishop	Staffordshire	1867 - 1878	Praetzellis et al. 1983:68-69, mark 209
210 024	White Improved Earthenware	Sugar Bowl	1	(molded - Pharaoh Cameo)	Meakin, J. & G. (attributed to)	Staffordshire	1870s - 1880s	Wetherbee 1996:142.
210 027	White Improved Earthenware	Plate	1	Printed mark: [(garter and crown)/ IRONSTONE CHINA (in shield on garter)]/ (in ribbon) POWELL [& BISHOP]	Powell and Bishop	Staffordshire	1867 - 1878	Praetzellis et al. 1983:68-69, mark 209
210 028	White Improved Earthenware	Plate, 9 1/2"	1	Impressed mark: THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45, mark 142
210 031	White Improved Earthenware	Saucer, 6"	1	Printed mark: IRONSTONE C[HINA]/ (standing Royal Coat of Arms)/ ..			-	
210 032	White Improved Earthenware	Platter	1	Impressed mark: (illegible, in garter)			-	
211 025	White Improved Earthenware	Plate	1	Printed mark: (staning Royal Coat of Arms)/ ROYAL PAT[ENT]/ IRONSTON[E]/ GEORGE JONES & [SONS]	Jones, George and Sons	Staffordshire	1873 - 1891	Praetzellis et al. 1983:45-46, mark 148
211 026	White Improved Earthenware	Plate, 9 1/2"	1	Impressed mark: THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45, mark 142

Privy 30 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
211 027	White Improved Earthenware	Soup Plate, 10	1	Impressed mark: THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	- 1891	Praetzellis et al. 1983:44-45, mark 142
211 028	White Improved Earthenware	Plate, 9 1/2"	1	Printed mark: (in ribbon) [I]MPERIAL/ (eagle and shield)/ (in ribbon) FRENCH CHINA/ THOS. HUGHES	Hughes, Thomas	Staffordshire	- 1891	Praetzellis et al. 1983:44-45, mark 138
211 029	White Improved Earthenware	Plate, 9"	1	Impressed mark: THOMAS HUGHES/ IRONSTONE CHINA (in double rectangle)	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45
211 030	White Improved Earthenware	Platter	1	Impressed mark: (standing Royal Coat of Arms)/ [IRONSTONE/ CHINA/ E. & C. CHALLINOR]	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18-19, mark 48
211 033	White Improved Earthenware	Plate	1	Printed mark: ..[IRONS]ONE CHINA/ (standing Royal Coat of Arms)/ ..			-	
211 034	White Improved Earthenware	Saucer, 6 1/2"	1	Printed mark: (standing Royal Coat of Arms)/ R[OYAL PATE]NT/ I[RONSTONE]/ GEOR[GE JONES & SONS]	Jones, George and Sons	Staffordshire	1873 - 1891	Praetzellis et al. 1983:45-46, mark 148
211 036	White Improved Earthenware	Saucer, 6 1/2"	1	Impressed mark: JAS. EDWARDS & SON/ DALEHALL	Edwards, James and Son	Staffordshire	1852 - 1882	Praetzellis et al. 1983:32-33, mark 102
212 007	White Improved Earthenware	Saucer	1	Printed mark: .. (seated Royal Coat of Arms)/ ..			-	
Marked Glass Items								
205 009	Brown Glass	Alcoholic-beverage Bottle	1	..(fragmentary picture)..			-	
207 024	Aqua Glass	Soda-water Bottle	1	BAY CITY SODA WATER CO. (upper arch)/ SAN FRANCISCO/ CAL.///GRAVITATING STOPPER/ MADE BY/ JOHN MATTHEWS/ NEW YORK/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco	1871 - 1913	Markota and Markota 1994:5 (cf)
207 027	Aqua Glass	Canning Jar?	1	.. (illegible)/ ..TER..			-	
207 029	Aqua Glass	Soda-water Bottle	1	..G C..			-	
207 030	Aqua Glass	Bottle	1	..BEER?..			-	
207 031	Amber Glass	Whiskey? Bottle	1	.. ST..			-	
207 032	Amber-green Glass	Alcoholic-beverage Bottle	1	..S.. (in circle)			-	

Privy 30 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range		Reference
Marked Glass Items (continued)									
210 030	Colorless Glass	Pharmaceutical Bottle	1	JOSEPH T. BROWN & CO. (upper arch)/ PHARMACISTS/ (ribbon over bird and shield)/ WASHINGTON COR. (lower arch)/ BEDFORD ST./ BOSTON, MASS.	Brown, Joseph T. & Co.	Boston		-	
210 037	Aqua Glass	Ink Bottle	1	J. & I. E. M	Moore, J. & I.E., Ink Co.		1865+	-	Nelson and Hurley 1967: 27-28, 73
210 042	Aqua Glass	Soda-water Bottle	1	BAY CITY SODA WATER CO. (upper arch)/ SAN FRANCISCO/ CAL.///GRAVITATING STOPPER/ MADE BY/ JOHN MATTHEWS/ NEW YORK/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco	1871	- 1913	Markota and Markota 1994:5 (cf)
210 043	Aqua Glass	Soda-water Bottle	2	BAY CITY SODA WATER CO. (upper arch)/ SAN FRANCISCO/ CAL.///GRAVITATING STOPPER/ MADE BY/ JOHN MATTHEWS/ NEW YORK/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco		- 1913	Markota and Markota 1994:5 (cf)
210 046	Aqua Glass	Canning Jar	1	..4/ ..AN/ ..4..				-	
210 053	Colorless Glass	Goblet	1	1776 DECLARATION OF INDEPENDENCE (in ribbon above)/ (Liberty Bell) 1876// 100 YEARS AGO	Gillinder and Sons	Philadelphia	1876	- 1876	Lee 1960:343-344, plate 117
210 064	Colorless Glass	Goblet	1	(pressed - Huber pattern)	Bakewell, Pears, & Co.	Pittsburgh		-	Lee 1960:49-50, plate 24
210 065	Colorless Glass	Mustard Bottle	1	D. F. & Co.				-	
210 076	Aqua Glass	Soda-water Bottle	1	BAY CITY SODA WATER CO. (upper arch)/ SAN FRANCISCO/ CAL.///GRAVITATING STOPPER/ MADE BY/ JOHN MATTHEWS/ NEW YORK/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco	1871	- 1913	Markota and Markota 1994:5 (cf)
210 077	Amber Glass	Bitters Bottle	1	DR. J. HOST[ETTER'S]/ [S]TOMAC[H	Hostetter	Pittsburgh	1858	-	Wilson and Wilson 1969: 34-41
211 041	Cobalt Glass	Soda-water Bottle	5	BAY CITY SODA WATER (pointed arch)/ CO/ S.F.// (star)	Bay City Soda Water Co.	San Francisco	1871	- 1880 ca	Markota and Markota 1994:5
211 042	Aqua Glass	Discovery Bottle	1	[DR. PIERCE'S]/ GOLDEN/ [MEDI]CAL DISCOV[ERY// R.V. PIERCE, M.D.// BUFFALO, N.Y.]		Buffalo		-	Fike 1987:110
211 044	Aqua Glass	Worcestershire Bottle	1	..WORSTE[RSHI[RE SAUCE]				-	
211 046	Aqua Glass	Spice Bottle	1	4				-	

Privy 30 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
211 050	Aqua Glass	Soda-water Bottle	2	B[AY CITY SO]DA WAT[ER CO.] (upper arch)/ SAN FRANC[ISCO]/ CAL.[///GRAVITATING STOPPER/ MADE BY/ JOHN MATTHEWS/ NEW YORK/ PAT/	Bay City Soda Water Co.	San Francisco	1871 - 1913	Markota and Markota 1994:5 (cf)
211 067	Dark-olive Glass	Ale/Beer Bottle, 24 oz.	1	/// A B & Co			-	
211 070	Dark-olive Glass	Ale/Beer Bottle	1	/// H P			-	
211 071	Dark-olive Glass	Ale/Beer Bottle	1	/// G W & Co.			-	Toulouse 1971:152
211 079	Colorless Glass	Gravitating Stopper	0	PATENTED/ [AUG] 26 1862/ [OCT] 11 1864/ [APRIL] 15 1873			1873 -	
211 090	Colorless Glass	Bottle	1	C. LANGLEY & CO.// SAN FRANCISCO	Langley, C. & Co.	San Francisco	1866 ca - 1879	Hellmann 1996:5-6
211 091	Colorless Glass	Bottle	1	BURNE[TT'S]/ BOSTON	Burnett	Boston	1845 -	Fike 1987:70; Wilson and Wilson 1971:25; Zumwalt 1980:62-63
211 093	Aqua Glass	Syrup Bottle	1	MRS. WINSLOW'S/ SOOTHING SYRUP/ CURTIS & PERKINS/ PROPRIETORS	Curtis & Perkins	New York	1849 ca - 1906	Wilson and Wilson 1971:98,145-156; Fike 1987:231
211 100	Aqua Glass	Bottle	1	..OO.. / ..R S..			-	
217 005	Aqua Glass	Soda-water Bottle	0	..SO..			-	
Marked Other Items								
207 059	Hard-rubber	Button	1	N.R. CO./ P.T.	Novelty Rubber Co.	New Brunswick, NY	1872 - 1886	Woshner 1999:267
207 060	Hard-rubber	Button	1	N.R. CO./ GOODYEAR'S P=T	Novelty Rubber Co.	New Brunswick, NY	- 1886	Woshner 1999:267
210 087	Hard-rubber	Button	1	N.R. CO./ GOODYEAR'S P=T	Novelty Rubber Co.	New Brunswick, NJ	- 1886	Woshner 1999:267
210 090	White Improved Earthenware	Feeding Bottle Cap	1	THE ALEXANDRA/ FEEDING BOTTLE/ S. MAW SON & THOMPSON/ LONDON.	Maw, S. Son and Thompson	London	1850s - 1910 ca	Gross et al. 1981:488,490; Dale 1977:403,419

PARCEL OVERVIEW

31 Kate Street (Bayshore Block 4)

John Wendt & Anthony Dean Family Residences

(**Note**: Privies 30 and 38 and 39, related to 29, 31, 33-36 Kate Street on Block 4, share a composite pair of graphics: a Parcel History graphic showing the evolution of land use on these lots, and a single Parcel Plan using the 1887 Sanborn map.)

The 1887 Sanborn, which postdates the residential use of the lot under study, shows the location of Privy 38 and Privy 39 as being in an open yard adjacent to the box factory of the California Italian Paste Company (see Parcel Plan). Only 33 and 35 Kate remained from an earlier era on this eastern half of the street. A variety of other sources, however, provide an indication of prior use of this area. First is the 1857/59 Coast Survey map, which shows two buildings in this area, although these locations could not be precisely identified. The 1874 Land-Use Map, however, shows a narrow row of buildings along the east side of Kate Street, with either a larger building or buildings near Bryant. Comparison of the 1870 U.S. Census to city directories suggests that only the Patrick O'Brien and John Sullivan families were living on Kate Street on Block 4 in that year. O'Brien was a carriage painter and may have bought the older carriage-making facilities of Lowney and Craig to start his own business.

The 1861 city directory had listed Patrick O'Brien as a coach painter living on another block. In 1862 his residence was listed as Bryant near Eighth. The listing for 1863 and 1864 was on the north side of Bryant between Seventh and Eighth. In 1867 the listing was more precise—between Chesley and Bryant. In that year, O'Brien's occupation was listed as janitor for the Eighth Street School; his painting skills may have been useful to the school, which was only a few buildings away from home. By 1869 Patrick J. O'Brien was again listed as a coach painter; his residence was listed as east side of Kate near Bryant. Without tax-assessment rolls, it is difficult to determine what changes were taking place to the built environment and whether or not the address changed due to construction or remodeling. By 1879 the O'Brien family was listed at 1060 Bryant and the temporary change to Kate Street may have indeed reflected physical changes to the building at the corner of Kate and Bryant and possibly across Kate Street. It is unclear whether 1060 and 1062 straddled Kate Street or were the block of buildings shown on the 1874 map on the east side of Kate.

In 1880 the census enumerator recorded the O'Brien household at 1060 Bryant and the Sullivan household at 1062. A couple of days later, he returned to the northern half of Kate to record four addresses on the east side of the street and two on the west. Presumably the Kate addresses are the smaller buildings from the 1874 map. The attached buildings on the east side were numbered 29, 31, 33, and 35. The two buildings on the west side were numbered 34 and 36. Without further documentation of assessor's records, more detailed drawings or photographs, the actual size and appearance of the building or buildings at 31 Kate Street may never be known. Census and directory information can at least characterize the residents along this narrow, interior street.

In 1880 the census enumerator identified two separate households in two separate buildings at the same 31 Kate address. The Wendt family—who had been at this address since the 1877/78 city directory—was listed first. John Wendt was an express-wagon driver, who had been unemployed six months of the past year; age 50, he had been born in Germany. His wife, Mary, age 35, was Irish and listed as keeping house. The Dean family was listed as the Wendts' boarders. The family consisted of Anthony, age 60, a laborer from Ireland, and his wife, Bridget, age 37, also Irish. Unlike her husband, she could neither read nor write. Their children were all born in California. Alice, age 11, was in school, and Rose, age 8, had attended school. The two younger children were Anthony, age 3, and Adeline, age 1.

The parcel was connected to city water in 1882. This hook-up is relatively late and may be due to the presence of a windmill and tank nearby. The names on the tap record are Splivalo and Formaso. Cesar Splivalo was the owner of the paste factory and flourmill. It appears that he needed a more reliable source of water for production, including the steam power.

The 1887 Sanborn map shows the California-Italian Paste Company factory and its box factory without address extending from the former 1060 Bryant to the edge of 33 Kate. The residences at 33 and 35 Kate were left intact. Across the narrow street is the Yosemite Flour Mills under the same ownership, with a steam pipe (presumably overhead) connecting the box factory to the mill. An "open shed" partially blocks Kate Street at Bryant and there is another structure at the end of the street, a larger two-story building abutting the Eighth Street Primary School's yard. The rear yard of 33 Kate Street has a windmill and tank.

By 1899 modifications to the paste-company facilities had removed the last two dwellings on Kate Street. By 1905 the facilities had expanded further toward Chesley, with access along Eldridge. The factory appears to have survived the 1906 fire and, by 1913, there were further modifications including expansion along the southern edge of Eldridge. By 1950 the paste-factory facilities had been changed, so that the former buildings on the east side of Kate were under a steel fabrication business or in an open yard.

There were two CRHR-eligible features recovered from the lot, Privies 38 and 39, which were likely filled prior to construction of the California Italian Paste Factory in about 1882. The TPQ for Feature 38 is 1881 for a semi-Louis stacked heel; for Feature 39, the TPQ is 1877, also on a shoe—a Goodyear welt. Although no definitive evidence was recovered to associate each privy with a specific family, household make-up and other factors resulted in their assignment: Privy 38 to the Dean family, and Privy 39 to the Wendt family.

DOCUMENTARY RESEARCH TABLE

31 Kate Street, (Bayshore Block 4)

John Wendt and Anthony Dean Family Residences

ABSTRACT

Building:

1852/53	Sand dunes near tidal marshes of Mission Bay
1857/59	Open dune near road
1874	In row of small buildings
1887	Two-story box factory as part of California Italian Paste Company
1899	Unchanged from 1887
1905	Same building as 1887 with additions, listed as 954 Bryant
1913	Part of Yosemite Flour Mills Co. & California Paste Co. poured concrete building
1949	Steel fabricating building and open yard, 970 Bryant

Residents/Occupation/Use:

1877-1880	John Wendt, drayman/expressman, and family
1880	Anthony Dean, laborer, and family
+1887-1913+	Industrial (Box factory as part of California Italian Paste Company)
+1913+	Industrial (Part of Yosemite Flour Mills Co. & California Paste Co.)
+1949+	Industrial (Steel fabricating)

Ownership

+1894-1909+	C.R. Splivalo & Co

DOCUMENTARY TIME LINE

1852/53	**Coast Survey Map** – Sand dunes near tidal marshes of Mission Bay
1857/59	**Coast Survey Map** – Open dune near road
1874	**Land Use Map –** In row of small buildings.
1876/77	**City Directory** – *Off Site – John Wendt, expressman NW cor Battery & Clay, r. 658 Bryant bet 5th and 6th*
1877/78	**City Directory** – John Wendt, drayman Tillman & Bendel, SW cor Clay & Battery, r. Kate nr Bryant
1878/79	**City Directory** – John Wendt, expressman, Tillman & Bendel, r. 31 Kate
1879/80	**City Directory** – John Wendt, expressman, Tillman & Bendel, r. 31 Kate; *Off Site – Anthony Dean, laborer, r. 737 Brannan*
1880	**U.S. Census** – (ED 151, page 33) 31 Kate – Went Family: **Head:** John, 50, drives express wagon, 6 months unemployed, Germany; **Wife:** Mary, 35, keeping house, Ireland

Documentary Research Table, 31 Kate Street *(continued)*

1880	Dean Family (Boarders): **Head:** Anthony, 60, laborer, Ireland; **Wife:** Bridget, 37, keeping house, Ireland; **Son:** Anthony, 3, CA; **Daughters:** Alice, 11, at school; Rose, 8; Adeline, 1; all CA
1882	**City Directory** – *Off Site – Anthony Dean, longshoreman, r. 16 Decatur*
1882-85	**City Directory** – *Off Site – John Wendt not listed or not at address; no Wendt at address*
1885	***San Francisco Call*** *– Off Site – "Wendt-In this city, July 15, John, beloved husband of Mary Wendt, a native of Germany, aged 55 years and 8 months. Friends and acquaintances and those of his sister-in-law, Annie McPeak, are respectfully invited to attend the funeral, today (Friday), at 9:00 o'clock a.m., from his late residence, 502 1/2 Seventh street; thence to St. Boniface Church, Golden Gate avenue, where a solemn requiem mass will be celebrated for the repose of his soul, commencing at 9:30 o'clock." (San Francisco Morning Call, 17 July 1885 4:4)*
1887	**Sanborn Map** – Two-story box factory as part of California Italian Paste Company
1894	**Block Book** – C.R. Splivalo & Co
1895	***San Francisco Call*** *– Off Site – "Dean – In this city, October 27, 1895, Bridget, beloved wife of the late Anthony Dean, and mother of Rose, Anthony, Addie and Johnie Dean and Mrs. Frank O'Day, and sister of Mrs. Joseph Bowers, a native of County Mayo, Ireland, aged 50 years. Friends and acquaintances are respectively invited to attend the funeral tomorrow (Tuesday), at 1:30 o'clock p.m., from her late residence, 228 Clara Street, thence to St. Patrick's Church for services. Internment Mount Calvary Cemetery." (San Francisco Morning Call, 28 October 1895 11:7)*
1899	**Sanborn Map** – Unchanged from 1887
1905	**Sanborn Map** – Same building as 1887 with additions, listed as 954 Bryant
1906	**Block Book** – C.R. Splivalo & Co
1909	**Block Book** – C.R. Splivalo & Co
1913	**Sanborn Map** – Yosemite Flour Mills Co. & California Paste Co. poured concrete building
1949	**Sanborn Map** – Steel fabricating building and open yard, 970 Bryant

PRIVY 38 - FEATURE SUMMARY

31 Kate Street (Bayshore Block 4)

Anthony Dean Family

Privy 38 was wood-lined and measured 3 ft. x 5 ft. 6 in. x 2 ft. 6 in. deep. It had been severely truncated by the builders' trench for freeway bent R-52R. The top fill of Privy 38, Layer 246, did not extend across the entire privy. It consisted of light-brown, fine sand with few artifacts. Layer 247 was gray-brown sand with slightly more artifacts. The fill below, Layer 248, contained a greater density of artifacts and was siltier in composition. Layer 249 was less compact than Layer 248 and extended across the privy. It was a sand layer, with some wind-blown striations of lighter-colored sand, with a high density of artifacts. Layer 250 did not extend across the privy. It consisted of yellow to brown silty sand, with numerous artifacts. Layer 265 was another layer of fine sand with artifacts. The bottom fill, Layer 266, was gray-brown fine sand with orange and brown mottling. There was no obvious primary privy fill, suggesting that the privy may have been mucked out just prior to abandonment. The subsoil below was compacted hard, with an area of oxidation.

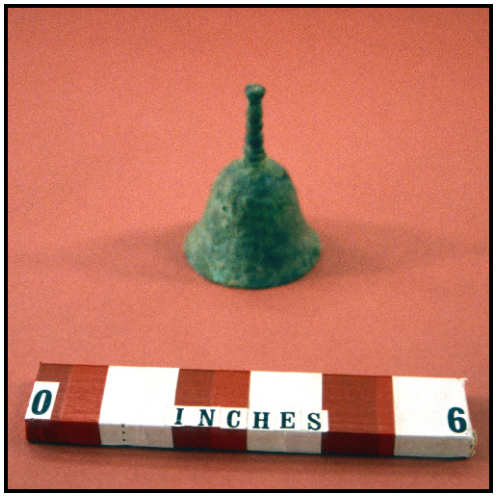


The TPQ for Feature 38 is 1881, based on a shoe that would have been relatively new at the time of deposit. The next most recent date is 1872, from some hard-rubber buttons. Several bottles with earlier beginning dates ended production about 1880. The 1880 U.S. Census lists the Wendts and Deans in separate dwellings, both with the address 31 Kate Street. The privy was filled about 1882, when the property was sold to Cesar Splivalo for his California Paste Factory and Yosemite Flour Mills complex. At that time, the Wendts were no longer listed in the city directories, and the Dean family had moved across Bryant Street to 16 Decatur. Privy 38 and 39 were filled about the same time. These privies may have each been used and/or filled by a different household. The excavated area was too small to allow definition of any yard boundaries, such as fence-lines or other backyard features. The historical documentation available at this time is also insufficient to make such a determination; however, differences in the privy fill when compared to the households suggest the possibility of the arrangement. No cross-mends were discovered between the two privies, and Privy 38 had numerous toys and several children's shoes. There was a lone alphabet plate in Privy 39. Considering the Wendts were a childless couple when the privy was filled and the Dean family had several children, it is likely that the Deans were responsible for the fill in Privy 38.

Food preparation and consumption items were the most common category of artifacts in the privy fill, 115 items, or 27.6% of the assemblage. The ceramic vessels were predominantly white improved earthenware (WIE) at 83%, with only five vessels (7%)



of porcelain. There were more undecorated ceramic vessels (43%) than decorated (34%). Most of the WIE decorated pieces were molded vessels of designs registered in the 1850s and 1860s; the only types of molding with multiple vessels were paneled (11 items) and Sharon Arch (4 items). Most of the glass vessels were decorated (87%), including 12 paneled goblets and tumblers and 3 goblets of the Arched Grape pattern. Despite the hodgepodge of patterns in the collection, there were sufficient types of vessels for presenting multi-course meals. For serving there was a platter, tureen, and pitcher, along with more specialized items such as the gravy boat; two earthenware bowls—one of the handpainted, Gaudy type—may have also been used to serve. At the place setting, there were plates in a variety of sizes, soup plates, cups and saucers, and both tumblers and stemware. A tea bell would have called the family to meals on occasion.



Faunal remains representing a meat weight of 242 pounds were recovered from Privy 38, the bulk of which came from major meat mammals (90%). Within the mammal category, beef was most common meat (64%), followed by pork (19%), and then mutton (17%). There were differences in the quality of meat cuts purchased within each category. Beef cuts were typically moderately priced (44%), with a nearly equal amount of low-priced cuts (40%) and only a small amount of high-priced cuts (16). Pork cuts were typically high-priced (49%), followed by low-priced cuts (32%) and a smaller amount of moderate-priced cuts (19%). The mutton tended to be either high (40%) or low (37%), with fewer moderately priced cuts (23%). Shoulder and leg portions overwhelmingly dominate the retail cuts from mutton, followed by a preference for rib and foreshank. A preference for roasts and cuts appropriate for steaks top the list of identified mutton. Nearly half the meat weight from beef is represented by cuts from the chuck followed by the loin at about a third of the represented meat weight. Over half of all the beef identified was in the form of small unidentifiable chunks. Pork is comprised mostly of meat cuts from the loin followed by significant contributions from the picnic and jowl portions of the animal. More than half of the meat from this animal was in a form appropriate for steaks. Like several of the SF-80 Bayshore Project deposits, there was domestic poultry, represented by four chickens and a turkey, accounting for 23 pounds of meat weight.

The meat may have been prepared with a variety of seasonings, based on containers recovered from the privy. There were two bottles of olive or some other cooking oil, a

club sauce bottle, three spice bottles, and a mustard bottle. A pickle bottle was also found. Other food containers included seven soda bottles and a food can. A total of 20 alcoholic- beverage bottles were found, primarily beer or ale (55%) and wine or champagne (25%), along with a carboy and three other bottles (15%) of unknown contents.

Personal items included 10 smoking pipes and a variety of accoutrements, such as purses, an eyeglass frame, a cane handle, and jewelry. The Dean children are represented by a variety of toys, including glass and porcelain marbles, 3 dolls, a rubber ball, and 9 items of a child's tea set. Eleven-year-old Alice, the only child at school, may have been primarily responsible for the 8 pencils and the slate tablet in the collection. A wide variety of personal grooming and health items were found, including four combs, a mustache comb, a pitcher and bowl set, two chamber pots, and several patent-medicine bottles. The patent medicines included Tricopherous for the skin and hair, as well as Sozodont for the teeth, but no toothbrushes were found.

There were a variety of shoes in Privy 38, including those of men's, women's, and children's sizes, including infants, which reflect the Dean household composition. At 6% of all artifacts, shoes were a significant component of the assemblage. Clothing was the second-most-numerous personal category, with 14.7 percent. The clothing from this privy is basic and, for the most part, mundane, as are the accompanying buttons and buckles. The most distinctive garment is a wool coat or jacket with a lapel of different weave from the main body. With such a big family, clothes were probably repaired regularly, using the thimbles and straight pins that were later tossed into the privy.

The clean out of the 23 old and worn shoes and boots document years of accumulations, including those belonging to infants and young children, with 6 of the 11 children's shoes ranging between the sizes of 6 to 1. All show signs of wear. Contemporaneous with the fashion trends noted in Privy 39's footwear, six women's or women's/older children's shoes and boots sport a shaped stacked heel, which would have more pronounced in the 1870s and then less dramatic in the 1880s (Rexford 2000:217, 219, 221). The Dean family and their four children wore through many shoes and boots in the 1870s, providing a good comparative collection.

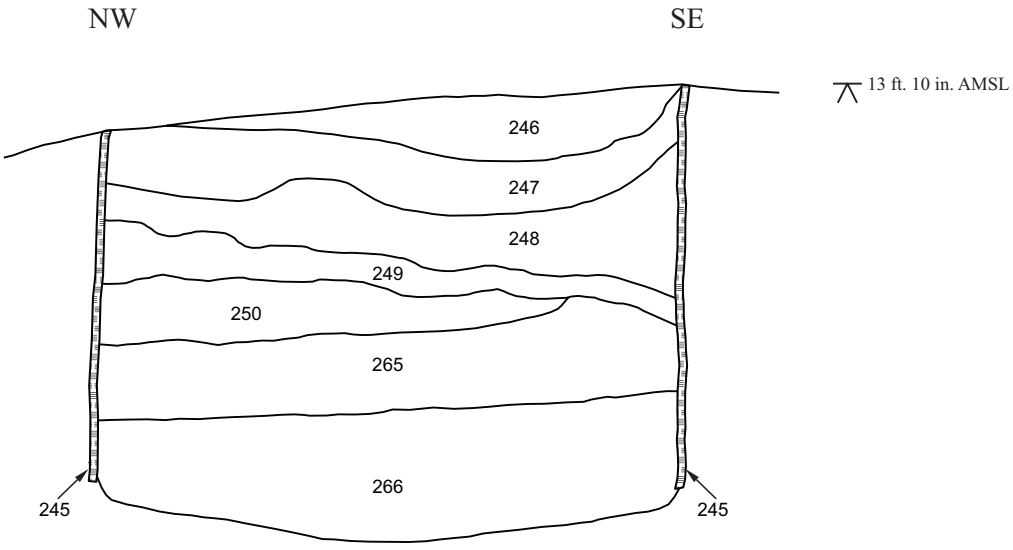
For entertainment there was part of a harmonica recovered. Several tools including a cleaver, two hammers, a drill bit, and a shovel were found. Mr. Dean's occupation was only listed as laborer, so it is unclear whether these items were used at work.

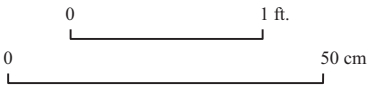
The Deans appear to have been living somewhat well based on their selection of typically more expensive cuts of meat. While their dishes did not all match, they were able to set a table with a variety of specialty serving pieces and large individual place settings. The children had a toy tea set with a variety of pieces, along with dolls and marbles to play with. Some care was given to grooming including the specialty item of a mustache comb and the Sozodont indicated some level of dental care.

Privy 38 – MATRIX AND EXCAVATION PROFILE
31 Kate Street (Bayshore Block 4)
Anthony Dean Family



- 251 Asphalt
- 252 Gravel Base
- 280 Builder's Trench Fill
- 37 **Bent Construction Trench**
- 259 Sand Layer
- 246 Privy Fills
- 247
- 248
- 249
- 250
- 265
- 266
- 245 Wood Lining
- 38 **Privy Cut**
- 260 Dune Sand





Privy 38 – FEATURE SUMMARY TABLE
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

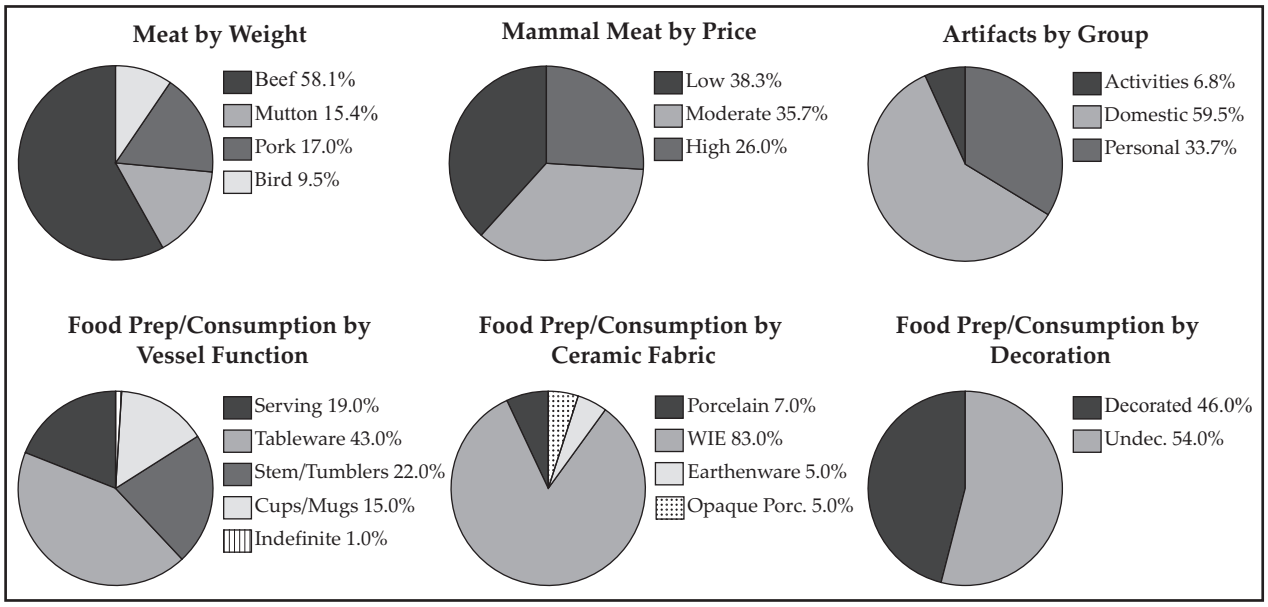
HOUSEHOLD

Name:	Anthony Dean Family
Birthplace:	Ireland
Ethnicity or Race:	Ireland
Occupation:	Laborer
Period of Residence:	1877/78 to ca. 1882
Terminous Post Quem/Basis:	1881 (Louis heel)
Mean Ceramic Mark Date/N:	1867.9 (n = 21)
Estimated Date of Deposition:	1882

ANALYTICAL UNIT

Context Numbers: 246, 247, 248, 249, 250, 265, 266

ARTIFACTS





Privy 38 – ARTIFACT LAYOUT PHOTOGRAPH, 31 Kate Street (Bayshore Block 4), Anthony Dean Family. Likely associated with the Dean family, Privy 38 contained a hodgepodge of patterned tableware with sufficient types of vessels for presenting multi-course meals. A variety of seasonings may have been used while preparing these meals, as two bottles of cooking oil, a club sauce bottle, three spice bottles, and one mustard bottle were recovered. Personal items, including toys, purses, an eyeglass frame, a cane handle, and jewelry, were also found in the privy.

Privy 38 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Group and Category	Description	Count	MNI
ACTIVITIES			
Commerce			
-	Ferrous Advertising Button?	1	1
-	Metal Coin	1	1
Subtotal Commerce		2	2
Entertainment			
-	Copper-alloy Harmonica	1	1
Subtotal Entertainment		1	1
Indefinite			
-	Copper-alloy Hand Bell	1	1
Subtotal Indefinite		1	1
Tools			
-	Ferrous Cleaver	1	1
-	Ferrous Drill Bit	1	1
-	Ferrous Hammer	1	1
-	Ferrous Handle	1	1
-	Ferrous Shovel	6	1
-	Ferrous and Wood Hammer	1	1
-	Stoneware Crucible	1	1
Subtotal Tools		12	7
Writing			
-	Graphite Pencil	1	1
-	Slate Pencil	12	7
-	Slate Tablet	5	1
Subtotal Writing		18	9
DOMESTIC			
Clothing Maintenance			
Sewing	Copper-alloy Thimble	5	2
Sewing	Ferrous Straight Pin	3	3
Subtotal Clothing Maintenance		8	5
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Goblet	27	5
Drinking Vessel	Colorless Glass Jelly Jar Tumbler	8	1
Drinking Vessel	Colorless Glass Stemware	4	3
Drinking Vessel	Colorless Glass Tumbler	49	13
Drinking Vessel	Opaque Porcelain Cup	2	1
Drinking Vessel	Porcelain Cup	1	1
Drinking Vessel	White Improved Earthenware Cup	18	13
Indefinite	Bone/Ferrous/Copper-alloy Utensil Handle	1	1
Indefinite	Copper-alloy Teapot Lid?	7	1

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Indefinite	Ferrous Knife/Oyster Shucker	2	1
Indefinite	Ferrous and Wood Handle	1	1
Indefinite	White Improved Earthenware Base	1	0
Indefinite	White Improved Earthenware Hollow	7	1
Indefinite	Wood and Ferrous Knife/Fork Handle	1	1
Indefinite	Wood and Ferrous Utensil Handle	1	1
Indefinite	Wood and Lead Knife/Fork Handle	4	2
Kitchen	Ferrous Teapot Spout	1	1
Serving	Colorless Glass Castor	1	1
Serving	Earthenware Bowl	6	1
Serving	Earthenware London Bowl	1	1
Serving	Earthenware Sugar/Teapot Lid	1	1
Serving	Earthenware Teapot	2	1
Serving	Opaque Porcelain Hollow	2	1
Serving	Opaque Porcelain Tureen?	1	1
Serving	Porcelain Creamer? Pitcher?	2	1
Serving	Porcelain Oval Dish	1	1
Serving	Porcelain Sugar Bowl	2	1
Serving	White Improved Earthenware Dish/Lid	1	1
Serving	White Improved Earthenware Gravy Boat?	2	1
Serving	White Improved Earthenware Large Platter	2	1
Serving	White Improved Earthenware Pitcher	1	1
Serving	White Improved Earthenware Platter/Dish	1	1
Serving	White Improved Earthenware Platter?	1	1
Serving	White Improved Earthenware Slop Bowl	3	3
Tableware	Copper-alloy Spoon	9	5
Tableware	Opaque Porcelain Plate	1	1
Tableware	Porcelain Saucer	1	1
Tableware	Silverplate Spoon	1	1
Tableware	White Improved Earthenware Plate	14	6
Tableware	White Improved Earthenware Plate, 10″	2	1
Tableware	White Improved Earthenware Plate, 7 1/2″	8	2
Tableware	White Improved Earthenware Plate, 8 1/2″	1	1
Tableware	White Improved Earthenware Plate, 9″	24	4
Tableware	White Improved Earthenware Saucer	7	6
Tableware	White Improved Earthenware Saucer, 6 1/2″	11	5
Tableware	White Improved Earthenware Saucer, 6″	15	7
Tableware	White Improved Earthenware Saucer, 7″	2	1
Tableware	White Improved Earthenware Small Dish	2	1
Tableware	White Improved Earthenware Soup Plate	2	2
Tableware	White Improved Earthenware Soup Plate, ~10″	2	1
Tableware	White Improved Earthenware Soup Plate, 10″	7	3
Tableware	White Improved Earthenware Soup Plate, 9″	1	1
Subtotal Food Prep/Consumption		275	115

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food/Food Storage			
Closure	Aqua Glass Club-sauce Stopper	1	1
Closure	Stoneware Crock Lid	1	1
Container	Aqua Glass Canning Jar	11	1
Container	Aqua Glass Canning Jar?	1	1
Container	Aqua Glass Oil Bottle?	1	1
Container	Aqua Glass Pickle Bottle	2	1
Container	Aqua Glass Soda-water Bottle	13	3
Container	Aqua Glass Spice Bottle	31	3
Container	Blue Glass Soda-water Bottle	20	4
Container	Colorless Glass Mustard Bottle	1	1
Container	Ferrous Can	4	1
Container	Green Glass Oil Bottle?	11	1
Container	Stoneware Crock	2	2
Subtotal Food/Food Storage		99	21
Furnishings			
-	Copper-alloy and Wood Indefinite	1	1
-	Ferrous Clothes Hook	1	1
-	Ferrous Drawer Pull	1	1
-	Glass Mirror	13	2
-	Porcelain Doorknob	1	1
-	Scroddledware Doorknob	2	1
Decorative Item	Porcelain Figurine	16	1
Subtotal Furnishings		35	8
Heating/Lighting			
-	Copper-alloy Lantern	6	1
-	Porcelain Candlestick Holder	2	2
Lamp	Colorless Glass Chimney	316	22
Lamp	Copper-alloy Burner	1	1
Subtotal Heating/Lighting		325	26
INDEFINITE USE			
Indefinite			
-	Colorless Glass Hollow	1	1
-	Colorless Glass Thermometer?	1	1
-	Green Glass Hollow	2	1
-	Lead Scrap	2	0
-	Opaque Porcelain Hollow	2	0
-	Porcelain Base?	1	1
-	Porcelain Figurine? Doll Arm?	1	1
-	Porcelain Hollow	1	1
-	Stone Finial?	1	1
-	White Improved Earthenware Base?	1	1
-	White Improved Earthenware Hollow	1	0
-	White Improved Earthenware Knob?	1	1

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Indefinite *(continued)*			
-	White Opaque Glass Indefinite	1	1
-	Wood Handle?	1	1
Subtotal Indefinite		17	11
Misc. Beads			
-	Black Glass Bead	4	4
-	Blue Opaque Glass Bead	3	3
-	Colorless Glass Bead	1	1
-	Glass? Bead	1	1
-	White Opaque Glass Bead	2	2
Subtotal Misc. Beads		11	11
Misc. Closures			
-	Ferrous Can Lid	4	0
-	White Improved Earthenware Pot Lid	1	1
Subtotal Misc. Closures		5	1
Misc. Containers			
-	Amber Glass Bottle? Scientific flask?	55	1
-	Aqua Glass Bottle	25	11
-	Aqua Glass Cement Bottle	2	2
-	Blue Glass Bottle	11	2
-	Brown Glass Bottle	3	1
-	Colorless Glass Bottle	21	7
-	Ferrous Can	108	0
-	Opaque Porcelain Pitcher	1	1
-	Stoneware Hollow	1	1
-	White Improved Earthenware Pot	2	1
-	White Improved Earthenware Rectangular Pot	1	1
Subtotal Misc. Containers		230	28
Misc. Metal Items			
-	Copper-alloy Disc? Coin?	1	1
-	Copper-alloy Disk	1	1
-	Copper-alloy Pivot Mechanism?	1	1
-	Copper-alloy Ring	8	6
-	Copper-alloy Tube	3	0
-	Copper-alloy Tubing	69	0
-	Copper-alloy and Leather Ring and Strap	1	1
-	Copper-alloy and Wood Trim	5	1
-	Ferrous Chain	4	2
-	Ferrous Clock Hand?	1	1
-	Ferrous Indefinite	2	2
-	Ferrous Rod	21	0
-	Ferrous Sheet Metal/Can	68	0
-	Ferrous Stove Grate	1	1

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Metal Items *(continued)*			
-	Ferrous Strap	13	0
-	Ferrous Strip	2	1
-	Ferrous Washer	2	1
-	Ferrous Wire	73	1
-	Ferrous Wire Hook?/Pin?	1	1
-	Ferrous and Wood Utensil?	1	1
Subtotal Misc. Metal Items		278	22
PERSONAL			
Accoutrements			
-	Copper-alloy Eyeglass Frame	1	1
-	Copper-alloy and Ferrous Cane Handle	1	1
-	Ferrous Purse Frame	1	1
-	Leather Satchel/Purse?	6	1
Jewelry	Copper-alloy Ring	1	1
Jewelry	Copper-alloy and Glass Indefinite	1	1
Jewelry?	Black Glass Inset	1	1
Subtotal Accoutrements		12	7
Clothing			
-	Leather Belt	6	1
-	Silk Clothes, Women's or Outergarment Lining	3	0
-	Silk Lining	3	0
-	Silk Outergarment Lining	1	0
-	Silk and Wool Lined Garment or Accessory	1	0
-	Wool Coat/Jacket, Men's/Women's	8	1
-	Wool Dress/Waist/Trouser/Outergarment	1	1
-	Wool Indefinite	1	0
-	Wool Interfacing	1	0
-	Wool Outergarment	1	1
-	Wool Outergarment Collar	6	1
-	Wool Tape	6	0
-	Wool and Silk Lined Garment, Children's/ Women's	46	1
Fastener	Black Glass Button	4	4
Fastener	Copper-alloy Button	1	1
Fastener	Copper-alloy Hose Supporter and Clip	1	1
Fastener	Copper-alloy Suspender Buckle	1	1
Fastener	Ferrous Button	3	3
Fastener	Hard-rubber Button	2	2
Fastener	Porcelain Button	45	44
Fastener	Vegetable Ivory Button	1	1
Subtotal Clothing		142	63

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Footwear			
-	Copper-alloy Toe Plate, Children's	11	1
-	Wool and Copper-alloy Shoe and Eyelet	33	0
-	Leather High-laced Shoe/Boot, Women's	1	1
-	Leather Shoe, Infant's	2	2
-	Leather Shoe/Boot	177	2
-	Leather Shoe/Boot Buckle Belt	2	0
-	Leather Shoe/Boot, Adult's	9	2
-	Leather Shoe/Boot, Children's	6	2
-	Leather Shoe/Boot, Children's Size 10	3	2
-	Leather Shoe/Boot, Children's Size 11	1	1
-	Leather Shoe/Boot, Children's Size 12-1	8	1
-	Leather Shoe/Boot, Children's Size 6	6	1
-	Leather Shoe/Boot, Children's Size 7	2	1
-	Leather Shoe/Boot, Girl's/Children's	1	1
-	Leather Shoe/Boot, Large Children's/Small	2	1
-	Leather Shoe/Boot, Woman's/Girl's	2	1
-	Leather Shoe/Boot, Women's	2	2
-	Leather Shoe/Boot, Women's/Older Boy's/Girl's	1	1
-	Leather Shoe/Boot, Women's?	4	2
-	Leather Workboot, Boy's Size 12	6	1
-	Leather and Wool Shoe/Boot, Children's	1	1
-	Leather, Wool, Copper-alloy Shoe/Boot Eyelet Strip	3	0
-	Wool and Copper-alloy Shoe and Eyelet	9	0
Fastener	Copper-alloy Shoe/Boot Eyelet	6	0
Fastener	Leather Shoe/Boot	14	0
Subtotal Footwear		312	26
Grooming/Health			
Container	Aqua Glass Bottle	1	1
Container	Aqua Glass Jamaica-ginger Bottle	1	1
Container	Aqua Glass Sarsaparilla Bottle	1	1
Container	Aqua Glass Tricopherous Bottle	8	1
Container	Colorless Glass Bottle	2	1
Container	Colorless Glass Sozodont Bottle	3	1
Toiletry	Ferrous Hair Pin	2	2
Toiletry	Hard-rubber Comb	1	1
Toiletry	Hard-rubber Hair Comb	3	2
Toiletry	Hard-rubber Moustache Comb	1	1
Toiletry	Opaque Porcelain Basin?	2	1
Toiletry	Opaque Porcelain Chamberpot	10	1
Toiletry	Opaque Porcelain Pitcher	12	1
Toiletry	White Improved Earthenware Chamberpot	1	1
Subtotal Grooming/Health		48	16

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Social Drugs - Alcohol			
Container	Brown Glass Alcoholic-beverage Bottle	4	1
Container	Brown Glass Wine Bottle	9	1
Container	Dark-olive Glass Ale/Beer Bottle	40	5
Container	Dark-olive Glass Ale/Beer Bottle, 10 oz.	1	1
Container	Dark-olive Glass Ale/Beer Bottle, 12 oz.	21	4
Container	Olive Glass Alcoholic-beverage Bottle	2	2
Container	Olive Glass Carboy	1	1
Container	Olive Glass Champagne Bottle	24	1
Container	Olive Glass Wine/Champagne Bottle	15	3
Container	Olive/Dark-olive Glass Alcoholic-beverage Bottle	17	0
Container	Stoneware Ale/Beer Bottle	1	1
Subtotal Social Drugs - Alcohol		135	20
Social Drugs - Tobacco			
-	Ball Clay Pipe	25	10
Subtotal Social Drugs - Tobacco		25	10
Toys			
-	Copper-alloy Wheel	2	1
-	Glass Marble	2	2
-	Porcelain Doll	2	2
-	Porcelain Doll Head	1	1
-	Porcelain Marble	12	4
-	Rubber Ball	1	1
Tea set	Lead? Cup	1	1
Tea set	Porcelain Pitcher	1	1
Tea set	Porcelain Plate	3	3
Tea set	Porcelain Teacup	2	2
Tea set	Yellowware Hollow	3	1
Tea set	Yellowware Pot	1	1
Subtotal Toys		31	20
STRUCTURAL			
Hardware			
-	Ferrous Door Lock	2	1
-	Ferrous Pipe Fitting	1	1
Fastener	Copper-alloy Cut Tack	1	1
Fastener	Copper-alloy Screw	1	1
Fastener	Ferrous Cut Nail	251	205
Fastener	Ferrous Cut Spike	9	2
Fastener	Ferrous Fence Staple	1	1
Fastener	Ferrous Spike	6	5
Fastener	Ferrous Wire Nail	1	1
Subtotal Hardware		273	218

Privy 38 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Materials			
-	Clay Brick	2	1
-	Glass Window	191	0
Subtotal Materials		193	1
UNDEFINED USE			
-	Brown Glass Amorphous	1	0
-	Granite Rock	1	1
-	Lead Amorphous	1	0
-	Stone Cobble	6	6
-	Volcanic Rock	1	1
Subtotal Undefined Use		10	8
TOTAL		2,498	657

Privy 38 – SUMMARY OF ARTIFACTS BY GROUP

31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Description	Total Count	MNI	Percent of MNI
Activities	34	20	6.8
Domestic	742	175	59.5
Personal (other than clothing)	530	99	33.7
Subtotal	1,306	294	100.0
Indefinite Use	541	73	
Personal Clothing	175	63	
Structural	466	219	
Undefined Use	10	8	
TOTAL	2,948	657	

Privy 38 – SUMMARY OF ARTIFACTS BY CATEGORY
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Description	MNI	Percent
Accoutrements	7	1.6
Clothing	63	14.7
Clothing Maintenance	5	1.2
Commerce	2	0.5
Entertainment	1	0.2
Food Prep/Consumption	115	26.7
Food/Food Storage	21	4.9
Footwear	26	6.0
Furnishings	8	1.9
Grooming/Health	16	3.7
Heating/Lighting	26	6.0
Indefinite	12	32.6
Misc. Beads	11	2.6
Misc. Closures	1	0.2
Misc. Containers	28	6.5
Misc. Metal Items	22	5.1
Social Drugs - Alcohol	20	4.7
Social Drugs - Tobacco	10	2.3
Tools	7	1.6
Toys	20	4.7
Writing	9	2.1
TOTAL	430	99.8

Privy 38 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Patent Medicine Bottle	Barry's Tricopherous	1	
		Bristol's Sarsaparilla	1	
		Turner's Jamaica Ginger	1	
		Van Buskirk's Sozodont	1	
Subtotal Labeled Items			4	67
Unlabeled Items				
	Bottle		2	
Subtotal Unlabeled Items			2	33
TOTAL			6	100

Privy 38 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	19	19
Tableware (plates, bowls, saucers, etc.)	43	43
Stemware and Tumblers	22	22
Cups and Mugs	15	15
Indefinite	1	1
TOTAL	100	100

Privy 38 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			77	77
White Improved Earthenware	64	83		
Porcelain	5	7		
Opaque Porcelain	4	5		
Earthenware	4	5		
Ceramic Subtotal	77	100		
Glass			23	23
TOTAL			100	100

Privy 38 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Earthenware	Bowl	Annular	1	
Earthenware	London Bowl	Handpainted - Gaudy type	1	
Earthenware	Sugar/Teapot Lid	Flow blue stencil, Paneled	1	
Earthenware	Teapot	Variegated glaze, Paneled	1	
Opaque Porcelain	Cup	Molded	1	
Opaque Porcelain	Hollow			1
Opaque Porcelain	Plate			1
Opaque Porcelain	Tureen?	Sided	1	
Porcelain	Creamer? Pitcher?	Gilded	1	
Porcelain	Cup			1
Porcelain	Oval Dish			1
Porcelain	Saucer			1
Porcelain	Sugar Bowl			1
WIE	Cup			8
WIE	Cup	Blue transfer print, Molded	1	
WIE	Cup	Molded	1	
WIE	Cup	Paneled	3	
WIE	Dish/Lid	Sprigged, Molded	1	
WIE	Gravy Boat?			1
WIE	Hollow			1
WIE	Large Platter			1
WIE	Pitcher	Paneled	1	
WIE	Plate			4
WIE	Plate	Molded	1	
WIE	Plate	Sided, Paneled	1	
WIE	Plate, 10"			1
WIE	Plate, 7 1/2"			2
WIE	Plate, 8 1/2"			1
WIE	Plate, 9"			2
WIE	Plate, 9"	Molded - Scalloped Decagon	1	
WIE	Plate, 9"	Molded - Sharon Arch	1	
WIE	Platter/Dish			1
WIE	Platter?			1
WIE	Saucer			2
WIE	Saucer	Molded	1	
WIE	Saucer	Paneled	3	
WIE	Saucer, 6 1/2"			1
WIE	Saucer, 6 1/2"	Molded - Chinese Shape	1	
WIE	Saucer, 6 1/2"	Molded - Sydenham Shape	1	
WIE	Saucer, 6 1/2"	Paneled	2	

Privy 38 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic *(continued)*				
WIE	Saucer, 6"			3
WIE	Saucer, 6"	Molded - Sharon Arch	2	
WIE	Saucer, 6"	Paneled	2	
WIE	Saucer, 7"	Molded	1	
WIE	Slop Bowl			3
WIE	Small Dish	Molded - Sharon Arch	1	
WIE	Soup Plate			1
WIE	Soup Plate	Molded floral	1	
WIE	Soup Plate, ~10"	Paneled	1	
WIE	Soup Plate, 10"			3
WIE	Soup Plate, 9"			1
Ceramic Subtotal			34	43
Glass				
Colorless Glass	Castor	Cut	1	
Colorless Glass	Goblet	Pressed - Arched Grape	3	
Colorless Glass	Goblet	Pressed panels (10)	2	
Colorless Glass	Jelly Jar Tumbler			1
Colorless Glass	Stemware			2
Colorless Glass	Stemware	Pressed - New York	1	
Colorless Glass	Tumbler	Pressed	2	
Colorless Glass	Tumbler	Pressed - Ashubrton	1	
Colorless Glass	Tumbler	Pressed panels	3	
Colorless Glass	Tumbler	Pressed panels (8)	7	
Glass Subtotal			20	3
TOTAL			54	46

Privy 38 – SOCIAL DRUGS SUMMARY
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage	3	
	Ale/Beer Bottle	6	
	Ale/Beer Bottle, 10 oz.	1	
	Ale/Beer Bottle, 12 oz.	4	
	Carboy	1	
	Champagne Bottle	1	
	Wine Bottle	1	
	Wine/Champagne Bottle	3	
Subtotal Alcohol		20	67
Tobacco	Pipe	10	33
TOTAL		30	100

Privy 38 – ANIMALS REPRESENTED IN FAUNAL REMAINS
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Common Name	Scientific Name	NISP	MNI	MW (lbs.)
MAMMALS				
Major Meat Mammals				
cow	*Bos taurus*	53	2	140.6
sheep	*Ovis aries*	36	3	37.2
pig	*Sus scrofa*	23	2	41.3
TOTAL MAMMALS		112	7	219.1
BIRDS				
Domestic Poultry				
chicken	*Gallus gallus*	12	4	8.0
turkey	*Meleagris gallopavo*	3	1	15.0
TOTAL BIRDS		15	5	23.0
GRAND TOTAL		127	12	242.1

Privy 38 – MEAT WEIGHT BY PRICE
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
BEEF				
high			15.7	
porterhouse	0.9	0.6		
sirloin	15.5	11.0		
prime rib	5.6	4.0		
moderate			44.0	
crossrib	2.1	1.5		
round	4.6	3.2		
rump	4.8	3.4		
blade	13.2	9.4		
roundbone				
chuckrib	37.2	26.5		
low			40.3	
neck	22.2	15.8		
plate	11.4	8.1		
brisket	5.6	4.0		
hindshank	5.5	3.9		
foreshank	12.0	8.5		
Total	140.6	100.0	100.0	64.2
MUTTON				
high			40.0	
porterhouse				
sirloin	1.5	4.0		
rump	1.3	3.4		
round	12.1	32.6		
moderate			22.8	
rib	1.2	3.2		
crossrib	0.4	1.1		
blade	3.2	8.6		
roundbone				
chuckrib	3.7	10.0		
low			37.1	
neck	6.2	16.7		
plate				
brisket	0.4	1.1		
hindshank	4.9	13.1		
foreshank	2.3	6.3		
Total	37.2	100.0	99.9	17.0

Privy 38 – Meat Weight by Price *(continued)*

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
PORK				
high			48.6	
porterhouse	2.5	6.2		
sirloin	16.8	40.7		
rib	0.7	1.7		
round				
moderate			19.1	
rump	6.5	15.8		
blade	1.4	3.4		
roundbone				
chuckrib				
low			32.3	
neck	0.3	0.7		
crossrib	0.3	0.7		
brisket				
plate				
foreshank	0.6	1.3		
forefoot	0.7	1.6		
hindshank				
hindfoot	1.8	4.2		
head	9.8	23.8		
jowl				
Total	41.4	100.0	100.0	18.8
GRAND TOTAL	219.2			100.0

Privy 38 – SHELLFISH REMAINS
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Shellfish	MNI
Abalone	2
Crab	1
Oyster	1
Scallop	1
Seashell, large	1
Shell	1

Privy 38 – Date and Origin of Marked/Datable Items
31 Kate Street (Bayshore Block 4)
Anthony Dean Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items								
246 002	White Improved Earthenware	Saucer, 6"	1	Impressed mark: (in elongate oval) PARI[SIAN] (upper arch)/ HENRY ALC[OCK & CO.]/ PORCE[LAIN] (lower arch)	Alcock, Henry & Co.	Staffordshire	1861 - 1891	Praetzellis et al. 1983:6-8, mark 14
247 004	Opaque Porcelain	Tureen?	1	Impressed mark: OPAQUE/ PORCELAIN		Staffordshire?	- 1891	
247 006	White Improved Earthenware	Small Dish	1	Impressed mark: (in figure eight) [D]AVENPORT (upper arch)/ (anchor)/ [IRONSTONE CHINA (lower arch)]; (molded - Sharon Arch)	Davenport	Staffordshire	1861 - 1887	Praetzellis et al. 1983:27-31, mark 90; Wetherbee 1996:116,214
248 001	White Improved Earthenware	Saucer, 6"	1	Impressed mark: (in elongate oval) PARIS[IAN] (upper arch)/ HENRY ALCO[CK & CO.]/ PORCELA[IN] (lower arch)	Alcock, Henry & Co.	Staffordshire	1861 - 1891	Praetzellis et al. 1983:6-7
248 003	White Improved Earthenware	Saucer, 6"	1	Impressed marks: (in figure 8) DAVENPORT (upper arch)/ (anchor)/ 1/ IRONSTONE CHINA (lower arch); (April 12, 1861 Registry diamond) (molded - Sharon Arch)	Davenport	Staffordshire	1861, Apr 12 - 1864, Apr 12	Praetzellis et al. 1983:27-31, mark 90; Wetherbee 1996:116, 214
248 006	White Improved Earthenware	Saucer, 6"	1	Impressed marks: (in figure 8) DAVENPORT (upper arch)/ (anchor)/ 1/ IRONSTONE CHINA (lower arch); (April 12, 1861 Registry diamond) (molded - Sharon Arch)	Davenport	Staffordshire	1861, Apr 12 - 1864, Apr 12	Praetzellis et al. 1983:27-31, mark 90; Wetherbee 1996:116, 214
248 009	White Improved Earthenware	Soup Plate, 10"	1	Printed mark: (seated Royal Coat of Arms)/ IRONSTONE/ DAVENPORT Impressed marks: (in figure 8) DAVENPORT (upper arch)/ 5 (anchor) 8/ IRONSTONE CHINA (lower arch); 270	Davenport	Staffordshire	1858 - 1870	Praetzellis et al. 1983:27-31, marks 84, 90, and 91
248 012	White Improved Earthenware	Plate, 8 1/2"	1	Printed mark: [..STONE] CHINA/ (standing Royal Coat of Arms)..			-	
249 007	White Improved Earthenware	Soup Plate, 9"	1	Printed mark: [(garter and crown)/ IRONSTONE CHINA (in shield)]/ POWELL [& BISHOP] (in ribbon) Impressed marks: AMERI[CAN] (upper arch)/ SHAP[E] (lower arch); 2	Powell and Bishop	Staffordshire	1867 - 1878	Praetzellis et al. 1983:68-69, mark 209

Privy 38 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
249 008	White Improved Earthenware	Plate, 10"	1	Printed mark: (standing Royal Coat of Arms)/ ..W/ ..STONE CHINA Impressed mark: (in rectangle) 18 S & W 69/ STOKE ON TRENT	Skinner and Walker?	Staffordshire	1869 - 1877 ca	Kowalski and Kowalski 1999:334
249 011	White Improved Earthenware	Soup Plate, 10"	1	Printed mark: (seated Royal Coat of Arms)/ (in rectangle) IRONSTONE/ DAVENPORT Impressed marks: (in figure 8) DAVENPORT (upper arch)/ 5 (anchor) 6/ 2/ IRONSTONE CHINA (lower arch); 2-70	Davenport	Staffordshire	1856 - 1870	Praetzellis et al. 1983:27-31, marks 84, 90, and 91
250 006	White Improved Earthenware	Saucer, 6"	1	Printed mark: (seated Royal Coat of Arms)/ I[MPERIAL]/ IRON[STONE CHINA]/ HEN[RY ALCOCK & CO.] Impressed mark: (in double oval) IRONSTONE] (upper arch)/ HEN[RY ALCOCK & CO./ COBRIDGE/ CHINA (lower arch)]	Alcock, Henry & Co.	Staffordshire	1861 - 1891	Praetzellis et al. 1983:6-7, mark 13; Kowalski and Kowalski 1999:82, mark B
250 012	White Improved Earthenware	Plate, 9"	1	Impressed mark: (in figure 8) DAVENPORT (upper arch)/ (anchor)/ 4/ IRONSTONE CHINA (lower arch) (molded - Sharon Arch)	Davenport	Staffordshire	1861 - 1887	Praetzellis et al. 1983:27-31, mark 90
250 018	White Improved Earthenware	Saucer	1	Impressed mark: 7-67	Davenport	Staffordshire	1867 - 1867	Praetzellis et al. 1983:27-31, mark 91
250 022	White Improved Earthenware	Plate, 7 1/2"	1	Printed mark: (seated Royal Coat of Arms)/ STONE CHINA (lower arch)/ JAMES EDWARDS & SON (lower arch)/ DALEHALL (lower arch)	Edwards, James & Son	Staffordshire	1851 - 1882	Praetzellis et al. 1983:32-33, mark 103
250 025	Opaque Porcelain	Plate	1	Impressed mark: [T. & . R.] BO[OTE..]	Boote, T. & R.?	Staffordshire	1842 - 1906	Praetzellis et al. 1983:12-14; Cypress Ceramic Marks, ms on file
265 001	White Improved Earthenware	Saucer, 7"	1	Printed mark: IMPERIAL (in ribbon, upper arch)/ (eagle and shield)/ WHITE GRANITE (in ribbon, lower arch)/ P.B. & H. (lower arch)	Pinder, Bourne and Hope	Staffordshire	1851 - 1862	Praetzellis et al. 1983:66-67, mark 202
265 002	White Improved Earthenware	Soup Plate, 10"	1	Printed mark: (seated Royal Coat of Arms)/ STONE CHINA (lower arch)/ JAMES EDWARDS & SON (lower arch)/ DALEHALL. (lower arch) Impressed mark: JAS. EDWARDS & SON/ DALEHALL	Edwards, James and Son	Staffordshire	1852 ca - 1882	Praetzellis et al. 1983:32-33, marks 102, 104

Privy 38 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
266 001	White Improved Earthenware	Saucer, 6 1/2"	1	Impressed mark: (in circle) T. & R. BOOTE (upper arch)/ (July 18, 1854 Registry diamond)/ SYDENHAM SHAPE (lower arch)	Boote, T. & R.	Staffordshire	1854, July 18 - 1857, July 18	Praetzellis et al. 1983:12-14, mark 40
266 002	White Improved Earthenware	Plate, 9"	2	Impressed mark: (in garter) W. BAKER & CO. (upper arch)/ FENTON (across center)/ STONE CHINA (lower arch)	Baker, W. & Co.	Staffordshire	1839 - 1891	Praetzellis et al. 1983:10-11, mark 26
266 004	White Improved Earthenware	Plate, 7 1/2"	1	Impressed mark: (standing Royal Coat of Arms)/ IRONSTONE/ CHINA/ E. CHALLINOR & CO; Impressed mark: (Staffordshire knot)	Challinor, E. & Co.	Staffordshire	1853 - 1862	Praetzellis et al. 983:19-20, mark 57
266 006	White Improved Earthenware	Plate, 9"	1	Impressed mark: (in figure eight) DAVENPORT (upper arch)/ 5 (anchor) 3/ 4/ IRONSTONE CHINA (lower arch); Impressed mark: (diamond Registry mark) (molded - Scalloped Decagon)	Davenport	Staffordshire	1853 - 1853	Praetzellis et al. 1983:27-31, mark 90; Wetherbee 1996:65, 213
266 007	White Improved Earthenware	Saucer, 6 1/2"	1	Impressed mark: (in circle) T. & R. BOOTE (upper arch)/ (illegible Registry diamond)/ CHINESE SHAPE (lower arch)	Boote, T. & R.	Staffordshire	1858 - 1891	Praetzellis et al. 1983:12-14, cf. Mark 40; Wetherbee 1996:70, 214
Marked Glass Items								
246 014	Aqua Glass	Cement Bottle	1	[HODG]SON'S/ [DI]AMOND/ [CE]MENT			-	
247 039	Aqua Glass	Cement Bottle	1	HODGSON'S/ DIAMOND/ CEMENT	Hodgson		-	
247 041	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
248 069	Olive Glass	Alcoholic-beverage Bottle	1	/// 6 (or) 9? G? (backwards)			-	
248 070	Dark-olive Glass	Ale/Beer Bottle, 12 oz.	1	/// C S & L (or) S & L C		England?	-	
248 072	Olive Glass	Champagne Bottle	1	(turn mold)			1860s - 1920s	Switzer 1974:23, Jones and Sullivan 1985:30-31
248 081	Colorless Glass	Sozodont Bottle	1	VAN BUSKIRK'S/ FRAGRANT/ SOZODONT			1867 ca -	Fike 1987:182
248 085	Brown Glass	Wine Bottle	1	(turn mold)			1860s - 1920s	Jones and Sullivan 1985:31
248 087	Colorless Glass	Goblet	3	(pressed - Arched Grape pattern)	Sandwich Glass Co.	Sandwich/ Boston, MA	1870s -	Lee 1960:215-216, plate 64
248 094	Aqua Glass	Sarsaparilla Bottle	1	BRISTOL'S// GENUINE/ SARSAPARILLA// NEW YORK	Bristol	New York	1860s+ -	Wilson and Wilson 1971:23, 107; Fike 1987:214; Jones 1971:10

Privy 38 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
248 095	Aqua Glass	Soda-water Bottle	1	EMPIRE SODA WORKS (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	1861 ca - 1871	Markota and Markota 1994:30
248 096	Blue Glass	Soda-water Bottle	2	BAY CITY SODA WATER (angle up to a point and down)/ CO/ (branch) S.F. (branch)// (star)	Bay City Soda Water Co.	San Francisco	1871 - 1880 ca	Markota and Markota 1994:5
248 097	Colorless Glass	Mustard Bottle	1	MOUTARDE DIAPHANE/ LOUIT FRERES & CO	Louit Freres & Co.	France	-	Zumwalt 1980:285
248 099	Colorless Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
248 106	Blue Glass	Soda-water Bottle	2	[BAY] CITY [SODA] WATER (angle up to a point and down)/ CO/ (branch) S.F. (branch)// (star)	Bay City Soda Water Co.	San Francisco	1871 ca - 1880 ca	Markota and Markota 1994:5
248 112	Aqua Glass	Canning Jar	1	PAT[D (d underlined) FE]B 9TH 1864 (upper arch)/ W.W. LYMAN/ 27	Lyman, W.W.		1864 ca -	Toulouse 1969:190
250 073	Aqua Glass	Soda-water Bottle	1	McEWIN// SAN FRANCISCO	Mc Ewin	San Francisco	1863 - 1870	Markota and Markota 1994:64
250 079	Aqua Glass	Soda-water Bottle	1	EMPIRE SODA WORKS (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	1861 ca - 1871	Markota and Markota 1994:30
250 082	Aqua Glass	Tricopherous Bottle	1	[BA]RRY'S// TRIC[OPH]EROUS/ FOR THE SKIN/ AND HAIR// NEW YORK// [DI]RECTIONS/ (scroll) IN THE [scroll]/ [P]AM[P]HLET (2-piece mold)		New York	1859 ca - 1880 ca	Wilson and Wilson 1971:22, 106; Fike 1987:122; Jones and Sullivan 1985:26-28
266 014	Colorless Glass	Tumbler	1	(pressed - Ashburton pattern)			- 1880 ca	Lee 1960:9-17, plates 1,3
266 020	Aqua Glass	Jamaica-ginger Bottle	1	TURNER'S/ ESS OF/ JAMAICA GINGER/ NEW YORK	Turner Bros	New York	1844 - 1870	Wilson and Wilson 1971:143; Fike 1987:30
Marked Other Items								
246 003	White Improved Earthenware	Pot	1	MAW/ 1/ 7	Maw, S. & Son	London	1850s - 1910 ca	Gross et al. 1981:488,490; Dale 1977:403,419
247 011	Hard-rubber	Button	1	N.R.CO./ PT	Novelty Rubber Co.	New Brunswick, NJ	1872 - 1886	Woshner 1999:267
247 028	Hard-rubber	Hair Comb	1	I.R.C. CO G'YEARS PT. MAY 6.51 EXT 6	India Rubber Comb Co.	New York	1865 - 1872	Woshner 1999:266
248 036	Ball Clay	Pipe	3	T.D.			-	
248 129	Leather	High-laced Shoe/ Boot, Women's	1	(shoe/boot - high-laced, semi-Louis stacked			1881 -	Wilcox 1948:140
248 138	Leather	Shoe/Boot, Women's	1	(shoe/boot - high-stacked tapered heel)			-	Wilcox 1948:140

Privy 38 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Other Items (continued)								
249 019	Ball Clay	Pipe	1	[THO. WHITE] & CO./ EDINBU[RGH]	White, Thomas & Co.	Edinburgh	1823 - 1876	Bradley 2000:117
249 020	Ball Clay	Pipe	2	T.D.			-	
249 031	Ball Clay	Pipe	1	T.D.// THO. WHITE & CO.//	White, Thomas & Co.	Edinburgh	1823 - 1876	Bradley 2000:117
250 003	Ball Clay	Pipe	1	T.D.			-	
250 120	Porcelain	Marble	1	(marble - doughnut floral motif)			1846 ca - 1870 ca	Carskadden and Gartley 1990:35-37,91,92
250 122	Hard-rubber	Moustache Comb	1	INDIA RUBBER COMB CO./ GOODYEAR'S PATENT MAY 6, 1951	India Rubber Comb Co.	New York	1851 - 1865	Woshner 1999:266-267
250 130	Hard-rubber	Button	1	N.R. CO. (upper arch)/ GOODYEAR'S P=T 1851 (lower arch)	Novelty Rubber Co.	New Brunswick, NJ	1872 - 1886	Woshner 1999:267
250 136	Ball Clay	Pipe	1	T.[D.]// W.WHITE// GLASGOW	White, William	Glasgow	1805 - 1891	Cook 1989:187,190

PRIVY 39 - FEATURE SUMMARY

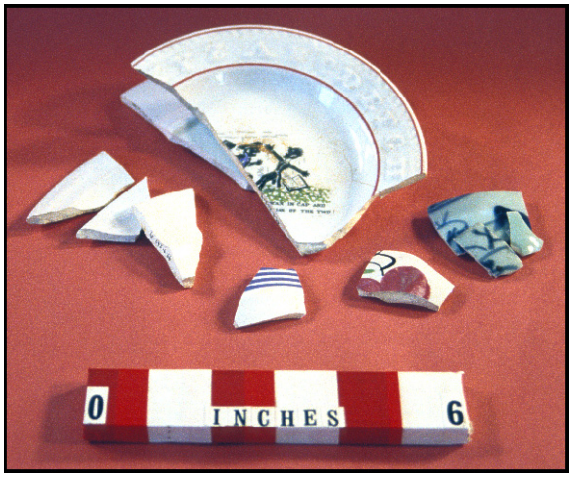
31 Kate Street (Bayshore Block 4)

John Wendt Family

Privy 39 was wood-lined and measured 4 ft. 6 in. square by 3 ft. 9 in. deep. The privy had been severely impacted by the builders' trench for freeway bent R-52R, which removed over a third of the feature. During construction clearing, an area of basalt cobble paving, Context 254, was found above Privy 39 and on top of what appeared to be 1906 fire debris, Layer 255. Both the paving and debris were above a sand layer with few artifacts, Layer 256, which was covering the privy and the surrounding ground surface. The uppermost privy fill, Layer 263, was medium- to dark-gray-brown fine sand. It abutted the wood lining along the east edge, but extended past the lining in the west. This was likely caused by a grading event prior to deposition of Layer 256. Layer 262 was mottled fine sand with few artifacts. The bottom fill, Layer 264, was a mix of mottled medium-dark-gray and medium-light-yellow sands with charcoal and cinders. It appeared that the privy had been mucked-out prior to filling, based on the absence of primary privy fill. There were only a small amount of artifacts recovered from this layer.

The TPQ for Privy 39 is 1877, from a patent date on a shoe. There were relatively few tightly dated diagnostic items in the privy. Two Bay City soda bottles date between 1871 and 1880, and a Thomas White & Company pipe from Scotland was made until 1876. The privy was probably filled about 1882, when the property became part of the California Italian Paste Company complex. Formerly the Wendt and Dean families had occupied the lot. The two families were living in separate households, and the kinds of artifacts recovered from Privies 38 and 39 suggest that they may have been associated with individual households. Privy 39 is more likely associated with the Wendt household.

John Wendt was a 50-year-old express-wagon driver from Germany and his 35-year-old wife, Mary, was Irish. They had no children. John listed his residence on Kate Street from 1877 through 1880 in the city directories. When John died in 1885, he lived in a small residence a block away at 502-1/2 Seventh Street. The only child-related item recovered from the privy was an ABC plate with a riddle on it that may have been kept as a novelty item.



Nearly half the items recovered (49.5%) were related to food preparation and consumption, with all other categories at 8.3% or less. The Wendts discarded a large number of plates and cups, but other categories of tableware were represented by only a few items—two soup plates and two pieces of stemware. There were also two Chinese stoneware bowls and a tiny cup of Chinese Celadon. There were few serving or specialty pieces—only a platter, tureen, slop bowl, two other bowls, and a probable oval dish. Most of the table vessels were

ceramic (96%), the exception being the two pieces of glass stemware. The majority of the ceramic vessels (79%) were white improved earthenware (WIE), while only 4 items were of porcelain (8%). Almost half the ceramic vessels were decorated (46%), typically paneled or with molded patterns. A plate and saucer were of matching Corn and Oats molding, a popular pattern at the time. The two Chinese bowls were painted, one with Bamboo pattern; the other two bowls were decorated, one with annular slip, and the other in Gaudy-type paint. In general the Wendts' collection of vessels was outdated in patterns and style, although the Arched Grape stemware was from the 1870s.

The food items were single spice and mustard bottles, along with the two soda bottles. A single canning jar was also recovered. Insufficient identifiable faunal remains were recovered for analysis (under 100).

A fragment of a porcelain figurine is the only decorative item in the collection, while the only tool recovered was a crucible. Four lamp chimneys and a possible lamp base represented the lighting category. Building or structural material included 47 nails, 4 spikes, 2 bolts, and some window glass, a small amount compared to deposits associated with remodeling rather than abandonment.

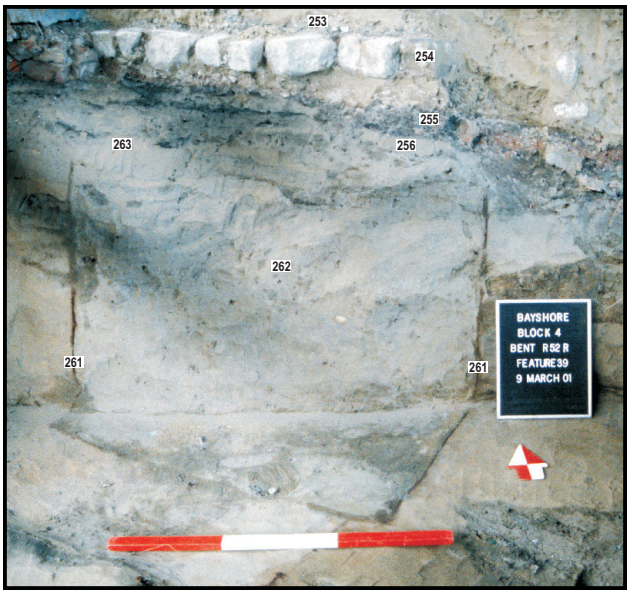
Few personal items were found. The grooming and health items were two pitchers without basins, and two bottles of eye-water. Only two alcoholic-beverage bottles were found: one ale or beer, and another of unknown contents. The four ball clay tobacco pipes were also a relatively meager sum. The remains of four garments are mostly basic and plain buttons, with one of ornate brown-glass. Another button came off a shoe or boot. Most if not all of the footwear can be attributed to adults, the makeup of the Wendt family. Two were probably women's stylish high-laced boots with a distinctively shaped heel. Another shoe or boot, possibly a man's, had a Goodyear welt (patented 1877; Rexford 2000:341), considered one of the highest quality and most comfortable brands of shoes on the market.

The Wendt household is the smallest associated with a feature in the SF-80 Bayshore Project. Although the couple's deposit has relatively few artifacts, it presents an opportunity for comparison with the larger households, especially those with children.

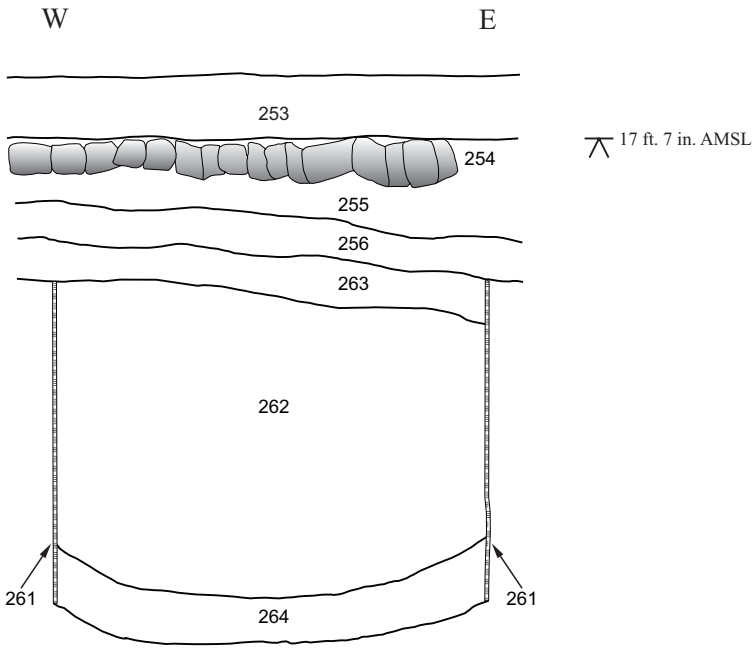
Privy 39 – MATRIX AND EXCAVATION PROFILE

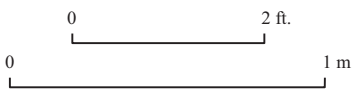
31 Kate Street (Bayshore Block 4)

John Wendt Family



251	Asphalt
252	Gravel Base
280	Builder's Trench Fill
37	**Bent Construction Trench**
253	Sand and Rubble Fill
254	Basalt Street Cobble Surface
255	Sand and Rubble Fill
256	Sand
263	Privy Fills
262	
264	
257	Builder's Trench Fills
258	
259	
261	Wood Lining
39	**Privy Cut**
260	Dune Sand





KEY
Basalt street cobbles

Privy 39 – FEATURE SUMMARY TABLE
31 Kate Street (Bayshore Block 4)
John Wendt Family

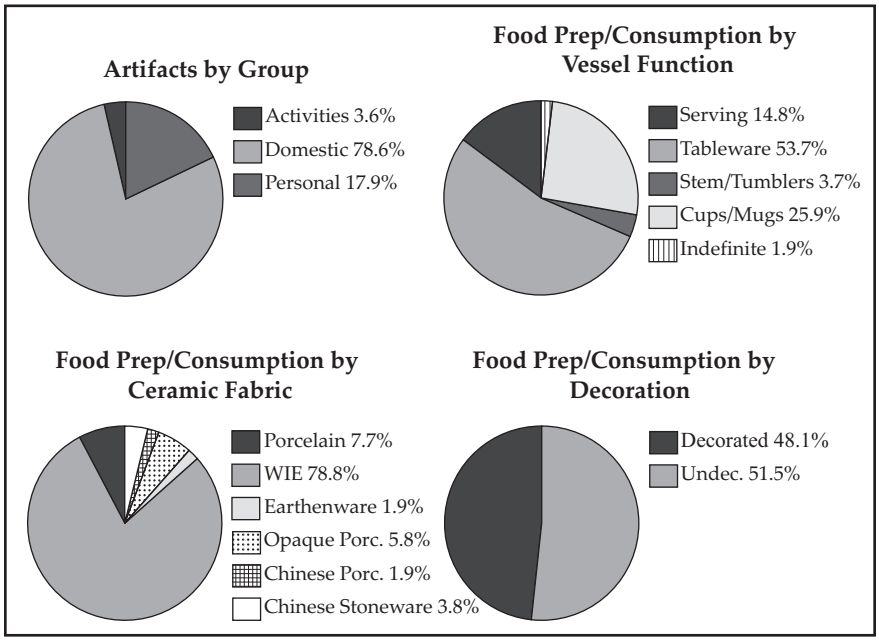
HOUSEHOLD

Name:	John Wendt Family
Birthplace:	Germany
Ethnicity or Race:	German
Occupation:	Laborer
Period of Residence:	ca. 1877-1880
Terminus Post Quem/Basis:	1877 (a shoe patent)
Mean Ceramic Mark Date/N:	1872.5 (n = 1)
Estimated Date of Deposition:	1882

ANALYTICAL UNIT

Context Numbers:	262, 263, 264

ARTIFACTS





Privy 39 – ARTIFACT LAYOUT PHOTOGRAPH, 31 Kate Street (Bayshore Block 4), John Wendt Family. Nearly half the items recovered from this feature were related to Food Preparation and Consumption. Large numbers of ceramic plates and cups and only a handful of serving dishes and glass stemware were discarded. Interestingly, two Chinese stoneware medium bowls and a Chinese porcelain tiny cup were also recovered.

Privy 39 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
31 Kate Street (Bayshore Block 4)
John Wendt Family

Group and Category	Description	Count	MNI
ACTIVITIES			
Indefinite			
-	Stoneware Crucible	1	1
Subtotal Indefinite		1	1
Writing			
-	Slate Pencil	1	1
-	Slate Tablet	1	1
Subtotal Writing		2	2
DOMESTIC			
Food Prep/Consumption			
Drinking Vessel	Chinese Porcelain Tiny Cup	1	1
Drinking Vessel	Colorless Glass Stemware	5	1
Drinking Vessel	Colorless Glass Stemware?	1	1
Drinking Vessel	Opaque Porcelain Cup	1	1
Drinking Vessel	Porcelain Cup	4	1
Drinking Vessel	White Improved Earthenware Cup	13	11
Indefinite	Porcelain Base	1	1
Indefinite	White Improved Earthenware Indefinite	13	0
Serving	Earthenware London Bowl	1	1
Serving	White Improved Earthenware Bowl	1	1
Serving	White Improved Earthenware Oval Dish?	2	1
Serving	White Improved Earthenware Platter	1	1
Serving	White Improved Earthenware Saucer	2	2
Serving	White Improved Earthenware Slop Bowl	3	1
Serving	White Improved Earthenware Tureen Lid	1	1
Tableware	Chinese Stoneware Medium Bowl	2	2
Tableware	Opaque Porcelain Saucer	2	2
Tableware	Porcelain Plate	5	1
Tableware	Porcelain Saucer	1	1
Tableware	White Improved Earthenware Children's ABC Plate	1	1
Tableware	White Improved Earthenware Plate	20	13
Tableware	White Improved Earthenware Saucer	5	5
Tableware	White Improved Earthenware Saucer, 6"	2	1
Tableware	White Improved Earthenware Small Dish	1	1
Tableware	White Improved Earthenware Soup Plate	3	2
Subtotal Food Prep/Consumption		92	54
Food/Food Storage			
Container	Aqua Glass Canning Jar	2	1
Container	Aqua Glass Spice Bottle	4	1

Privy 39 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food/Food Storage *(continued)*			
Container	Blue Glass Soda-water Bottle	11	2
Container	Colorless Glass Mustard Bottle	2	1
Subtotal Food/Food Storage		19	5
Furnishings			
-	Copper-alloy Window Shade Bracket	1	1
-	Ferrous Drawer Pull	1	1
Decorative Item	Porcelain Figurine	1	1
Subtotal Furnishings		3	3
Heating/Lighting			
Lamp	Colorless Glass Chimney	14	4
Subtotal Heating/Lighting		14	4
INDEFINITE USE			
Indefinite			
-	CC Ware Hollow	1	1
-	Cobalt Glass Hollow	1	1
-	Colorless Glass Flat	1	1
-	Colorless Glass Hollow	1	1
-	Earthenware Hollow	4	1
-	Opaque Porcelain Hollow	1	1
-	White Improved Earthenware Hollow	2	1
-	White Opaque Glass Lamp Base?	3	1
Subtotal Indefinite		14	8
Misc. Containers			
-	Aqua Glass Bottle	14	3
-	Blue Glass Bottle	4	0
-	Ferrous Can	51	3
Subtotal Misc. Containers		69	6
Misc. Metal Items			
-	Copper-alloy Tubing	5	1
-	Ferrous Bar?	1	1
-	Ferrous Sheet Metal	1	1
-	Ferrous Wire	1	1
Subtotal Misc. Metal Items		8	4
PERSONAL			
Clothing			
Fastener	Brown Glass Button	1	1
Fastener	Colorless Glass Button Inset	1	1
Fastener	Ferrous Button	1	1
Fastener	Porcelain Button	4	4
Subtotal Clothing		7	7

Privy 39 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Footwear			
-	Leather Shoe, Women's/Young Men's	16	1
-	Leather Shoe/Boot	2	0
-	Leather Shoe/Boot, Adult's	7	2
-	Leather Shoe/Boot, Adult's?	3	1
-	Leather Shoe, Men's	1	0
-	Leather/Wool Shoe/Boot, Women's?	4	1
Subtotal Footwear		33	5
Grooming/Health			
Container	Aqua Glass Eye-water Bottle	2	2
Toiletry	White Improved Earthenware Pitcher	2	2
Subtotal Grooming/Health		4	4
Social Drugs - Alcohol			
Container	Amber Glass Alcoholic-beverage Bottle	1	1
Container	Olive Glass Ale/Beer Bottle	10	1
Subtotal Social Drugs - Alcohol		11	2
Social Drugs - Tobacco			
-	Ball Clay Pipe	6	4
Subtotal Social Drugs - Tobacco		6	4
STRUCTURAL			
Hardware			
Fastener	Ferrous Bolt	1	1
Fastener	Ferrous Cut Nail	16	10
Fastener	Ferrous Nail	102	37
Fastener	Ferrous Spike	7	4
Fastener	Ferrous Washer and Bolt	1	1
Subtotal Hardware		127	53
Materials			
-	Glass Window	22	0
Subtotal Materials		22	0
TOTAL		432	162

Privy 39 – SUMMARY OF ARTIFACTS BY GROUP
31 Kate Street (Bayshore Block 4)
John Wendt Family

Description	Total Count	MNI	Percent of MNI
Activities	3	3	3.6
Domestic	128	66	78.6
Personal	54	15	17.9
Subtotal	185	84	100.1
Indefinite Use	91	18	
Personal	7	7	
Structural	149	53	
TOTAL	432	162	

Privy 39 – SUMMARY OF ARTIFACTS DESCRIPTIONS BY CATEGORY
31 Kate Street (Bayshore Block 4)
John Wendt Family

Description	MNI	Percent
Clothing	7	6.4
Food Prep/Consumption	54	49.5
Food/Food Storage	5	4.6
Footwear	5	4.6
Furnishings	3	2.8
Grooming/Health	4	3.7
Heating/Lighting	4	3.7
Indefinite	9	8.3
Misc. Containers	6	5.5
Misc. Metal Items	4	3.7
Social Drugs - Alcohol	2	1.8
Social Drugs - Tobacco	4	3.7
Writing	2	1.8
TOTAL	109	100.1

Privy 39 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
31 Kate Street (Bayshore Block 4)
John Wendt Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Patent Medicine Bottle	Thompson's Eye Water	2	100
TOTAL			2	100

Privy 39 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
31 Kate Street (Bayshore Block 4)
John Wendt Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	8	14.8
Tableware (plates, bowls, saucers, etc.)	29	53.7
Stemware and Tumblers	2	3.7
Cups and Mugs	14	25.9
Indefinite	1	1.9
TOTAL	54	100.0

Privy 39 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
31 Kate Street (Bayshore Block 4)
John Wendt Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			52	96
White Improved Earthenware	41	78.8		
Porcelain	4	7.7		
Opaque Porcelain	3	5.8		
Earthenware	1	1.9		
Chinese Stoneware	2	3.8		
Chinese Porcelain	1	1.9		
Ceramic Subtotal	52	99.9		
Glass			2	4
TOTAL			54	100

Privy 39 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
31 Kate Street (Bayshore Block 4)
John Wendt Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Chinese Porcelain	Tiny Cup	Celadon	1	
Chinese Stoneware	Medium Bowl	Bamboo	1	
Chinese Stoneware	Medium Bowl	Blue handpainting	1	
Earthenware	London Bowl	Blue and white annular	1	
Opaque Porcelain	Cup	Molded	1	
Opaque Porcelain	Saucer			1
Opaque Porcelain	Saucer	Paneled	1	
Porcelain	Base	Molded	1	
Porcelain	Cup			1
Porcelain	Plate			1
Porcelain	Saucer			1
WIE	ABC Plate, Children's	Molded, Black transfer, Handpainted	1	
WIE	Bowl	Gaudy type	1	
WIE	Cup			8
WIE	Cup	Molded	1	
WIE	Cup	Paneled	2	
WIE	Oval Dish?			1
WIE	Plate			8
WIE	Plate	Molded	2	
WIE	Plate	Molded - Corn and Oats/ Wheat type	1	
WIE	Plate	Paneled	1	
WIE	Plate	Sided, Paneled	1	
WIE	Platter			1
WIE	Saucer			2
WIE	Saucer	Molded - Corn and Oats/ Wheat type	1	
WIE	Saucer	Paneled	4	
WIE	Saucer, 6"			1
WIE	Slop Bowl			1
WIE	Small Dish	Molded	1	
WIE	Soup Plate			2
WIE	Tureen Lid	Molded	1	
Ceramic Subtotal			24	28
Glass				
Colorless Glass	Stemware	Pressed - Arched Grape	1	
Colorless Glass	Stemware?	Pressed panels, Painted red, Etched swirls, Gilded band	1	
Glass Subtotal			2	
TOTAL			26	28

Privy 39 – SOCIAL DRUGS SUMMARY
31 Kate Street (Bayshore Block 4)
John Wendt Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage	1	
	Ale/Beer Bottle	1	
Subtotal Alcohol		2	33
Tobacco			
	Pipe	4	67
TOTAL		6	100

Privy 39 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
31 Kate Street (Bayshore Block 4)
John Wendt Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items								
264 005	White Improved Earthenware	Saucer, 6"	1	Printed mark: (standing Royal Coat of Arms)			-	
264 019	White Improved Earthenware	Plate	1	Printed mark: (crown/ garter and shield) [IRONSTONE CHINA (in shield)/ POWELL & BISHOP (in ribbon)	Powell and Bishop	Staffordshire	1867 - 1878	Praetzellis et al. 1983:68-69, mark209
Marked Glass Items								
262 042	Aqua Glass	Eye-water Bottle	2	DR. THOMPSON'S/ EYE WATER/ NEW LONDON/ CONNT	Thompson	New London, CT	1850s - tc	Wilson and Wilson 1971:90; Fike 1987:245
264 022	Blue Glass	Soda-water Bottle	1	[BAY CITY (upperwards diagonal) SODA WATE]R (downwards diagonal)/ CO/ [SF] (in branch motif)// (star)	Bay City Soda Water Co.	San Francisco	1871 ca - 1880	Markota and Markota 1994:5
264 024	Colorless Glass	Stemware	1	(pressed - Arched Grape pattern)	Sandwich Glass Co.	Sandwich, MA	1870s -	Lee 1960:215-216, plate 64; McCain 1982:300-301, plate 145
264 029	Blue Glass	Soda-water Bottle	1	BAY CITY (upperwards diagonal) SODA WATER (downwards diagonal)/ CO/ SF (in branch motif)// (star)	Bay City Soda Water Co.	San Francisco	1871 ca - 1880	Markota and Markota 1994:5
Marked Other Items								
262 010	Rubber	Shoe/Boot, Adult's?	1	(Goodyear welt)			1877	Rexford 2000:341
262 072	Ball Clay	Pipe	1	THO. WHITE & CO.// EDINBURGH	White, Thomas & Co.	Edinburgh	1823 ca - 1876	Bradley 2000:117
262 073	Ball Clay	Pipe	1	[W] WHITE// GLASG[OW]	White, William	Glasgow	1805 ca - 1891	Bradley 2000:117
264 033	Ball Clay	Pipe	1	W. WHITE// GLASGOW	White, William	Glasgow	- 1891	Bradley 2000:117

PARCEL OVERVIEW

414 Seventh Street (Bayshore Block 4)

Andrew Buckley Family Residence

As shown on the 1887 Sanborn map, the building at 414 Seventh Street was two-story with a one-story addition at the rear, and two adjoining one-story buildings across the back of the lot. It was slightly set back from the street with sideyard access to the rear. There were stables on each side of the lot. Next door, at 410 Seventh Street was a one-story stable fronting Seventh, while at 416 to 418 Seventh Street, a stable and workshop were at the back of the lot and accessed through 215 Langton Street. Based on research and comparison with other deposits, it appears that city sewers were built around the block during the early 1880s.

The house was probably built in or just before 1866, when Timothy Collins, a builder, was listed on the tap record. He was also listed in the city directories from that year until 1871 as a builder or brick mason. The 1870 U.S. Census lists John Collins, a brick maker, and his family at the 414 Seventh Street address. The city directory for 1869/70 listed John Collins as a currier residing on the west side of Seventh near Harrison. Since John Collins was listed as owning real estate on the census, he probably owned his residence. Timothy and John were likely related and, being born a year apart, were probably brothers. Subsequent directory listings for John Collins place him at 400 Seventh in 1880, which was a stable in 1887, and at 500 Seventh in 1875, a store at the corner of Bryant. These may have been misprints or confusion with other John Collins in the directories. By 1880 both John and Timothy Collins were at different addresses. Timothy was listed on the U.S. Census both with his family, as unemployed due to paralysis, and at the La Honda Hospital, as an inmate.

In 1880 the house at 414 Seventh Street was occupied by the Buckley family, consisting of Andrew, age 55, working as a porter in a liquor store, his wife, Eliza, age 46, and their six children. The parents were born in Ireland, as was their oldest son, 25-year-old Andrew Jr., a printer. The other children were all born in California. The next oldest child was daughter Kate, age 17, who was at home. Kate's birth in California indicates that the family was in the state by 1863. Younger sister Agnes, age 6, was at school. The older sons were employed: Michael, age 16, was a copyist; and Thomas, age 15, was an apprentice harness maker. Peter, age 9, was at school, and Lawrence the youngest at age 5, was at home. Andrew Buckley worked for Moon, Scully & Co., local importers and wholesalers of wine and liquors, with two stores in San Francisco. After he died in 1883, his sons continued to live at home and support their widowed mother. Michael worked consistently as a machinist and Thomas as a harness maker, while Peter switched between porter, tinsmith, and salesman. The Buckleys were last listed at this address in 1889: only Michael and Thomas lived at the family home; Peter and his mother were listed at 2106 Howard Street.

In 1894 Ellen Otto owned the parcel and was still the owner of record in 1909. The house was likely a rental, as the Wolf family was residing there in 1900. William Wolf was a naturalized German immigrant who worked as a fruit peddler. His wife, Rosa, was also German-born. Most of the Wolf children were born in Ohio, including Sydney, age

5, who was apparently born on a return stay in Ohio, as his siblings of age 11, 7, 4, and 8 months were all born in California.

The building did not survive the 1906 fire and, in 1913, the parcel was still vacant along with a large swath of several addresses toward Bryant Street. In 1950 the parcel was also shown as vacant. The Workman Packing Company Cannery occupied the large parcel next door.

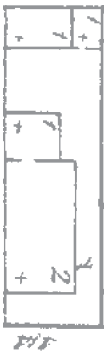
One CRHR-eligible feature, Privy 41, was excavated from the lot. The TPQ is 1871, based on a few Bay City Soda Water bottles. A portion of another feature, ineligible Privy 40, was noted during excavation. Most of this privy had been disturbed by earlier bent construction, but enough remained to see that the fill had contained few artifacts. The presence of the sewer-pipe fragment in Privy 41 suggests that it postdated Privy 40. Privy 41 was probably filled in the early 1880s, possibly after the death of Andrew Buckley Sr.

414 Seventh Street (Bayshore Block 4) – PARCEL PLAN

Andrew Buckley Family Residence



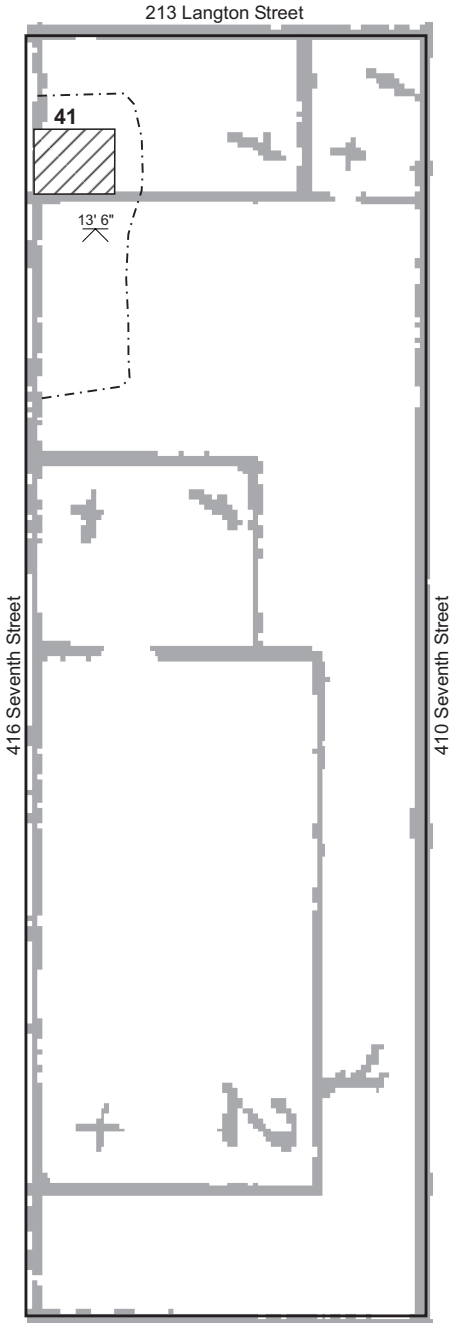
1857/59 Coast Survey
vacant—no buildings
on the 1887 Sanborn parcel



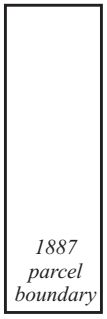
1887 Sanborn Map



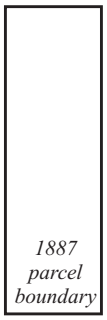
1899 Sanborn Map



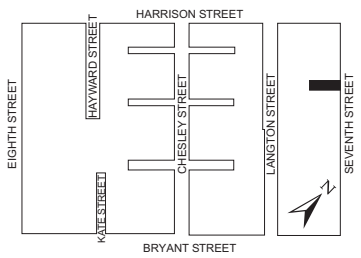
414 Seventh Street (1887)



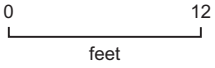
1913 Sanborn Map
vacant



1949 Sanborn Map
vacant







KEY

- CRHR-eligible
- Parcel Line
- Limit of Excavation
- Elevation in Feet amsl
- 41 Privy Number

DOCUMENTARY RESEARCH TABLE

414 Seventh Street, (Bayshore Block 4)

Andrew Buckley Family Residence

ABSTRACT

Building:

1852/53	Sand dunes
1857/59	Building in area of lot
1874	Building in area of lot
1887	Two-story building attached one side with one-story rear addition. Two one-story buildings across rear of lot
1899	Same front dwelling as 1887 with outbuilding across rear of lot identified as 414-¼ Seventh
1905	Unchanged from 1899
1913	Vacant lot
1949	Vacant lot

Residents/Occupation/Use:

1867/68-1871/72	Timothy Collins, brick mason and builder
1870	John Collins, currier, and family
1880-1889	Andrew Buckley, porter, and family
1900-1902+	William Wolf, fruit peddler, and family

Ownership

+1894-1909+	Ellen Otto

DOCUMENTARY TIME LINE

1852/53	**Coast Survey Map** – Sand dunes
1857/59	**Coast Survey Map** – Building in area of lot
1865/66	**City Directory** – *Off Site – Timothy Collins, builder, r. 548 Tehema*
1866	**Tap Record** – Timothy Collins, September 1866, 414 Seventh
1867/68	**City Directory** – Timothy Collins, builder, r. 414 Seventh; *Off Site – John Collins, bricklayer, r. Mechanic's Hotel*
1868/69-1871/72	**City Directory** – Timothy Collins, brick mason, r. 414 Seventh
1869/70	**City Directory** – John Collins, currier, r. Ws Seventh nr. Harrison
1870	**U.S. Census** – (Ward 11, ED 1, Sheet 426 A) 414 Seventh – Collins Family: **Head:** John, 42, Ireland, brickmason, $3000 real estate, $600 personal property; **Wife:** Hannah, 30, Ireland, keeping house; **Sons:** George, 6; Timothy, 2; John; 9 months; all CA; **Daughter:** Hannah, 3, CA

Documentary Research Table, 414 Seventh Street *(continued)*

1871/72	**City Directory** – *Off Site – John Collins, currier with Funcke & Wassermann, r. 400 Seventh*
1872-1874	**City Directory** – *Timothy Collins not listed or not at site*
1874	**Land Use Map** – Building in area of lot
1879	**City Directory** – *Off Site – Andrew Buckley, 1019 Alabama*
1880	**U.S. Census** (Ward 11, Sheet 66B) 414 Seventh – Buckley Family: **Head:** Andrew, 55, married, Ireland, porter in a liquor store; **Wife:** Eliza, 40, Ireland, keeping house; **Daughters:** Kate, 17, CA, at home; Agnes, 6, CA, at school; **Sons:** Andrew, 25, Ireland, printer, 6 months unemployed; Michael, 16, CA, copyist; Thomas, 15, CA, apprentice harness maker; Peter, 9, CA, at school; Lawrence, 5, CA
	Off Site – (ED 112, page 10) 1906 Larkin Street – Collins Family: ***Head:*** *Timothy, 53, married, Ireland, brickmason, 12 months unemployed, paralysis;* ***Wife:*** *Mary M., 35, Ireland, keeping house;* ***Sons:*** *Greg?, 15, CA, apprentice salesman, 11 months unemployed; John, 12; Tim J., 10; both CA, at school; Francis W. 8, CA;* ***Daughter:*** *Nora, 14, CA, at school*
	City Directory – Andrew Buckley, porter Moon Scully & Co.; Andrew Buckley Jr., printer; Michael Buckley, copyist, U. S. Circuit Court; all r. 414 Seventh
1882	**City Directory** – Andrew Buckley, porter, r. 414 Seventh
1883	**City Directory** – Eliza Buckley, r. 414 Seventh
1884	**San Francisco Call** – "Buckley – An anniversary High Mass for the repose of the soul of Andrew Buckley will be celebrated tomorrow (Friday), commencing at 9:00 o'clock a.m. at St. Joseph's Church, Tenth street. Friends are invited." (*San Francisco Morning Call*, 28 June 1883 4:5)
1884	**City Directory** – Eliza Buckley, widow; Michael G. Buckley, apprentice Tatum and Bowen; Thomas F. Buckley, harnessmaker Main & Winchester; all r. 414 Seventh
1885	**City Directory** – Eliza Buckley, widow; Michael Buckley, machinist; Peter J. Buckley, porter; Thomas F. Buckley, harnessmaker Main & Winchester; all r. 414 Seventh
1886	**City Directory** – Eliza Buckley; Michael Buckley, machinist; Peter J. Buckley, tinsmith W. W. Montague & Co; Thomas F. Buckley, harnessmaker Main & Winchester; all r. 414 Seventh
1887	**City Directory** – Michael G. Buckley, machinist; Peter J. Buckley, salesman; Thomas F. Buckley, harnessmaker Main & Winchester; all r. 414 Seventh
1887	**Sanborn Map** – Two-story building attached one side with one-story rear addition. Two one-story buildings across rear of lot
1888	**City Directory** – Elizabeth Buckley, widow; Michael G. Buckley, machinist; P.J. Buckley, tinsmith W.W. Montague & Co.; Thomas F. Buckley, harnessmaker Main & Winchester; all r. 414 Seventh
1889	**City Directory** – Michael G. Buckley, machinist; Thomas F. Buckley, harnessmaker Main & Winchester; both r. 414 Seventh; *Off Site – Elizabeth Buckley, widow; P. J. Buckley, tinsmith W. W. Montague & Co.; both r. 2106 Howard*
1890	**City Directory** – *Off Site – all the above r. at 2106 Howard*
1894	**Block Book** – Ellen Otto
1897	**San Francisco Call** – *Off site – Died. "Buckley – In Marysville, June 2, 1897, Peter J., son of Elizabeth and Andrew Buckley, a native of San Francisco, aged 25 years" (San Francisco Morning Call, 3 June 1897 13:6)*

Documentary Research Table, 414 Seventh Street *(continued)*

1899	**Sanborn Map** – Same front dwelling as 1887 with outbuilding across rear of lot identified as 414-¼ Seventh
1900	**U.S. Census** (E. D. 57, Sheet 1A) 414 Seventh – Wolf Family: **Head**: William, 38, Germany, married 14 years, fruit peddler, immigrated 1875, naturalized, 1 month unemployed, rents; **Wife:** Rosa, 37, Germany, 7 of 8 children living, no occupation listed, immigrated 1881; **Daughters:** Celia, 14, OH, at school; Millie, 7, at school; Flora, 4; both CA; **Sons:** Leon, 13, OH; Herman, 11, CA; Sydney, 5, OH; all at school; Doyle, 8 months, CA
1901-02+	**City Directory** – William Wolf, peddler, 414 Seventh
1905	**Sanborn Map** – Unchanged from 1899
1906	**Block Book** – Ellen Otto
1909	**Block Book** – Ellen Otto
1913	**Sanborn Map** – Vacant lot
1949	**Sanborn Map** – Vacant lot

PRIVY 41 - FEATURE SUMMARY

414 Seventh Street (Bayshore Block 4)

Andrew Buckley Family

Privy 41 was wood-lined, measuring at least 4 ft. square x 5 ft. deep. It had been impacted by construction of freeway bent G3-61C1 and was on the verge of collapse after exposure for retrofit construction. A plywood board was used to stabilize the eastern edge of the privy during excavation. A mixed layer of slumped feature fills was collected along the eastern edge as Context 268. The two uppermost sandy fills, 271 and 272, did not extend across the entire privy. These layers may have been necessary to level the ground surface after the collapse of tin cans in lower layers. Layer 267 was a mix of dark-brown sand with ash and bits of charcoal. The first half of the section included Layers 271 and 272, which were not clear at the outset. There was a large concentration of artifacts in the layers. This and the other artifact-rich layers were so densely packed that for every excavated bucket of soil there was a bucket of artifacts. Layer 269 was wedge-shaped, extending across part of the privy. The fill was mixed sand with burnt bone and a cache of bottles under a deteriorated ferrous coal or oven pan in the west corner. The bottles were resting on top of Layer 270, a sterile capping layer of light-brown-sand, with a pocket of the darker-brown Layer 273 below. The lower Layer 273 was another artifact-rich layer that included coffee beans. It was similar to Layer 274, but the layers were divided at an interface of ferrous objects. The initial layer of the mass refuse filling was 275, a dark-brown sand layer with a higher proportion of sand to artifacts than the artifact-rich layers above. The bottom layer within the privy was Layer 277, a mix of light, dark-gray, and reddish brown striated sands with primary privy fill. Layer 277 extended below the wood lining about 16 to 18 in., the result of mucking-out episodes. There were relatively few artifacts in this layer, including some bottles, ceramics, and coffee beans.

The TPQ for the privy is 1871, based on some Bay City Soda Water bottles. The date of deposition is presumed to be in the early 1880s, in association with the conversion to flushing toilets connected to city sewers. Sewer tile was found in the privy, apparently scrap from plumbing the waste-line into the house. It seems that the network of sewers expanding across the city were late arrivals to remote blocks. Especially those blocks south of Market Street and beyond the few densely occupied blocks around Rincon Hill.

The privy is associated with the Buckley family. The conversion to city sewer occurred about the time of Andrew Buckley Sr.'s death in 1883. Andrew Buckley Sr. worked as a liquor-store porter. He was in the same occupation for a different firm in 1870, when he lived a block north of SF-80 Bayshore Block 2. That year he was listed as owning $2,500 in real estate and an additional $100 in personal property. At that time, he owned as much real estate as his neighbor, who was a grocery proprietor with numerous tenants.

The Buckley collection is unusual for the high proportion of personal items, specifically the 293 alcoholic-beverage bottles presented in the collection. The collection of alcoholic-beverage bottles is very diverse, although the majority are ale or beer bottles (74%); they are present in several sizes, the most common being 22-24 ounce. There are also a large number of whiskey bottles (33, or 11%) and somewhat fewer champagne or







wine bottles (21, or 7%). Also recovered were 2 bottles of schnapps, 1 bottle of champagne mead, and 16 bottles and 1 carboy of indeterminate contents. The Buckleys had a wide range of drinking vessels, including several decorated items (see below) that would have enhanced the pleasure of serving alcohol socially. The quantity of tobacco items was more typical of a household deposit, with five ball-clay pipes and a cuspidor.

As is typical with the mass filling of privies and conversion to flushing toilets, there were five chamber pots of various sizes in the fill. The disposal event, however, was likely tied to a renovation involving not just the conversion to a toilet, but also upgrading the lighting from oil lamps. There were 39 lighting items discarded in the privy, of which 31 (82%) were lamp chimneys. There may have been construction of an entire bathroom rather than just a toilet, as the privy contained three basins and an ewer. Only a few structural items associated with remodeling were recovered, however, including window glass, a pipefitting, sewer pipe, a few nails and screws, and furnishings such as doorknobs. Discarded tools possibly related to a remodeling effort include a paintbrush, paint can, carpenter's rule, and a sledgehammer. This massive cleanout and dumping episode combined with modernization of facilities may have represented an attempt at a new beginning after the death of Mr. Buckley.

Of the various types of artifacts, the most common category after alcohol (29.9%) was food preparation and consumption (14.9%), with clothing (12.1%) a close third. The tableware was of higher quality than that from most of the other project-area features. There was, for example, a surprisingly higher proportion of porcelain vessels (37%) relative to white improved earthenware (WIE) vessels (55%) than was found in the deposit of the wealthy Duisenbergs on Bayshore Block 3. Many of the porcelain dishes appear to be from a set with paneled decoration, while the majority of decorated WIE vessels were also in a paneled pattern. There were four matching, pressed-glass goblets in the Ribbed Bellflower pattern along with numerous paneled glass tumblers. The Buckleys would have been able to present an attractive table of complementary, if not matched, tableware.

The Ribbed Bellflower pattern was in peak production between 1840 and 1860 (Lee 1960:94), while many of the paneled patterns in WIE were registered in the 1840s and 1850s (Dieringer and Dieringer 2001). By the time these items were discarded, they were a couple decades old and not the current fashion. Serving ware was also well-represented, with 27 items in a range of bowls, platters, and dishes. There were not enough faunal remains recovered to determine the status of meat the Buckleys purchased; from their table service, however, it appears that whatever the fare, the food was presented well. At the same time, the house itself was well-presented, with purely decorative items also a part of the Buckley household: there are several such items in the collection, including porcelain and glass vases, mirrors, a flower pot, and ornamental fixtures.





Buttons, buckles, and scraps of wool fabric and leather are the remnants of at least 24 garments and 38 pair of footwear. Two winter-weight outergarments and several lightweight garments reflect a range of quality: one of these was probably hand-sewn, and two others probably inexpensive store-bought items. Among the plain-colored fabrics and buttons were a woven checkered plaid, probably a two-tone brown; a woven plaid with at least a three-color combination; and a decorative white-glass button, edged with a floral band and accented with blue and gold paint. All these items were probably from dresses, though the three-color plaid could also have been from a man's or boy's workshirt. A lone thimble attests to clothing maintenance.

The footwear recovered ranged from infant shoes, to those for young and older children, and various men's and women's shoes and boots. One child's shoe had a copper-alloy toe shield and was the only child's shoe to bear considerable signs of wear—it was probably from one of the younger sons. Unusual are the 12 pair of woman's shoes and boots (six of which had cloth uppers) and at least 4 more items of woman's footwear that can be attributed to Eliza and Kate Buckley.



In addition to the children's footwear, the young Buckleys are represented in the variety of toys recovered from Privy 41. Included were parts of 9 dolls, 11 marbles, 6

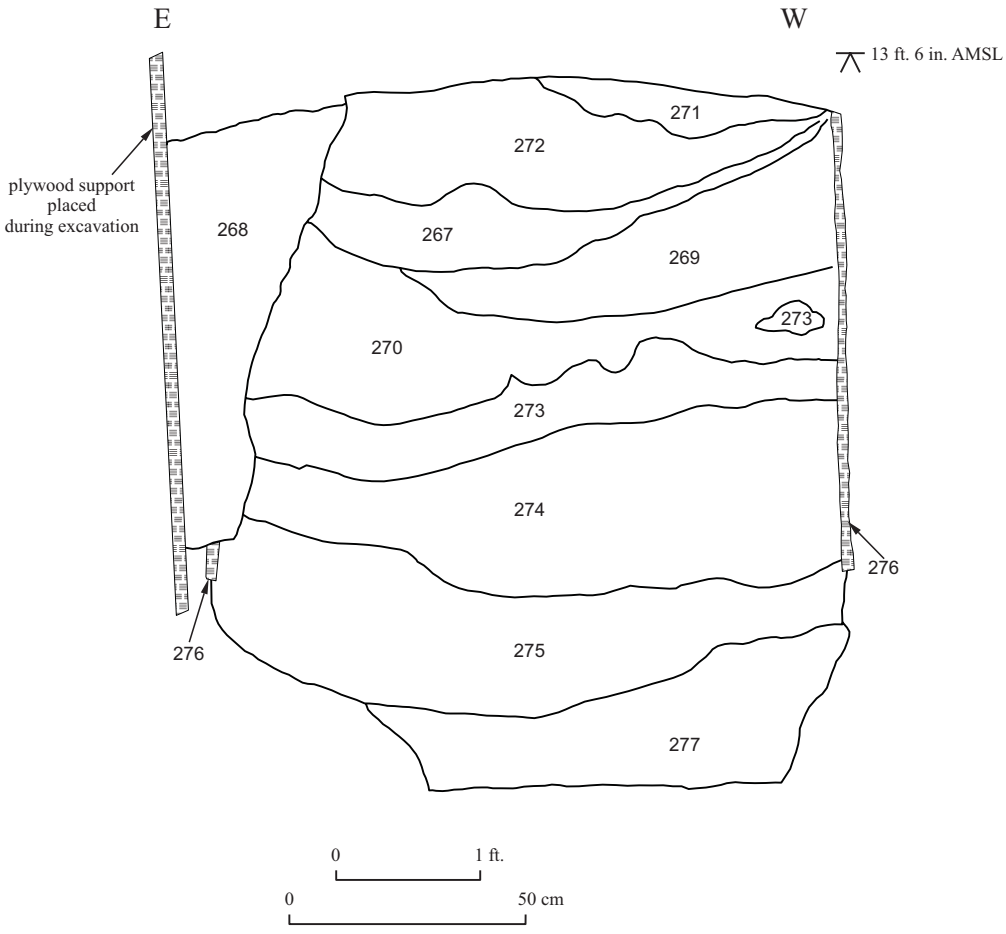
dishes, a toy pitcher and basin, and a couple of rubber toys. Personal accoutrements for adults included four pocketknives, part of a cane or walking stick, and two different gold-chain pieces. Other finds in the personal category include toiletry items, such as a soap dish and drainer, a shaving mug, a breast pump, and combs. Attention was clearly paid to health care, with Hostetter's and Peruvian Bitters bottles, 5 druggist/apothecary bottles, and 9 patent-medicine bottles. A range of remedies were represented in the latter, including a bottle of Sozodont for the teeth, indicating some level of dental care. Interestingly, there were no items related to beauty care, despite the presence of two women in the household.

The Buckley assemblage is an unusual one, especially given its working-class context. While the high volume of bottles and footwear might suggest some sort of stockpiling or storage of goods had occurred on the lot, the overall quality of the remains is consistent with a family who valued material items and kept themselves well-supplied. Andrew Buckley Sr.'s occupation as a liquor-store porter may have been a lucrative one, while there was also income from three sons who were skilled workers. The Buckleys also owned real estate that was increasing in value as the city expanded. When the privy was filled in the early 1880s, the family apparently had what they needed to maintain a comfortable home and could afford to discard a large number of functional items.

Privy 41 – MATRIX AND EXCAVATION PROFILE
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family



- 279 Sand and Rubble Fill
- 268 Slump
- 271 Layer
- 272 Privy Fills
- 267
- 269
- 270 Sand Layer
- 273 Privy Fills
- 274
- 275
- 277
- 278 Builder's Trench Fill
- 276 Wood Lining
- 41 **Privy Cut**
- 109 Dune Sand



Privy 41 – FEATURE SUMMARY TABLE
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

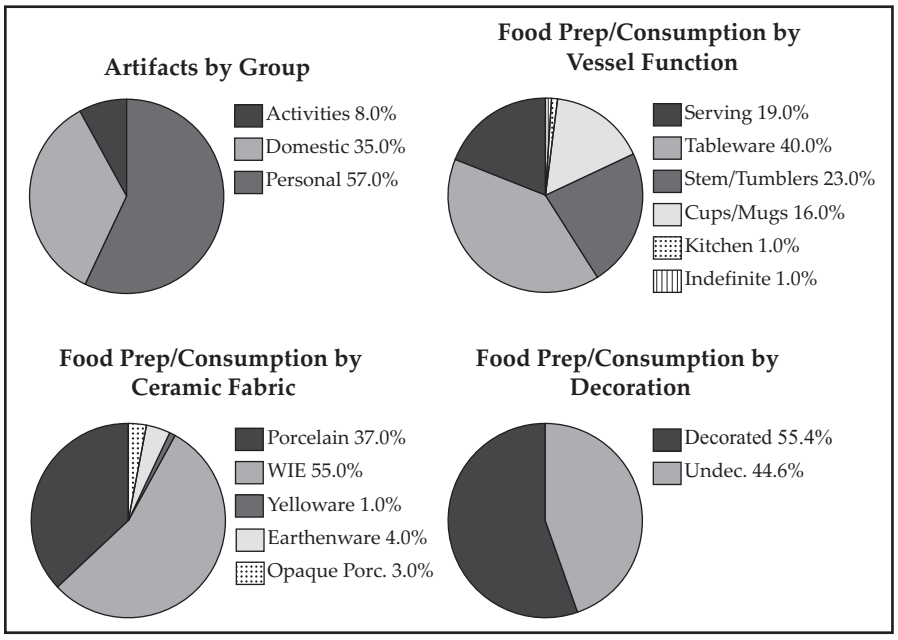
HOUSEHOLD

Name:	Andrew Buckley Family
Birthplace:	Ireland
Ethnicity or Race:	Irish
Occupation:	Liquor-store porter
Period of Residence:	ca. 1880-1889
Terminus Post Quem/Basis:	1871 (Bay City Soda-water bottles)
Mean Ceramic Mark Date/N:	1869.3 (n = 22)
Estimated Date of Deposition:	1882

ANALYTICAL UNIT

Context Numbers: 267, 268, 269, 270, 271, 272, 273, 274, 275, 277

ARTIFACTS





Privy 41 – ARTIFACT LAYOUT PHOTOGRAPH, 414 Seventh Street (Bayshore Block 4), Andrew Buckley Family. The Buckley collection probably represents a massive combined clean-out and renovation episode following the death of Mr. Buckley. The 293 alcohol bottles, 24 garments, and 38 pairs of footwear may represent the disposal of stockpiled or stored items. The sewer-tile scrap in addition to the five chamber pots, three basins, and one ewer may indicate the construction of an entire bathroom when the home was connected to the sewer system. Additionally, the 31 discarded lamp chimneys may indicate that the Buckleys took this opportunity to upgrade their lighting from oil lamps.

Privy 41 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Group and Category	Description	Count	MNI
ACTIVITIES			
Animal Husbandry			
-	Ferrous Horseshoe	2	1
Subtotal Animal Husbandry		2	1
Collecting			
-	Petrified Wood	1	1
Subtotal Collecting		1	1
Commerce			
-	Copper-alloy Coin	1	1
-	Metal Coin	1	1
Subtotal Commerce		2	2
Firearms			
Ammunition	Copper-alloy Bullet	49	30
Ammunition	Lead Minie Bullet	1	1
Subtotal Firearms		50	31
Indefinite			
-	Wood Matchstick	2	1
Subtotal Indefinite		2	1
Miscellaneous Containers			
-	Stoneware Ink/Blacking Bottle	1	1
Subtotal Miscellaneous Containers		1	1
Painting			
-	Wood, Copper-alloy, and Bristle? Paintbrush	8	1
Container	Ferrous Can	1	1
Container	Wood Bucket	7	1
Subtotal Painting		16	3
Tools			
-	Ferrous Sledge Hammer	1	1
-	Wood and Copper-alloy Carpenter Ruler	6	1
Subtotal Tools		7	2
Writing			
-	Graphite Pencil	2	1
-	Slate Pencil	17	9
-	Slate Tablet	30	2
Container	Aqua Glass Ink Bottle	13	3
Container	Colorless Glass Ink Bottle	1	1
Container	Teal Glass Ink Bottle	1	1
Subtotal Writing		64	17

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
DOMESTIC			
Clothing Maintenance			
Sewing	Copper-alloy Thimble	1	1
Subtotal Clothing Maintenance		1	1
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Cordial Glass	51	5
Drinking Vessel	Colorless Glass Goblet	65	6
Drinking Vessel	Colorless Glass Mug	2	1
Drinking Vessel	Colorless Glass Stemware	19	4
Drinking Vessel	Colorless Glass Tumbler	66	16
Drinking Vessel	Earthenware Cup	1	1
Drinking Vessel	Glass Stemware	1	1
Drinking Vessel	Opaque Porcelain Cup	1	1
Drinking Vessel	Opaque Porcelain Handleless Cup	1	1
Drinking Vessel	Porcelain Children's Mug	3	1
Drinking Vessel	Porcelain Cup	33	5
Drinking Vessel	Porcelain Small Motto Cup	3	1
Drinking Vessel	White Improved Earthenware Cup	20	10
Drinking Vessel	White Improved Earthenware Handleless Cup	4	1
Indefinite	Colorless Glass Hollow	2	1
Indefinite	White Improved Earthenware Cup? Slop?	1	1
Kitchen	Cast-iron Skillet	2	1
Kitchen	Ferrous Knife	1	1
Kitchen	Wood and Ferrous Knife	3	1
Kitchen	Yellowware Bowl	3	1
Serving	Colorless Glass Decanter and Stopper	32	1
Serving	Colorless Glass Lid	2	1
Serving	Earthenware Hollow	1	0
Serving	Earthenware London Bowl	11	1
Serving	Earthenware Teapot	4	2
Serving	Earthenware Teapot Lid	1	0
Serving	Pewter? Handle	1	1
Serving	Porcelain Butter? Dish	10	1
Serving	Porcelain Creamer	10	1
Serving	Porcelain Oval Platter	9	2
Serving	Porcelain Sugar Bowl	13	1
Serving	Porcelain Teapot and Lid	36	1
Serving	White Improved Earthenware Bowl	18	4
Serving	White Improved Earthenware Creamer	29	2
Serving	White Improved Earthenware Creamer?	1	1
Serving	White Improved Earthenware Lidded Sugar	8	1
Serving	White Improved Earthenware London Bowl	5	2
Serving	White Improved Earthenware Oval Dish	6	1
Serving	White Improved Earthenware Pitcher	1	1
Serving	White Improved Earthenware Platter	2	1

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Serving	White Improved Earthenware Slop Bowl	9	2
Tableware	Bone Knife	1	1
Tableware	Copper-alloy Small Spoon	2	1
Tableware	Ferrous Knife	1	1
Tableware	Opaque Porcelain Saucer	1	1
Tableware	Porcelain Plate	13	0
Tableware	Porcelain Plate, 8-1/4"	87	6
Tableware	Porcelain Plate, 9-1/2"	128	8
Tableware	Porcelain Plate/Soup Plate	11	0
Tableware	Porcelain Saucer	9	1
Tableware	Porcelain Saucer, 5-1/2"	1	1
Tableware	Porcelain Saucer, 5-3/4"	3	1
Tableware	Porcelain Saucer, 6"	1	1
Tableware	Porcelain Saucer, 6-3/4"	8	1
Tableware	Porcelain Saucer, 7"	6	2
Tableware	Porcelain Soup Plate	1	0
Tableware	Porcelain Soup Plate, 9-1/2"	44	4
Tableware	White Improved Earthenware Butter Pat Dish	1	1
Tableware	White Improved Earthenware Plate	10	7
Tableware	White Improved Earthenware Plate, 10"	2	1
Tableware	White Improved Earthenware Plate, 10-1/2"	1	1
Tableware	White Improved Earthenware Plate, 9-3/4"	5	1
Tableware	White Improved Earthenware Saucer	5	3
Tableware	White Improved Earthenware Saucer, 5-1/2"	8	2
Tableware	White Improved Earthenware Saucer, 5-3/4"	6	1
Tableware	White Improved Earthenware Saucer, 6"	8	1
Tableware	White Improved Earthenware Saucer, 6-1/2"	11	2
Tableware	White Improved Earthenware Saucer, 6-3/4"	19	3
Tableware	White Improved Earthenware Saucer, 7"	9	1
Tableware	White Improved Earthenware Saucer/Plate	2	2
Tableware	White Improved Earthenware Small Dish	1	1
Tableware	White Improved Earthenware Soup Plate, 9-1/2"	9	1
Tableware	White Improved Earthenware Soup Plate, 9-3/4"	11	2
Subtotal Food Prep/Consumption		916	146
Food/Food Storage			
Container	Aqua Glass Bottle	1	1
Container	Aqua Glass Canning Jar	2	1
Container	Aqua Glass Caper Bottle	5	1
Container	Aqua Glass Condiment Bottle	18	4
Container	Aqua Glass Jar	8	2
Container	Aqua Glass London Club-sauce Bottle	1	1
Container	Aqua Glass Olive-oil Bottle	85	6

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food/Food Storage *(continued)*			
Container	Aqua Glass Peppersauce Bottle	9	2
Container	Aqua Glass Pickle Bottle	95	6
Container	Aqua Glass Soda-water Bottle	99	30
Container	Aqua Glass Spice Bottle	38	5
Container	Blue Glass Soda-water Bottle	13	5
Container	Colorless Glass Jelly Jar	1	1
Container	Colorless Glass Mustard Bottle	1	1
Container	Green Glass Soda-water Bottle	44	3
Container	Stoneware Crock	1	1
Container	Stoneware Crock?	1	1
Container	Teal Glass Bottle	3	1
Container	Teal Glass Spice Bottle	10	1
Container	Yellow-green Glass Soda-water Bottle	1	1
Subtotal Food/Food Storage		436	74
Furnishings			
-	Ferrous Coat and Hat Hook	1	1
-	Glass Mirror	3	2
-	Porcelain Doorknob	1	1
-	Scroddled Ware Doorknob	1	1
Decorative Item	Blue Opaque Glass Vase?	1	1
Decorative Item	Common-pottery Flowerpot	6	2
Decorative Item	Porcelain Base	2	1
Decorative Item	Porcelain Ornamental Basket?	1	1
Decorative Item	Porcelain Vase?	1	1
Decorative Item	White Opaque Glass Vase?	16	1
Furniture	Ferrous Caster	1	1
Subtotal Furnishings		34	13
Heating/Lighting			
-	Porcelain Chamberstick	22	1
Lamp	Colorless Glass Chimney	673	31
Lamp	Colorless Glass Font	1	1
Lamp	Colorless Glass Globe	56	1
Lamp	Colorless Glass Tinkler	1	1
Lamp	Copper-alloy Burner	2	1
Lamp	Marble Base	1	1
Lamp	Sun-tint Amethyst Glass Chimney	1	1
Lamp	White Opaque Glass Globe	3	1
Subtotal Heating/Lighting		760	39

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
INDEFINITE USE			
Food or Health			
Container	Stoneware Mineral-water Bottle	1	1
Subtotal Food or Health		1	1
Heating/Cooking			
-	Brick Stove Liner	9	2
Subtotal Heating/Cooking		9	2
Indefinite			
-	Amethyst Glass Hollow	2	1
-	Colorless Glass Hollow	47	1
-	Earthenware Hollow	3	2
-	Glass Flat	1	1
-	Hair	2	1
-	Opalized Opaque-white Glass Hollow	2	1
-	Opaque Porcelain Pitcher/Ewer	7	1
-	Pink Glass Teardrop	1	1
-	Porcelain Hollow	3	2
-	Porcelain Indefinite	1	1
-	Rubberized Canvas Hose	27	1
-	White Improved Earthenware Base and Body	2	0
-	White Improved Earthenware Hollow	16	5
-	Wool Blanket/Rug/Upholstered Item	2	1
-	Wool Decorative Item/Women's Clothing/Household Item	1	1
Decorative Item?	Shell and Copper-alloy Cowrie Shell and Setting	2	1
Subtotal Indefinite		119	21
Materials			
-	Marble Slab	1	1
Subtotal Materials		1	1
Misc. Beads			
-	Black Glass Bead	11	11
Subtotal Misc. Beads		11	11
Misc. Closures			
-	Colorless Glass Decanter/Dresser Bottle Stopper	2	2
-	Copper-alloy Key	3	3
-	Cork Stopper	24	0
-	White Improved Earthenware Pot Lid	5	1
Subtotal Misc. Closures		34	6

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Containers			
-	Aqua Glass Bottle	142	12
-	Aqua Glass Cologne/Sauce Bottle	7	1
-	Blue Glass Bottle	3	1
-	Colorless Glass Bottle	70	12
-	Copper-alloy Pouring Can?	1	1
-	Earthenware Jar	1	1
-	Ferrous Can	8	2
-	White Improved Earthenware Pot	1	1
Subtotal Misc. Containers		233	31
Misc. Containers and Closures			
-	White Improved Earthenware Pot and Lid	2	1
Subtotal Misc. Containers and Closures		2	1
Misc. Metal Items			
-	Cast-iron Bar	1	1
-	Cast-iron Plate	2	1
-	Copper-alloy Chain Link	1	1
-	Ferrous Eyescrew?	1	1
-	Ferrous Rod and Washer	1	1
-	Ferrous Wire	4	1
-	Lead Rod	2	1
-	Metal Mesh	1	1
Subtotal Misc. Metal Items		13	8
PERSONAL			
Accoutrements			
-	Bone Pocketknife Handle	1	0
-	Copper-alloy Cane	2	1
-	Copper-alloy Pocketknife	1	1
-	Ferrous and Copper-alloy Pocketknife	4	3
Jewelry	Gold Chain	1	1
Jewelry	Gold Chain and Setting	2	1
Subtotal Accoutrements		11	7
Clothing			
-	Wool Dress	6	1
-	Wool Dress/Light-weight Outergarment	4	1
-	Wool Dress/Outergarment	20	2
-	Wool Dress/Shirt	19	1
-	Wool Dress/Trousers/Outergarment	1	1
-	Wool Garment	6	1
-	Wool Hat	36	1
-	Wool Ric Rac Trim	1	0
-	Wool Summer-weight Garment	18	1
-	Wool Trousers/Light-weight Outergarment	3	1

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Clothing *(continued)*			
-	Wool Trousers/Outergarment	7	1
-	Wool Trousers/Winter-weight Outergarment	1	1
-	Wool Undergarment/Shawl	2	1
Fastener	Black Glass Button	1	1
Fastener	Black Glass Button Inset	1	1
Fastener	Black Porcelain Button	1	1
Fastener	Blue Porcelain Button	1	1
Fastener	Brown Glass and Ferrous Button	1	1
Fastener	Brown Porcelain Button	1	1
Fastener	Colorless Glass Button Inset	3	3
Fastener	Copper-alloy Button	2	1
Fastener	Copper-alloy Hook and Eye	2	1
Fastener	Copper-alloy Vest Buckle	2	1
Fastener	Ferrous Button	5	5
Fastener	Hard-rubber Button	3	3
Fastener	Porcelain Button	90	84
Fastener	White Opaque Glass Button Inset	2	2
Subtotal Clothing		239	119
Clothing/Footwear			
-	Wool Footwear/Garment	1	0
-	Wool Tape	23	0
Subtotal Clothing/Footwear		24	0
Footwear			
-	Leather Shoe, Children's	4	1
-	Leather Shoe, Infant's	4	2
-	Leather Shoe/Boot	173	0
-	Leather Shoe/Boot, Adult's	10	4
-	Leather Shoe/Boot, Children's	4	1
-	Leather Shoe/Boot, Children's Size 2-3	5	1
-	Leather Shoe/Boot, Children's Size 2-4	7	1
-	Leather Shoe/Boot, Men's	9	3
-	Leather Shoe/Boot, Women's	25	9
-	Leather Shoe/Boot, Women's/Boy's	21	6
-	Leather Shoe/Boot, Women's/Girl's	14	4
-	Leather Shoe/Boot, Women's/Older Child's	1	1
-	Leather Work Boot, Men's	12	2
-	Leather and Wool Shoe/Boot, Women's	7	2
-	Wool Shoe filler?	1	0
-	Wool and Leather Shoe/Boot, Women's	3	1
Fastener	Copper-alloy Eyelet	2	0
Fastener	Ferrous Eyelet	1	0
Subtotal Footwear		303	38

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Grooming/Health			
Container	Amber Glass Bitters Bottle	5	1
Container	Aqua Glass Bottle	18	8
Container	Aqua Glass Hair-tonic Bottle	2	1
Container	Aqua Glass Jamaica-ginger Bottle	11	3
Container	Aqua Glass Pharmaceutical Bottle	1	1
Container	Aqua Glass Syrup Bottle	17	2
Container	Aqua Glass Worm-specific Bottle	1	1
Container	Blue Glass Bottle	24	2
Container	Brown Glass Bitters Bottle	4	1
Container	Cobalt Glass Bottle	1	1
Container	Colorless Glass Bottle	54	16
Container	Colorless Glass Cod-liver Oil Bottle	14	1
Container	Colorless Glass Cologne Bottle?	1	1
Container	Colorless Glass Cologne/Toilet-water Bottle	6	1
Container	Colorless Glass Perfume Bottle	4	1
Container	Colorless Glass Pharmaceutical Bottle	7	2
Container	Colorless Glass Sozodont Bottle	10	1
Container	Dark-olive Glass Bitters Bottle	17	1
Toiletry	CC Ware Children's Chamberpot	4	1
Toiletry	Hard-rubber Comb	8	4
Toiletry	Hard-rubber Double-sided Comb	1	1
Toiletry	Hard-rubber Hair Comb, Women’s	3	2
Toiletry	Opaque Porcelain Lid	3	1
Toiletry	Porcelain Shaving Mug	1	1
Toiletry	Rubber and Colorless Glass Breast Pump	12	1
Toiletry	White Improved Earthenware Basin	23	3
Toiletry	White Improved Earthenware Chamberpot	40	2
Toiletry	White Improved Earthenware Chamberpot, Children’s	55	2
Toiletry	White Improved Earthenware Dish	10	1
Toiletry	White Improved Earthenware Ewer	28	1
Toiletry	White Improved Earthenware Soap Dish an d Drainer	13	1
Subtotal Grooming/Health		398	66
Indefinite			
-	Black Glass Button? Jewelry Inset	1	1
-	Copper-alloy Pocket watch? Jewelry?	1	1
Subtotal Indefinite		2	2
Misc. Containers			
-	Aqua Glass Bottle	9	2
-	Blue Glass Bottle	42	2
-	Brown Glass Bitters? Bottle	1	1
Subtotal Misc. Containers		52	5

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Social Drugs - Alcohol			
Container	Amber Glass Whiskey Bottle	119	8
Container	Aqua Glass Alcoholic-beverage Bottle	215	15
Container	Aqua Glass Champagne/Mead Bottle	1	1
Container	Brown Glass Whiskey Bottle	166	14
Container	Brown-olive Glass Whiskey Bottle	11	1
Container	Dark-olive Glass Ale/Beer Bottle	249	0
Container	Dark-olive Glass Ale/Beer Bottle, 10 oz.	14	14
Container	Dark-olive Glass Ale/Beer Bottle, 10-12 oz.	35	25
Container	Dark-olive Glass Ale/Beer Bottle, 12 oz.	32	28
Container	Dark-olive Glass Ale/Beer Bottle, 22 oz.	21	19
Container	Dark-olive Glass Ale/Beer Bottle, 22-24 oz.	171	86
Container	Dark-olive Glass Ale/Beer Bottle, 24 oz.	2	2
Container	Dark-olive Glass Ale/Beer Bottle, 8 oz	5	5
Container	Dark-olive Glass Ale/Beer Bottle, 8 oz.	13	11
Container	Dark-olive Glass Ale/Beer Bottle, 8-10 oz.	51	26
Container	Dark-olive Glass Schnapps Bottle	16	1
Container	Light-brown Glass Whiskey Bottle	24	1
Container	Olive Glass Alcoholic-beverage Bottle	3	0
Container	Olive Glass Carboy	49	3
Container	Olive Glass Champagne Bottle	9	3
Container	Olive Glass Whiskey Bottle	41	4
Container	Olive Glass Wine Bottle	55	3
Container	Olive Glass Wine/Champagne Bottle	85	15
Container	Olive/Dark-olive Glass Alcoholic-beverage Bottle	33	0
Container	Olive/Dark-Olive/Yellow-green Glass Alcoholic-beverage Bottle	2,455	0
Container	Teal Glass Alcoholic-beverage Bottle	21	1
Container	Teal Glass Ale/Beer Bottle	8	1
Container	Yellow-green Glass Schnapps Bottle	1	1
Container	Yellow-green Glass Whiskey Bottle	63	5
Subtotal Social Drugs - Alcohol		3,968	293
Social Drugs - Tobacco			
-	Ball Clay Pipe	12	5
-	Porcelain Cuspidor	7	1
Subtotal Social Drugs - Tobacco		19	6
Toys			
-	Colorless Glass Marble	2	2
-	Glass Marble	1	1
-	Porcelain Basin and Pitcher	5	2
-	Porcelain Dish and Lid	2	1
-	Porcelain Doll	2	2
-	Porcelain Doll, Large	3	1
-	Porcelain Doll, Medium	5	3

Privy 41 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Toys *(continued)*			
-	Porcelain Doll, Miniature	1	1
-	Porcelain Doll, Small	2	2
-	Porcelain Lid	1	1
-	Porcelain Marble	8	8
-	Rubber Hollow	3	1
-	Rubber? Ball?	1	1
Tea set	Pewter Cup	4	1
Tea set	Porcelain Cup	4	1
Tea set	Porcelain Saucer	3	2
Subtotal Toys		47	30
STRUCTURAL			
Hardware			
-	Copper-alloy Pipe Fitting	1	1
-	Copper-alloy Window-shade Bracket	1	1
Fastener	Copper-alloy Screw	1	1
Fastener	Ferrous Cut Nail	8	8
Fastener	Ferrous Wire Nail	1	1
Subtotal Hardware		12	12
Materials			
-	Glass Window	353	0
-	Stoneware Sewer Pipe	1	1
Subtotal Materials		354	1
UNDEFINED USE			
-	Coal Fuel	17	0
-	Slag Waste	1	0
Subtotal Undefined Use		18	0
TOTAL		8,162	993

Privy 41 – SUMMARY OF ARTIFACTS BY GROUP
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Description	Total Count	MNI	Percent of MNI
Activities	145	59	8
Domestic	2,147	273	35
Personal (other than clothing)	4,824	447	57
Subtotal	7,116	779	100
Indefinite Use	423	82	
Personal Clothing	239	119	
Structural	366	13	
Undefined Use	18	0	
TOTAL	8,162	993	

Privy 41 – SUMMARY OF ARTIFACTS DESCRIPTIONS BY CATEGORY
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Description	MNI	Percent
Accoutrements	7	0.7
Animal Husbandry	1	0.1
Clothing	119	12.1
Clothing Maintenance	1	0.1
Collecting	1	0.1
Commerce	2	0.2
Firearms	31	3.2
Food or Health	1	0.1
Food Prep/Consumption	146	14.9
Food/Food Storage	74	7.6
Footwear	38	3.9
Furnishings	13	1.3
Grooming/Health	66	6.7
Heating/Cooking	2	0.2
Heating/Lighting	39	4.0
Indefinite	24	2.4
Materials	1	0.1
Misc. Beads	11	1.1
Misc. Closures	6	0.6
Misc. Containers	37	3.8
Misc. Containers and	1	0.1
Misc. Metal Items	8	0.8
Painting	3	0.3
Social Drugs - Alcohol	293	29.9
Social Drugs - Tobacco	6	0.6
Tools	2	0.2
Toys	30	3.1
Writing	17	1.7
TOTAL	980	99.9

Privy 41 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Group	Description	Maker	MNI	Percent
Labeled Items				
	Bitters Bottle	Hostetter's Bitters	2	
		Peruvian Bitters	1	
	Druggist/Apothecary Bottle	Carl L. Wilhelm	2	
		G.H. Wood	1	
		Hegeman & Co.	1	
		W.H. Keith Co.	1	
	Grooming Bottle	Phalon & Son	1	
		X. Bazin	1	
	Patent Medicine Bottle	Burnett's Cocoaine	1	
		Burnett's Cod Liver Oil	1	
		Jamaica Ginger	1	
		Lyons & Co. Jamaica Ginger	1	
		McLane's Worm Specific	1	
		McMillan and Kester's Jamaica Ginger	1	
		Mrs. Winslow's Soothing Syrup	2	
		Van Buskirk's Sozodont	1	
Subtotal Labeled Items			19	42
Unlabeled Items				
	Bottle		24	
	Cologne Bottle?		1	
	Cologne/Toilet-water Bottle		1	
Subtotal Unlabeled Items		26	58	
TOTAL			45	100
Food or Health Items				
	Mineral-water Bottle			1

Privy 41 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	26	19
Tableware (plates, bowls, saucers, etc.)	56	40
Stemware and Tumblers	32	23
Cups and Mugs	22	16
Kitchen (mixing bowls, bakers, etc.)	1	1
Indefinite	2	1
TOTAL	139	100

Privy 41 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			103	74
Porcelain	38	37		
Opaque Porcelain	3	3		
White Improved Earthenware	57	55		
Yellowware	1	1		
Earthenware	4	4		
Ceramic Subtotal	103	100		
Glass			36	26
TOTAL			139	100

Privy 41 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Porcelain	Butter? Dish	Sided	1	
Porcelain	Children's Mug			1
Porcelain	Creamer	Sided	1	
Porcelain	Cup	Paneled	5	
Porcelain	Oval Platter			2
Porcelain	Plate, 8-1/4"			6
Porcelain	Plate, 9-1/2"			8
Porcelain	Saucer	Paneled	1	
Porcelain	Saucer, 5-1/2"	Painted and Gilded Band	1	
Porcelain	Saucer, 5-3/4"	Paneled	1	
Porcelain	Saucer, 6"	Paneled	1	
Porcelain	Saucer, 6-3/4"	Paneled	1	
Porcelain	Saucer, 7"	Paneled	2	
Porcelain	Small Motto Cup	Gilded, Handpainted	1	
Porcelain	Soup Plate, 9-1/2"			4
Porcelain	Sugar Bowl	Molded - Gothic Cameo	1	
Porcelain	Teapot and Lid	Sided	1	
Opaque Porcelain	Cup			1
Opaque Porcelain	Handleless Cup	Molded	1	
Opaque Porcelain	Saucer	Paneled	1	
WIE	Bowl			3
WIE	Bowl	Blue annular	1	
WIE	Butter Pat Dish			1
WIE	Creamer	Molded	1	
WIE	Creamer	Molded - Bordered Hyacinth	1	
WIE	Creamer?	Molded	1	
WIE	Cup			2
WIE	Cup	Blue transfer print	1	
WIE	Cup	Molded	1	
WIE	Cup	Molded - Fig	1	
WIE	Cup	Paneled	3	
WIE	Cup	Ribbed	2	
WIE	Cup? Slop?			1
WIE	Handleless Cup			1
WIE	Lidded Sugar	Molded	1	
WIE	London Bowl			2
WIE	Oval Dish			1
WIE	Pitcher	Blue sponged	1	
WIE	Plate			7
WIE	Plate, 10"			1

Privy 41 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic *(continued)*				
WIE	Plate, 10-1/2"	Molded - Sharon Arch	1	
WIE	Plate, 9-3/4"			1
WIE	Platter			1
WIE	Saucer			2
WIE	Saucer	Paneled	1	
WIE	Saucer, 5-1/2"	Paneled	2	
WIE	Saucer, 5-3/4"	Paneled	1	
WIE	Saucer, 6"			1
WIE	Saucer, 6-1/2"			1
WIE	Saucer, 6-1/2"	Paneled	1	
WIE	Saucer, 6-3/4"			3
WIE	Saucer, 7"			1
WIE	Saucer/Plate	Molded	2	
WIE	Slop Bowl			2
WIE	Small Dish	Paneled	1	
WIE	Soup Plate, 9-1/2"			1
WIE	Soup Plate, 9-3/4"			2
Yellowware	Bowl	Molded	1	
Earthenware	Cup	Paneled, Flow blue transfer	1	
Earthenware	London Bowl			1
Earthenware	Teapot	Molded, Variegated glaze	2	
Ceramic Subtotal			46	57
Glass				
Colorless Glass	Cordial Glass	Painted red, Cut oval facets (8), Etched - grape	2	
Colorless Glass	Cordial Glass	Pressed - Ashburton	1	
Colorless Glass	Cordial Glass	Pressed – Pittsburgh Diamond	2	
Colorless Glass	Decanter and Stopper	Painted red, Cut oval facets, Etched - grape	1	
Colorless Glass	Goblet	Pressed - Prism with Diamond Points	1	
Colorless Glass	Goblet	Pressed - Ribbed Bellflower	4	
Colorless Glass	Goblet	Pressed - Waffle and Thumbprint	1	
Colorless Glass	Hollow	Pressed	1	
Colorless Glass	Lid	Pressed - Roman Key	1	
Colorless Glass	Mug	Pressed - thumbprint	1	
Colorless Glass	Stemware			3
Colorless Glass	Stemware	Cut Facets	1	
Colorless Glass	Tumbler			2
Colorless Glass	Tumbler	Mid-height pressed panels (9)	1	

Privy 41 – Food Preparation/Consumption Vessel Decoration *(continued)*

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Glass *(continued)*				
Colorless Glass	Tumbler	Pressed - Ashburton	2	
Colorless Glass	Tumbler	Pressed panels (8)	1	
Colorless Glass	Tumbler	Short pressed panels	1	
Colorless Glass	Tumbler	Short pressed panels (8)	6	
Colorless Glass	Tumbler	Tall pressed panels (6)	1	
Colorless Glass	Tumbler	Tall pressed panels (7)	1	
Colorless Glass	Tumbler	Tall pressed panels (9)	1	
Pink/Blue/White/ Colorless Glass	Stemware	Color, Swirl	1	
Glass Subtotal			31	5
TOTAL			77	62

Privy 41 – SOCIAL DRUGS SUMMARY
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage Bottle	16	
	Ale/Beer Bottle	1	
	Ale/Beer Bottle, 10 oz.	14	
	Ale/Beer Bottle, 10-12 oz.	25	
	Ale/Beer Bottle, 12 oz.	28	
	Ale/Beer Bottle, 22 oz.	19	
	Ale/Beer Bottle, 22-24 oz.	86	
	Ale/Beer Bottle, 24 oz.	2	
	Ale/Beer Bottle, 8 oz	5	
	Ale/Beer Bottle, 8 oz.	11	
	Ale/Beer Bottle, 8-10 oz.	26	
	Carboy	3	
	Champagne Bottle	3	
	Champagne/Mead Bottle	1	
	Schnapps Bottle	2	
	Whiskey Bottle	33	
	Wine Bottle	3	
	Wine/Champagne Bottle	15	
Subtotal Alcohol		293	98
Tobacco			
	Cuspidor	1	
	Pipe	5	
Subtotal Tobacco		6	2
TOTAL		299	100

Privy 41 – SHELLFISH REMAINS
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Shellfish	MNI
Clam	1
Gastropod	2
Oyster	1

Privy 41 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
414 Seventh Street (Bayshore Block 4)
Andrew Buckley Family

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Commercial Containers								
267 018	Stoneware	Mineral-water Bottle	1	Impressed marks: (in circle) SELTERS (upper arch)/ (in center - German Eagle)/ NASSAU (lower arch); ..M 56		Germany	1846 - 1891	Schulz et al. 1980:117
273 004	White Improved Earthenware	Pot	1	Impressed mark: 1 oz.			-	
273 007	White Improved Earthenware	Pot and Lid	1	Impressed mark: 2 [oz.]			-	
Marked Ceramic Items								
267 001	White Improved Earthenware	Butter Pat Dish	1	Printed mark: (standing Royal Coat of Arms)/ STONE CHINA/ E & C CHALLINOR/ ENGLAND	Challinor, E & C	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18-19, mark 50
269 001	White Improved Earthenware	Saucer, 6-1/2"	1	Printed mark: TRADE MARK (upper arch)/ (twin shields)/ EDWARD CLARKE (in ribbon)/ TUNSTALL (in ribbon)/ OPAQUE PORCELAIN (lower arch) Impressed mark: E. CLARKE/ 6?. 79?	Clarke, Edward	Staffordshire	1865 - 1887	Praetzellis et al. 1983:20-22, marks 61 and 65
269 002	White Improved Earthenware	Saucer, 6-3/4"	1	Impressed mark: IRONSTONE CHINA (upper arch)/ R. COCHRAN & CO.	Cochran, Robert & Co.	Glasgow	1846 - 1891	Praetzellis et al. 1983:24-25, mark 75
269 004	White Improved Earthenware	Soup Plate, 9-3/4"	1	Impressed mark: THOMAS HUGHES (upper arch)/ BURSLEM/ (illegible number)	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45, mark 142
269 005	White Improved Earthenware	Soup Plate, 9-3/4"	1	Printed mark: (standing Royal Coat of Arms)/ IRONSTONE CHINA/ J & G MEAKIN Impressed mark: (illegible number?)/ J & G MEAKIN	Meakin, J & G	Staffordshire	1851 - 1891	Praetzellis et al. 1983:56-57, marks 180 and 181
269 006	White Improved Earthenware	Plate, 9-3/4"	1	Printed mark: (standing Royal Coat of Arms)/ ROYAL PATENT/ IRONSTONE./ T. & R. BOOTE.	Boote, T & R	Staffordshire	1842 - 1891	Praetzellis et al. 1983:412-14, mark 33
269 007	White Improved Earthenware	Oval Dish	1	Printed mark: TRADE MARK (upper arch)/ (twin shields)/ EDWARD CLARKE (in ribbon)/ TUNSTALL (in ribbon)/ OPAQUE PORCELAIN (lower arch)	Clarke, Edward	Staffordshire	1865 - 1887	Praetzellis et al. 1983:20-22, mark 65
269 020	White Improved Earthenware	Plate	1	Impressed mark: (in circle - too fragmentary)			-	

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
270 001	White Improved Earthenware	Saucer, 6-3/4"	1	Impressed mark: IRONSTONE CHINA (upper arch)/ R. COCHRAN & CO.	Cochran, Robert & Co.	Glasgow	1846 - 1891	Praetzellis et al. 1983:24-25, mark 75
270 005	White Improved Earthenware	Plate, 10-1/2"	1	(molded - Sharon Arch pattern)	Attributed to Davenport & Co or J. Wedge Wood	Staffordshire	1861 ca - 1875	Wetherbee 1996:106, 116; Praetzellis et al. 1983:27-31; Kowalsky and Kowalsky 1999:380, 383
273 005	White Improved Earthenware	Ewer	1	Impressed mark: (in figure 8) DAVENPORT (upper arch)/ 6 (anchor) 0/ 20/ IRONSTONE CHINA (lower arch); (November 27, 1856 diamond Registry mark)	Davenport	Staffordshire	1856 - 1860	Praetzellis et al. 1983:27-31, mark 90; Godden 1991:527; Kowalsky and Kowalsky 1999:581; Wetherbee 1996:65, 66
273 006	White Improved Earthenware	Chamberpot	1	Printed mark: (in bordered rectangle) E. & C. CHALLINOR	Challinor, E. & C.	Staffordshire	1862 - 1891	Praetzellis et al. 1983:18-19
273 009	Opaque Porcelain	Lid	1	Printed mark: (fragmentary diamond Registry mark)		Staffordshire	1843 - 1883	Godden 1991:527
273 010	White Improved Earthenware	Saucer, 6"	1	Impressed mark: [E (or) EDWARD CLA]RKE	Clarke, Edward	Staffordshire	1865 - 1887	Praetzellis et al. 1983:20-21, mark 61 or 62
273 011	White Improved Earthenware	Saucer, 7"	1	Impressed mark: BRIDGWOOD & CLARK/ 11	Bridgwood and Clarke	Staffordshire	1857 - 1864	Praetzellis et al. 1983:15, mark 42
273 016	White Improved Earthenware	Saucer, 5-3/4"	1	Impressed mark: 11/ DAVENPORT (upper arch)/ 6 (anchor) 0	Davenport	Staffordshire	1860 - 1860	Praetzellis et al. 1983:27-31, mark 88
273 027	White Improved Earthenware	Plate	1	Impressed mark: JA[S. EDWARDS & SON/ DALEHALL]	Edwards, James and Son	Staffordshire	1852 - 1882	Praetzellis et al. 1983:32-33, mark 102
273 030	White Improved Earthenware	Plate	1	Printed mark: ..(standing Royal Coat of Arms)..			-	
273 031	White Improved Earthenware	Soup Plate, 9-1/2"	1	Impressed mark: (in double rectangle) IRONSTONE/ J. WEDGWOOD./ CHINA	Wood, J. Wedge	Staffordshire	1841 - 1876	Praetzellis et al. 1983:80; Kowalsky and Kowalsky 1999:383
274 001	White Improved Earthenware	Dish	1	Impressed mark: (standing Royal Coat of Arms)/ IRONSTONE/ CHINA/ E & C CHALLINOR (or) E & C CHALLINOR & CO.	Challinor, E. & C. (or) E. &C. & Co.	Staffordshire	1853 - 1891	Praetzellis et al. 1983:19-20, marks 48 and 57
274 007	White Improved Earthenware	Cup	1	(molded - Fig pattern)	Attributed to Davenport or Wedg(e)Wood	Staffordshire	1856 - 1887	Wetherbee 1996:106, 110; Praetzellis et al. 1983:27
274 037	White Improved Earthenware	Plate	1	Impressed mark: (in circle) ../ IR[ONSTONE]..			-	

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
275 001	White Improved Earthenware	Creamer	1	(molded - Bordered Hyacinth pattern)	Attributed to W. Baker & Co. or W. & E. Corn	Staffordshire	1864 - 1891	Wetherbee 1996:123, Godden 1991:51, 175
275 004	White Improved Earthenware	Saucer, 6-3/4"	1	Impressed mark: EDWARD CLARKE	Clarke, Edward	Staffordshire	1865 - 1887	Praetzellis et al. 1983:20-22, mark 61
Marked Glass Items								
267 012	Brown Glass	Bitters Bottle	1	[PERUVIAN/ BITTERS]// (shield) W K & C (monogram)	Wilmerding & Co.	San Francisco	1871 - 1877	Wilson and Wilson 1969:52-53, figure 69
267 025	Aqua Glass	Bottle	1	(in embossed circle) ../ [SA]N FRAN[CISCO] (lower arch)		San Francisco	-	
267 039	Colorless Glass	Pharmaceutical Bottle	1	..[WI]LHELM (upper arch)/ SAN FRANCISCO (lower arch)/// K	Wilhelm, Carl	San Francisco	1865 - 1878	Schur 1996
267 046	Olive Glass	Wine/Champagne Bottle	1	(turn mold)			1860s - 1920s	Switzer 1974:23, Jones and Sullivan 1985:30-31
267 053	Colorless Glass	Pharmaceutical Bottle	1	CARL L. WILHELM (upper arch)/ SAN FRANCISCO	Wilhelm, Carl L.	San Francisco	1865 - 1878	Schur 1996
269 034	Aqua Glass	Soda-water Bottle	1	BAY [CITY] SODA WATER CO (upper arch)/ SAN FRANCISCO/ CAL/// GRAVITATING STOPPER (upper arch)/ MADE BY (lower arch)/ JOHN MATTHEWS (upper arch)/ NEW YORK (lower arch)/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco	1871 - 1913	Markota and Markota 1994:5
269 035	Aqua Glass	Soda-water Bottle	1	BAY CITY SODA WATER C[O] (upper arch)/ SAN FRANCISCO/ CAL/// GRAVITATING STOPPER (upper arch)/ MADE BY (lower arch)/ JOHN MATTHEWS (upper arch)/ NEW YORK (lower arch)/ PAT/ OCT 11/ 1864	Bay City Soda Water Co.	San Francisco	- 1913	Markota and Markota 1994:5
269 060	Colorless Glass	Sozodont Bottle	1	VAN BUSKIRK'S/ FRAGRANT/ SOZODONT	Van Buskirk		1867 -	Fike 1987:182,184; Wilson and Wilson 1971:139
269 071	Teal Glass	Alcoholic-beverage Bottle	1	(turn mold)			1860s - 1920s	Jones and Sullivan 1985:30-31
269 072	Dark-olive Glass	Ale/Beer Bottle, 12 oz.	1	/// C S & L (or) S & L C			-	
269 078	Dark-olive Glass	Ale/Beer Bottle, 12 oz.	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
270 020	Aqua Glass	Soda-water Bottle	1	EMP[IRE SODA WORKS] (upper arch)/ SAN [FRAN]CISCO	Empire Soda Works	San Francisco	1861 - 1871	Markota and Markota 1994:30

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
270 042	Dark-olive Glass	Ale/Beer Bottle, 8-10 oz.	1	/// H P			-	
270 045	Colorless Glass	Mustard Bottle	1	F & CO			-	Zumwalt 1980:140; Putnam 1965:196
272 004	Aqua Glass	Bottle	1	G.H. WOOD/ S.F. CAL	Wood, G.H.	San Francisco	-	
273 054	Colorless Glass	Goblet	1	(pressed - Ribbed Bellfower)			1840s - 1870 ca	Lee 1960:92-99, plates 30-35
273 055	Colorless Glass	Goblet	1	(pressed - Ribbed Bellfower)			- 1870 ca	Lee 1960:92-99, plates 30-35
273 065	Amber Glass	Whiskey Bottle	1	/// (6-point starburst)			-	
273 070	Amber Glass	Whiskey Bottle	1	PATENT (around shoulder)/// WHITNEY GLASS WORKS (in circle)	Whitney Glass Works		1860s - 1880 ca	Wilson and Wilson 1968:17, 19, figures 5 and 6; McKearin and McKearin 1969:165
273 071	Blue Glass	Bottle	1	/// (in keystone) T G(?)/ Co.			-	
273 074	Aqua Glass	Soda-water Bottle	1	EMPIRE SODA [WORKS] (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	1861 - 1871	Markota and Markota 1994:30
273 075	Blue Glass	Soda-water Bottle	1	EMPIRE SODA WORKS (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	- 1871	Markota and Markota 1994:30
273 076	Aqua Glass	Soda-water Bottle	1	../ SA[N FRANCISCO]		San Francisco	-	
273 077	Aqua Glass	Soda-water Bottle	1	../ SA[N FRANCISCO]		San Francisco	-	
273 078	Aqua Glass	Soda-water Bottle	1	PIONE[ER SODA WORKS] (upper arch)/ SAN F[RANCISCO]	Pioneer Soda Works	San Francisco	1866 - 1873	Markota and Markota 1994:88
273 079	Yellow-green Glass	Soda-water Bottle	1	WM (m superscript and underlined) ANDREWS (upper arch)/ PHILADA (a superscript and underlined)// A (block)	Andrews, William	Philadelphia	-	
273 085	Aqua Glass	London Club-sauce Bottle	1	LONDON CLUB SAUCE (around shoulder)/ PARKER BROS. (down side); (2-piece mold)	Parker Brothers	London	1850 ca - 1880 ca	Zumwalt 1980:331; Jones and Sullivan 1985:26-28
273 086	Aqua Glass	Canning Jar	1	ALL RIGHT// PATD (d superscript) JAN 28TH (th superscript) 1868/// PATD (d superscript) NOV 26 1867 (in circle)/ 25	Hero Glass Works (patent number 73,724 issued to W.L. Imlay)	Philadelphia, PA and Lockport, NY	1868 ca - 1875	Toulouse 1969:18
273 090	Aqua Glass	Spice Bottle	1	/// (horizontal line bisected by 2 vertical lines)			-	
273 091	Teal Glass	Bottle	1	P..			-	
273 092	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
273 094	Aqua Glass	Jamaica-ginger Bottle	1	M[C]MILLAN & KESTER (upper arch)/ ESS/ JAMAICA GINGER/ S.F.	McMillan & Kester	San Francisco	1865 - 1881 ca	Wilson and Wilson 1971:127; Fike 1987:129
273 100	Aqua Glass	Condiment Bottle	1	/// J N			-	
273 103	Aqua Glass	Jar	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
273 104	Aqua Glass	Hair-tonic Bottle	1	B[URNETT'S]/ C[OCOAINE// BURN]ETT// [BOSTON]	Burnett	Boston	1847 - tc	Fike 1987:156-157; Wilson and Wilson 1971:109
273 131	Colorless Glass	Goblet	1	(pressed - Waffle and Thumbprint pattern)			1860 ca -	Lee 1960:54-55, plates 10, 26
273 132	Colorless Glass	Cordial Glass	1	(pressed - Ashburton pattern)			1840s - 1880s	Lee 1960:9-17, plates 1,3, 8
273 144	Aqua Glass	Soda-water Bottle	1	..// SAN/ [FRA]NCIS[CO]		San Francisco	-	
273 145	Aqua Glass	Soda-water Bottle	1	..[SAN FRANCISC]O		San Francisco	-	
273 146	Colorless Glass	Perfume Bottle	1	[PHAL]ON & SON (upper arch)/ PERFUMERS/ NEW YORK (lower arch)	Phalon & Son	New York	1859 - tc	Fike 1987:176; Devner 1970:61
273 160	Olive Glass	Wine Bottle	1	(turn mold)			1860s - 1920s	Switzer 1974:23; Jones and Sullivan 1985:30-31
273 171	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	1	/// (7 point starburst)			-	
273 172	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	5	/// C S & L (or) S & L C			-	
273 173	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	3	/// H P			-	
273 174	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	1	/// G W & J (or) W & J G			-	
273 175	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	1	/// G W & CO			-	
273 178	Dark-olive Glass	Ale/Beer Bottle, 8-10 oz.	1	/// G W & J (or) W & J G			-	
273 182	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// C S & L (or) S & L C			-	
273 183	Dark-olive Glass	Ale/Beer Bottle, 12 oz	3	/// HP			-	
273 184	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// N			-	
273 192	Brown Glass	Whiskey Bottle	1	/// (6 point starburst)			-	
273 197	Aqua Glass	Soda-water Bottle	6	EMPIRE SODA WORKS (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	1861 - 1871	Markota and Markota 1994:30

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
273 198	Blue Glass	Soda-water Bottle	2	EMPIRE SODA WORKS (upper arch)/ SAN FRANCISCO	Empire Soda Works	San Francisco	- 1871	Markota and Markota 1994:30
273 200	Aqua Glass	Champagne/Mead Bottle	1	CHAMPAGNE// MEAD	Kenyon, Gass & Co.	San Francisco	1870 - 1872 ca	Markota and Markota 1994: 12; Schulz et al. 1980:21-22
273 201	Blue Glass	Soda-water Bottle	1	BAY CITY (upward slant) SODA WATER (downward slant)/ CO/ S.F.// (star)	Bay City Soda Water Co.	San Francisco	1871 - 1880	Markota and Markota 1994:5
273 204	Aqua Glass	Spice Bottle	1	G. VENARD// SAN FRANCISCO	Venard, G.	San Francisco	1856 - 1882	Zumwalt 1980:412
273 208	Colorless Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
273 209	Aqua Glass	Worm-specific Bottle	1	DOCTOR/ McLANE'S// AMERICA WORM/ SPECIFIC	McLane		1850 ca - tc	Fike 1987:222; Wilson and Wilson 1971:58, 127
273 210	Colorless Glass	Bottle	1	X. BAZIN/ PHILADA	Bazin, X.	Philadelphia	1850s - 1887	Fike 1987:154; Wilson and Wilson 1971:21, 106
273 211	Aqua Glass	Jamaica-ginger Bottle	1	E.G. LYONS & CO. (upper arch)/ ESS./ JAMAICA GINGER/ S.F. (2-piece mold)	Lyons, E.G. & Co.	San Francisco	1866 - 1880 ca	Fike 1987:129; Wilson and Wilson 1971:56, 126; Jones and Sullivan 1985:26-28
273 255	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// A B			-	
274 039	Colorless Glass	Goblet	1	(pressed - Ribbed Bellfower)			1840s - 1870 ca	Lee 1960:92-99, plates 30-35
274 059	Aqua Glass	Soda-water Bottle	1	[EMPIRE SODA] WORKS (upper arch)/ [SAN FRANCISCO]	Empire Soda Works	San Francisco	1861 - 1871	Markota and Markota 1994:30
274 061	Green Glass	Soda-water Bottle	1	EMP[IRE] SODA WO[RKS] (upper arch)/ SAN FR[AN]CISCO	Empire Soda Works	San Francisco	- 1871	Markota and Markota 1994:30
274 067	Aqua Glass	Bottle	1	/// H (2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
274 068	Amber Glass	Bitters Bottle	1	DR (r underlined) J. HOSTE[TTER'S]/ STOMACH BI[TTERS]/// (double slash)	Hostetter	Pittsburgh, PA	1869 ca - 1869 ca	Wilson and Wilson 1969:34-41, figure 46d
274 071	Aqua Glass	Spice Bottle	1	J. [W. HUN]NEWELL & CO.// [BO]STON (2-piece mold)	Hunnewell, J.W. & Co.	Boston	1850s - 1880 ca	Zumwalt 1980:253; Fike 1987: 167; Jones and Sullivan 1985: 26-28
274 073	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
274 077	Aqua Glass	Jamaica-ginger Bottle	1	[JAMAICA GIN]GER/ ..A			-	
274 079	Aqua Glass	Bottle	1	HEGEMAN & CO.// [CHE]MISTS// NEW YORK; (pontil)	Hegeman & Co.	New York	1862 - 1870s	Wilson and Wilson 1971:48, 119; Jones and Sullivan 1985:45

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
274 090	Aqua Glass	Alcoholic-beverage Bottle	1	/// P			-	
274 091	Aqua Glass	Alcoholic-beverage Bottle	1	/// P			-	
274 114	Colorless Glass	Cordial Glass	1	(pressed - Pittsburgh Diamond pattern)	Bakewell, Pears, & Co.	Pittsburgh, PA	1836 - 1880s	Lee 1960:plate 24; McKearin and McKearin 1969:589
274 117	Colorless Glass	Tumbler	1	(pressed - Ashburton pattern)			1840s - 1880s	Lee 1960:9-17, plates 1,3, 8
274 124	Aqua Glass	Soda-water Bottle	1	..[WOR]KS (lower arch)			-	
274 125	Colorless Glass	Cod-liver Oil Bottle	1	BURNETT'S/ COD LIVER OIL/ BY/ T. METCALF & CO/ BO[STON]	Metcalf, T. & Co.	Boston	1850s - tc	Fike 1987:70, 192; Wilson and Wilson 1971:25, 109
274 137	Olive Glass	Wine Bottle	1	(turn mold)			1860s - 1920s	Jones and Sullivan 1985:30-31
274 141	Yellow-green Glass	Schnapps Bottle	1	[AROM]ATIC/ [SCHNAP]PS			-	
274 142	Dark-olive Glass	Ale/Beer Bottle, 10-12 oz.	2	/// G W & CO			-	
274 144	Dark-olive Glass	Ale/Beer Bottle, 8-10 oz.	1	/// ..W..			-	
274 150	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// C W & Co.			-	
274 154	Dark-olive Glass	Ale/Beer Bottle, 8 oz	1	/// (3 dots) A			-	
274 155	Dark-olive Glass	Ale/Beer Bottle, 8 oz	2	/// G J & W (or) J & W G			-	
274 157	Dark-olive Glass	Ale/Beer Bottle, 22 oz	1	/// X (with bars at all 4 ends)			-	
274 159	Brown Glass	Whiskey Bottle	1	PATENT (on shoulder)			-	
274 161	Yellow-green Glass	Whiskey Bottle	1	/// (6 pointed starburst)			-	
274 164	Aqua Glass	Soda-water Bottle	3	MC EWIN// SAN FRANCISCO	McEwin	San Francisco	1863 - 1870	Markota and Markota 1994:64
274 165	Aqua Glass	Soda-water Bottle	1	DITZ & ELLERKAMP (upper arch)/ S (backwards) AN FRANCISCO/ SODA WORKS	Ditz & Ellerkamp	San Francisco	1868 - 1872	Markota and Markota 1994:64
274 166	Blue Glass	Soda-water Bottle	1	MARSHALL & CO. (upper arch)/ 1866// MINGO	Marshall & Co.		-	
274 168	Aqua Glass	Spice Bottle	1	/// 3			-	
274 173	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
274 175	Aqua Glass	Pharmaceutical Bottle	1	WM. (m underlined) H. KEITH & CO. (o underlined)/ APOTHECARIES/ SAN FRANCISCO	Keith, William H. & Co.	San Francisco	1857 - 1870 ca	Wilson and Wilson 1971: 49,123
275 019	Colorless Glass	Goblet	1	(pressed - Ribbed Bellfower)			1840s - 1870 ca	Lee 1960:92-99, plates 30-35
275 037	Brown Glass	Whiskey Bottle	1	/// (8-point starburst)			-	

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
275 045	Aqua Glass	Soda-water Bottle	1	H. BRADER & CO./ PENALTY/ FOR SELLING/ THIS BOTTLE/ XLCR/ SODA WORKS/ 738 BROADWAY/ S.F.	Brader, H. & Co.	San Francisco	1863/1864 - 1863/1864	Markota and Markota 1994:8
275 046	Aqua Glass	Soda-water Bottle	1	MC (c superscript) EWIN// SAN FRANCISCO	McEwin	San Francisco	1863 - 1870	Markota and Markota 1994:64
275 047	Aqua Glass	Soda-water Bottle	1	MC (c superscript) EWIN// SAN FRANCISCO	McEwin	San Francisco	- 1870	Markota and Markota 1994:64
275 049	Aqua Glass	Cologne/Sauce Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:24-26
275 053	Dark-olive Glass	Bitters Bottle	1	DR. J. HOSTETTER'S/ STOMACH BITTERS/// (crossed lines)	Hostetter	Pittsburgh, PA	1860s - 1870s	Wilson and Wilson 1969:36-41, figures 46a-d
275 058	Aqua Glass	Caper Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28; Putnam 1965:213
275 060	Aqua Glass	Syrup Bottle	1	MRS. WINS[LOW'S]/ SOOTHING S[YRUP]/ CURTI[S AND PERKINS] PROP[RI]ETORS			1859 ca - 1906	Fike 1987:231
275 061	Aqua Glass	Syrup Bottle	1	[MRS. WINSLOW]'S/ [SOOTHING SYR]UP/ [CURTIS AND PERKINS PROPRIETORS]			- 1906	Fike 1987:231
275 073	Colorless Glass	Tumbler	1	(pressed - Ashburton pattern)		Pittsburgh, PA	1850s - 1870s	Lee 1960:9-17, plates 1,3,8
275 081	Colorless Glass	Cordial Glass	1	(pressed - Pittsburgh Diamond pattern)	Bakewell, Pears, & Co.	Pittsburgh, PA	1836 - 1880s	McKearin and McKearin 1969:589
275 112	Dark-olive Glass	Ale/Beer Bottle, 8-10 oz.	2	/// G W & J (or) W & J G			-	
275 113	Dark-olive Glass	Ale/Beer Bottle, 8 oz	1	/// A			-	
275 115	Dark-olive Glass	Ale/Beer Bottle, 22-24 oz.	3	/// COOPER & WOOD (upper arch)/ PORTOBELLO (lower arch)	Cooper and Wood	Portobello, Scotland	1859 - 1868	Toulouse 1971:102-103
275 117	Dark-olive Glass	Ale/Beer Bottle, 22-24 oz.	3	/// (large X with bars across each of the four points)			-	
275 122	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// A B & Co.			-	
275 123	Dark-olive Glass	Ale/Beer Bottle, 12 oz	1	/// (7 point starburst)			-	
275 128	Amber Glass	Whiskey Bottle	1	/// (6-point starburst)			-	
275 129	Brown Glass	Whiskey Bottle	1	/// (8-point starburst)			-	
275 130	Amber Glass	Whiskey Bottle	1	/// ELLENVILLE GLAS WORKS (in circle)	Ellenville Glass Works		1836 - 1900+	Toulouse 1971:179-180
275 132	Dark-olive Glass	Schnapps Bottle	1	UDOLPHO WOLFE'S// SCHIEDAM// AROMATIC SCHNAPPS	Wolfe, Udolpho (importer)	New York	1852 ca - 1917	Wilson and Wilson 1968:153; Schulz et al. 1980:37-38
275 133	Aqua Glass	Soda-water Bottle	1	MC EWIN// SAN FRANCISCO	McEwin	San Francisco	1863 - 1870	Markota and Markota 1994:64

Privy 41 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Glass Items (continued)								
275 134	Aqua Glass	Soda-water Bottle	1	H. BRADER & CO.// PENALTY// FOR SELLING// THIS BOTTLE// XLCR// SODA WORKS// 738 BROADWAY// S.F.	Brader, H. & Col	San Francisco	- 1864	Markota and Markota 1994:8
275 140	Aqua Glass	Bottle	1	(2-piece mold)			- 1880 ca	Jones and Sullivan 1985:26-28
275 192	Dark-olive Glass	Ale/Beer Bottle, 22-24 oz.	2	/// G W & J (or) W & J G			-	
277 004	Brown Glass	Whiskey Bottle	1	/// (6 point starburst)			-	
Marked Other Items								
267 069	Ball Clay	Pipe	1	MCDOUGALL// GLASGOW	McDougall	Glasgow	1847 - 1892	Bradley 2000:117
269 108	Hard-rubber	Button	1	N.R.CO./ GOODYEAR'S P = T	Novelty Rubber Co.		1853 - 1886	Woshner 1999:267
273 230	Hard-rubber	Comb	1	I.R.C.CO. G'YEAR'S PT MAY. 6. 51. EXT. 65	India Rubber Comb Co.	New York	1865 - 1872	Woshner 1999:266,281
273 242	Hard-rubber	Button	1	N.R. CO./ GOODYEAR'S P=T 1851.	Novelty Rubber Co.		1853 - 1886	Woshner 1999:267
273 253	Rubber and Colorless Glass	Breast Pump	1	[UNION INDIA RUBBER CO.]/ NEW YORK/ 1844 & 4[8]/ GOODYEAR'S PATENT	Union India Rubber Co.	New York	1848 - 1879 ca	Woshner 1999:33, 278-279
274 191	Ball Clay	Pipe	1	..S CUTTY PIPE			-	
274 193	Hard-rubber	Women's Hair Comb	1	[I.]R.C.CO./ GYEARS PT. MAY.6.51.EXT.65	India Rubber Comb Co.	New York	1865 - 1872	Woshner 1999:266,281
274 194	Hard-rubber	Double-sided Comb	1	I.R. COMB CO GOODYEARS	India Rubber Comb Co.	New York	1856 - 1898	Woshner 1999:281
275 150	Ball Clay	Pipe	1	NOEL/ LYON (rectangular stamp at bowl/stem juncture)			-	
275 161	Hard-rubber	Button	1	N.R. CO./ GOODYEAR'S P=T	Novelty Rubber Co.	New York	1853 - 1886	Woshner 1999:267

CHAPTER 9
SF-80 BAYSHORE PROJECT BLOCK 6

Michael D. Meyer

BLOCK OVERVIEW

SF-80 Bayshore Project Block 6 is bounded by Bryant, Brannan, Eighth, and Ninth, with interior street Converse running between Bryant and Brannan. Block 6 is smaller than the South of Market blocks east of Eighth Street.

The natural site of Block 6 bordered Mission Creek, with the Brannan Street frontage of the block comprising tidelands, while sandhills occupied the northern portion of the block extending towards Bryant. The original shoreline appears to have been fairly well defined on this block: instead of marsh gradually giving way to dry land, the edge of the sandhills dropped down 20 feet at the edge of the marsh.

The filling of Block 6 took place during the early to mid-1850s, in conjunction with the opening of Brannan Street in 1853, which cut off the marshy section of Block 6 from the bay. The 100-vara lot at the corner of Brannan and Eighth was filled by 1857, probably using sand from the sandhills closer to Bryant Street. After 1857 the sand hill that covered the 100-vara-lot at the corner of Eighth and Bryant was cut down by 10 to 20 feet. Thus, the present grade of Block 6 within the project area was established in the period from the mid-1850s to the 1860s.

The vicinity of the corner of Brannan and Ninth streets was the location of San Francisco's first Butchertown, and structures are shown there on both the 1852/53 and 1857/59 U.S. Coast Survey maps, although none appear to be within the SF-80 Bayshore Project area. Business-directory information shows the presence of a hotel-lodging house at the corner of Eighth and Brannan from 1876 onwards; initially the Rosett Hotel, this enterprise was later known as the North German Hotel.

Unlike the attached row houses on Block 4 and the northern half of Block 5, Block 6 was sparsely developed in 1887 (see Figure 5.12), with a few industries and a few houses, mainly running along Converse Street. The northwest quarter of the block remained virtually undeveloped, while each of the other three quarters of the block was owned by an individual in 1894. Unlike other project blocks, Block 6 lost dwellings between 1887 and 1899 and probably between 1880 and 1887 as well. The 1887 Sanborn map lacks addresses on both Eighth and Converse streets. Comparison of the map to U.S. manuscript population census schedules presents the possibility that buildings were lost between 1880 and 1887 or that the numbering of small buildings was too complex to represent on the map. The block also lost industries, as the Western Railway Company consolidated and cleared the major commercial properties. The railroad owned the entire Ninth Street half of the block by 1909.

PEOPLE IN RESIDENCE ON BLOCK 6

Early dwellings on the Bryant and Eighth street frontages were clustered toward the center, presumably with the desirable corner lots reserved for more profitable commercial development. The 1880 U.S. Census listed James Burke, an Irish laborer, and his wife, Ann, living at the rear of 506 Eighth Street. The address is not shown on the 1887 Sanborn map, although it may be the building behind the unnumbered saloon on Bryant. James could read but not write, while Ann was fully literate.

The next nearest residences on Eighth Street were 518 and 520, abutting the centerline of the block. A two-story lodging house, several other buildings, and a two-story stable with a basement are shown on the lot in 1887. In 1880 the Noonan family was living at 518 Eighth. William Noonan was a painter listed at this address in the city directories until 1889. In 1880 his wife, Catherine, kept house and operated a 10-cow dairy. Born in Ireland, the Noonans were illiterate. Their children were all born in California. Hannah McCarthy, an Irish widow, was living in the same household as domestic help. Also listed at the same address on the 1880 U.S. Census was the Gorman family, consisting of the Mrs. Winnifred Gorman, an Irish widow, and her three children, all born in California. Five roomers lived with the Noonans and Gormans. The 1880 Census listed the Stanton family at 518 with "520 rear" written in brackets above it. They were likely in a small building at the back of the lot. Jeremiah was a fruit peddler, while Mary was listed as keeping house and running a vegetable store (for more on these households see Parcel Overview). A single listing for 518-1/2 was for Michael Driscoll, an illiterate Irish laborer age 75, who was 8 months unemployed.

The 1880 Census identified the Jude and Quinine families in another building at 520 Eighth. Patrick Jude was an Irish laborer who had been unemployed 6 months. His wife, Bridget, was also Irish; both could read and write. Their children were both born in California and too young for school. John Quinine was an Irish laborer who had experienced 8 months of unemployment. His wife, Mary, could read but not write. Five of their six children were New York-born. William, age 4, was a California native.

The lot next door at 522 Eighth Street was also built at the center of the block. In 1880 the Haffey family lived in the front dwelling. William was a "Morocco dresser" from Ireland, who had had 2 months of unemployment. He may have worked around the corner on Brannan Street for J. Duncan or Funcke & Co (M. Vetterlein on the 1887 Sanborn map) preparing fine-quality hides for bookbinding and upholstery. Ellen, his oldest daughter at age 18, was also listed as "working" in a Morocco shop. She may have been applying gold leaf or other impressed designs rather than dressing the hides, since it was very unusual in 1880s San Francisco for a daughter to follow her father into a trade other than as a store clerk. Unlike her younger siblings, all born in California, Ellen had been born in Massachusetts. The Haffeys had two roomers living with them: Edward McBriarty, a 50-year-old Morocco finisher, who had been 5 months unemployed, and Andrew Donohar, an Irish laborer, age 52, who had been 6 months unemployed. Everyone in the Haffey household was literate.

The rear dwelling at 522 Eighth Street (labeled 522-1/2 on the later Sanborn map) was home to the Buckley family in 1880. Patrick, age 39, worked in a cooper shop, although he had been unemployed for 7 months. He and wife Annie, age 25, were both

Irish. Their 1-year-old daughter, Margaret, was sick with the fourth day of a fever on June 9th. They had two Irish roomers in the house. Patrick Green, age 40, was a plumber and gasfitter who had been unemployed for 8 months. James Lynch, age 28, was a laborer out of work for 9 of the past 12 months.

In 1880 the proprietors of the North German Hotel on the corner of Eighth and Brannan were Richard and Emma Schade. He had been born in Hessen and she in Mecklenburg. Their three young children were all born in California. The 1880 census taker reported 10 male boarders and no women. One boarder was a widower, three were married, and six had been unemployed from 1 to 10 months. Four of the boarders were born in Germany, while the rest came from the eastern United States. George Curling from Ohio, John O'Keefe from Massachusetts, and Michael Morrisey from New York were all coopers. Edward Walton from New York was a tanner; Julius Fass from New York was a miller; and Robert Gilmore from Maryland, an engineer. The men from Germany were Henry Kiel, a waiter; Fred Peterson, a laborer; Joseph Conrad, a cook; and Charles Prueffer, a machinist. The North German Hotel survived the 1906 earthquake and fire and had expanded operations by the 1913 Sanborn map.

Converse Street was the most densely developed housing on Block 6. When compared to the interior streets of Blocks 3, 4, and 5, the Converse Street development was mostly open-space punctuated by a few clustered buildings. The 1887 Sanborn map indicates an erratic numbering scheme that switched odd and even sides of the street based on property boundaries, for those buildings that were numbered. Typical for the neighborhood, many of the Converse Street residents had experienced periods of unemployment. The 1880 U.S. Census provides a glance at the various households that lived on this street.

At 2 Converse, Mrs. Eleanor Stewart, age 27 and from England, was listed on the 1880 Census, but her husband from the Isle of Man was not. She lived with her four small children, ages 11 months to 5 years. Thomas Frawley, an Irish fish peddler at age 67, lodged with Mrs. Stewart. Next door at 6 Converse, were two generations of the Wilbar family from Massachusetts. Marshall, age 71, was a retired carpenter and builder. His sons—Henry, 38, and James, 33—were both box makers who had been unemployed 6 months.

At 8 Converse lived Phillip Laun, an express-wagon driver from Hesse, age 50. His wife Rebekah, age 38, was born in Canada of English parents. Their four children were all California natives. George, age 22, worked as a blacksmith; like his father he was unemployed for 3 months. Eliza, age 17, was a dressmaker; Edward, 10, was at school, while Frederick, age 4, was too young. The Laun family was next to Phillip and Mary McCall from Ireland, who ran a grocery store. Phillip also worked as a laborer and the family boarded a Scottish iron-foundry worker, Lawrence Clear. Living with them in a separate household was the Later family. James Later, age 50, was a teamster unemployed for 5 months. His wife, Mary, could neither read nor write. Their three children, ages 6 to 12, were born in Massachusetts and were attending school. The other resident was Hannah Gilchrist, an Irish widow, age 57.

Bernard McLaughlin, age 53, was a divorced soap-peddler from Ireland. He was caring for his younger brother Eugene, age 45, who had apparently been paralyzed

while mining 11 years earlier. They shared the house at 14 Converse (12 in the directory) with the Haley family. Patrick Haley, age 43, swept the wharves. His wife, Bridget, age 35, was also from Ireland. Neither could write. Their oldest son John, age 7, was in school. All the children were California natives, but the three younger brothers were not of school age.

Another neighbor suffering physical disability was John Hunter at 16 Converse. He was a teamster from Holstein with inflammatory rheumatism. He had been unemployed for 9 months. His wife, Elizabeth, who was caring for their three young children, was Irish. Next door at 18 Converse, John Driscoll had been unemployed for half a year. He was a vegetable peddler, age 45. Neither he nor his wife Julia, age 50, could read or write. They were Irish, and their children were born in California. Ella, the oldest, was at home, while her 13- and 10-year-old brothers were in school.

With the next listing in the 1880 U.S. Census, the enumerator faced the odd-even numbering conundrum and began listing multiple addresses. The superscript or bracketed addresses conformed to the city directory listings. John Martin lived at 20 (27) Converse with his wife, Mary, and her sister, Catherine Cassidy. John was listed as a longshoreman and "(cigar maker)." He had been unemployed 11 months. His parents were from Hamburg Holsted and Strasburg, although he was born in New York. The Cassidy women were of Irish descent. Mary, age 23, was born in Massachusetts; Catherine, age 19, was from California. Behind them lived the Hart family from Ireland: Michael Hart, age 43; his wife, Margaret, age 38; their California-born son John, age 2, and Margaret's brother James Sheehan, age 25. Michael and James were both bricklayers who had been unemployed 8 and 3 months, respectively.

There were three buildings enumerated at 22 (31) Converse; the front occupied by the Hines family. James Hines was an Irish shoemaker suffering from dyspepsia. His wife, Bridget, could not write and their three children were born in California. The oldest child, age 9, was in school. Living behind them was Margaret Bruns, an Irish widow with a deformed foot, living with her two young children. Living separately in back was Thomas Morris, age 52, at least the second generation of his family from Massachusetts. He worked in a freight warehouse.

Next door at 24 and 26 Converse (37 in the city directory) was a saloon and boardinghouse with over twice the number of residents as the North German Hotel. Phillip Funcke, a widower from Prussia, ran the operation. His wife had been born in Scotland. Their two sons were both born in Australia. Phillip G., age 18, worked at a tannery, and Edward, age 15, was in school. A tanner, Gustav Funcke was listed in the 1879 city directory at 522 Eighth, possibly either Phillip G. or another relative. Phillip was probably working for Frederick Funcke of Funcke & Co., who operated a tannery on the block. With the exception of the Schwartz family, the other boarders were single men. Leonard Schwartz was a widower from Bavaria working in a tannery. His wife had also been Bavarian, while the three children were all born in New York. Leonard Jr., the oldest at 15, worked in a cooper shop; son Adam and daughter Katey, the only female in the building, attended school.

Including Phillip Funcke and Leonard Schwartz, there were 12 boardinghouse residents working at a tannery. Of these, Daniel Clements was born in California of

Prussian parents. The rest were foreign born, one in Ireland, the rest in German states. Joseph Ostwald from Bavaria had been "pistol shot" and lost the use of three fingers to paralysis. Most of the men were either in their mid-20s or mid-40s, and 4 had been unemployed for 1 to 4 months. Overall for the boardinghouse, a dozen of the 21 workers had experienced periods of unemployment. Of the remaining residents, two were Funcke's employees: Arthur Nathan, who tended bar, was a 20-year-old Australian, while the cook—Charles Williams, who could not read or write, was a 49-year-old Norwegian. The other boarders included Thomas Kerr, a widowed dry-goods peddler from Ireland who was missing an arm; two Irish teamsters, and two laborers—one Irish, the other from Baden. Only one man was listed as married. The demographics of the three boardinghouses are similar, although the residents of the North German Hotel appear to have had roomier accommodations than those boarding on Converse Street with Mr. Funcke or at the middle of the Eighth Street frontage with the Noonans.

Next to the boardinghouse at 28 Converse, Frank Krause specified on the 1880 Census that he was an engineer at a tannery. He was from Prussia, as were his wife, Appolonia, and oldest son Frank Jr., age 11. Son Alexander, age 8, was from New York, while Annie, age 4, and Oscar, age 2, were California-born. The following two households also contained tanners. At 36 (39) lived Henry Kopf and his wife Inkel, both from Hanover and in their 40s. They shared the house with Andrew and Elizabeth Piters, from Schleswig, and with Andrew's stepdaughter, Wilhelmina. She was age 10, born in California, and did not attend school, unlike most girls her age. The house at 32 (41) Converse was also shared. Richard Roach was Irish and his wife, Adeline, was from New York. She was suffering from a displaced hip joint. Their son Elmer, age 11, a native Californian, was attending school. John Hennrich from Holstein and his Swedish-born wife, Laura, were also in the house, as was William Brushaber, an 85-year-old bookkeeper from Mecklenburg.

When the census taker switched sides of the street during the 1880 census enumeration, he found 11 Irish, 1 English, and 2 households of mixed-descent. Although many residents were U.S.-born, with the exception of one mixed household, their parents were not. Every household on the east side of the street had experienced periods of unemployment. For primary married couples within households, four of the men and six of the women were illiterate. At 5 (7) Converse John Hughes worked as a laborer. He and wife, Bridget, were from Ireland. Their son, age 10, was born in Minnesota and attending school. They shared the house with another Irish laborer, Hugh Murphy, his wife, Bridget, and son John, age 1. Everyone but the student in this household was illiterate, and the men had been unemployed 9 and 8 months, respectively.

Three families shared the house at 9 Converse; the adults were Irish and most children had been born in California. Patrick Mulligan was a stonemason who had only worked half of the year. He lived with wife, Annie; their daughter Roseanna, age 11, born in New York; and their son, John, born the prior August in California. Thomas Slavan was a laborer suffering from rheumatism who had only worked 6 months. His wife, Catherine, kept house and their son, John, age 12, was in school. The Lautry family consisted of James, a laborer, wife, Mary, and son James, age 1.

Mary McNamara lived alone at 13 (12) Converse; she was a widow, age 40, who ran a grocery store. She could read, but could not write. Her neighbors at 11 Converse were the Lockharts. John, age 55, was a junk gatherer; he and wife Ann were Irish and illiterate. His stepson, John Heashon, age 27, from Massachusetts, was a laborer in a planning mill. Both men had been unemployed at least 4 months.

At 15 Converse neither Patrick Sheehey nor his wife, Bridget, could read or write. Both were Irish, and he had been unemployed as a teamster for 9 months. Two families shared the house at 17 and 17-1/2 Converse. John and Mary Riley at 17-1/2 were Irish. He worked in a coke yard; their oldest son Thomas, age 18 and New York-born, was a peddler. The other children had been born in California. Frank, age 12, had attended school, but was listed at home. Daughter Mary was in school, but her other two siblings were too young. James Prior worked in a liquor saloon; he and wife Annie were both age 40 and from Ireland. Their four children were all California-born; the oldest three—ages 10, 11, and 13—were in school.

Two English families lived next door at 19 (34). Orlando Winterbottom was a house painter unemployed for the prior year, attributable to his amputated leg. His wife, Sarah, was a tailoress in a used-clothing department. Their four children were all born in Illinois and the three oldest, ages 9 through 12, had attended school. They shared the house with Mrs. Jane Nolan, a widow from Ireland. Her husband had been born in England. Her occupation other than keeping house was "goes out washing." Her three children were from California; the oldest Phillip, at 13, was a cement peddler. He had a deformed foot from infancy, a deformed upper-lip, and birthmark. His sisters, ages 8 and 12, were both in school. A single man from Denmark, Johannes Anderson, was also in the house. He was listed as help, but his occupation was dairy worker.

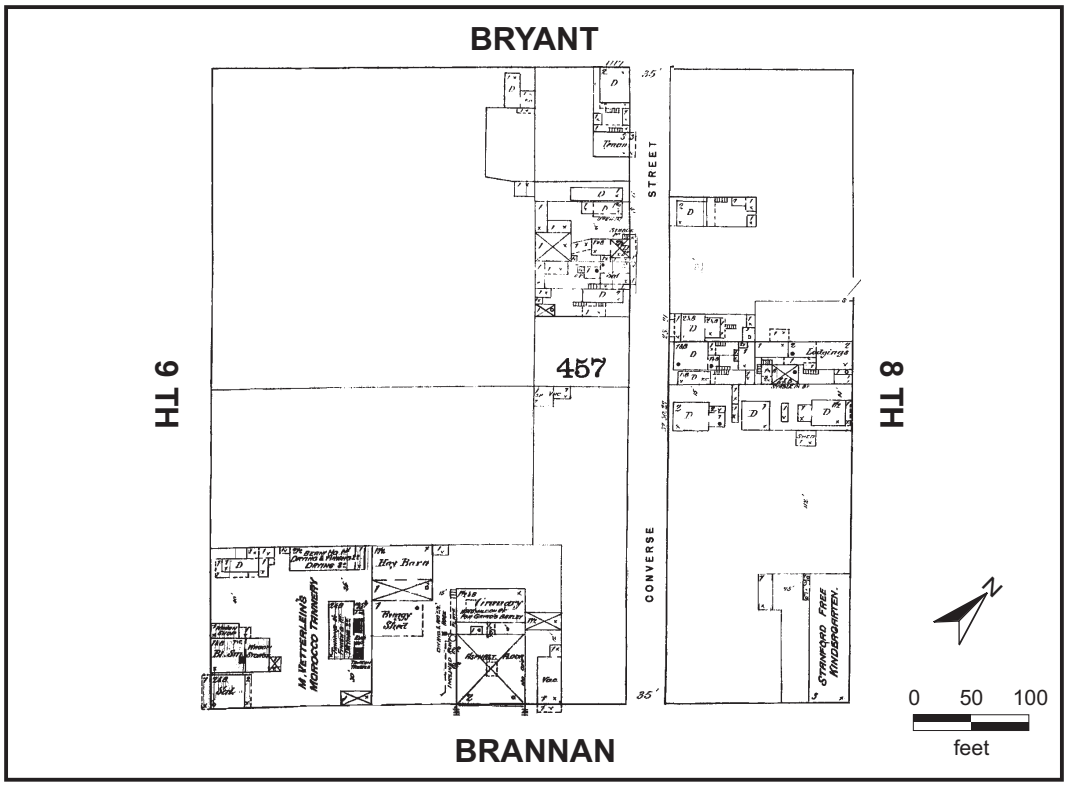
Michael and Ellen Horrigan at 21 (36) Converse were Irish. Their four children, born in California, were not in school, with the oldest just seven. Michael worked as a laborer and had been out of work for 7 months.

The last household enumerated on Converse Street in 1880 was of mixed descent, but with one exception was comprised of nine members of the same family. Henry Fritz, age 38, was a blacksmith born in Maryland of Prussian parents. His wife Nora, age 36, was born in New York of Irish parents. Their daughter, Laura, age 10, was born in California. Nora's father, Timothy Mahoney, lived with them; her mother was deceased. Timothy was a laborer who had been out of work for 10 months. He was missing a finger and was "ruptured." Another widowed family member was John Sampson, age 36, from Maryland, Henry's brother-in-law who had probably been married to Nora's sister, since she was also born in New York. John's three children were all born in California. Isabella, age 16, was at home, and John and Clara were in school. John's nephew, Marion J. Dolan, age 5, was also living with them. His parents were from Massachusetts and New York. The only non-family member was Mrs. Sarah Smith, an Irish widow boarding with the family. She worked as a domestic and at sewing. Like so many of the residents of Converse Street, she had been unemployed for 7 months of the previous year.

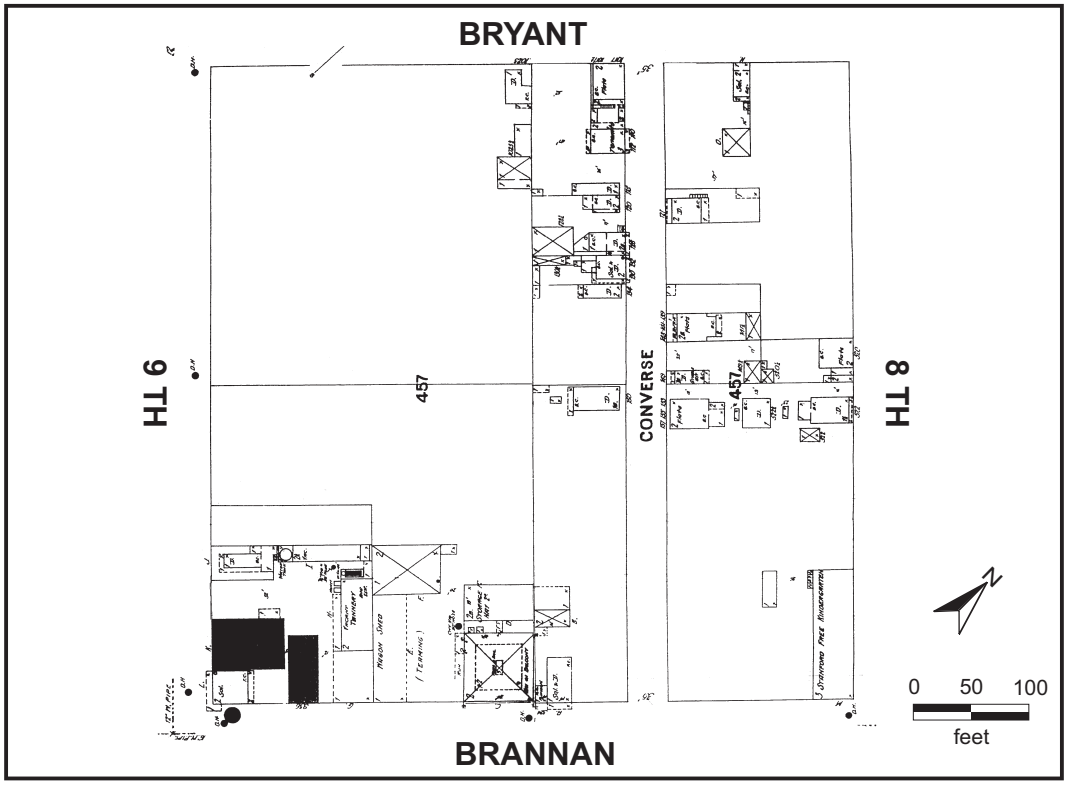
The early residents of Block 6 were living at the edge of residential San Francisco. The open spaces made it unlike the closely configured interior-street housing on other blocks, yet the houses that were present were packed with occupants. The packed

housing and boardinghouses appear to reflect a pattern from the Gold Rush that kept repeating itself on the margins of the city. Those new arrivals seeking success and fortune could find inexpensive accommodations in these locations. The availability of prepared meals also limited the amount of material goods required to outfit one's household. For the widows and widowers with children, the boardinghouse could provide some social support that had been lost with the death of a spouse. It would be analogous to wealthy families of the Gold Rush-era living in posh hotels to have the advantages of domestic help without paying full price for live-in servants of their own. Those running the boardinghouses could expect food, shelter, and constant revenue, for in hard times those moving down the economic ladder might pass through the boardinghouse and replace those moving to the streets. The Noonans received income from a variety of sources: lodgings, house painting, and the dairy. Theirs was the most family-oriented operation. Phillip Funcke catered primarily to single men. By also providing a saloon for thirsty workingmen, he was able to maximize profits from his boarders. The North German Hotel had the greatest longevity; it was also the home of the Stanford Free Kindergarten for over 10 years.

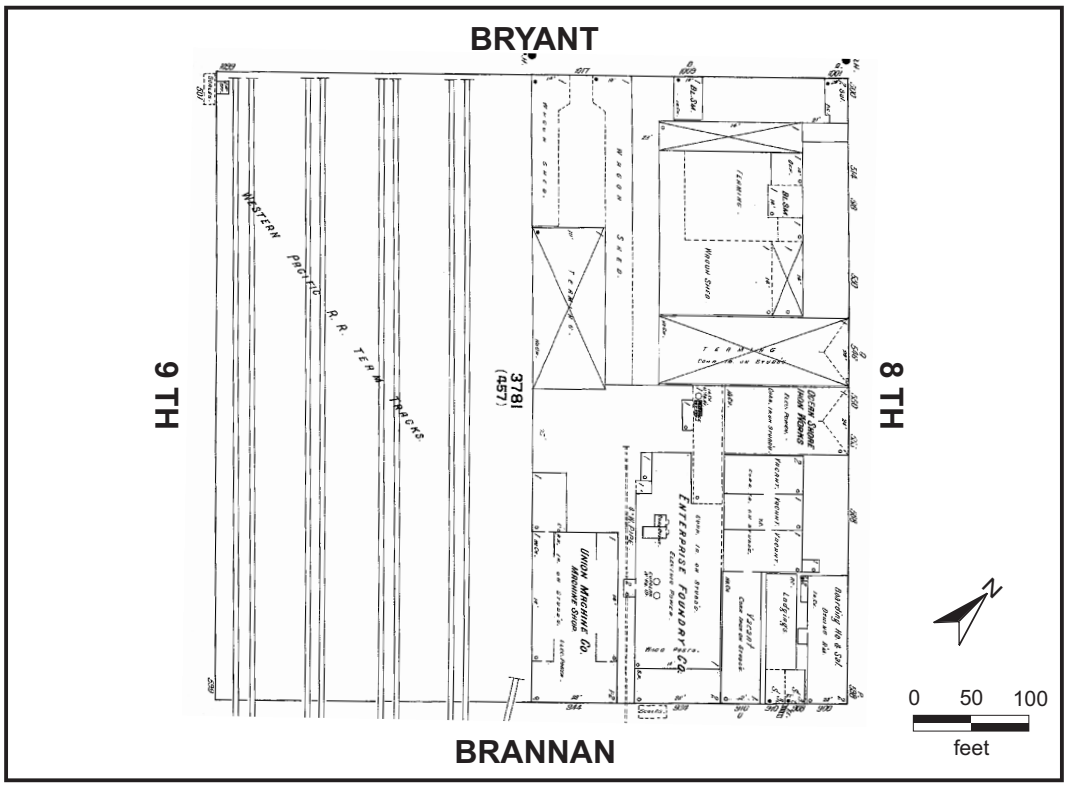
In 1880 Block 6 was at a transition between rural, residential, and industrial land uses. Residential housing had followed industries that were on the outskirts. Those such as gold and silver refining were hazardous, while others such as the sugar refineries needed the artesian water sources. The adjacent Butchertown was situated so that the tidal action would help flush offal discarded into Mission Creek. Associated industries, such as the tanneries on Block 6, were set up close by. Mrs. Noonan's dairy and cow yard with only 10 animals reflected the rural aspects of the block. These few cows were minimal compared to the herds slaughtered nearby to feed a growing major city. Most wheeled transportation at the time was powered by horses stabled throughout the city, and in greater numbers near industrial areas. When the railway eventually took over half of Block 6, the changes were similar in proportion to those throughout the project area: industry replaced housing, and the South of Market area became only a place to work.



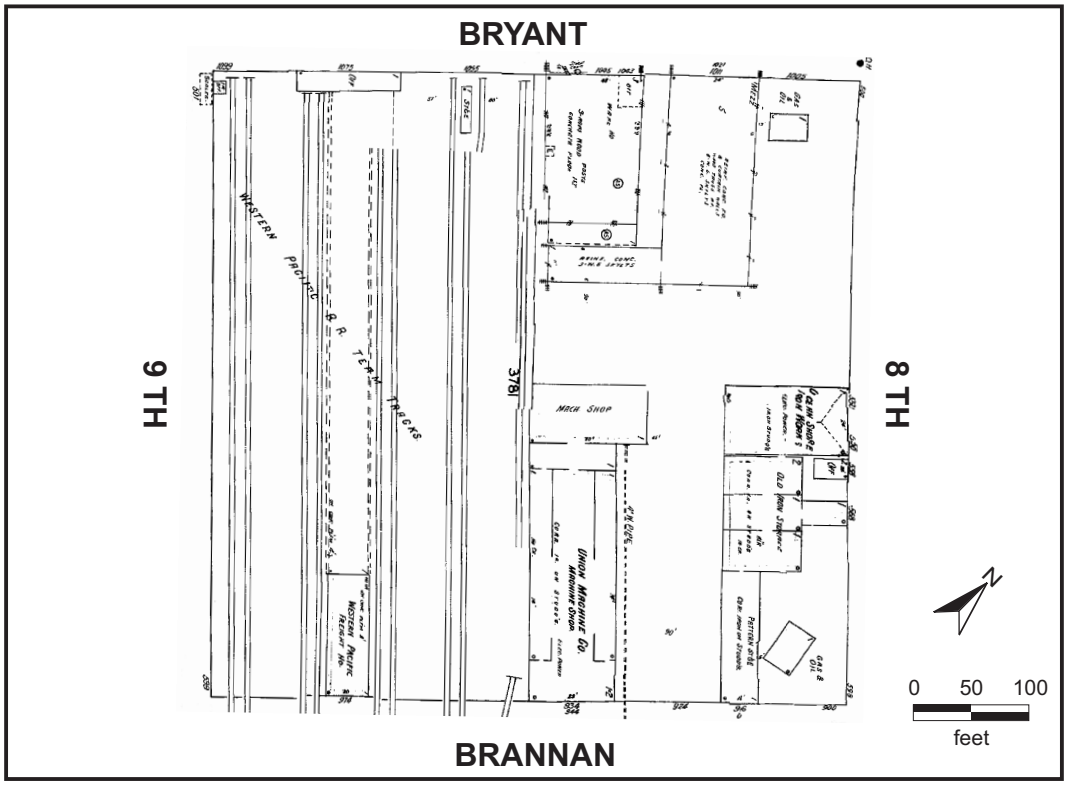
SF-80 Bayshore Project, Block 6, 1887 Sanborn Map



SF-80 Bayshore Project, Block 6, 1899 Sanborn Map



SF-80 Bayshore Project, Block 6, 1913 Sanborn Map



SF-80 Bayshore Project, Block 6, 1949 Sanborn Map

PARCEL OVERVIEW

520 Eighth Street (Bayshore Block 6)

William Noonan Family Residence & Lodgings

In 1874 the Eighth Street half of Block 6 was undeveloped. By the 1887 Sanborn map, this area was still sparsely developed. There were just two residences on the Eighth Street frontage, 520 and 522. The only other building, at the corner of Eighth and Brannan, was listed as the Stanford Free Kindergarten; this was only a temporary location, however, on the first floor of the North German Hotel.

The Assessor's Block Book for 1894 lists Jas. Enright as the owner of the Eighth and Bryant quarter of the block. He was one of three investors who each owned a quarter of the block. This may account for the unusual development, with corner lots on major streets being reserved for commercial development. The majority of development on Enright's portion of the block took place on Converse Street.

A tap record from 22 December 1875 by W. (?) Noonan indicates the existence of a building at that time or perhaps preparation for construction soon after that date. In 1887 the 520 Eighth Street frontage was a two-story lodging, with a pair of small one-story buildings abutting 522 Eighth Street. Behind the lodgings were one-story additions reaching to the back lot-line and facing the interior yard, abutting an outbuilding of two stories with a stable in the basement. Attached to the rear of the outbuilding are small one- and two-story additions with staircases to the side and rear. The adjacent lot toward Bryant Street is fenced, with a one-story open structure abutting the rear addition to the lodgings. The 1880 U.S. Census indicates that the building complex on the lot consisted of both 518 and 520 Eighth Street.

In 1880 William Noonan, age 44, was listed as a painter who had been unemployed for 6 months in the prior year. Catherine Noonan, age 46, was keeping house and running a dairy with 10 cows. In 1926 George Patterson reminisced about "Nunan's Celebrated 'Cow Lot'" in the *South of Market Journal* (1926 1 [10]:10). The Noonans were both born in Ireland and neither could read or write. Their three children were all born in California. The two oldest Emma, age, 14, and Walter, age 11, were in school. Ellen, age 8, was still at home. They had a domestic helper, Hannah McCarthy, age 45, who was also Irish. William Noonan was listed in the city directory at this location until 1889. Also in the same building was Mrs. Winnifred Gorman, a 35-year-old widow, and her daughters Margaret, age 10, and Mary, age 8, and son John, age 5. Winnie Gorman was listed in the city directories at this location until 1886. In addition, there were five roomers: Margaret Sullivan, an Irish widow, age 64; John Lowry, a Swiss carpenter, age 54; Jeremiah E. Mehegan, an Irish housepainter, age 29; and an Irish couple, James Flannigan, a 45-year-old hackman, and his wife, Julia, age 30. The census taker listed all of these residents at 518 Eighth. This may have been behind or in the lower portion of the building marked "lodgings" on the 1887 Sanborn map.

The 1880 Census listing for 518 Eighth had a small notation above for "520 rear." The household consisted of Jeremiah Stanton, an Irish fruit peddler, age 45; his wife Mary, age 43, also from Ireland, and their two daughters, both attending school. Mary,

age 14, was Pennsylvania-born, while Honora, age 8, had been born in California. At the time of the census on 9 June 1880, Jeremiah was "away in the country since May 15th, temporarily."

The city directories listed Jeremiah Stanton as a fruit and vegetable seller on the west side of Potrero between 22nd and 23rd streets in 1877. The following year, Jeremiah was a fruit peddler residing at 520-1/2 Eighth, while Mrs. Mary Stanton was listed as a fruit seller at 22 Eighth, near the corner of Market Street. In 1880 Jeremiah was listed as a fruit dealer residing at 518 Eighth and peddler on the west side of Potrero. In 1881 the Stantons' residence was listed as 520-1/2 again, with profession as "peddler & groceries etc." They may have been in one of the buildings at the back of the lot.

The directory listings for the Noonans and Winnie Gorman also fluctuate. Unfortunately the earliest Sanborn map postdates the census by nearly 10 years. Mrs. Noonan may have been keeping the cows in the fenced yard to the side. Based on the 1887 Sanborn map, it is unclear whether there was passage from the yard to the stable on the opposite side of the lot. The presence of livestock is not that unusual at the edge of the city, with a tannery on the same block, Butchertown nearby, and numerous stables throughout the neighborhood for the horses that powered much of the city's wheeled transportation into the early 20th century.

There were two households listed at 520 Eighth Street in 1880: the Judes and the Quinines. The Jude family was comprised of Patrick, a laborer, age 40, and his wife, Bridget, age 33. Both were Irish. They had two daughters born in California: Ellen, age 3, and Mary, age 1. The Quinine family was comprised of John H., an Irish laborer, age 30, his wife, Mary, age 34, also born in Ireland, and their six children. The older children, Mary A., age 13; Alice, age 11, John H. Jr., age 10; Thomas, age 8, and James P., age 7, were all New York-born and had attended school in the prior year. The youngest, William, age 4, had been born in California and was too young for school.

By 1899 the buildings were substantially changed at the back of the lot, although the street façade may have appeared similar. The former lodgings were depicted as two flats without the one-story addition at the rear. An extra story had been added to the small building abutting 522 Eighth. A small, square outbuilding was attached to the rear. All of the additions and the outbuilding with stable were no longer present. A separate, small one-story building with adjoining small, square addition at the rear of the lot was shown as 520-1/2 Eighth Street. It is likely some major event, such as a fire, caused the destruction of the adjoining buildings to Converse Street.

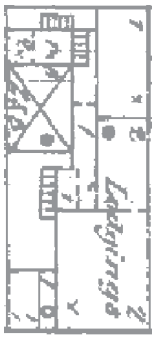
This parcel remained unchanged between 1899 and 1905. In 1913 the block was completely commercial, with the Ninth Street half covered by the Western Pacific Railroad Team Tracks. Other than a saloon at the corner of Eighth and Bryant, the rest of that quarter block contained blacksmiths, wagon sheds, and teaming buildings. A teaming building covered the former 520 Eighth Street lot. By 1950 the lot was vacant.

There was one CRHR-eligible feature recovered from the lot, Privy 20. The TPQ is 1879 based upon a Columbia Soda Works bottle; this company was only listed in the business directories through 1881. The privy appears to have been filled in the early 1880s and is associated with the William Noonan family and their lodgers.

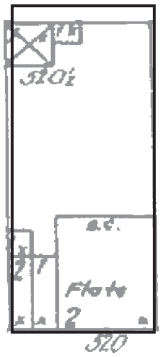
520 Eighth Street (Bayshore Block 6) – PARCEL PLAN
William Noonan Family Residence & Lodgings



1857/59 Coast Survey
vacant—no buildings
on the 1887 Sanborn parcel



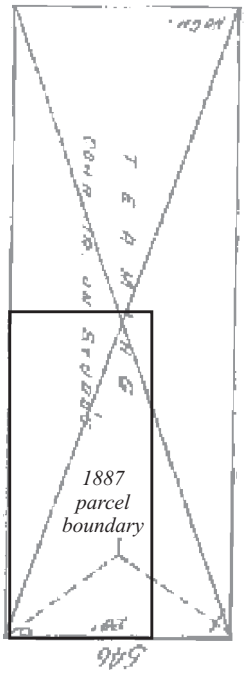
1887 Sanborn Map



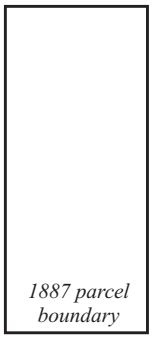
1899 Sanborn Map



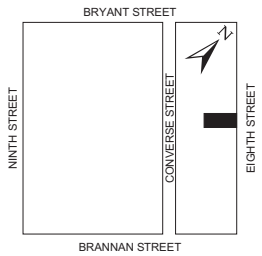
520-518 Eighth Street (1887)



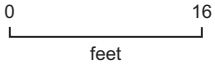
1913 Sanborn Map



1949 Sanborn Map
vacant







KEY

CRHR-eligible

Footing

Parcel Line

Limit of Excavation

Elevation in Feet amsl

20 Privy Number

DOCUMENTARY RESEARCH TABLE

520 Eighth Street (Bayshore Block 6)

William Noonan Family Residence and Lodging

ABSTRACT

Building:

1852/53	Sand dunes
1857/59	Sand dunes
1874	Vacant
1887	Two-story lodging with a pair of small one-story buildings across front of lot. One-story additions behind lodgings to the back lot line and facing the interior yard abutting a two-story outbuilding with a stable in the basement. Attached to the rear of the outbuilding are small two- and one-story additions with staircases to the side and rear. The adjacent lot toward Bryant Street is fenced with a one-story open structure abutting the rear addition to the lodgings
1899	Two-story flats at front with narrow one-story side addition abutting narrow two-story addition with one-story small building behind. Small building at left rear corner of lot 520 ½ Eighth with very small attached outbuilding
1905	Same as 1899
1913	Teaming shed
1949	Vacant lot

Residents/Occupation/Use:

520-½ Eighth

1878/79-1881/82	John Quinine, hostler, and family
1878/79-1881/82	Jeremiah Stanton, fruit peddler, and family

520 (518) Eighth

1878/79-1889	William Noonan, painter, and family
1880	Patrick Jude, laborer, and family
1880-1881/82	James Flannigan, driver, and family
1880-1886	Winnie Gorman, widow, and family
1895-1900+	Bernard McKeon, blacksmith; Carrie McKeon, widow, and children

518-½ Eighth

1880	Michael Driscoll, laborer

Ownership:

+1894-1909+	Jas. Enright

Documentary Research Table, 520 Eighth Street *(continued)*

DOCUMENTARY TIME LINE

1852/53	**Coast Survey Map** – Sand dunes
1857/59	**Coast Survey Map** – Sand dunes
1874	**Land Use Map** – Vacant
1875	**Tap Record** – W.? Noonan, December 22, 1875, 520 Eighth
	City Directory – *Off Site – P. Jude, laborer SPRR Co. [no r. listed]*
1875-1877	**City Directory** – *Off Site – Jeremiah Mehegan, laborer, r. 435 Pierce*
1876-1878	**City Directory** – *Off Site – Patrick Jude, laborer Southern Pac R.R. [no r. listed]*
1877/78	**City Directory** – Jeremiah Stanton, fruits and vegetables, Ws Portrero Ave bet 22 & 23rd [no r. listed]; *Off Site–William Noonan (Dower & Noonan), r. 829 Brannan; John Quinine not listed*
1878/79	**City Directory** – John Quinine, laborer Rollin P. Saxe, r. 520-½ Eighth; Jeremiah Stanton, fruit peddler, r. 520-½ (also Mrs. Mary Stanton, fruits, 22 Eighth); William Noonan, painter, r. Eighth nr Brannan
1879/80	**City Directory** – John Quinine, hostler Central R.R. Stable, r. 520-½ Eighth; *Off Site – James Flannigan, boltmaker, Pac. Rolling Mills, r. Bryant nr Kate; Patrick Jude not listed; William Noonan not listed; Margaret Sullivan not at address; John Lowry not at address; Michael Driscoll not listed or not at address*
1880	**U.S. Census** (Ward 11, ED 153, Page 16, Sheet 108) – 520 Eighth Street–Jude Family: **Head:** Patrick, 40, laborer, 6 months unemployed, illiterate, Ireland; **Wife:** Bridget, 33, keeps house, illiterate, Ireland; **Daughters:** Ellen, 3; Mary, 1; both CA. Quinine Family: **Head:** John H., 30, laborer, 8 months unemployed, Ireland; **Wife:** Mary, 34, Ireland, keeps house; **Daughters:** Mary A., 13; Alice, 11; both NY, at school; **Sons:** John H. Jr., 10, at school; Thomas, 8; James P., 7; both attended school during census year; William, 4; all CA 520-½ Eighth Street – Stanton Family: **Head:** Jeremiah, 45, fruit peddler, 4 months unemployed, away in country temporarily since May 15, illiterate, Ireland; **Wife:** Mary, 43, keeps house and vegetable store, illiterate, Ireland; **Daughters:** Mary, Jr., 14, at school, PA; Honora, 8, at school, CA. 518 Eighth Street – Gorman Family: Winnifred, 35, widowed, keeps house, Ireland; **Daughters:** Margaret J., 10; Mary E., 8; both at school, CA, father born Ireland; **Son:** John T., 5, CA, father born Ireland. Noonan Family: **Head:** William, 44, house painter, 6 months unemployed, illiterate, Ireland; **Wife:** Catherine, 46, keeps house and dairy, 10 cows, illiterate, Ireland; **Daughters:** Emma, 14, at school, Ellen F., 8; both CA; **Son:** Walter J., 11, CA, at school; **Domestic Help:** Hannah McCarthy, 45, widowed, domestic help, 6 months unemployed, Ireland; **Roomers:** Margaret Sullivan, 64, widowed, at home, Ireland; John Lowry, 54, single, carpenter, 9 months unemployed, Switzerland; Jeremiah E. Mehegan, 29, single, house painter, 6 months unemployed, Ireland Flanningan Family [roomers]: **Head:** James, 45, hackman, Ireland; **Wife:** Julia, 30, keeps house, Ireland 518 ½ Eighth Street – (Ward 11, ED 153, Page 18, Sheet 109) **Boarder:** Michael Driscoll, 75, single, laborer, unemployed 8 months, illiterate, Ireland
1880-1886	**City Directory** – Winnie Gorman, widow, r. 520 Eighth

Documentary Research Table, 520 Eighth Street *(continued)*

1880/81	**City Directory** – John Quinine, hostler P.L. Archibald & Co., r. 520-½ Eighth; William Noonan, housepainter, r. 520 Eighth; Jeremiah Stanton, fruit dealer, r. 518 Eighth; Jeremiah Stanton, peddler, Ws Portrero; *Off Site – John Lowry, teamster, r. 236 Fifth; Hannah McCarthy not at address; Margaret Sullivan not at address; Jeremiah Mehegan not at address*
1881/82	**City Directory** – John Quinine, hostler John P. French, r. 520-½ Eighth; Jeremiah Stanton, peddler & groceries, etc., 520-½ Eighth [no r. listed]; William Noonan, painter, r. 520-½ Eighth; James Flanagan, driver, r. 520 Eighth; *Off Site – Patrick Jude, laborer SPRR, r. Ss Fourteenth, bet. Folsom & Harrison; Hannah McCarthy, widow, r. Ss Eleventh bet. N & P S.S.F.; Jeremiah Mehegan, laborer, r. 113 Pierce*
1883	**City Directory** – Margaret Egan, widow, groceries, 520 Eighth; *Off Site – John Quinine, carriage washer W.P. Lambert, r. 9 Hayward; James Flanagan, teamster, r. 7 Decatur*
1883-1885	**City Directory** – William Noonan, varnisher Kragen & Geist, r. 520-½ Eighth; *Off Site – Jeremiah Stanton, peddler, r. 519 Eighth*
1886-1888	**City Directory** – William Noonan, painter, r. 520 Eighth
1887	**City Directory** – *Off Site – Winnie Gorman not at address*
	Sanborn Map – Two-story lodging with a pair of small one-story buildings across front of lot. One-story additions behind lodgings to the back lot line and facing the interior yard abutting a two-story outbuilding with a stable in the basement. Attached to the rear of the outbuilding are small two- and one-story additions with staircases to the side and rear. The adjacent lot toward Bryant Street is fenced with a one-story open structure abutting the rear addition to the lodgings
1888	**City Directory** – *Off Site – Winnie Gorman, widow, r. 10 Preston Place*
1889	**City Directory** – William Noonan, varnisher, r. 520 Eighth
1890	**City Directory** – *Off Site – William Noonan not at address*
1891	**City Directory** – *Off Site – William Noonan, painter, r. 1503 Folsom*
1893-94	**City Directory** – *Off Site – Bernard McKeon not listed*
1894	**Block Book** – Jas. Enright
1895	***San Francisco Call*** *– Off Site – "Noonan-In this city, March 8, 1895, William, beloved husband of Johanna Noonan, and father of Margaret and William Noonan, a native of County Limerick, Ireland, aged 59 years. [Virginia City (Nev.) papers please copy.] Friends and acquaintances are respectfully invited to attend the funeral tomorrow (Sunday) at 8:30 o'clock a.m., from his late resident, 9 Boardman Place, between Sixth and Seventh streets, Bryant and Brannan, thence to Rose's church, Brannan street, where a requiem high mass will be celebrated for the repose of his soul, commencing at 9:00 a.m. Internment Holy Cross cemetery." (San Francisco Call, 9 March 1895 10:6)*
	San Francisco Call – "McKeon - In this city, August 29th 1895 Bernard, beloved husband of Mary McKeon, and father of Lizzie, Thomas, Joseph, Nellie, Rosie, and Katie McKeon, a native of County Fermanagh, Ireland aged 52 years and four months."(*San Francisco Call*, 30 August 1895 13:8)
	City Directory – Bernard McKeon, blacksmith, r. 520 Eighth
1898-1902	**City Directory** – Mrs. Bernard McKeon, widow, r. 520 Eighth
1899	**Sanborn Map** – Two-story flats at front with narrow one-story side addition abutting narrow two-story addition with one-story small building behind. Small building at left rear corner of lot 520-½ Eighth with very small attached outbuilding

Documentary Research Table, 520 Eighth Street *(continued)*

1900	**U.S. Census** (E. D. 70, Sheet 5) – McKeon Family: **Head:** Carrie, 41, widowed, 6 of 6 children living, Ireland, immigrated 1875, no occupation given, rents; **Daughters:** Lizzie, 16, laborer (metalworker); Nellie, 11; Rose, 9; Katie, 6; at school; all CA; **Sons:** Thomas, 15; Joseph, [age and birth date illegible 14?]; both laborer (metalworkers), CA
1905	**Sanborn Map** – Unchanged from 1899
1906	**Block Book** – Jas. Enright
1909	**Block Book** – Jas. Enright
1913	**Sanborn Map** – Teaming shed
1949	**Sanborn Map** – Vacant lot

PRIVY 20 - FEATURE SUMMARY

520 Eighth Street (Bayshore Block 6)

William Noonan Family & Lodgers

Privy 20 was a wood-lined feature measuring 4 ft. x 2 ft. 8 in. x 2 ft. 1 in. deep. It had been truncated by construction of Bent L46L and was further disturbed by retrofit excavation and a driven pile. Artifacts recovered from the mechanical clearing at the time of discovery were designated as Context 200. There were two in-situ layers of fill within Privy 20, Layers 202 and 203. Layer 202 was grey-brown sandy silt with numerous artifacts. Layer 203 was yellowish-brown striated silty sand with few artifacts. The striations possibly indicate that the privy was left open for some time between abandonment and filling.



The TPQ is 1879 for a Columbia Soda Works bottle. The company was only listed in business directories up through 1881. The deposit is associated with the Noonan family and their lodgers. The most unusual aspect of the artifact collection is the presence of the five coins that may have been a collection. Three of the coins are foreign—identified as a British penny, a Chinese Tong Bao, and a Prussian silver "groschen," or penny. The U.S. two-cent coin was only minted for nine years ending in 1873, so it was almost a decade old when the privy was filled. The remaining item may have been a token and could not be identified. The coins were most likely discarded as part of the privy-filling event, rather than as incidental deposition into primary fill.

The tableware is interesting when considered as coming from a lodgings association. Presumably there would have been communal cooking for at least the Noonans, and the lodgers, if not the Gorman family as well. The collection is not a large enough service to accommodate all the above-mentioned families and lodgers, but it may represent change in some aspect of the household arrangement or simply replacing broken or outdated items. The collection would have been sufficient for a family such as the Stantons, Judes, or Quinines, who were listed separately. The variety of buildings, additions, and multiple addresses indicate some separation between the households. It is reasonable to assume that at least some of the families would have preferred to do their own cooking.



The tableware collection is predominately white improved earthenware (81.3%), with only three pieces (9.4%) of porcelain. There were no multiples or sets of decorated ceramics and 24 ceramic items (75%) were undecorated. All of the glassware was decorated. There were some similar sided-tumblers, yet even these varied in the

number of panels rather than having originated from a single set. While there are a number of drinking vessels in the collection, relatively little alcoholic-beverage drinking is suggested from the bottles recovered: 2 ale bottles, 1 whiskey bottle, and 1 nonspecific bottle. A cuspidor was also recovered.



There were four pieces of a toy tea set recovered, along with a doll arm and several marbles. Most of the families on the lot at the time of deposition had daughters. The slate and slate pencil may have also been a child's item, as most of the adult residents could neither read nor write, while all of the older children had been attending school.

Fabric and buttons from at least 9 pieces of clothing combine to indicate better than usual clothing preservation. A striped wool fragment with a flat felt seam was once either a pair of trousers or some kind of outergarment. A two-colored twill of better-quality wool, possibly mohair, came from a dress, waist, or outergarment. One of the two wool-flannel outergarments was hand-tailored. Most impressive for the quality of preservation was a man's wool-twill coat with two-piece sleeves, two pockets on the right, and fitting a size 40—presumably either Mr. Noonan or one of the lodgers. Most of the buttons were plain and represented shirts, undergarments, and sleeping clothes. The recovered straight pins and safety pins might indicate various forms of clothing construction and alterations.

One sole of small boy's boot was covered with hobnails and was worn on the back of the heel. The other four pairs of footwear are all attributed to adults or young adults and show signs of wear. A shoe/boot buttonhook was also found.

Eight lamp chimneys, a lamp globe, and a candlestick were in the collection. These items are often seen in deposits associated with mass dumping episodes, yet there were no chamber pots. Chamber pots are typically deposited when the privy is abandoned and the house is connected to the city sewer. Siltation in the privy indicated that it had been abandoned for a period of time prior to filling. It is possible that the chamber pots were discarded at an earlier date or the abandonment of this privy was related to a restructuring of yard space and the privies were still needed. Grooming and health items that were found in the privy included a straight razor, razor strop, hard-rubber comb, a hairbrush, and a few patent-medicine bottles. The identified bottles were Turner's Essence of Jamaica Ginger and Lyon's Powder from New York.

The faunal remains from Privy 20 indicate that the residents were generally eating moderate to low-priced cuts of meat. The overwhelming majority (76.2%) of the pork, in particular, were low-priced cuts. Pork cuts were comprised mostly of meat from the skull and jowl, followed by significant contributions from the loin, shoulder butt, and hindshank. Nearly half of the meat from this animal was in a form appropriate for soups and stews. Beef had slightly more low-priced cuts (41.5%) than moderate- (34.7%) or high-priced (23.7%). Shoulder and leg portions dominated the retail cuts from beef, followed by a preference for rib and loin. As with pork, a preference for cuts appropriate

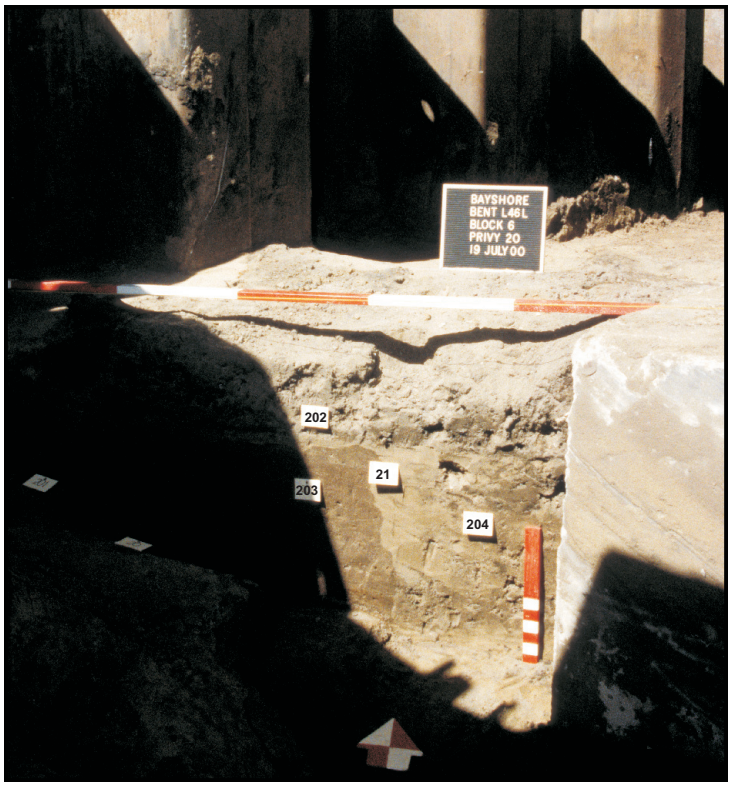
for soups and stews top the list of identified chunks of meat for beef. The mutton consisted of predominantly moderate-priced cuts (56.1%), with more low-cost cuts (24.8%) than high (19.0%). Over half the meat weight from mutton was represented by cuts from the rib followed by the shoulder. Nearly one-third of all the mutton identified was in the form of cuts appropriate for soups and stews. Over one-fifth of the total meat weight came from poultry represented by two turkeys, a chicken, and three quail. This is a high proportion of fowl relative to the amount of meat from mammals.

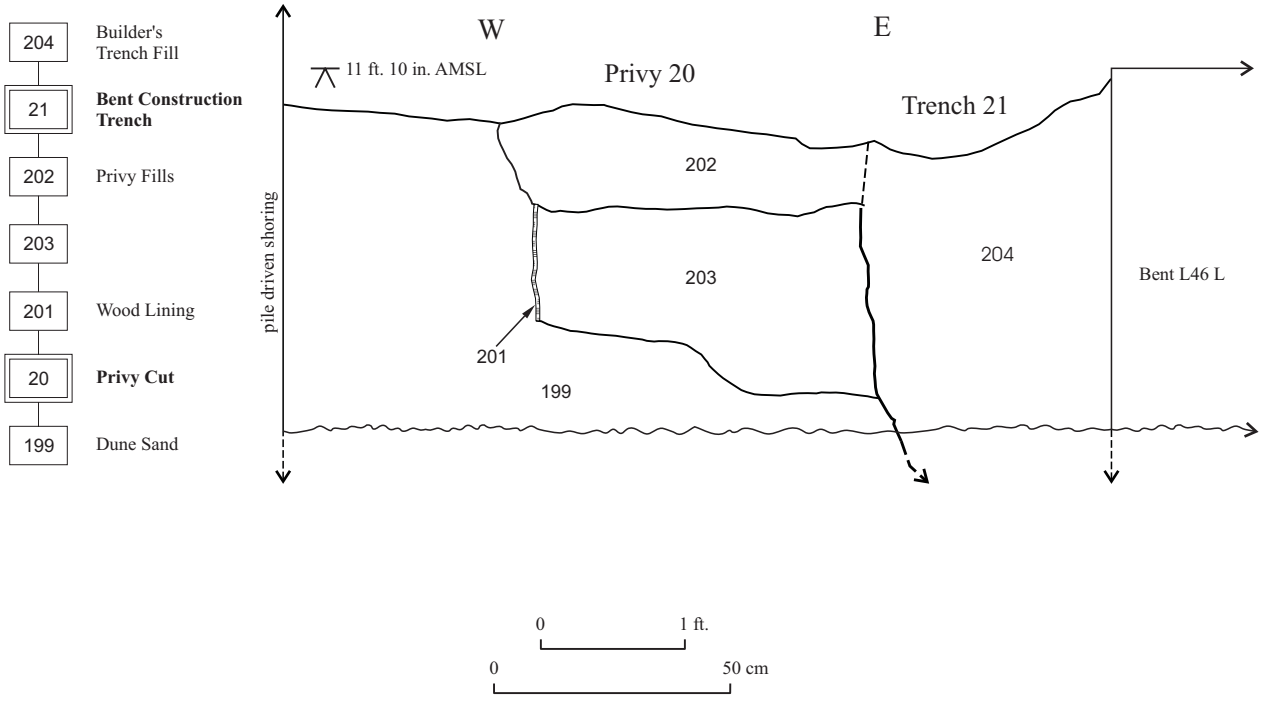
In 1880 the residents at 520 Eighth Street were living at the rural edge of the expanding city near a number of industries, including those associated with Butchertown. They were surrounded by open space, yet packed tightly on the house lot—a lot they may have been sharing with livestock. The Noonans appear to have been receiving income from a variety of sources: Mr. Noonan's painting, Mrs. Noonan's dairy, and renting to a variety of families and lodgers. It is not clear whether the artifact collection came from a single family or mix of families on the lot. It does, however, provide information otherwise unavailable from other sources about life at the city's edge in the early 1880s. There were articles for grooming present, such as a razor, comb, and brush in the fill, however, no indication of toothbrushes for dental hygiene. The dishes were rather plain with few exceptions, such as the floral-decorated tureen. With the rather meager furnishings represented by the artifact collection, the few coins may have been an opportunity missed in some container or article of clothing.

Privy 20 – MATRIX AND EXCAVATION PROFILE

520 Eighth Street (Bayshore Block 6)

William Noonan Family & Lodgers





Privy 20 – FEATURE SUMMARY TABLE
520 Eighth Street (Bayshore Block 6)
William Noonan Family & Lodgers

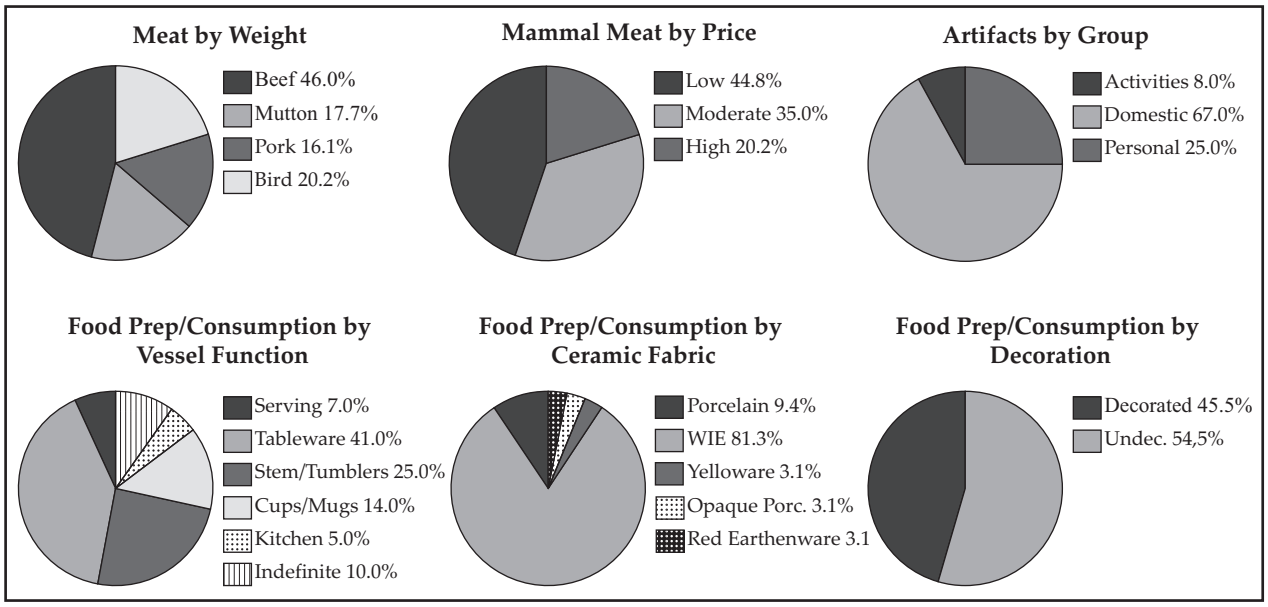
HOUSEHOLD

Name:	William Noonan Family Lodging-house
Birthplace:	Ireland
Ethnicity or Race:	Ireland
Occupation:	Painter, dairy, lodgings
Period of Residence:	1878-1889
Terminus Post Quem/Basis:	1879 (Columbia Soda Works bottle)
Mean Ceramic Mark Date/N:	1869 (n = 10)
Estimated Date of Deposition:	mid-1880s

ANALYTICAL UNIT

Context Numbers:	200, 202, 203

ARTIFACTS





Privy 20 – ARTIFACT LAYOUT PHOTOGRAPH, 520 Eighth Street (Bayshore Block 6), William Noonan Family & Lodgers. The tableware from this feature is interesting when considered from a lodging situation. Presumably there would have been communal meals for the Noonan's, the lodgers, and their domestic helper, but the assemblage does not include a table service large enough to accommodate all of the people living at the address. Perhaps it indicates that each family was responsible for their own meals, or that broken or outdated items were being replaced piecemeal. A handful of personal grooming articles such as a razor, comb, and brush were found, but no toothbrush. The most notable artifacts are five coins, both foreign and domestic, which may have been part of a collection.

Privy 20 – ARTIFACT DESCRIPTIONS BY GROUP AND CATEGORY
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Group and Category	Description	Count	MNI
ACTIVITIES			
Commerce			
-	Copper-alloy British? Coin	1	1
-	Copper-alloy Coin? Token?	1	1
-	Copper-alloy Tong Bao	1	1
-	Copper-alloy Two Cent Coin	1	1
-	Silver Prussian Coin	1	1
Subtotal Commerce		5	5
Firearms			
Ammunition	Copper-alloy .22 Short Shell Casing	1	1
Subtotal Firearms		1	1
Writing			
-	Graphite Pencil Lead	1	1
-	Slate Pencil	3	2
-	Slate Tablet	11	2
Subtotal Writing		15	5
DOMESTIC			
Clothing Maintenance			
-	Copper-alloy Safety Pin	3	2
-	Copper-alloy Straight Pin	24	11
-	Ferrous Straight Pin	3	3
Subtotal Clothing Maintenance		30	16
Food/Food Storage			
Container	Aqua Glass Soda-water Bottle	4	4
Container	Brown Glass Soda-water Bottle	1	1
Container	Colorless Glass Mustard Bottle	1	1
Subtotal Food/Food Storage		6	6
Food Prep/Consumption			
Drinking Vessel	Colorless Glass Goblet	8	2
Drinking Vessel	Colorless Glass Mug	3	1
Drinking Vessel	Colorless Glass Tumbler	22	9
Drinking Vessel	Colorless Glass Tumbler/Goblet	3	0
Drinking Vessel	Opaque Porcelain Cup	2	1
Drinking Vessel	Porcelain Cup	3	1
Drinking Vessel	White Improved Earthenware Cup	6	3
Indefinite	Ferrous Spoon	2	1
Indefinite	White Improved Earthenware Body	3	0
Indefinite	White Improved Earthenware Hollow	1	1
Indefinite	White Improved Earthenware Indefinite	1	1

Privy 20 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Food Prep/Consumption *(continued)*			
Indefinite	White Improved Earthenware Plate/Platter?	1	1
Indefinite	White Improved Earthenware Soup Plate/Bowl?	2	1
Kitchen	Red Earthenware Bean Pot	4	1
Kitchen	Yellowware Nappie	10	1
Serving	Porcelain Tureen?	1	1
Serving	White Improved Earthenware Oval Dish	2	1
Serving	White Improved Earthenware Tureen	5	1
Tableware	Porcelain Plate?	1	1
Tableware	White Improved Earthenware Plate	8	6
Tableware	White Improved Earthenware Plate, 7″	3	2
Tableware	White Improved Earthenware Plate, 9 1/2″	4	1
Tableware	White Improved Earthenware Saucer	4	4
Tableware	White Improved Earthenware Saucer, 6″	7	2
Tableware	White Improved Earthenware Soup Plate	1	1
Tableware	White Improved Earthenware Soup Plate, 9-1/2″	2	1
Subtotal Food Prep/Consumption		109	45
Furnishings			
-	Colorless Glass Mirror	4	2
Decorative Item	Common-pottery Flowerpot	4	3
Furniture	Ferrous Drawer Handle	1	1
Subtotal Furnishings		9	6
Heating/Lighting			
-	White Glass Candlestick	22	1
Lamp	Colorless Glass Chimney	42	8
Lamp	Colorless Glass Globe	21	1
Lamp	Copper-alloy Thumbscrew	1	1
Subtotal Heating/Lighting		86	11
Indefinite			
-	Aqua Glass Hollow	1	1
-	Blue Glass Hollow	1	1
-	White Improved Earthenware Hollow	1	1
Subtotal Indefinite		3	3
INDEFINITE USE			
Indefinite			
-	Amber Glass Rod	1	1
-	Blue Opaque Glass Flat	1	1
-	Ceramic Barrel-shaped Item	1	1
-	Colorless Glass Bottle/Chimney	69	0
-	Colorless Glass Bottle/Tumbler	1	0

Privy 20 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Indefinite *(continued)*			
-	Colorless Glass Flat	3	3
-	Colorless Glass Hollow	1	1
-	Conglomerate with Rock Material	4	0
-	Cranberry Glass Flat	1	1
-	Fiber? Disc	1	1
-	Purple Glass Flat	1	1
-	White Glass Hollow	1	1
-	Yellow Glass	7	1
-	Yellow Glass Hollow	1	1
Subtotal Indefinite		93	13
Material			
-	Stone	1	0
Subtotal Material		1	0
Misc. Beads			
-	Black Glass Bead	5	5
-	Colorless Glass Bead	2	2
-	Glass Bead	5	5
-	Green Glass Bead	3	1
-	Pink Glass Bead	1	1
Subtotal Misc. Beads		16	14
Misc. Closures			
-	White Improved Earthenware Pot Lid	1	1
Subtotal Misc. Closures		1	1
Misc. Containers			
-	Aqua Glass Bottle	12	11
-	Chinese Brown Glazed Stoneware Jar	1	1
-	Colorless Glass Bottle	10	7
-	Ferrous Can	225	3
-	Green Glass Bottle	1	1
Subtotal Misc. Containers		249	23
Misc. Fasteners			
-	Copper-alloy Rivet	1	1
Subtotal Misc. Fasteners		1	1
Misc. Metal Items			
-	Copper-alloy Flange	1	1
-	Copper-alloy Key	1	1
-	Copper-alloy Plate	2	1
-	Copper-alloy Ring	1	1
-	Copper-alloy Rod	1	1
-	Ferrous Mesh	1	1
-	Ferrous Ring	2	2

Privy 20 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Misc. Metal Items *(continued)*			
-	Ferrous Rod	2	2
-	Ferrous Sleeve	1	1
-	Ferrous Strap	9	5
-	Ferrous Washer	1	1
Subtotal Misc. Metal Items		22	17
PERSONAL			
Accoutrements			
Jewelry	Copper-alloy Disk	1	1
Subtotal Accoutrements		1	1
Clothing			
-	Silk Outergarment/Waist	4	0
-	Wool Coat, Men's	34	1
-	Wool Outergarment	64	3
-	Wool Outergarment/Dress/Weight	2	1
-	Wool Outergarment/Dress/Trousers	5	1
-	Wool Outergarment/Trousers	24	1
-	Wool Shawl/Scarf	16	1
-	Wool Undergarment/Sweater/Shawl	1	0
Fastener	Black Glass Button	1	1
Fastener	Copper-alloy Button	3	3
Fastener	Copper-alloy Stud	1	1
Fastener	Ferrous Button	2	2
Fastener	Ferrous and Fiber Button	1	1
Fastener	Porcelain Button	19	18
Fastener	Porcelain and Copper-alloy Button	1	1
Fastener	Shell Button	3	3
Subtotal Clothing		181	38
Clothing/Footwear			
-	Copper-alloy Grommet	44	0
Subtotal Clothing/Footwear		44	0
Footwear			
-	Copper-alloy Buttonhook	2	1
-	Leather Boot, Children's Size 7	3	1
-	Leather Shoe/Boot	5	1
-	Leather Shoe/Boot, Adult's	1	1
-	Leather Shoe/Boot, Men's	7	1
-	Leather and Cotton Shoe, Women's/Young	14	1
Fastener	Copper-alloy Grommet	6	0
Fastener	Copper-alloy Nail	16	0
Fastener	Copper-alloy Screw	8	0
Fastener	Copper-alloy Tack	8	0
Subtotal Footwear		70	6

Privy 20 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Grooming/Health			
Container	Aqua Glass Jamaica-ginger Bottle	2	2
Container	Brown Glass Powder Bottle	1	1
Container	Colorless Glass Pharmaceutical Bottle	1	1
Toiletry	Ferrous Razor Strop?	2	1
Toiletry	Ferrous Straight-edge Razor	1	1
Toiletry	Hard-rubber Comb	2	1
Toiletry	Wood and Bristle? Hair Brush	1	1
Subtotal Grooming/Health		10	8
Misc. Containers			
-	Amber Glass Bottle	1	1
-	Brown Glass Bottle	5	2
-	Olive Glass Bottle	2	0
Subtotal Misc. Containers		8	3
Social Drugs - Alcohol			
Container	Amber Glass Whiskey Bottle	1	1
Container	Olive Glass Alcoholic-beverage Bottle	3	1
Container	Stoneware Ale Bottle	5	2
Subtotal Social Drugs - Alcohol		9	4
Social Drugs - Tobacco			
-	Ball Clay Pipe	3	1
-	Earthenware Cuspidor	14	1
Subtotal Social Drugs - Tobacco		17	2
Toys			
-	Porcelain Doll Arm	1	1
-	Porcelain Marble	3	3
Tea set	Porcelain Cup	4	2
Tea set	Porcelain Saucer	2	2
Subtotal Toys		10	8
STRUCTURAL			
Hardware			
-	Copper-alloy Cut Nail	3	3
-	Ferrous Cut Nail	187	142
-	Ferrous Nail	562	237
-	Ferrous Spike	9	8
Subtotal Hardware		761	390
Heating/Lighting			
-	Porcelain Insulator	1	1
Subtotal Heating/Lighting		1	1

Privy 20 – Artifact Descriptions by Group and Category *(continued)*

Group and Category	Description	Count	MNI
Material			
-	Cement	39	0
-	Clay Brick	9	6
-	Colorless Glass Window	73	0
-	Mortar	2	0
Subtotal Material		123	6
Undefined Use			
-	Conglomerate with Rocks	34	0
-	Ferrous Amorphous	3	0
-	Coal Fuel	81	0
-	Coke Waste	19	0
-	Slag Waste	64	0
Subtotal		201	0
TOTAL		2,083	634

Privy 20 – SUMMARY OF ARTIFACTS BY GROUP
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Description	Total Count	MNI	Percent of MNI
Activities	21	11	8
Domestic	243	87	67
Personal (other than clothing)	169	32	25
Subtotal	433	130	100
Indefinite Use	383	69	
Personal Clothing	181	38	
Structural	885	397	
Undefined Use	201	0	
TOTAL	2,083	634	

Privy 20 – SUMMARY OF ARTIFACTS BY CATEGORY
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Description	MNI	Percent
Accoutrements	1	0.4
Clothing	38	16.0
Clothing Maintenance	16	6.8
Commerce	5	2.1
Firearms	1	0.4
Food Prep/Consumption	45	19.0
Food/Food Storage	6	2.5
Footwear	6	2.5
Furnishings	6	2.5
Grooming/Health	8	3.4
Heating/Lighting	11	4.6
Indefinite	16	6.8
Misc. Beads	14	5.9
Misc. Closures	1	0.4
Misc. Containers	26	11.0
Misc. Fasteners	1	0.4
Misc. Metal Items	17	7.2
Social Drugs - Alcohol	4	1.7
Social Drugs - Tobacco	2	0.8
Toys	8	3.4
Writing	5	2.1
TOTAL	237	99.9

Privy 20 – PERSONAL GROOMING/HEALTH CONTAINERS AND CLOSURES
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Group	Description	Maker	MNI	Percent
Labeled Items				
	Patent-medicine Bottle	Lyons Powder	1	
		Turner's Jamaica Ginger	2	
Subtotal Labeled Items			3	75
Unlabeled Items				
	Druggist/Apothecary Bottle		1	
Subtotal Unlabeled Items			1	25
TOTAL			4	100

Privy 20 – FOOD PREPARATION/CONSUMPTION VESSEL FUNCTION
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Function	MNI	Percent
Serving (platters, covered dishes, etc.)	3	7
Tableware (plates, bowls, saucers, etc.)	18	41
Stemware and Tumblers	11	25
Cups and Mugs	6	14
Kitchen (mixing bowls, bakers, etc.)	2	5
Indefinite	4	10
TOTAL	44	101

Privy 20 – FOOD PREPARATION/CONSUMPTION VESSEL FABRIC
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Fabric	MNI	Percent	Total MNI	Total Percent
Ceramic			32	73
Porcelain	3	9.4		
Opaque Porcelain	1	3.1		
White Improved Earthenware	26	81.3		
Yellowware	1	3.1		
Red Earthenware	1	3.1		
Ceramic Subtotal	32	100.0		
Glass			12	27
TOTAL			44	100

Privy 20 – FOOD PREPARATION/CONSUMPTION VESSEL DECORATION
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Fabric	Description	Type of Decoration	Decorated MNI	Undecorated MNI
Ceramic				
Opaque Porcelain	Cup			1
Porcelain	Cup	Handpainted, Gilded	1	
Porcelain	Plate?			1
Porcelain	Tureen?			1
Red Earthenware	Bean Pot			1
WIE	Cup	Brown scenic transfer	1	
WIE	Cup	Paneled	2	
WIE	Hollow	Molded	1	
WIE	Indefinite			1
WIE	Oval Dish			1
WIE	Plate			5
WIE	Plate	Brown transfer - Sitka	1	
WIE	Plate, 7"			2
WIE	Plate, 9 1/2"			1
WIE	Plate/Platter?			1
WIE	Saucer			3
WIE	Saucer	Gilded	1	
WIE	Saucer, 6"			2
WIE	Soup Plate			1
WIE	Soup Plate, 9-1/2"			1
WIE	Soup Plate/Bowl?			1
WIE	Tureen	Sided, Black floral transfer, Handpainted	1	
Yellowware	Nappie			1
Ceramic Subtotal			8	24
Glass				
Colorless Glass	Goblet	Pressed - Honeycomb	1	
Colorless Glass	Goblet	Pressed - Triangular Prism	1	
Colorless Glass	Mug	Pressed - Honeycomb	1	
Colorless Glass	Tumbler	Paneled	2	
Colorless Glass	Tumbler	Pressed panels (10)	2	
Colorless Glass	Tumbler	Pressed panels (6)	3	
Colorless Glass	Tumbler	Pressed panels (8)	2	
Glass Subtotal			12	
TOTAL			20	24

Privy 20 – SOCIAL DRUGS SUMMARY
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Social Drug	Description	MNI	Percent
Alcohol			
	Alcoholic-beverage	1	
	Ale Bottle	2	
	Whiskey Bottle	1	
Subtotal Alcohol		4	67
Tobacco			
	Cuspidor	1	
	Pipe	1	
Subtotal Tobacco		2	33
TOTAL		6	100

Privy 20 – ANIMALS REPRESENTED IN FAUNAL REMAINS
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Common Name	Scientific Name	NISP	MNI	MW (.lbs)
MAMMALS				
Major Meat Mammals				
cow	*Bos taurus*	35	2	73.1
sheep	*Ovis aries*	70	2	28.1
pig	*Sus scrofa*	30	2	25.6
artiodactyl	artiodactyla	1		
TOTAL MAMMALS		136	6	126.8
BIRDS				
Domestic Poultry				
chicken	*Gallus gallus*	8	1	2.0
turkey	*Meleagris gallopavo*	25	2	30.0
Game Birds				
California Quail	*Callipepla californica*	31	3	
TOTAL BIRDS		64	6	32.0
GRAND TOTAL		200	12	158.8

Privy 20 – MEAT WEIGHT BY PRICE
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
BEEF				
high			23.7	
porterhouse	3.2	4.3		
sirloin	4.1	5.5		
prime rib	10.2	13.9		
moderate			34.7	
crossrib				
round	10.4	14.2		
rump	5.4	7.4		
blade				
roundbone				
chuckrib	9.6	13.1		
low			41.5	
neck	1.8	2.5		
plate	1.9	2.6		
brisket	1.4	1.9		
hindshank	10.5	14.4		
foreshank	14.8	20.2		
Total	73.3	100.0	100.0	57.6
MUTTON				
high			19.0	
porterhouse	4.1	14.6		
sirloin	1.3	4.4		
rump				
round				
moderate			56.1	
rib	4.1	14.5		
crossrib	4.0	14.2		
blade	2.1	7.5		
roundbone	1.6	5.7		
chuckrib	4.0	14.2		
low			24.8	
neck	3.8	13.5		
plate	0.4	1.4		
brisket				
hindshank	0.8	3.0		
foreshank	1.9	6.9		
Total	28.1	100.0	100.0	22.2

Privy 20 – Meat Weight by Price *(continued)*

Meat Type	Meat Wt. (lbs.)	Percent within type	Percent within price	Percent of total
PORK				
high			11.3	
porterhouse	2.0	7.9		
sirloin				
rib	0.9	3.4		
round				
moderate			12.6	
rump				
blade	1.4	5.5		
roundbone				
chuckrib	1.8	7.1		
low			76.2	
neck	0.1	0.5		
crossrib	0.8	3.3		
brisket				
plate				
foreshank				
forefoot	1.3	5.2		
hindshank	3.9	15.3		
hindfoot	0.7	2.7		
head	9.8	38.3		
jowl	2.8	11.0		
Total	25.5	100.0	100.0	20.2
GRAND TOTAL	126.9			100.0

Privy 20 – DATE AND ORIGIN OF MARKED/DATABLE ITEMS
520 Eighth Street (Bayshore Block 6)
William Noonan Family and Lodgers

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items								
200 008	White Improved Earthenware	Plate, 7"	1	Printed mark: IRONSTONE CHINA/ [(standing Royal Coat of Arms)/ THOMAS HUGHES; (impressed mark) THOMAS HUGHES/ BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44-45, marks 139,141
200 009	White Improved Earthenware	Plate	1	Impressed mark: (in double circle) [RICHARD ALC]COCK (upper arch)/ (Royal Coat of Arms)/ [BURSLEM (lower arch)/ (in rectangle) STAFFORDSHIRE]	Alcock, Richard	Staffordshire	1870 - 1882	Godden 1983:175; Praetzellis et al. 1983:8-9
200 014	White Improved Earthenware	Saucer, 6"	1	Impressed mark: THOMAS HUGHES/BURSLEM	Hughes, Thomas	Staffordshire	1860 - 1891	Praetzellis et al. 1983:44, mark 142
202 040	White Improved Earthenware	Tureen	1	(red printed) (Chinese characters in a double box)	Meigh, Charles or J. Meigh & Sons or Charles Meigh & Son	Staffordshire	1805 ca - 1861	Godden 1991:428-429
202 041	White Improved Earthenware	Oval Dish	1	Printed mark: (upper arch) TRADE MARK/ (twin shields)/ [(in ribbon) EDWARD CLARKE TUNSTALL/ (lower arch) OPAQUE PORCELAINE]	Clarke, Edward	Staffordshire	1865 ca - 1877	Praetzellis et al. 1983:21, mark 65
202 042	White Improved Earthenware	Soup Plate, 9-1/2"	1	Printed mark: TRADE MARK/(Maltese cross) HONNEUR ET PATRIA (in cross)/ SEMI-PORCELAINE/ JOHN EDWARDS; (impressed) 38	Edwards, John	Staffordshire	1875 ca - 1891	Praetzellis et al. 1983:33-34, mark 107; Godden 1991:11
204 003	White Improved Earthenware	Plate	1	Brown printed mark: [(in ribbon) SI]TKA/ [THOMAS H]UGHES/ [BU]RSLEM/12	Hughes, Thomas	Staffordshire	1860 - 1890	Praetzellis et al. 1983:44-45, mark 144
204 005	White Improved Earthenware	Indefinite	1	Printed mark: (seated Royal Coat of Arms)/ (in ribbon) EDWAR[D CLARKE/ PORCELAIN OPAQUE/ (below ribbon) TUNSTALL]	Clarke, Edward	Staffordshire	1865 ca. - 1877	Praetzellis et al. 1983:21, mark 63
204 008	White Improved Earthenware	Plate/Platter?	1	Impressed mark: (upper arch) OPAQUE/ (lower arch) PORCELAIN/ 10			-	
204 012	White Improved Earthenware	Saucer	1	Printed mark: [(upper arch) ROBERT COCHRAN & CO GLA]SGOW/ [(standing Royal Coat of Arms)/ IMPERIAL/ IRONSTONE CHINA]	Cochran, Robert	Glasgow	1846 - 1891	Praetzellis et al. 1983:24-25, mark 77

Privy 20 – Date and Origin of Marked/Datable Items *(continued)*

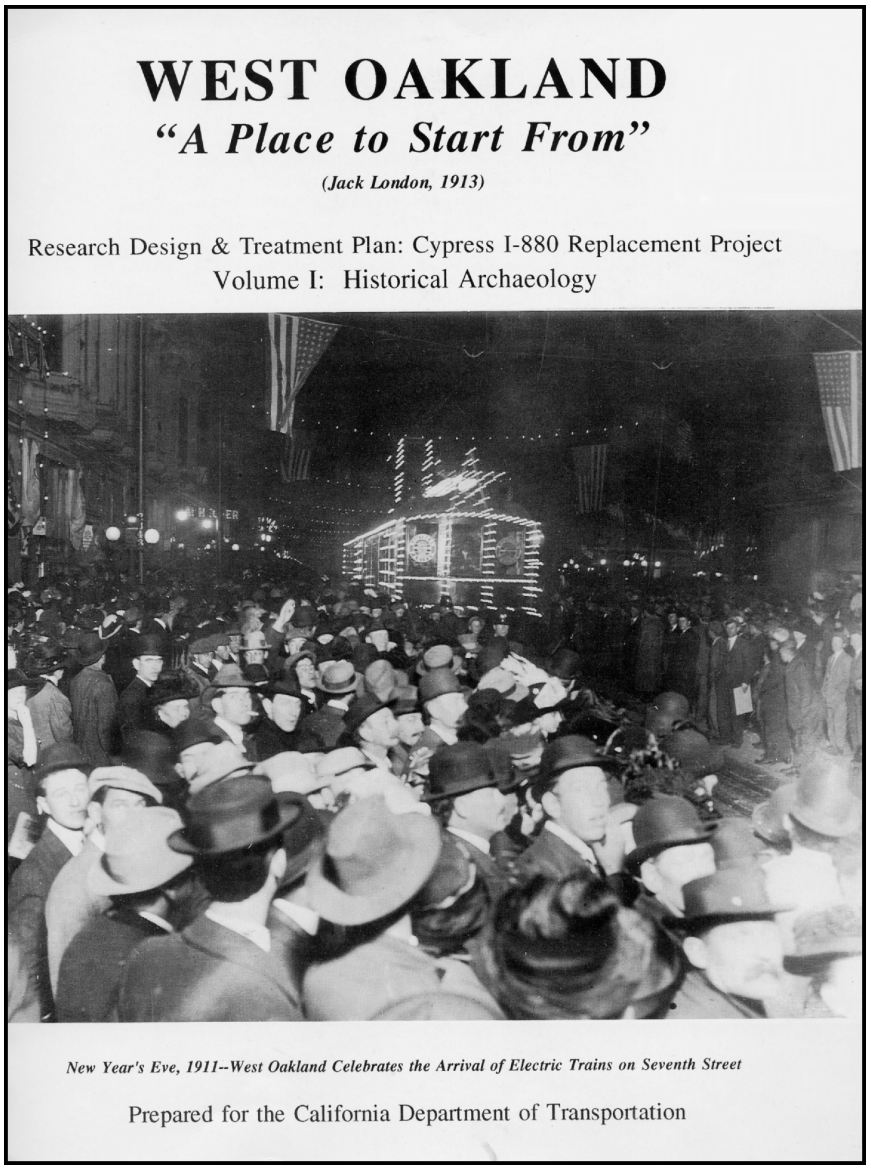
Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Ceramic Items (continued)								
204 014	White Improved Earthenware	Hollow	1	Printed mark: [(upper arch) ROYAL PATEN]T IRONSTONE/ (standing Royal Coat of Arms)/..	Hughes, Thomas (prob)	Staffordshire	1860 - 1894	Praetzellis et al. 1983:44-45; ASC Ceramics Mark Manual
Marked Glass Items								
200 019	Aqua Glass	Soda-water Bottle	1	PIONEER/ SODA WORKS/ (vertical arch on left, letters top to bottom) TRADE (shield) (vertical arch on right, letters bottom to top) MARK	Pioneer Soda Works	San Francisco	1877 - 1896	Markota and Markota 1994:89
202 001	Amber Glass	Whiskey Bottle	1	(star)			-	
202 004	Brown Glass	Powder Bottle	1	(upper arch) LYONS/ POWDER//B & P/ N.Y.	Barnes & Park	New York	1860 ca - 1910 (adv)	Wilson and Wilson 1971:56, 126; Fike 1987:172
202 005	Aqua Glass	Jamaica-ginger Bottle	1	TURNER'S/ ESS OF/ JAMAICA GINGER/ NEW YORK	McMillan & Kester	San Francisco	1852 - 1906	Wilson and Wilson 1971:93, 143; Fike 1987:130
202 006	Aqua Glass	Soda-water Bottle	1	COLUMBIA/ SODA/ WORKS/ S.F.// (seated Liberty)/ C C DALL	C. C. Dall, Columbia Soda Works	San Francisco/ Oakland	1879 - 1881	Markota and Markota 1994:16
202 007	Colorless Glass	Pharmaceutical Bottle	1	/// W. T . & Co./5	Whitall Tatum & Co.		1857 - 1935	Toulouse 1971:544-547
202 015	Aqua Glass	Soda-water Bottle	1	..[SA]N FRANCISC[O]/ CAL./// (upper arch)[GR]AVITATING STOP[PER]/ [(lower arch)/ MADE BY]/ (upper arch) [JOHN] MATTHEW[S/ (lower arch) NEW YORK/ (upper arch) PAT/ (horizontal) OCT 11/ (lower arch) 1864]			1864 -	Prichett and McGuire 1981: 349, Fig. 8.10
203 003	Aqua Glass	Jamaica-ginger Bottle	1	TURNER'S/ ESS OF/ JAMAICA GINGER/ NEW YORK		New York	1852 - 1906	Wilson and Wilson 1971:93, 143; Fike 1987:129-130
Marked Other Items								
202 059	Ferrous	Razor Strop?	1	..80../ ..EARY/..SCO			-	
202 061	Copper-alloy	.22 Short Shell Casing	1	H	Winchester Repeating Arms Co.	New Haven, CT	1860 - 1934	Rosenberg and Kvietok 1982:79
202 062	Silver	Prussian Coin	1	WILHELM KOENIG VON P../ (portrait)// 50 EINEN THALER/ 1/ SILBER/ GROSCHEN/ 1870/ B/ SCHIEDE MUNZE		Prussia	1870 -	
202 064	Copper-alloy	British? Coin	1	..PENNY/ 186..// VICTORY/..			1860 - 1869	

Privy 20 – Date and Origin of Marked/Datable Items *(continued)*

Catalog #	Material	Description	MNI	Mark	Maker	Origin	Date Range	Reference
Marked Other Items (continued)								
202 065	Copper-alloy	Disk	1	J. ..MAN/ S.F. CAL./ IMPORTED WATCHES/ FINE JEWELRY/ FRENCH, ENGLISH, [JA]PANESE, CHINESE/ FANCY		San Francisco	-	
202 075	Copper-alloy	Two Cent Coin	1	(shield) 18..// [UNITED STATESOF AMERICA]/ 2 CENTS (in wheat sheaves)	United States Mint		1864 - 1873	Yeoman 1977:87-88
203 022	Copper-alloy	Coin? Token?	1	..C BON../ (five point star)			-	
204 050	Copper-alloy	Thumbscrew	1	.. 11.75			1875 -	
204 056	Copper-alloy	Plate	1	I.O.C.F.			-	

Part V: Historical Archaeology Interpretive Report

Part V discusses the research themes of Consumerism and Ethnicity and Urban Subcultures using the seven features described in Part IV. The Irish in San Francisco provide a major focus, as the majority of features were associated with Irish households. Lastly, statistically verifiable comparisons are made between the cities of Oakland and San Francisco based upon the archaeological findings of the Cypress Project in Oakland and the SF-80 Bayshore and SFOBB West Approach projects in San Francisco and a reflection is offered on the process of urban archaeology.



CHAPTER 10
CONSUMERISM, ETHNICITY, AND URBAN SUBCULTURES

RESEARCH CONTEXT

The history and archaeology of the SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project) area are viewed in this chapter within the framework of an issue that is of importance to social historians: the process by which people from traditional, pre-modern cultures—both immigrant and native-born—adapted to life in an industrial society (Gutman 1977). In so doing, we focus on "the local and the diverse as against the grand narratives of cross-cultural anthropology" (Hodder 1999:153). The approach is unashamedly historical and contextual. Rather than beginning with an interpretive framework that is taken to be cross-culturally applicable (e.g., Deetz 1996; Winer and Deetz 1990), we investigate local contexts and then seek to understand how individuals and groups used material culture to pursue their own political, social, and ethnic agendas in particular places and times. In this way, we hope to avoid what Gosden (2001) calls the "static and monolithic view of colonialism" in which hegemonic domination is presented as unchallenged and material culture is to be understood through the lens provided by a single ideology. This section briefly summarizes the SF-80 Bayshore Project research design, focusing on those themes for which archaeological data requirements were recovered during construction monitoring. The reader is referred to the RDTP for further details (Praetzellis et al. 1997:149-177).

MODERNIZATION

While the great exhibitions of the 19th century displayed the newly available products of the industrial revolution, the very process of industrialization was transforming western society and culture. 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 in which attainment of the 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 (e.g., Rostow 1960). 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 that has come to predominate in recent years, rejects the idea that all vestiges of the pre-industrial past were shed by all segments of society undergoing urbanization. Bender (1978) 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 since 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) or "gentility" (Lawrence 2000) came to predominate within the Euroamerican cultural and political establishment of this modern society. Victorianism is said to have been a "homogenizing force" (Hardesty 1980) upon the working class (both immigrants and native-born working class alike), replacing traditional mores with modern values and patterns of behavior suited to workers' roles in an industrial society. Archaeological research is in a unique position to measure both the relative pervasiveness of Victorianism, as well as the degree of resistance to the values of the emerging industrial society in the form of the development of distinctive working-class and other cultures.

The concept of gentility is not without its problems, however, for it may conjure up a seductive but ultimately unproductive vision of how the Victorian world worked—that of total cultural hegemony. In this skewed model, the various segments of society are seen as buying into the notion of the intrinsic rightness of 19th-century power relations and accepting the attendant practices and symbols more or less wholesale. According to Gramsci, the forces that sought to promote genteel values did not attempt to impose their hegemony by coercion or "rule" but by shaping common perception in order to make their power seem a part of the natural order (Gramsci 1971). Leone's (1984) study of the Paca Garden is a classic example of the role of material culture in this process. And this role, it should be emphasized, is an active one in which material culture does not merely reflect values but plays an active part in creating social relations.

Powerful as this approach may be, it may leave little role for members of subaltern groups in the "discourse" that leads to the creation of their own culture (Beaudry, Cook, and Mrozowski 1991; cf. Orser 1996:167-173). Furthermore, this approach tends to result in rather mechanical interpretations of the meaning of genteel material culture—interpretations that vary little with the specific contexts in which the items were used. Although the "tastemakers" determined the idiom in which respectable taste was expressed (Lynes 1955), they did not control how it was used. We assert that the presence of matched sets of dinnerware does not always mean that the household was striving for Victorian perfection any more than an increase in the proportion of Staffordshire pots over traditional Mexican or Chinese ceramics necessarily indicates that the users of these items were "assimilating." Although cultural hegemony and its cousin, the dominant ideology thesis (Althusser 1971), are useful in constructing large-scale generalizations, they are too inflexible and static to help understand the complex social dynamics of historical cases at the household scale.

In discarding aspects of the cultural-hegemony model, we question the notion that everyone who used genteel material culture employed these items to convey the same ideas or used them for the same purposes. Rather, we suggest that (1) these "incarnated signs" (Appadurai 1986:38) possessed powerful, conventional meanings understood

throughout 19th-century California; and (2) in a society of diverse ethnicities, social classes, and political agendas, people used others' knowledge of these meanings as "cultural capital" (Bourdieu 1984:53) to pursue their own strategies, not merely to imitate the Victorian upper crust in an attempt at social advancement.

Genteel Values and Practices

Gentility was one of the key influences on 19th-century American thought and fashion (Bushman 1992), although its influence was international, extending to South Africa (Ross 1999), New Zealand (Belich 1996), Australia (Lawrence 2000), and everywhere the British Empire and economy had held sway.

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 genteel family was expressed through 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. Clark (1976) examined the relationship between Gothic architecture and mid-19th-century Christian values. 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 was allowed beyond the front stoop of a middle-class home, the hallstand would receive their 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 through whose embellishments was 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; a suburban landlady, cited by Calvert Vaux, claimed that "all the best families lived in the basement," leaving the parlor, according to Vaux, as "a sort of quarantine in which to put each plague of a visitor" (1864:97). The volume of good taste in the parlor was redundant to the point of being overwhelming, and all who entered understood its cultural significance (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 dinnerware, was equally important. The best dinner service, crystal, and silver were displayed on a sideboard, 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 decorative 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 by the 1890s as cluttered gaudiness, connoting sloth. 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 wedded the wonders of technology with the simplicity of nature, a marriage 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. Complex forms and costly materials have an influence upon life, which tells a sad story in history. On the other hand, chasteness and restraint in form, simple, but artistic materials are equally expressive of the character of the people who use them" (1903 cited in Cohen 1986:264). 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).

WORKING-CLASS CULTURES AND RESISTANCE

The modernization of the cultures of 19th-century urban dwellers neither proceeded uniformly across society nor immediately supplanted all pre-industrial modes of life (Bender 1978). The meaning and value of material goods shifted for working-class urban dwellers, ethnic minorities, and the non-native born as they did for members of the white middle class.

The existence of an urban, distinctly working-class, culture in England was recognized by E.P. Thompson (1963) as an outgrowth of the industrial revolution. Although the traditional rights and responsibilities of craftsmen were being eroded by creeping industrialization, these values retained their strength and eventually jelled into the trades-union movement. Later writers have emphasized not only working-class political movements but also class-specific values and mores, often interpreting these as resistance to the genteel values of the time. Stedman Jones, for example, points to the rise of a "working class culture which showed itself staunchly impervious to middle class attempts to guide it" (1974:462). The working class was said to be governed by

"strict rules of propriety" (Booth 1902, cited in Stedman Jones 1974:463). These rules, however, were not the same as those of the Victorian middle class, who sought to reform the manners and morals of the working class through the medium of universal education. For example, unlike the middle class, working people did not save money to accumulate capital but rather to buy objects and clothing for display: "evidence about patterns of spending . . . suggest that a concern to demonstrate self-respect" was more important than saving for the future (Stedman Jones 1974:473).

As a mode of exchange, barter was still widespread well into the 18th century (Braudel 1975:328, 333), and products of the farm and forest were regularly exchanged for manufactured goods at many country stores in America throughout the 19th century (Carson 1954:19-38). Cordwood was offered for sugar; embroidery could pay off a grocery bill. In this environment, obtaining goods was a face-to-face operation between buyer and seller, in which the value of things was judged in relation to other things. When facing off, the actors knew each other's financial condition, credit worthiness, and reputation as a bargainer. Was the cord of wood worth 10 pounds of sugar to a local merchant, or 20? The answer might depend as much on the bargainers' relationship as on the storekeeper's assessment of local needs.

By the mid-19th century in American cities, however, economic relationships had become almost exclusively money-based. Until this time, transactions between urban merchants and their clients were personalized to the degree that credit was relatively easy to obtain, the price of merchandise was not marked on items, and their cost fluctuated with the customer's ability and willingness to pay the asking price. By the 1870s, this old system was fading rapidly, and in urban areas the "cash store" predominated.

It was a short step from the one-price system to marketing on a national scale. Mass retailing—based on high turnover and low unit-price, anonymity, and the one-price system—completed the depersonalization of the storekeeper/customer relationship and established the mode that has come to typify such relationships in mature capitalist economies. It was, in short, an inevitable part of the process of economic modernization.

The principles behind the one-price system were classically Victorian and had their social, as well as economic, counterparts: the system was a rational one based on fixed standards, reproducible conditions, and efficiency (Brown 1976:42-43). It could be applied to all persons equally, since the customer/merchant relationship was not influenced by the individuals' social roles outside the transaction. Proponents conceived of it as yet another example of the evolution of 19th-century society, whereby the practices and methods of rationalized business "were a natural outgrowth of a general law of Progress" (Polanyi 1957:274).

While patronizing secondhand stores was clearly motivated also by economic concerns, the continuance of barter in the face of the rise of a cash-based economy is an area in which 19th-century working-class and non-native-born resistance can be seen. The modes of barter and variable prices were embedded in community social relations and were precisely the kind of pre-modern arrangements that were contrary to all things Victorian. Where genteel society had absolute values for things, the pre-modern system had negotiation and variability. Where the new way involved standardized, role-specific performances, the old way had complex, multilevel relationships that spilled over the

boundaries between genteel social roles. Despite efforts at regulation, barter survived in urban areas in a vigorous trade in secondhand goods—ranging from household furnishings to clothing—supported by many working-class people. In junk stores, the money economy was suspended and barter was acceptable. Goods were exchanged for goods and bought or sold for cash or credit; the relationship between merchant and customer was intensely personal, and deals were highly negotiable.

A market in secondhand clothing flourished in much of the 19th century due to the inability of manufacturers and retailers to produce and distribute clothing at prices working-class people could afford (Lemire 1988:23). Technological advances, however, eventually resulted in mass production of inexpensive goods, efficient distribution networks, and annual catalogues; the new system accommodated and encouraged changes in fashion, influencing the purchasing patterns of many members of the working class. As the consumer revolution progressed, junk stores declined and the mass retailers, through their department stores and catalogues, came to serve as a sort of "cultural primer"—the source for ideas about how one should dress, furnish a home, and spend one's leisure time (M. Miller 1981:53, 183).

The consumer revolution and success of the labor movement increased the purchasing power of many late-19th-century working-class households. Although these households may have accepted middle-class purchasing modes, they did not necessarily accept middle-class tastes or purchasing strategies. According to Cohen, the choices of working-class people in decorating their homes was not a "simple emulation of middle-class Victorian standards with a time lag due to delayed prosperity, but rather a creative compromise forged in making a transition between two very different social and economic worlds" (1986:274). Despite efforts by domestic reformers, these choices often centered on the comfortable, curtained, clutter of Victorian decor roundly rejected by this time by those in the vanguard of middle-class taste.

CONSUMER BEHAVIOR AND STRATEGIES

VICTORIANISM IN THE BAYSHORE PROJECT AREA

Erica S. Gibson

Theme A (Consumer Behavior/Strategies) of the Bayshore Project RDTP asked the question: "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?" (Praetzellis et al. 1997:161). Theme B (Ethnicity/Urban Subcultures) asked a related question: "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?" (Praetzellis et al. 1997:164). The materials recovered from the seven California Register-eligible features, which represent the population living in the study area during the 1870s and early 1880s, can be used to explore these questions. This was a period when Victorian values were at their height, even in the city of San Francisco, far removed from Britain. Table 10.1 provides a look at some of the economic and social characteristics of the seven households. The designations

Table 10.1. Economic and Social Characteristics of the Households with CR-eligible Features, SF-80 Bayshore Project

Address	Feature	Family	Ethnicity	Occupation*	Education	Property Value	Religion
1031 Harrison	Privy 3	Duisenberg	German	Professional +	Yes	ca. $50,000 in 1870	German church of St. Marcus**
3 Maria	Privy 1	O'Neil	Irish	Skilled	Unknown	$10,330 in 1870	N/A
36 Kate	Privy 30	Mills	Irish	Widow	Anne – No Children – Yes	$2,000 in 1870	N/A
31 Kate	Privy 38	Dean	Irish (County Mayo)	Unskilled	Husband & Kids – Yes Wife - No		St. Patrick's Catholic Church
31 Kate	Privy 39	Wendt	German/Irish	Skilled	Yes		St. Boniface's Catholic Church
414 Seventh	Privy 41	Buckley	Irish	Skilled	Yes	$2,600 in 1870	St. Joseph's Catholic Church (10th St.)
520 Eighth	Privy 20	Noonan	Irish (County Limerick)	Unskilled	No		St. Rose Catholic Church (Brannan)

*Occupation categories according to statistical studies (see Chapter 11 and Appendix H).
**Possibly United German Evangelical Lutheran Congregation of St. Mark's Church – south side of Geary Street, between Stockton and Powell (1879 City Directory, p. 1071).

for occupation levels are those used in the statistical studies comparing SF-80 Bayshore residents with those from the Caltrans' SFOBB West Approach and Cypress projects (see Chapter 11 and Appendix H).

Victorian attitudes reflected the replacement of old English aristocratic values with those of the middle class and, as such, they found a strong foothold in the middle-class population of the United States. Independence, frugality, industry, and hard work were seen as among the primary goals to strive for. As the 19th century progressed and more and more middle-class men were employed outside the home in jobs providing goods and services, a new ideal of womanhood developed. This "cult of domesticity" held that women should remain at home, where they provided a safe haven for their husbands away from the outside world of trouble and vice. Home was viewed as a shelter, free from outside evils, where women would train their children while setting a moral example for them. Women raised their children, shopped for food and clothing for the family, washed and cleaned, decorated the home, and entertained. Essentially anything to do with the home came under the women's sphere of influence. Perhaps as an outlet for women, the tea ceremony became a decidedly female ritual—a chance to get together with other women.

The pervasiveness of Victorian moral values throughout society influenced people in many ways, which should in turn be reflected in their artifacts (Praetzellis 1991). The home, viewed as a center for this new morality, was seen as the place to demonstrate one's values (Halttunen 1989). Here would be displayed the objects reflective of family respectability (Yamin 2000a), and here artifacts could be used to reinforce desired behaviors and rituals among the occupants (Praetzellis and Praetzellis 1992). Victorians believed that living in beautifully appointed houses would create morally good people; as such the converse would also be true–-living in unattractive homes created immoral people. The most public of rooms, the parlor, would have been ornately decorated and used to demonstrate one's respectability to the outside world. Similarly, the dining room, with its matched china sets in a variety of forms and its bric-a-brac placed on a plate rail, would have further reinforced and confirmed the family's station in society and its strong sense of values (Green 1983).

The working-class consumer was not immune to these Victorian ideals and aesthetics. At Five Points in New York City, even the poorest of workers had partial sets of matching tableware in a variety of serving pieces, as well as an assortment of decorative household items (Yamin 2000a). It has been suggested that rather than mimicking the middle class, the use of the residents' limited wealth to purchase fashionable goods was a reflection of a distinction within the classes rather than between them (Cook, Yamin, and McCarthy 1996)—a way of asserting one's identity and value as a person. As the working classes could often ill-afford the desired trappings of Victorianism, some would have turned to secondhand shops to supplement their possessions.

Almost all of the features recovered from the Bayshore Project exhibit some appreciation of established Victorian aesthetics. The German Duisenberg family, located on Block 3 and by far the wealthiest of our project area residents, had enough capital to afford all the aesthetic elements of Victorianism. Deposited after Charles' death in 1894, the contents of Privy 3 appear to represent years of accumulation. The ceramic tableware included a wide variety of serving and eating dishes and the remains of at least two

matched sets. The decorative molded patterns were typical of the 1860s; their styles would have complemented each other on the table and included named patterns such as Fig, Memnon Shape, Wheat, and Prairie, along with the ever-popular simple molded panels. Almost all the glassware that graced their table was decorated, many in pressed or cut panels, but also many in a variety of patterns, including Roman Key, Honeycomb, Inverted Fern, Loop and Dart, Ashburton, and Bohemia.

The presence of 3 teapots, 2 teapot/sugars, and at least 25 cups attests to the importance of the tea service to Mrs. Duisenberg. In addition to the cups were two motto cups, one of which was decorated with aphorisms from Benjamin Franklin's "The Way To Wealth." These cups were often used for younger children as a way to commend their behavior and at the same time instruct them in desired values. Much like motto cups and alphabet plates, children's toys also had dual purposes. Toys, often miniatures of adult items, could be used to play with and at the same time teach children their future roles in society. The 10 tea-set pieces and 11 dolls would have been used for play and for schooling young Duisenberg girls. Similarly, the boys had a toy pistol, with which they could have mimicked their father who appears, based on the 31 pieces of ammunition recovered, to have been a hunter.

The Duisenbergs were known for their hospitality and entertained on a grand scale. Dressed in fashionable attire, Mr. and Mrs. Duisenberg would have presided over formal multicourse dinners, beginning with soups and stews and running through breads, vegetables, meats, and dessert. In keeping with Victorians' love of clutter, their house was decorated with bric-a-brac, including a standing porcelain circus bear and a hollow parian porcelain figurine.

Near the other end of the spectrum of wealth would have been Anne Mills, an Irish widow raising two children. Privy 30 at 36 Kate Street, one of the interior streets on Block 4, was probably filled during a house clean-out around the time of the family's move elsewhere in the city in 1882. While listed as keeping house, Anne may have continued her work as a laundress, and possibly even as a seamstress, to support the family. Although her table settings were quite dated at the time of deposition, they would have presented an attractive picture with complementary molded patterns, though of limited variety. The majority of the glass also was decorated, most of it paneled, but some of newer patterns as well. This may reflect changes occurring in the pressed-glass industry at the time. The creation of lime glass in Pittsburgh around 1864 allowed for a faster pressing time and, therefore, a lower cost (Blaszcyk 2000). These items may have been more easily attainable for someone of Anne's means. She was serving relatively sophisticated alcoholic beverages in a variety of fashionable goblets.

Included among the artifacts were 4 teapots, 1 teapot/sugar, and 19 cups/mugs—a substantial amount for such a small family. There was also a motto cup for use by and instruction of the children. In addition a number of slate pencils and writing tablets as well as several ink bottles attest to her children's continuing education.

Anne appears to have been quite industrious and self-reliant, putting up quantities of food in various canning jars and crocks. Not surprisingly, her meals were basic, with a high proportion of soups and stews. The presence of three flowerpots in the privy may attest to home decoration or homegrown herbs for cooking.

Anne Mills, while living on reduced wages following her husband's death, continued to try to set a good, class-appropriate example for her children. The archaeological evidence shows that she and her family dressed in predominantly plain inexpensive to moderately priced clothing. A few finer-quality items may have been purchased from nearby secondhand stores. In a much less grand fashion than the Duisenbergs, she may have taught her children appropriate behavior, both by example and with the use of various artifacts, including "educational" toys, motto cups, and slate writing pencils and tablets. Based on the remains, Mrs. Mills appears to have been an industrious, hard-working woman who endorsed Victorian values and embodied them to the best of her ability.

Living at 31 Kate Street, down the block from Anne Mills, the Wendt and Dean families occupied separate residences on the same property. John Wendt, who was German, was an unemployed express-wagon driver, while his Irish wife, Mary, kept house. The Wendts were unusual in the project area, as they had no children. The Irish Dean family, listed as boarders on the property, included Anthony, a laborer, his wife Bridget, a housewife, and their four children all under the age of 11. The Wendts, who lived at the property from 1877 through 1880, may have rented out the smaller building on the property when money became tight. Privies 38 and 39, associated with the Dean and Wendt families, respectively, were both deposited about 1882.

The juxtaposition of the two archaeological features creates an interesting comparison of the two families. The Dean family would have set an attractive if dated table, with a variety of serving vessels that suggest multicourse meals. Much of their tableware was molded, including three items in the Sharon Arch pattern. Other patterns included Scalloped Decagon, Sydenham Shape, Chinese Shape, and the popular panels. Stemware and tumblers accounted for more than half of the drinking vessels, most of these paneled as well. The Deans could afford to eat well, purchasing better cuts of meat for their meals. The presence of a variety of condiment containers implies a liking for well-seasoned foods. In addition, Mrs. Dean put up an assortment of foods in her canning jars and crocks.

The Wendt family table had few specialty/serving dishes—a few bowls, a platter, and oval dish, and a tureen—although almost half of all tableware was decorated, predominantly with the ubiquitous dated molded patterns popular among Bayshore Project residents. Unlike the Deans, the Wendts drinking vessels of choice were cups/mugs, with only about two pieces of stemware. The lack of any teapots, sugar dishes, or creamers suggest that Mrs. Wendt may have chosen not to host afternoon teas.

Unlike the Wendts, a variety of toys were recovered from the Deans' privy, including portions of a matched paneled tea set and three dolls. Interestingly, a children's ABC riddle plate was found in the Wendt's privy. This may have been a curio piece. All of these items suggest an eye to instructing young children in etiquette of the times.

Clothing recovered from Privy 39 reveal that the Deans preferred moderately priced items. Two thimbles and several straight pins suggest that Mrs. Dean engaged in creating and/or repairing her family's clothing. The children's shoes, well-worn when discarded, suggest hand-me-downs between siblings. Mrs. Dean's footwear, while stylish in the late 1870s, would have been outmoded when discarded, although the presence of several fragments of jewelry, a cane, and a purse would have helped create a more fashionable

though modest portrait. While no clothing was recovered from the Wendts' privy, their footwear was of a finer quality and included stylish high-laced boots for Mary and comfortable though expensive footwear with a Goodyear welt for John. The Wendts may have been less inclined or able to entertain socially at home, but they appear to have wanted to create a more fashionable picture for the outside world.

The overall portrait of the two families would suggest that the Wendts were less interested in or less capable of maintaining appearances within society. With no children, they may not have felt the need to create the moral atmosphere that was so prevalent in other homes. The presence of better-quality footwear suggests they may have spent more of their income on clothing themselves comfortably and fashionably. The lack of decorative items, personal accoutrements, and tea service items in the Wendts' privy may be reflective of a general reticence of the childless couple, a lack of finances, or simply a result of the fact that the privy itself was severely impacted by the original freeway builder's trench. In contrast, the Wendts' lodgers, the Deans, used their limited resources in an effort to present a respectable and genteel appearance to society and to raise their children in the proper atmosphere.

Thomas O'Neil was an Irish glass cutter who lived at 3 Maria Street on Block 4 with his wife, Maria, and their four children, all under age 12. Unlike most of the other features of the Bayshore Project, Privy 1 appears to be a remodeling effort or disposal of unwanted items rather than conversion to flush toilets or a residence clean-out after moving.

Deposited sometime in the early 1870s, the privy contained few serving dishes: only a pitcher, platter, and slop bowl. Half of the tableware was decorated with molded patterns typical of the 1860s, not too out of date at the time of deposition. While different, these patterns—Corn and Oats, Fig, and Lily of the Valley—would have been complementary. All of the glass goblets and tumblers were decorated with pressed patterns, primarily paneled. Two teapots, one earthenware and one ferrous, along with three cups indicate that Maria may have served a formal social tea to acquaintances, as well as a more casual family tea.

It is difficult to tell the degree to which the O'Neil family endeavored to uphold the Victorian mores of the times. Mr. O'Neil had $10,000 in real estate and could have been considered one of the wealthier occupants of the Bayshore Project area; however, he had only $300 in personal property. The scant artifacts recovered from Privy 1 may be reflective of this lack of easily disposable cash or, more likely, the result of severe disturbance and truncation of the feature by the freeway bent cut.

The last feature on Block 4, Privy 41, was located at 414 Seventh Street. Andrew Buckley, an Irishman who worked as a porter in a liquor store, his wife, Eliza, and their seven children ranging in age from 25 to 5, lived on the property from about 1880 to 1889. It appears that the feature was deposited in the early 1880s, when the house was converted to flushing toilets.

While not as wealthy as the Duisenbergs, the Buckleys set a lavish dinner table. The high quality of tableware included at least two matched sets, one of which was a sided porcelain teapot with lid, creamer, butter dish, and sugar. An additional two matched sets of stemware, and a decanter with matching cordial glasses were also recovered.

More than a third of the tableware was porcelain, and almost half was decorated, primarily with molded and paneled designs. The majority of the glassware was decorated, some paneled, others with patterns popular a decade earlier—Ashburton, Pittsburgh Diamond, Prism with Diamond Points, Ribbed Bellflower, Waffle and Thumbprint, and Roman Key. As with most of the Bayshore Project residents, while the table would have been attractive, it would have been dated. In addition to the matched porcelain tea-ware set, an additional two teapots, creamer, and a sugar were used in the household. With the high quantity and quality of tea wares recovered, the tea ceremony appears to have been an important social ritual for Mrs. Buckley and her older daughter.

Adhering to the standards of the time, the Buckley family had a variety of items for children. At least three children's chamber pots were recovered, suggesting an attention to early toilet training. As if to reinforce this practice, a toy pitcher and two basins would have added to the children's toiletry education. Additional toys include nine dolls and seven tea-set items, all of which would have been used to teach young girls their future role in society. A single motto cup with the gilded phrase "Forget Me Not" was also intended for children.

More so than any other household from the Bayshore Project, the Buckleys' home was fashionably decorated with typical Victorian clutter, including two flowerpots, an ornamental basket, a vase-like base, and three vases—porcelain, blue opaque glass, and white opaque glass.

Alcoholic-beverage bottles of all types dominated the collection. The sheer diversity and quantity of these bottles suggests that Mr. Buckley may have been storing goods from his place of employment or may have been recycling the containers. As early as 1870, Andrew is listed as owning $2,500 in real estate: by the time of privy deposition, land values would have risen considerably. Adding to the family income, the three oldest boys were also employed.

The last feature from the Bayshore Project, Privy 20 was located in a relatively rural area at 520 Eighth Street, Block 6. At the time of privy deposition, in the early 1880s, more than half the block was undeveloped, yet on this single lot resided 15 individuals. William Noonan, an unemployed Irish housepainter, lived there with his wife, Catherine, their 3 children, ages 8 to 14, and a domestic helper. Catherine Noonan kept both the house and a dairy with 10 cows, possibly on space on the same block if not the lot itself. In addition to the family, the widowed Mrs. Winifred Gorman and her 3 children resided on the lot, along with 5 adult lodgers.

Unlike most of the other residents from the Bayshore Project, the Noonans and their lodgers appear not to have adhered to the Victorian standards so pervasive of the time. They set a fairly informal table, with no matching sets and with sparsely decorated wares. There were few serving items, only two tureens and an oval dish. All of the glassware was decorated with pressed patterns, the greater-part of which were paneled. The relatively low quantity of tableware suggests that the Noonans and their lodgers may have kept separate kitchens.

Dinners for the Noonans and their lodgers would have consisted of hearty though inexpensive food with an emphasis on beef. The majority of these meals were moderately priced to inexpensive cuts of meat typically used for soups and stews.

Mrs. Noonan may have been too busy with her dairy and lodgers to have spent time indulging in afternoon tea. Only six cups were recovered, while no teapots were found. Similarly, no children's tableware or motto cups were recovered, although there were four items from a tea set and a single doll, suggesting some form of home training. In addition there were several pencil and writing slate fragments for the children attending school to practice their letters on.

Clothing and footwear recovered from Privy 20, also bespeaks a certain practicality. With but two exceptions all of the clothing was plain, basic everyday wear. The presence of a large quantity of straight pins may be indicative of home clothing alterations and mending. Shoes and boots were built to last and were worn-out when finally discarded.

The artifacts recovered from Privy 20 indicate that the Noonans and their lodgers were both practical with their purchases. Few aspects of their discards would indicate an adherence to the Victorian aesthetics so pervasive of the times.

The Bayshore Project residents present a rare, small-scale portrait of late 19th-century life in San Francisco. Artifacts recovered from the Bayshore features indicate that some, though not all, of the families participated in the aesthetic standards of Victorianism: using toys and other objects for multiple purposes, not the least of which was instructional; engaging in the elaborate tea ceremony; and decorating their homes in fashionable clutter in order to display family respectability.

The Duisenbergs, the wealthiest family, spent a moderate amount of their time and money on the trappings of a Victorian home. Interestingly, it was the Buckleys, a family of more modest means, who presented the most upscale home, with an abundance of artifacts revealing an attempt to achieve the Victorian ideal. The Duisenbergs, the more socially established family, may not have felt the need to "prove" themselves, as they were already moving in the highest social circles due to Mr. Duisenberg's former appointment as German consul. While Andrew Buckley and his family may have been aspiring to greater social heights. Whether this was an effort to set themselves apart from similar families, an attempt to climb the social ladder, or a simple eccentricity is unknown.

The childless Wendts and the Noonans with their lodgers do not appear to have been as caught up in Victorian ideology as other Bayshore residents. Artifacts from their respective features do not reflect the expected matched tableware, variety of serving vessels, tea sets, toys, or household clutter expected of the home. Both Mr. Wendt and Mr. Noonan were unemployed and, as such, may not have been able to afford, or willing to spend money on, such paraphernalia. The Wendts, with no children, might not have felt the need for such visual accoutrements, instead preferring to spend their limited income on better shoes and clothing. Likewise the Noonans, living near Butchertown in a relatively rural area of the city, may have been too busy with their lodgers and dairy to spend much time or effort on something that may have seemed superfluous to the family.

The remaining SF-80 Bayshore residents all appear to have attempted to create a Victorian environment in their homes. The widowed Mrs. Mills, who may have been

living off her husband's savings, nevertheless still maintained an attractive home with much of the trappings of Victorian society. The Dean family, and to a lesser extent the O'Neils, also appear to have spent time and effort to make a presentable Victorian home.

COWS IN THE NEIGHBORHOOD

Michael D. Meyer

The Bayshore Project Consumer Behavior/Strategies Theme also covered adaptive strategies in urban settings associated with the acquisition and consumption of foodstuffs or the organization and use of space (Theme A, Question 3, in Praetzellis et al. 1997:163). One feature exposed but not fully recovered was a cow burial on Block 6 at 522 Eighth Street. There were no associated artifacts to date the burial event, and the bones were in poor condition having been disturbed by freeway bent construction. The cow was an old animal at its time of death. The burial location was in an open yard near a small building, as shown on the 1887 Sanborn map. It was likely buried in the later half of the 19th century. Although cattle may have been grazing in the area since the late 18th century, in the early days, a dead carcass would have been stripped for hide and tallow and left on the surface to rot rather than being buried (Rolle 1963:114-115).

With the early Mission Creek Butchertown so close to the site, the burial could predate the settlement of the block; historical references to the cows on the block and analogous cow burials from 19th-century West Oakland, however, suggest that this animal may have just been another neighborhood cow that died and was buried by its owners in the yard.

In the 19th century, livestock was prevalent throughout the Bayshore Project area: from the ubiquitous horses, who transported people and goods throughout the city, to the animals at Butchertown, who fed residents and supplied other raw materials for the tanneries and tallow and soap factories. The Sanborn maps indicate stables with a large "X" across the top of the building, although many stables also had addresses suggesting occupancy by humans rather than or as well as livestock, and some of the larger ones were specifically listed as residences.

Next door to where the cow was buried, Mrs. Noonan kept a 10-cow dairy at 520 Eighth Street in 1880; in 1887 the Sanborn map still identified the basement of an outbuilding as a stable. The lot next to hers was fenced with a one-story shelter, presumably for the cows. The *South of Market Journal* (*SMJ*) twice mentioned cows in the neighborhood. In May 1926, George Patterson reminisced about people living next to "Nunan's Celebrated 'Cow Lot'" (*SMJ* 1926 1 [10]:10). In June of that year, James Roxburgh—another author of the "Memories of the Past" section—told the story of a cow on Minna Street a few blocks north of Block 6:

> Those who lived on Minna between Seventh and Eighth will remember Mrs. McDonald, who, one day, lost her cow, and said "I'll give my daughter Delia to the boy who brings my cow home." Among the boys who heard this remark was Hughie Hallahan, and he skirmished around, found the cow and brought her home. Well, to finish the story, Hughie married Delia, which proved to be a most happy marriage [*SMJ* 1926 1 (11):11].

The Noonans appear to have been an exception in having so many cows within a residential area. More common would be Mrs. McDonald keeping just a single cow for home use. In West Oakland during the Cypress Project, several cow burials dating to the late 19th century were uncovered. One skeleton displayed evidence of the use of a homeopathic cure for "hollow horn disease," or anthrax, that was apparently unsuccessful (Meyer 1997:61). In *Martin Eden*, Jack London (1909:151-152) tells of a West Oakland landlady, ca. 1900, who had her children take the family cow to graze weeds and grass along the street. The children had to keep a watchful eye for the poundman, who would confiscate the animal, forbidden within the city limits at the time.

In the 1880s West Oakland and the San Francisco Mission Bay neighborhoods would have been very similar. Block 6 was removed from downtown San Francisco. It was a transitional area with a mix of rural open-space, industries, and housing that included boardinghouses, detached suburban homes, and high-density row houses all within the same block. In West Oakland the most noticeable difference was that work was centered on the railroad, yet still with a variety of industries. West Oakland had been, and to some extent remained, a suburb of San Francisco into the 1880s. Both areas had seen a shift from large early estates to mixed working-class housing and commercial/industrial properties. For those of modest income, keeping a cow may have made all the difference in maintaining an adequate caloric intake, so long as the nearby water and grass were free or very cheap. When a cow stopped producing milk, it was still several hundred pounds of beef on the hoof. For residents of San Francisco and West Oakland in the late 19th century, having to bury a cow represented a great loss. With so many experiencing periods of unemployment, the animal must have been very sick to bury that many meals, or at least the opportunity of sale if eating the family cow seemed distasteful.

In an ironic twist, the aftermath of the 1906 earthquake and fire simultaneously brought a higher proportion of industry and livestock to Block 6. By 1913 the North German Hotel was the lone remaining residential property. The Western Pacific Railway on Ninth Street necessitated teams of horses, which were stabled on the corner of Eighth and Bryant, behind a saloon and blacksmith shop. The teaming sheds were larger than any previous building on the block. If not for the post-earthquake loss of residential housing on Block 6, there may have been more cows on the block well into the 20th century.

THE IRISH IN SAN FRANCISCO – FROM THE GROUND UP

The second question within the SF-80 Bayshore RDTP's Ethnicity/Urban Subcultures Theme involved understanding the dynamics of cultural pluralism and social stratification during the 19th and early 20th centuries, and elucidating economic distinctions between the material culture of members of distinct ethnic and subcultural groups (Praetzellis et al. 1997:166). As all but one of the Bayshore Project archaeological features are associated with Irish families, the Irish will be used to discuss this topic—first from a broad geographic perspective, then with the aim of identifying the San Francisco Irish experience, and finally through examining how Irish ethnicity is expressed archaeologically in the SF-80 Bayshore Project area.

IRISH ETHNICITY

Jack Mc Ilroy

At its simplest, it might be imagined that the path of the Irish migrant, newly arrived in America, progressed in linear fashion through being an Irish person in America to an Irish-American to an American. The process could take generations for some families, or happen in a single lifetime for others. The reality is likely to be much more complex with, for example, Mac Einri (2000) rejecting a one-way assimilation path and seeing migration as a process in itself, and not a transitional phase, before the migrant is absorbed by the new society. The migrant options vary from assimilation to multiculturalism to outright expulsion from the new society. While acknowledging this complexity, archaeologists nonetheless expect that ethnic behavioral patterning—including the fading of ethnicity in the acquisition of host-country materials and the development of Americanized-behavior patterns—should be archaeologically visible.

Ethnicity in American Archaeology

Staski's (1990) review of studies of ethnicity in North American historical archaeology indicates that the three most-researched ethnic groups have been Chinese, African Americans, and Hispanics—not surprisingly given the Spanish influence all across the southern United States. The range of Chinese and Hispanic studies can be found amid a potpourri of references to ethnicity studies in archaeology in Staski's bibliography (1990:133-145), while the archaeology of African Americans was the focus of a recent issue of *Historical Archaeology* (Franklin and McKee 2004). Another focus of interest has been North American Jewish communities, while groups with other European roots have received much less interest (Staski 1990:124-125), although this is now changing.

Staski (1990:124, 132-133) observes that the archaeological study of ethnic groups entails a number of methodological challenges and that this study, and its correlates of assimilation and acculturation, involve an interplay of economic level, social status, the availability of goods, family size and life cycle, religious and political affiliation, and individual preference. To these may be added a close cousin of availability, the convenience of buying goods at the nearest store.

Much depends on definition. Thernstrom, Orlov, and Handlin (1980:vi) outlined 10 major parameters involved in ascribing ethnicity: common geographic origin; migratory status; race; language or dialect; religious beliefs; ties transcending kinship and community boundaries; values, traditions, and symbols; literature, folklore, and music; food preferences; settlement and employment patterns; political interests in the old and new countries; and institutions that serve and maintain the group. Archaeologists might want to add consumer choice to the list.

Staski simplifies matters, following Henry (1987:360), in seeing an ethnic group as a social group but one that serves two related functions. It provides members, who must be born into it, with an exclusive subculture with which they can identify. And it allows members to confine primary relationships to others within this subculture. The former definition is the stronger biologically, the second socially.

Items carried from home by the emigrant will be precious, possibly retained and handed down through generations. These potential direct symbols of ethnicity will be

few in number and statistically less likely to show up in archaeological deposits (McGuire 1983:194). Despite the difficulties, the archaeological correlates of ethnicity can be unraveled through excavation and have been most successfully dealt with through an analysis of consumer goods and dietary choices (Staski 1990:124).

The literature, however, can be, and is, contradictory on the archaeological correlates of ethnicity. Studies from Washington, D.C., neighborhoods demonstrated that ethnic-based differences could be isolated while economic-based differences could not (Cheek and Friedlander 1990:34). On the contrary, O'Brien and Majewski (1989) demonstrated that immigrant families from Kentucky and states to the east clearly showed up in the archaeological record in Missouri on the basis of wealth and status rather than ethnicity. Work on rural families in Arkansas provided little support for food use as an indicator of ethnicity for a prominent Jewish household, while there were clear material indicators of religious conformity and a high living standard (Stewart-Abernathy 1986; Stewart-Abernathy and Ruff 1989).

The need for interpretive caution has long been recognized. Different ethnic groups can develop similar material culture, while there can be extensive variation within the archaeological record of a single ethnic group (Hodder 1979:452).

Wilkie (2004:118) suggests that we (presumably archaeologists, anthropologists, historians) often fail to recognize economically disenfranchised ethnic groups in our research, whether they be Italian, Hispanic, Irish, Asian, Jewish, Eastern European, or multiracial. She states that much of the research on African American lifeways (and by implication on other subordinate ethnic or minority groups) that archaeologists have come to rely on was gathered by academics, journalists, and government-sponsored agencies who were substantially influenced by the racist rhetoric of their time. Archaeologists today, therefore, have the opportunity to illuminate the common cultural heritage of African Americans, white Americans, and other ethnic groups (Wilkie 2004:116).

Lightfoot (1995:199) suggests that historical archaeology offers the opportunity to study poorly represented ethnic laborers in pluralistic colonial communities, and that the discipline is ideally suited to examine the multicultural roots of modern America. Lightfoot, Martinez, and Schiff (1998:199) demonstrate this approach with a case study of Native Californian women and Native Alaskan men at the Russian colony of Fort Ross in northern California. Based on an analysis of residential space, the ordering of domestic tasks, and the structure of trash disposal, the authors argue that trash deposits and middens in built environments offer a promising way to examine culture change and persistence. Lightfoot's (1995:211) characterization of the subjects of his study—ethnic laborers in pluralistic communities who are poorly represented in written accounts—could equally apply to the Irish of the SF-80 Bayshore Project area. But unlike the Annales school of French history, which advocates the study of culture change over long periods (Lightfoot 1995:199, Staniforth 2003), on the Bayshore Project we are looking at short time spans, between 1847 at the earliest to the time of the great San Francisco earthquake and fire time-marker of 1906.

The Irish Migration

The essays in Bielenberg's (2000) *The Irish Diaspora* review the history and myths of Irish emigration. Mac Einri's introduction to the volume concludes that the Irish experience of migration, while clearly part of a European pattern, was unique for the period between the Famine (1845-1854) and the mid-20th century. Mac Einri (2000) cautions that because the reasons for leaving, the selection of destination, and the process of integration into the new country were complex, there is danger in easy generalizations. Two reasons cited by Coogan (2000), both subject to controversy, may shed light on this concept of exceptionalism, with the Famine playing a role in both. The first is that Irish emigration confined itself almost exclusively to American cities, rather than rural settings, due not only to poverty, but also as a rejection of working on the land after the horrors of the Famine. The second, proposed by Irish-American historian Kerby Miller (1985), is that the Irish considered themselves not as emigrants but as exiles, torn unjustly and unwillingly from a native land to which they yearned to return. Opposing the latter view is Irish-American scholar Lawrence McCaffrey, who sees it as stereotyping the Irish as dysfunctional dreamers rather than as hard-working pragmatists who bettered themselves greatly by coming to America (Coogan 2000:257). The view would also be opposed by McKenna's synthesis of the Irish experience in Argentina, where a group of farmers and semi-skilled tradesmen became hugely successful (Mac Einri 2000). Whatever the reason, the American destination was deeply rooted in the Irish psyche, with the U.S. popularly, if not hauntingly, referred to as the 33rd county of Ireland.

Eventually, according to Walsh (1978a), a sense of ethnic Irish community must erode to the point of absorption within the adopted community. He suggests that San Francisco offered the best single test-case for the then-historically revisionist view: that the further away from the industrial Northeast the Irish relocated, the better their American adjustment, and the easier and swifter their advance. This perception, Walsh contends, was a more active one than the old view of the Irish as uprooted peasants fleeing famine and disease, arriving unwanted in an America on the verge of vast industrial and urban expansion, to end up as semi-permanent unskilled labor. Burchell agrees, seeing the Irish experience in San Francisco between the Gold Rush and 1880 as placing them a generation ahead of their compatriots in much of the rest of the United States (1980:184). This is a question that should be amenable to archaeological analysis, which would allow comparing, after a generation, the artifacts of residents of similar socioeconomic status and skills who arrived at the same time, but who settled on East and West coasts. With the possible exception of the Buckley family, such a generational advance was not particularly evident from the artifact assemblages recovered on the Bayshore Project.

Whether pushed out by famine, political conditions, or economic hardship, the emigration-destination lands of America, Canada, and Australia must—for those leaving, and for those left at home—have seemed further than the Moon. To understand what banishment to Australia meant (or to America or Canada), one must understand the geographical knowledge of the day. In the late 18th century and well into the 19th, much of the world was largely unknown to Europeans. The interiors of most continents were still unexplored, and even North America had only pockets of population. Robert Hughes in *The Fatal Shore* points out that it could hardly have been worse if the convicts

sent off to Australia (and it applies as much to free emigrants) had been told they were going to the Moon—at least they could see the Moon (Hughes 1988).

For those who left Ireland freely for the U.S., an "American Wake" was often performed the night before departure. The departees may never have wandered far from their home village or community streets. They were now about to start on a dangerous journey, leaving all that was familiar and entering a realm not that far removed from the dead. The aptly named "coffin ships" that took so many across the Atlantic to America, and the convict ships that ferried more reluctant others to the ends of the world in the new penal settlements of Australia, were the Irish version of the boatman on the River Styx. Except for a rare visit back, this Irish traffic was almost entirely one-way, whether from the over one million who fled to the U.S. in the famine years of 1845 to as late as 1854, the 700,000 migrants in the 1880s, or the more than 20,000 who otherwise fled the Emerald Isle yearly between 1834 and 1914. Mostly from a rural and agrarian tradition, they became America's classic urban inhabitants, the pick and shovel pioneers, builders of roads, canals and railroads (Rischin 1978:3-4). Many would have arrived with little more than the clothes on their backs, a few keepsakes from home, their culture, and religion.

Germany and Great Britain sent the greatest number of immigrants to the U.S. in the 19th century, with Ireland next in line, although many of those counted as British were actually Irish (Rischin 1978:3). In the 1860s, the largest proportion of the San Francisco Irish lived in the working-class districts South of Market Street, close to St. Patrick's Church, around which much of their lives would have revolved (Bullough 1978:29-30) and close to where the Bayshore Project is located.

In the building trades to which many Irish in San Francisco gravitated, few precautions for fire prevention and control were exercised. Each time the city burned—and such fires were frequent—tradesmen, teamsters, and laborers were in greater demand and financial rewards came along with organization. As the fires approached businesses, warehouses, and luxury homes, the teamsters' bargaining position was even stronger—to which owner's call for help should they respond first? (Walsh 1978a:13). Some organized Irish did indeed advance rapidly in the West.

Germans were the best-organized nationality in San Francisco in the 1860s, according to Bullough (1978:29-30), but the Irish were quick to catch up and politics was to be their strong point. One reason put forward for their rapid development of political power was that the Catholic Church, to which most belonged, had a hierarchical nature and demanded discipline. It provided an effective template for a political party to follow. In addition, the centuries-long battle of the Irish with the Anglo-Saxon political system ensured that they knew all about electoral fraud, judicial chicanery, and how to manipulate the rules for partisan advantage. The Irish well-understood politics as the means a group uses to secure, hold on to, and exploit power (Coogan 2000:275).

Jensen (2002:405) cautions that myths can take hold among ethnic groups without substantial evidence. Irish Catholics in America have strong memories of job discrimination highlighted by omnipresent signs of "No Irish Need Apply." Jensen believes these NINA signs were, in fact, extremely rare or even nonexistent. Tim Pat Coogan (2000:276), something of a doyen on Irish political history, would disagree, citing accounts

of stories of big employers like Colgate in New Jersey exhibiting signs saying "No Irish, no Catholics." For Jensen, the NINA slogan had utility in that it told the emigrant Irish they should stick together against the (presumably American) Protestant enemy in terms of jobs and politics. The NINA myth persisted because it aided ethnic solidarity and, on its dark side, justified physical assaults against any threatening "other." Discovering such signs of ethnic solidarity on an archaeological excavation would start to confirm the myth as at least locally factual.

Many Irish in the mid-19th century would have arrived with a sense of victimhood, as refugees from the Famine of 1845-55. It is usually spelt with a capital 'F' in Ireland, much as the Wall with a capital 'W' meant only one thing to Berliners during the Cold War. A sense of victimhood would tend to reinforce a sense of ethnic cohesion. Jensen (2002) contends that such a sense of solidarity was greatest for groups who lived in high-tension local situations with neighbors they feared, as did the Irish, African Americans, Jews, Japanese Americans, and white Southerners after Reconstruction.

THE SAN FRANCISCO IRISH

Annita Waghorn

The popular image of Irish migration to America is of coffin ships bringing the most famine-starved and wretched of Ireland's poor to the slums and rail gangs of the East Coast. Within this image the Irish are a homogenous mass, suffering both from their rural, poverty-stricken, Catholic heritage, and the struggle for acceptance into white, protestant America. Although perhaps applicable to many Irish Catholics who made their homes in eastern cities such as New York or Boston, this image does not do justice to the complexity and multiplicity of the Irish immigrants' experiences in 19th-century America. Much of this complexity is evident in the history of San Francisco's Irish community, which more readily found, on America's West Coast, much of the opportunity it was seeking.

The stereotype of Irish settlement in America is overwhelmingly one of the Catholic outsider in an American nation shaped by Anglo-Protestant values (Rischin 1978:3). Early Irish immigration to the United States, however, was largely a movement of Protestant men and women, the so-called Scots-Irish from the Ulster province, Scotland, and England. In the years before the 1840s, when the great migrations from Ireland and mainland Europe began, the Scots-Irish were absorbed into Protestant America, particularly in the Southern states, with relatively little difficulty (Kenny 2000). Nativist and anti-Catholic feelings were stirred later, however, by the Irish Catholics, who suffered violent protests as early as 1829 (Burchell 1980:2).

From 1845 until 1855, the Irish potato crop, which the majority of Ireland's population relied upon for subsistence, failed due to infestations of a fungus, *Phytophthora infestans*. The result for much of the country was devastating. What the Irish refer to as *an gorta mór*, or 'the great hunger,' killed between 1.1 and 1.5 million people and prompted the emigration of another 2.1 million, all out of a pre-Famine population of just 8.5 million (Kenny 2000:89). Only 10 percent of these immigrants were Protestant, although Protestants comprised 25 percent of the Irish population. The majority of emigration

came from those counties less hard-hit by the Famine in north-central Ireland (Sligo, Roscommon, Longford, Cavan, Monaghan, and Fermanagh) and the south-central plains (Queens, Tipperary, and Kilkenny; Kenny 2000:98). Of those emigrating between 1845 and 1855, 1.5 million fled to the United States. The stereotype of the Irish immigrant to America during these years was of a pitiable, ragged refugee from hunger. Although records suggest that the U.S.-bound Irish immigrants during the Famine years were generally poorer and less skilled than those of previous generations, they were primarily not those hardest-hit by the Famine. The Irish made most destitute by the Famine either lacked the funds to escape Ireland, or could only afford to flee to England, swelling that country's Irish-born population by 1861 to over 700,000, up 58 percent from the early 1840s (Miller 1985:295). Emigration to America was costly, consequently, the American-bound emigrants included large numbers of smallholders, comfortable farmers, artisans, and small entrepreneurs: a Quaker aid-worker in Ireland during the Famine wrote that, "unfortunately for us, it is the industrious and enterprising who leave us . . . in many cases taking out with them considerable sums of money" (Miller 1985:294). The small farmers leaving Ireland fled not so much starvation as increased rents, tithes, and taxes. For many artisans, farmers, and the relatively prosperous, "the Famine was simply the last straw, final proof after three decades of depression that Ireland was irredeemable" (Miller 1985:294). These immigrants were likely to arrive in America less traumatized than starving Famine refugees, and more capable of making their way, socially and financially, in their new surroundings. Following the agricultural recovery from the Famine after 1856, emigration continued to be a favored option for many Irish Catholics, driven by the continued hardships and depressed economic conditions in colonial Ireland, and attracted by the opportunity offered by America. Between 1856 and 1921, 3.5 million Irish emigrated, of which a little over 3 million flocked to the United States (Kenny 2000:131).

The Irish Catholics of the Famine years were one of the earliest in the large waves of immigration from Europe and Ireland that were to transform the character of the United States in the second half of the 19th century. The Irish Catholic immigrants landed in the port cities of the East Coast, where they quickly established large enclaves. Although they may have been able to leave Ireland with some resources, in the bustling port cities of the United States they were still among the most impoverished inhabitants, with a status only exceeding that of African Americans (Kenny 2000:99). The Irish Catholics were one of the early targets of Nativist protests and parochial, Protestant American fears of being swamped by waves of immigrants. Adopting many of the stereotypes promoted in Victorian England, Nativists derided Irish Catholic immigrants as lazy, lacking in civility, frugality, and a strong work ethic, and given to violence and intemperate drinking (Kenny 2000:96). Struggles against prejudice remained a strong thread in the experiences of many of the first- and second-generation Irish Catholic immigrants during the peak period of Irish immigration between 1856 and 1921.

Irish Immigration to California

In settling in the East Coast cities of the United States, Irish immigrants were trying to make their way in communities that had more than 200 years of predominantly Anglo-Protestant history and that had an established elite and class hierarchy (Burchell 1980:2). This was not the case, however, in less-entrenched areas like California. Prior to its

absorption into the United States in 1848, California had no strongly established history of American or Protestant cultures. The Gold Rush drew people from a vast array of backgrounds and circumstances, most with the goal of rapidly making their fortune and returning home. The circumstances created a culture overnight, and San Francisco became the embodiment of that culture, one based on opportunism, impermanence, and boldness (Walsh 1978a:13). There was little interest in sinking personal money or time into social or civic structures that characterized long-established, more orderly settlements (Walsh 1978a:20).

Irish immigrants were amongst those attracted by San Francisco and the goldfields. The fragmentary 1852 California State Census of San Francisco indicates that, of the 36,151 people living in the near-instant city, 12 percent were Irish-born. Only 5.1 percent of the city's population in 1852 came directly from Ireland (Burchell 1980:34); most came, instead, via interim cities such as Philadelphia, Boston, New Orleans, or New York, and even, in the case of 589 Irish-born, from Sydney, Australia (Walsh 1978a:11).

One of the themes of 19th-century migration was the challenge faced by largely rural people in adapting to established urban, industrialized communities. The Irish in San Francisco, although coming from a primarily pre-industrial, agrarian culture, had probably developed familiarity with American urban culture from life in the East Coast cities in which they had initially landed. Moreover, in coming to the West Coast they did not have to again try and integrate themselves into an established social and economic system: "In San Francisco during the 1850s, everyone was uprooted, Americans and foreigners alike" (Walsh 1978a:21). In addition, Rischin has suggested that the additional journey from the East Coast required for settlement in California meant that its Irish settlers would probably have been of more able and ambitious character, and with more financial resources than many who remained in the East Coast cities (Rischin 1978:4). From 1848 until the 1880s, there were various unsuccessful attempts to set up associations and schemes to aid migration to California, in part to reduce the cost of labor, which remained high during through the 1880s. In the absence of such immigration-aid schemes, however, the majority of Irish immigration came from a "movement of self-supported individuals and families" (Burchell 1980:38).

San Francisco grew rapidly even after the early gold fever had abated. Although in January 1848 the city had only about 200 buildings and less than 1,000 people; in just four years there were more than 36,000 people, and by 1870 San Francisco had swelled to include 150,000 people and become the 10th largest city in the United States. Ten years later, the population had grown to 250,000. Much of this growth was fueled by continued strong immigration: in 1870 native-born inhabitants outnumbered foreign-born by just over 2,000 (75,754 vs. 73,719). During these years, San Francisco continued to exercise a strong draw on Irish-born immigrants. The Irish were the largest non-native population in the city due to continued influx of Irish-born immigrants (Burchell 1980:3), and by around 1875, the city held America's sixth largest Irish community (Rischin 1978:6). By 1880 over one-third of the city's population could be said to be part of the Irish community, with more than 30,000 first-generation Irish settlers, and more than 43,000 belonging to the second generation (Burchell 1980:3-4).

Contemporary commentators frequently noted how amenable California was to Irish settlement, as the Irish appear to have met with little of the prejudice that they experienced in East Coast cities. By 1868 one observer could write, "There is not a State in the Union in which the Irish have taken deeper and stronger root, or thriven more successfully, than California" (Maguire 1868:262). From its founding, the San Francisco Irish community was predominantly Catholic; in 1880 the only indication of an Irish-Protestant presence in the city were two small branches of the Loyal Orange Institution of the United States (Burchell 1980:4).

The Irish in San Francisco appear to have suffered relatively little anti-Catholic prejudice: the editor of the city's longest-surviving Irish Catholic newspaper, the *Monitor,* wrote in April 1869 of prospective Irish immigrants to California: "Our Countrymen need not fear . . . that they will have to encounter the prejudices against their race or religion, that are such drawbacks to their settlement in many parts of the Eastern States" (Burchell 1980:4). Any Anti-Irish feeling in the State may have been reduced after 1860 by increased Chinese immigration that took the brunt of much of Californians' growing anti-immigration, Nativist tensions (Burchell 1980:37). The lack of anti-Catholic feeling was also no doubt helped by the polyglot nature of San Francisco's post-Gold Rush population, and the fact that the Catholic Church had a well-established presence in California due to the state's Spanish and Mexican heritage (Rischin 1978:5). Indeed, by the 1870s, the Catholic Church had established itself as the foremost religion in California, with the number of seats in Catholic churches growing from 6,050 in 1860 to 21,000 in 1870 (Burchell 1980:5).

Contemporary commentators make clear that in San Francisco, despite its German, European, and Mexican populations, the Catholic Church was almost synonymous with the Irish community (Burchell 1980:90). The Church supported the community psychologically and socially, with such services as the Female Catholic Orphan Asylum. By 1880 at least seven societies under the Church's patronage offered much-needed social services in the city, including the Society of St. Vincent de Paul, the Magdalene Society, and the St. Boniface Orphan Asylum (Burchell 1980:92). From the 1860s, members of the Irish community were the major financial backers of church building efforts and programs of social services. Notable Irish patrons included Jasper O'Farrell, John Sullivan, Catherine Sullivan, and institutions such as the Hibernia Bank (Burchell 1980:89). The principal church for the South of Market area of the city, St. Patrick's, was constructed on Market Street in September 1851. In 1872 the church was moved to the north side of Mission between Third and Fourth streets, just a few blocks from the east end of the project area (Burchell 1980:88).

Political Organization

The sense of optimism and commitment to settlement in California felt by many Irish immigrants was evident in the readiness with which they entered the political, economic, and social life of San Francisco. The sense of impermanence felt by many gold seekers in California gave them little impetus to contribute to the development of political or civic institutions in the city. The Irish readily filled this void, perhaps sensing in the political confusion of Gold Rush cities such as San Francisco, an opportunity for political and social respectability and power that was denied them in more established

American cities and towns (Rischin 1978:5). Consequently, first- and second-generation Irish residents of San Francisco achieved political office up to two generations before their compatriots on the East Coast: San Francisco elected an Irish-born mayor, Frank McCoppin, in 1867, predating Irish-born mayors in New York by 13 years, and in Boston by 18 years (Rischin 1978:5). Early political leaders included David C. Broderick, California Senator until 1859, who was born in Washington, D.C., of Irish parents; William Higgins, who became the Republic party "boss" in the 1860s; and Chris Buckley, John C. Murphy, and Jack Mannix (Bullough 1978:32).

The Changing Face of the Irish Community

During the years of the Gold Rush, the average resident of San Francisco was single, young, and male. From the beginning, Irish immigrants to the city differed markedly from this pattern. The Irish, while tending to be young (only 14.4% of the 1852 Irish immigrants were over 40), preferred to immigrate not singly but as family groups (Burchell 1980:49). In 1852 Irish-born residents in the city were only 69.7 percent male compared to 83 percent in the population at large (Burchell 1980:49, 73). Immigration in family groups offered both advantages and disadvantages; the family offered support and comfort, but also placed additional financial burdens on the new immigrant. For instance, within the San Francisco population in 1852, every 100 workers supported an average of 14 children and 3 elderly. The 589 Irish in family groups who emigrated to the city from Sydney and who were recorded in the 1852 California State Census supported 62 children and 1 elderly per 100 workers, a burden in a city that sported such limited services and charities (Walsh 1978a:12).

The preference for living within family groups continued to be a strong characteristic of the San Francisco Irish community: the 1880 U.S. Population Census schedule indicated that the majority of Irish preferred to live with family members, and if that was not possible, then with other members of the Irish community. This pattern was particularly strong in the middle-class areas of the city. For instance, in 1880 in San Francisco's 11th Ward, 65 percent of Irish households were composed of nuclear families, and only 27 percent of first- and second-generation Irish men lived as boarders (Burchell 1980:76).

Most Irish children in San Francisco grew up in solidly Irish households. The community appears to have maintained a strong sense of identity, partly by encouraging endogamy, or marriage within the community. The census schedules from 1852, 1870, and 1880 indicated that over 84 percent of Irish-born males married Irish-born females. It is possible of course, that many of these marriages took place in Ireland before immigration. However, 75 percent of those Irish-born men who married after immigration to the U.S. married women who had either one or both parents born in Ireland (Burchell 1980:79). Marriage within the Irish community continued to be a strong tradition even in the second generation. In 1880, 30 percent of men and 33 percent of women born in America of two Irish-born parents, married Irish-born spouses. Of the remainder who married people born in the U.S., 68 percent married spouses who had two Irish-born parents, and only 21 percent married people with no Irish parentage at all (Burchell 1980:80).

This preference for marriage within the Irish community was also shared by people who might be thought to have only limited Irish cultural connections, such as people born outside of Ireland with only one Irish parent. In the 1880 Census, only 22.9 percent of such men chose a partner with no Irish-born parents. Women however, appeared to have married more freely outside of the Irish community-–in 1880, 52.6 percent of women with one Irish parent had married spouses with no Irish parents (Burchell 1980:81). The strong preference for endogamy would have been heavily influenced by the Catholic Church, which forbade marriage to Protestants (Burchell 1980:85). Endogamy, however, together with the noted preference for family-based living arrangements, indicates the importance placed by the Irish community on the family as both a stabilizing influence and as the primary means by which Irish cultural values and traditions were asserted and reproduced within the community.

While the Church and the family acted as the focus of community life, an additional means by which Irish values were transmitted were the large number of societies and associations supported by the Irish community. These societies provided religious guidance, recreational or social opportunities, labor union or political functions, and financial or social support. Secular fraternal and social organizations included the Hibernian Society, the Sons of the Emerald Isle, the Fenian Brotherhood, and the Ancient Order of the Hibernians (Bullough 1978:30). The societies were available from the earliest days of Irish settlement during the Gold Rush: in 1852 the Hibernian Society of San Francisco was created, boasting within months a membership of 50 to 60. The Sons of the Emerald Isle was also founded in 1852. Initially, these societies were exclusively male and directed towards fraternity, secularism, and benevolence. The Sisters of Mercy founded the first female society, the St. Mary's Ladies Society, in 1859 with the intent of promoting religious values and works (Burchell 1980:98). Other important societies were the Hibernian Savings and Loan Society, founded in 1859, the Father Mathew Total Abstinence and Benevolent Society in 1869, and the Catholic Total Abstinence Union of the Archdiocese of San Francisco in 1874 (Burchell 1980:97, 105). The proliferation of these societies indicates the extent to which the Irish were "settling very firmly into the fabric of city life" (Burchell 1980:97). Membership to the various religious, political, and recreational societies was widespread, indicating the variety of interests to be found within the community: in 1880 *Langley's Directory* indicated that over 7,500 Irish men and women were members of Irish and Catholic societies in San Francisco. These societies, along with the Church and family, formed the basis of Irish community life: "One road led from these societies to the Church; a second to social intercourse; a third to political life" (Burchell 1980:95).

Changing Areas of Living in the City

During the frenzy of the Gold Rush, there was relatively little residential segregation in terms of class, economic level, or ethnicity within San Francisco. During the 1850s, however, a gradual segregation of residential areas by class took place. By the late 1850s, working-class inhabitants were concentrated in the Second, Third, Fifth, and Ninth wards, later moving into the Tenth and Eleventh wards. Initially areas such as Rincon Hill and South Park, south of Market Street had been the preserve of the better off. As these neighborhoods were colonized by industry in the 1870s, and as innovations such as the cable car made living in areas like Nob Hill more feasible, the well-to-do retreated from

the South of Market wards, which became associated with the working class (Burchell 1980:39).

While San Francisco never had an Irish ghetto, and first- and second-generation Irish residents could be found living in all the wards of the city (Burchell 1980:65), there were areas of the city that supported concentrations of Irish inhabitants. In 1862 an Irish neighborhood was located at the foot of Telegraph Hill. Another clustered in the working districts south of Market Street in the vicinity of Old St. Patrick's Church on Market, demonstrating "an Irish version of the Italian's *campanilismo*, a desire to live in the shadow of one's church steeple" (Bullough 1978:29). By 1870 the center of the Irish community lay in the Seventh Ward, where 27.8 percent of the residents (or 2,891 people) were Irish-born immigrants. There were also concentrations of Irish inhabitants in the First Ward, and along the shores of San Francisco Bay south of Market Street in the Ninth, Tenth, and Eleventh wards, where they made up more than 20 percent of the population (Burchell 1980:46-47). The wealthiest Irish-born lived in the Second, Eighth, and Twelfth wards (Burchell 1980:63).

These residential patterns began to change as second-generation Irish matured and entered the work force. Census schedules indicate that during the 1870s, increasing numbers of the second generation moved away from the lower-status, South of Market wards, towards the higher-status Second, Fourth, and Eighth wards. Burchell suggests that this represents an upward movement by the entire Irish community, since by 1880, lower-status wards were appearing to lose Irish inhabitants, while the numbers of those in the middle-class wards remained stable (Burchell 1980:49). Despite the evidence of movement, the Seventh Ward retained the greatest proportion of Irish inhabitants—53.1 percent of the ward's population (Burchell 1980:49), followed by the Ninth, Eleventh, and Twelfth wards, each with from 40 to almost 50 percent. Numerically, the bulk of the Irish population lived in the wards South of Market (Burchell 1980:48), in and around the blocks of the SF-80 Bayshore Project area.

The South of Market area was thus the heart of the Irish community in the city. The housing stock of this area, although predominantly new—having been developed after the Civil War—was of generally poor quality. It was noted that these neighborhoods began "to assume the objectionable characteristics of the tenement system" (Young 1912, cited in Burchell 1980:45). The poor housing stock, particularly in the area's eastern end bordering the San Francisco Bay, contributed to its image as a neighborhood acceptable only to the poor and the working class (Burchell 1980:45).

The gradual movement of second-generation Irish out of the South of Market area during the 1870s attests to their rising economic mobility and a desire to separate from the working-class associations of the neighborhood. The movement to some extent may also have been fueled by Irish interest in homeownership (Burchell 1980:49). In an attempt to counteract the deleterious effects of the state's high interest rates on real-estate loans, the California state government passed legislation in 1861 and 1864 that encouraged the establishment of associations designed to help members acquire homesteads in the rapidly expanding suburbs of cities such as San Francisco. These associations were viewed as a means by which working-class men could improve their family's future through the stability and financial gain of homeownership. The founding of associations such as the

Hibernia Homestead Association and the success of the Hibernia Savings and Loans Society attest to the eagerness of the Irish to invest in homes and property (Burchell 1980:42-43). By 1870 almost one in three Irish-born, 40-year-old men owned real estate, although the value of this property was significantly less than that of native-born and German-born men. Irish-owned property was distributed throughout the various city wards, indicating that no strong correlation existed between the increasing density of Irish occupation and decreased property ownership (Burchell 1980:61, 63).

Working Your Way up the Social Ladder

The Irish community from its earliest Gold Rush days was distinguished by the range of high-status occupations it included. Although the majority of the community consisted of laborers, the 1852 community also included 6 lawyers, 10 doctors, 2 chemists, 20 merchants, and 4 brokers (Walsh 1978a:12). Many Irish throve in San Francisco's frenetic economic climate, and significant numbers of the city's economic elite were Irish-born. For instance, the earliest foundry in the city was established by immigrants James and Peter Donahue. The firm Donahue, Kelly & Co., established in 1864, was among the city's largest private banks (Maguire 1868:273). At times Irish immigrants combined their financial resources to establish consortiums, like the one that produced the Hibernia Bank (Walsh 1978a:14). The Hibernia Savings and Loans Society was among the most successful Irish-backed business institution in the city. It was patronized by Irish of all classes: of its deposits totaling $5,241,000 in January 1867, seventh-eighths were from Irish investors, and "of the amount deposited by the Irish fully three quarters belong to the working classes, including mechanics, laborers, and girls in various employments" (Maguire 1868:276).

The predominance of high-status professions among the Irish, unusual in first-generation immigrant communities, continued into the 1860s. In 1870 although San Francisco had much smaller Irish populations than New York, Philadelphia, Boston, Chicago, and St Louis, it had a larger number of Irish in high status and high-paid occupations. For instance, San Francisco had 27 Irish bankers although Philadelphia with three times the Irish population had only 18, and Boston, having twice the numbers of Irish dwellers, had only 4. As a further indication that the San Francisco Irish community was relatively successful and skilled, it should be noted that the East Coast cities had a greater proportion of Irish in lower-status occupations, such as in the case of Boston, which had three times the number of Irish laborers and domestic servants than San Francisco (Walsh 1978a:12).

Even laborers, however, had an uncommon advantage in San Francisco compared to other cities. Throughout the Gold Rush and into the 1860s and 1870s, the city experienced a shortage of labor. During the 1850s an entire city had to be built, including neighborhoods that repeatedly burned. All of this presented a Gold Rush in itself to teamsters, tradesmen, and laborers. As a contemporary commentator observed: "Labor . . .was highly prized and reverently regarded in California; for without it nothing could be done, where everything had to be done" (Maguire 1868:271). San Francisco was generally acknowledged to have much higher wage-rates than eastern cities—a significant draw for unskilled laborers, although living costs (with the exception of food) were higher on the West Coast. Whether the greater cost of living in San Francisco canceled out the

advantage of higher wages for the working-class immigrant was hotly debated (Burchell 1980:68). As the contemporary commentator Henry Luce noted of San Francisco: "Everything is dearer—house rent, clothing, and most of the necessities of life" (Luce 1885, cited in Burchell 1980:69). The shortage of workers gave labor greater political and economic influence within the city. The involvement of the Irish working-class, as San Francisco's most politically active ethnic minority, remained an important factor in city politics into the 1900s (Walsh 1978b:59). Although politically astute, the Irish working class was never politically or even socially homogeneous. Its members aligned themselves to support parties and politicians that best served their interests, while retaining a distinct preference for the Democratic Party (Bullough 1978:29, 32).

The employment status of Irish-born men improved steadily along with general improvements in San Francisco's economy until after 1875, when the California and San Francisco economies entered an economic depression (Burchell 1980:56). While unskilled laboring remained the most common occupation for men, the proportion of the community's Irish-born men who engaged in more remunerative work rose as the San Francisco economy became more varied and immigrants obtained a broader range of skills. While 45.1 percent of all Irish-born employed men were working as laborers in 1852, this figure had dropped 32.5 percent by 1860, to 30.8 percent by 1870, and further still by 1880 to 25.5 percent (Burchell 1980:54-55). Despite the progress for the Irish-born men in San Francisco, labor figures from 1870 indicate that the Irish fared much less well than native-born or German-born residents. While only 6.1 percent of native-born and 7 percent of German-born men were employed in unskilled occupations, 38.1 percent of Irish-born men in their 40s were so employed. Within the same year, 48.7 percent of native-born and 49 percent of German-born men were in white-collar jobs, compared to 15.7 percent of Irish-born men (Burchell 1980:60).

The occupations of second-generation Irish indicate a community rapidly improving its social and economic lot. By 1880 considerably fewer second-generation Irish men were working in unskilled work: 9.7 percent compared to 31.5 percent of the first generation. This was accompanied by rises in employment rates of the second generation in higher-status employment: skilled blue-collar work employed 31.3 percent of the second generation compared to 18.6 percent of the first; and white-collar work employed 27.7 percent compared to 19.9 percent of the first generation (Burchell 1980:57). Within 30 years of the establishment of the Irish community in San Francisco, only 1 in 10 second-generation men were working at unskilled blue-collar occupations (Burchell 1980:58).

Irish-born women did not show the same mobility, both because many continued to work within the home, and because the opportunities for female employment in the city remained limited. Domestic service was the number one occupation for women. Of the alternative areas of semi-skilled employment, only limited numbers worked in factories (a total of 30 women in 1880) or found employment in the clothing trades (12% of Irish-born women), or non-domestic service jobs such as nursing, cooking, and waiting, which employed a further 10 percent. The 1880 Census records only 10 Irish-born women working as clerks, 82 as boarding- and lodging-housekeepers, 37 as store or saloon owners, 80 working in religious houses, possibly as teachers, and 41 as lay schoolmistresses (Burchell 1980:55). Second-generation women also experienced much less improvement

in their employment prospects than did men of the second generation: even by 1880, over 70 percent of the working second-generation women remained in semi-skilled occupations, primarily domestic service (Burchell 1980:57).

Each ward within San Francisco displayed its own unique character based on the density of Irish habitation and the wealth of those occupants. The Seventh Ward, however, was recognized as the heart of the Irish community. Within this ward in 1880, only 12.7 percent of Irish males, both first and second generation, were in white-collar occupations, while 33.5 percent worked at unskilled blue-collar jobs. In contrast, the wealthy Eighth Ward showed a very different character, where 44.6 percent of the Irish community worked in white-collar employment, and only 17.6 percent in unskilled blue-collar work. Other wards with large Irish populations, such as the Ninth, Tenth, Eleventh, and Twelfth—showed a community more evenly divided between white-collar, skilled blue-collar, and unskilled blue-collar employment (Burchell 1980:65).

It is tempting to paint a rosy picture of Irish settlement in San Francisco as a steady climb up the ladder to social and economic fortune-–in fact, an immigrant's dream. It is undeniable that San Francisco did present opportunities to incoming Irish. The city's lack of an established elite or strong anti-Catholic prejudice, its flexible social and economic structures, and its ready demand for unskilled labor certainly offered opportunities for the Irish-born and their children. The Irish community of San Francisco, however, was not homogeneous socially or economically, but was instead complex and multilayered. Some Irish became immensely successful, while others lived their lives in laboring jobs close to the community's working-class heart in the Seventh Ward. It is clear, however, that the community, economically and geographically dispersed as it was, shared many values—including a preference for family life; a devotion to the social, economic, and political benefits of associations; and a strong sense of Irish identity, which is still demonstrated by the city's annual St. Patrick's Day marches.

THE ARCHAEOLOGY

Jack Mc Ilroy

Studies in Irish Ethnicity

Only a few archaeologists have directly approached the study of Irish ethnicity. Irish Americans are featured in Ed Staski's (1983) comparative study of Irish and Jewish American alcohol consumption. The online database abstract (www.firstsearch.oclc.org) outlines his conclusions:

> Popular stereotypes concerning drinking have influenced scholarly descriptions and interpretations. There is, for instance, widespread and questionable acceptance by researchers that ethnic identification often correlates strongly with rates of alcohol consumption. Through refuse analysis, this study suggests that no such correlation exists; at least as far as household alcohol use is concerned. Instead, it is found that the degree of social heterogeneity within households, causing stress among individuals, is positively associated with consumption rates. Ethnicity might be related more closely to expressed attitudes about drinking, though results are inconclusive.

Yamin's study of Irish households in the Five Points neighborhood of 19th-century New York found few artifacts marked with Irish symbols of any kind. Diet, however, remained traditionally Irish (Yamin 2000b:152). She suggests that, for poor New Yorkers, the purchase of fashionable consumer goods—as evidenced archaeologically in their privies—represented a form of resistance to the dominant class, in that it demonstrated their inherent respectability to their immediate world (Yamin 2000b:151). Most relevant to the SF-80 Bayshore Project may be her observation that the expression of Irish identity in the Five Points archaeological record was subtle, contrasting sharply with the concern with Irish identity discussed by many of the historians she collaborated with on this project (Yamin 2000b:153). She emphasizes the need for archaeologists to work closely with social historians, some of whom have been reluctant to pay attention to archaeological data, and that one way to do this is to make archaeological findings more accessible (Yamin 2000b:155). The need to better define and utilize the historian–archaeologist interface and the critiques each may have of the other also have been noted in Australia by R. Ian Jack (1993) and Sybil Jack (1993).

From a study of three privy deposits associated with Italian, Portuguese, and American/Mexican families on a Sacramento, California, project, Nettles and Hamilton (2004) concluded that the artifact assemblages were relatively homogeneous, with some distinctiveness showing in faunal and floral remains. The database is small and the results may be anomalous or idiosyncratic. But the ability to find familiar foods in unfamiliar foreign lands may be a target of many migrants. That familiarity may help reinforce a sense of security in the new country.

Bayshore Artifacts

According to the 1852 California State Census, there were 4,338 Irish among San Francisco's 36,151 inhabitants, for 12 percent of the population. By 1900 they comprised 27 percent of the population of 350,000 (Walsh 1978a:11). Somewhere in that growing population were the families of SF-80 Bayshore Irish residents Thomas O'Neil, Anne Mills, Anthony Dean, Andrew Buckley, Mary Wendt, and William Noonan and the Irish laborers at his lodging house. See Table 10.1 for some of the economic and social characteristics of the seven households that can help identify patterns of ethnicity.

Identification of the archaeological attributes of ethnicity on any site will require statistical analysis of a high number of tightly controlled datasets sufficient to identify those patterns. While a handful of features can demonstrate patterns, they can equally be the result of anomalous behavior. Comparing percentages is always hazardous with small samples, such as those from the Bayshore Project's seven CR-eligible features. Table 10.2 provides a nonstatistical comparison of the major artifact categories represented in these features. It shows more similarity than difference among the features, although Andrew Buckley, the Irish porter associated with Privy 41, tends to skew the average.

When looking at artifacts by group, the percentage of domestic artifacts is almost identical in Irish glass cutter Thomas O'Neil's Privy 1 in the 1870s (56.7%), Irish laborer Anthony Dean's Privy 38 in 1882 (59.5%), and German merchant and consul Charles Duisenberg's Privy 3 in 1888 (56.5%). The mostly Irish laborers, lodging at William Noonan's house, who contributed to Privy 20 around 1880, are a little higher at 67 percent, while Irish widow Anne Mills at Privy 30 on 1882 is at 64 percent. It is Irish porter

Andrew Buckley who throws things off at Privy 41 in 1882, with only 35 percent. Skewed towards the other end are German express-man John Wendt and his Irish wife, with 78.6 percent at Privy 39 in 1882. There are both differences and similarities within the Irish group and similarities between some of the Irish and the German, while the Irish/German couple are out on their own.

Looking at artifacts by category, items of food preparation and consumption generally rank highest in the deposits, ahead of clothing items. Even so, Andrew Buckley's privy rates lowest at 14.9 percent in this category, almost identical with Duisenberg's 15.6 percent. Both ethnicity and class differences seem irrelevant here. John Wendt's German-Irish family rate highest at 49.5 percent. When it comes to clothing items, the highest rate of artifacts is widow Mills at 20.9 percent, almost the same as Duisenberg's 20 percent. The lowest is the Wendt family with 6.4 percent.

Items of grooming and health, indicative of concepts of personal appearance and of attitudes toward health, do not fluctuate as much among the households—from 3.7 percent (Wendt and Dean) to 5.6 percent (O'Neil), with Buckley again being different, but not greatly so, at 6.7 percent.

With food-storage items, the Irish widow Mills rates highest at 9 percent, possibly because she was a recent widow and needed to economize more than the other households. Andrew Buckley is close behind at 7.6 percent, while there is little difference between the lodging Irish laborers (2.5%) and the Duisenbergs (2.1%). What about small items? Miscellaneous beads, for adornment of adults and/or children and/or households, represent 11.3 percent at the Duisenbergs, who would have entertained more than their neighbors. But the lodging Irish laborers come next at 5.9 percent. The Wendts clocked in with no beads; perhaps they frowned on such frivolous adornment.

With alcohol, Victorian-era values might have been expected to encourage temperance and such was the case—not much drinking happened at home. The Duisenbergs would have needed to entertain, but their 2.6 percent of alcohol bottle artifacts seems low. The Wendts also had few alcohol bottles at 1.8 percent, along with the Irish laborers at only 1.7 percent. The corner store or saloon seems to have been a more welcoming place for a beer after work than your residence, although the O'Neils might have felt otherwise, at 11.2 percent. They might not have liked to go out much, although they could afford to; O'Neil—a glass cutter with considerable real estate—was well off. All these households, however, are out-distanced by porter Andrew Buckley, whose taste for porter and its cousins ran on the high side. A full 29.9 percent of his artifacts are alcohol-related. Out of a total artifact count of 980, there is an MNI of 293 alcohol bottles. The bottles vary from mostly ale and beer to wine, whiskey, mead, schnapps, and champagne. Was this man a stereotypical Irish drunk? Perhaps, but as it turns out he worked in a liquor store, where he probably got his alcohol at a discount. While clearly a good deal of drinking occurred at the Buckley residence, Andrew Sr.'s 25-year-old son might well have joined him for an after-work drink each day; a good bit of entertaining may also have occurred at the Buckley house, given the elaborate tableware and serving pieces. Nonetheless, the sheer quantity of empty bottles hoarded at this house on Seventh Street remains something of a mystery.

Table 10.2. Comparison of Artifact Assemblages from CR-eligible Features, SF-80 Bayshore Project

	Privy 1	**Privy 3**	**Privy 20**	**Privy 30**	**Privy 38**	**Privy 39**	**Privy 41**
Ethnicity	Irish	German	Irish	Irish	Irish	German (Irish wife)	Irish
Family Name	Thomas O'Neil	Charles Duisenberg	William Noonan/ multiple boarders	Anne Mills	Anthony Dean	John Wendt	Andrew Buckley
Occupation	Glass cutter	Merchant	Painter/ laborers	Widow	Laborer	Express man	Liquor-store Porter
Date	1870s	1888	ca. 1880	1882	1882	1882	1882
Total Artifact MNI	107	2,436	634	696	657	162	993
Artifacts by Group %							
Weighted MNI	60	600	130	240	294	84	779
Activities	8.3	12.0	8.0	10.0	6.8	3.6	8.0
Domestic	56.7	56.5	67.0	64.0	59.5	78.6	35.0
Personal	35.0	31.5	25.0	26.0	33.7	17.9	57.0
Artifacts by Category %							
Category MNI	89	1,253	237	387	430	109	980
Clothing	10.1	20.0	16.0	20.9	14.7	6.4	12.1
Clothing Maintenance	1.1	2.9	6.8	0.0	1.2	0.0	0.1
Firearms	1.1	2.5	0.4	0.5	0.0	0.0	3.2

Table 10.2. Comparison of Artifact Assemblages *(continued)*

	Privy 1	Privy 3	Privy 20	Privy 30	Privy 38	Privy 39	Privy 41
Artifacts by Category %							
Food Prep / Consumption	33.7	15.6	19.0	23.0	26.7	49.5	14.9
Food/Food Storage	0.0	2.1	2.5	9.0	4.9	4.6	7.6
Grooming/ Health	5.6	5.0	3.4	4.4	3.7	3.7	6.7
Misc. Beads	2.2	11.3	5.9	1.0	2.6	0.0	1.1
Misc. Containers	11.2	4.4	11.0	9.8	6.5	5.5	3.8
Alcohol	11.2	2.6	1.7	5.4	4.7	1.8	29.9
Tobacco	3.4	1.8	0.8	0.8	2.3	3.7	0.6
Tools	0.0	0.2	0.0	0.3	1.6	0.0	0.2
Toys	1.1	3.4	3.4	1.8	4.7	0.0	3.1
Writing	1.1	2.3	2.1	4.1	2.1	1.8	1.7
Mammal Meat Price %							
Low	N/A	39.7	44.8	66.7	38.3	N/A	N/A
Moderate	N/A	41.0	35.0	22.6	35.7	N/A	N/A
High	N/A	19.2	20.2	10.7	26.0	N/A	N/A

The more refined Duisenbergs discarded a total MNI of 33 alcohol bottles, 11 were wine/champagne, 10 were ale or beer, perhaps 4 whiskey bottles, and a single bourbon and schnapps. While the widow Mills also discarded a minimum of 21 alcohol bottles.

A smoke after dinner, gentlemen? There were 22 tobacco pipes and a spittoon in Duisenberg's privy. The Dean family had around half that number with 10, while Andrew Buckley had 5 and a cuspidor. The Wendts had 4 pipes, the O'Neils and widow Anne Mills had 3 each. Surprisingly there seem to have been few smokers among the Irish laborers at the lodging house, with the recovery of only 1 pipe and a cuspidor. Smoking may have been frowned upon in the lodging house.

Looking at mammal meat by price, the Duisenbergs might be expected to have bought the choicest cuts. But at 19.2 percent they are slightly outranked by the lodging Irish laborers with 20.2 percent for high-priced cuts. The Anthony Dean family exceeds both at 26 percent; it seems they liked to eat well. That widow Anne Mills had fallen into poor circumstances seems indicated by her purchasing 66.7 percent of her meat in the low-price category, well ahead of the Irish laborers (residing at the Noonans) at 44.8 percent.

There were literate people at all addresses who could read and write, adults and/or children. The Duisenbergs had writing artifacts at 2.3 percent. This placed them just above the Irish laborers at 2.1 percent. Liquor-store porter Andrew Buckley, with 1.7 percent, may have needed to read and write for his job. But it is Irish widow Anne Mills's household that comes out on top at 4.1 percent; illiterate herself, Anne's two children were in school.

From what we can see, there are ethnic and class "crossmends" throughout this group and not where they might be expected. The Irish widow's family has the same percentage of clothing items as a German merchant. The Irish glass cutter and Irish laborers have almost the same percentage of domestic artifacts as the German merchant. The Irish porter's privy has almost the same percentage of food preparation and consumption items as the German merchant's. The Irish laborers have almost the same percentage of food-storage items as the German merchant. The lodging Irish laborers show little interest in smoking or drinking alcohol, while the German merchant's privy shows more interest in both. And the wealthy German merchant's family shows almost the same percentage of high-meat price purchases as the Irish laborers. The sample size is too small to distinguish ethnic patterning, although the patterning may be buried deep. Given the engendered domestic roles of the day, what we are seeing in most cases represents the personal choices of the women running the household.

A. Praetzellis and M. Praetzellis (2004:23), reviewing the results of the Cypress Archaeological Project in West Oakland, concluded that 19th-century residents of that neighborhood—including households of lowly-paid, first-generation immigrants (many of them Irish) and African Americans—had tastes that ran to expensive cuts of meat, complex table settings, and fancy parlor bric-a-brac. It appears that the findings from SF-80 Bayshore would not significantly differ from the Cypress results. Statistical analysis of the Cypress data in relation to bottles showed no significant patterns in recycling by ethnicity or nativity, but the refuse of poorer households contained fewer whole bottles than those of wealthier ones. Other conclusions from the Cypress Project are that wine

bottles strongly correlated with better-paying professions, and that there was no evidence that wealthier households consistently purchased more expensive meat cuts than poorer ones. Praetzellis and Praetzellis (2004:22) conclude that a process of structuration operated in West Oakland, in which people were not deceived by the hegemonic structures set up by their would-be oppressors to naturalize social inequalities. Did this process also operate on Bayshore?

In West Oakland and in San Francisco's South of Market, you could be poor and you could be proud. Pride was a significant factor in Irish emigration in days gone by (Coogan 2000:43). Being proud can involve wanting to have quality things for special events. The best ceramics would be set out on special occasions. Indeed, "poor but respectable" is indicated by the artifacts of the SF-80 Bayshore Irish.

An emphasis on re-use and recycling of materials may indicate that thrift was seen as important and for some, a necessity. Others would have used the "poor but proud" code to keep their distance from anything secondhand, since such purchases would have reinforced—not only to themselves, but perhaps worse to their neighbors—their level of poverty. The code to follow here may have been that, when possible, it was far better to buy expensive things and show them with pride.

Irish-Catholic values were strong and enduring. Perhaps the Lily of the Valley molded saucer in Privy 1 was bought because it attracted the pious woman of the household, reminding her of the line in the popular old Catholic hymn, "I'll sing a hymn to Mary" by John Wyse (1825-98):

> 'O Lily of the Valley, O Mystic Rose, what tree,
>
> Or flower, e'en the fairest, Is half so fair as thee? "

It would be intriguing to correlate the appearance of this artifact with the religion of the household inhabitants on a wider scale.

Historical archaeology on the SF-80 Bayshore Project, combined with that on the SFOBB West Approach and Cypress projects, has the potential to inform on ethnic and cultural differences. But along the way to those ends, it may tell as much about what the residents from so many different backgrounds—geographically, economically, ethnically, and racially—had in common. Humans appear to live parts of their lives in patterns or, as A. Praetzellis and M. Praetzellis put it: "In the roiling social stream, apparently patterned behavior and apparently meaningful symbols are constantly coming to the surface" (2004:20). And the patterns that are created can be statistically meaningful. Those patterns should be evident in archaeological assemblages, given a sufficiently large database, as is documented in Chapter 11.

Remembering

The memory of forced emigration in Ireland is so strong that the Irish government will today grant citizenship to anyone who has one grandparent born in Ireland. This is a form of commemoration to the multitudes who departed, and a gesture to their descendants from the descendants of those who stayed behind. Shackel (2003:9) views the act of finding, locating, and documenting a site (e.g., the Bayshore Irish sites) as telling the world what archaeologists view as important. This is also an act of

commemoration. Recognizing a site's eligibility is another level of commemoration. And the act of undertaking archaeology of a subordinate group and trying to make its history part of the official history is yet another form of remembering.

The archaeology of these Irish households of the SF-80 Bayshore Project are in this realm of remembering. It also lies in the realm of the potential. Combined in a statistical analysis with the neighboring West Approach and Cypress projects, and eventually with data from projects far removed from San Francisco, they offer an insight into an Irish culture described by Rischin (1978) when commenting on the life of one Irish immigrant, Seamus Moriarty. Seamus was born in County Kerry around the 1880s and ended his days in San Francisco in 1927. For Rischin, Moriarty—and for us, these Irish archaeological features—represent "all the other San Francisco Irish who have . . . gone unrecognized from this world to the eternal reward they believed in" (1978:8).

CHAPTER 11
URBAN ARCHAEOLOGY—COMPARATIVE STUDIES

BACKGROUND

San Francisco research designs created for Caltrans have long endorsed comparative studies between households, neighborhoods, cities, and regions, from the initial attempt for the SF-480 Terminal Separator Rebuild in 1993 (Praetzellis and Praetzellis 1993). Even then, it was suggested that "whether or not one can associate particular deposits with given families on any of these blocks, the block-by-block variation in architecture, use of household space, and integration with the commercial life of the city indicates significant differences in 'block identities' within the social and ethnic organization of San Francisco" (Yentsch 1993:277). Municipal improvements, social and political considerations, economics, and engineering all contributed to the development, protection, and at times destruction of the archaeological record, as it would eventually be read in the 21st century. With its unique Gold Rush setting, the city of San Francisco itself was the backdrop for a variety of ethnic and urban subcultures, organized along social, as well as economic, lines. With its frontier venue, luck and/or skill contributed to personal trajectories in ways that were not as clear-cut or predictable as they might have been in small-town America or in long-established cities of the East or South. Factors both quantitative and qualitative contributed to lives lived by 19th-century San Franciscans.

Considerable choice remained to households, even corporate lodgers. Life is private to varying degrees and enables individual variation, even deviance, to exist behind seemingly homogeneous public facades. Strategies varied from family to family; they may have adhered in general ways to the mores of regional or ethnic culture, but practices could vary markedly, depending upon their social and economic aspirations. While family and individual behavior is constrained by community values, access to resources, social space, personal choices, and historical changes, it is enlarged by imagination and the willingness to try new strategies and new products, and to seek out new opportunities (Yentsch 1993:278).

Beginning with block and inter-block similarities and differences, the original Tar Flat, Rincon Hill, and Shore of Mission Bay research design suggested that comparisons be sought with cities in California, on the West Coast, and in the East. Caches of artifacts found in privies and wells have proven to be the archaeological features best suited for comparative studies. These receptacles can be found around the world, time capsules ready for discovery and analysis. It is only recently that the required quantity of collections necessary for statistical analysis has made such comparative studies possible. The Cypress Project used statistics to define differences between households of various characteristics and enlarged the household analysis to study neighborhoods. In this report, we make our first attempt at citywide analysis by looking at statistically significant differences between artifact patterns representing San Francisco and Oakland. We will enlarge this

study in the future using additional San Francisco features, with a long-range plan to bring in other cities as well. The city of London is presently developing methods and funding to analyze their 19th-century collections and ASC will be a part of this endeavor. Comparisons only imagined are now within reach between globally diverse cities that were within the cultural and economic spheres of influence of the Victorian British Empire.

This chapter presents conclusions about the process and potential of historical archaeology itself as well as some specific outcomes of this project. First, an analysis is offered of the occurrence of the humble privy, the most common receptacle of important artifact caches. Next background information is given about Caltrans' archaeological projects (Cypress/West Oakland and West Bay Approach) whose collections will be compared with the contents of the seven features recovered from the SF-80 Project. The statistical methods and findings at various scales are described next; and the chapter concludes with a reflection on the potential of neighborhood level archaeology.

SAMPLING PRIVIES

Michael D. Meyer

The Privy as Archaeological Target

During archaeological construction monitoring for the SF-80 Bayshore Viaduct Seismic Retrofit Projects (SF-80 Bayshore Project), one type of feature that met research-design requirements for eligibility for listing on the California Register was the refuse-filled privy. Despite impacts from prior construction, seven privies still maintained enough integrity and focus to address research issues. Two other privies were discovered that did not meet the data requirements. Undoubtedly a larger number of privies were impacted during the original construction of the bent footings and other development on the blocks. While numerous privies were excavated on the adjoining San Francisco–Oakland Bay Bridge West Approach Project (SFOBB West Approach), the sample of privies is minute compared to the number of potential privies that were historically constructed, abandoned, and filled within the city of San Francisco.

The privy is a targeted feature for the archaeologist for a variety of reasons. Most specifically, they are often found filled with household refuse. The privy is typically of sufficient size to hold large amounts of refuse, and this refuse can often be associated with a specific household or business. On urban lots, privies were usually placed in the backyard. In some cases, the privy building, superstructure, or outhouse is depicted on 19th-century Sanborn insurance maps.

Other types of features also contain valuable information. Hand-dug wells usually have a much larger capacity than privies, but their presence and location are more random and not as easy to target. A well may have also serviced several house lots, while the privy was more often limited geographically. Trash pits and sheet refuse are other commonly found archaeological features, although pits are generally too small to hold a sufficient quantity of materials for addressing research questions. For areas without privies, sheet refuse may be a useful resource; in areas of heavy disturbance such as San Francisco, however, it can be expensive to excavate sheet refuse and is much less cost-effective than

studying the hollow-filled features such as privies. Historic dumps may contain large quantities of artifacts, but may only serve as a baseline for comparing deposits associated with individual households. Due to the relative ease of determining privy locations and the likelihood of finding significant materials, the privy has proven to be the most valuable feature type for archaeological studies at the household level in San Francisco.

The large quantities of artifacts often present in filled privies and the relative ease of identifying their location also makes privies a primary target for bottle collectors. Bottle thieves often target construction sites and archaeological projects, once the mechanical clearing of ground surfaces has improved access to the formerly buried features. The success of an archaeological project often depends on the ability of security guards to protect the resources from looting. Incompetence in carrying out the job of protection and, in some cases, looting by the guards themselves have occurred on ASC projects in San Francisco, Oakland, Sacramento, and Los Angeles. Due to the narrow confines and limited access during excavation, no privies were looted on the SF-80 Bayshore Project.

The damage done by looters is twofold—creating a loss of both artifacts and contextual information. Recording damage and attempting to reconstruct the looted feature's original stratigraphy is also more complicated and, therefore, more expensive than excavating an undisturbed deposit. Undoubtedly throughout San Francisco there have been more privies excavated by bottle hunters than archaeologists: hundreds of privies are likely to have been destroyed by collectors; those excavated by archaeologists, number in the dozens. The number excavated stratigraphically and reported with historical associations are even fewer.

Each filled privy is like a time capsule—filled with a household's refuse, which represents a portion of their life and is, therefore, unique and often capable of providing information that is otherwise not available. Since archaeology is in itself a destructive process in which the in situ feature is converted to written record and artifact collection, the recording process is crucial to interpretation and future reinterpretation of the deposit. When done carefully using stratigraphic excavation, associating the deposit with individuals or groups of people, and placing it in its historic context, very particular research questions can be addressed. When done properly, the data are presented in such a way that the feature can be reanalyzed by others for comparison. When these data are not provided, the research potential is diminished and instead of addressing questions of history and anthropology, all that remains is a material culture study.

Privies by Numbers

At the time of publication of this report, analysis and reporting of features excavated for the SFOBB West Approach Project, between SF-80 Bayshore and the Bay Bridge, was in progress. There were over 50 privies excavated on that project, along with other features. Pending further analysis, over 40 of the privies (about 80%) appear to be potentially CRHR-eligible by reason of their research potential. The results from the SF-80 Bayshore Project were similar, with seven of nine excavated privies (78%) deemed CRHR-eligible. All of the privies on both projects were stratigraphically excavated, including those disturbed by prior construction or looters. Firm historical associations are forthcoming for all the features.

To enhance the comparative study, an attempt was made to identify comparable features previously excavated by others. Since 1990 a total of 10 privies have been investigated on other projects (Van Bueren et al. 2003:12-13). Alan Pastron of Archeo-Tec reported on 9 privies, of which 4 were undisturbed; historical associations were not identified for any. William Self Associates encountered another privy, but no historical associations were discovered. The lack of detailed reporting and of historical associations diminishes the comparative value of these collections and places the population of privies identified by archaeologists at less than 70, and the number of those with association and research value at less than 55. More data will be forthcoming: Holman and Associates excavated several privies with residential associations in connection with expansion of the Kaiser hospital facility; analysis and reporting were still in the planning stages in May 2004.

Determining the actual number of privies constructed and filled in the city of San Francisco would be a difficult task. The city geography changed quite rapidly and privies in low areas may have been filled and protected, while those on high dunes would have been cut away and replaced. Water lots also would reduce the number, as privies on piers would have dumped directly into the bay without a chamber to fill. The longevity of privies is also a consideration. While most seem to last at least a decade, a small lot on Baldwin Court excavated as part of the SFOBB West Approach Project contained a series of three privies across the 15-ft.-wide lot that were filled more rapidly. Other lots had multiple privies for multiple families. The size and number of privies would be tied to the number of residents, how fast the feature would fill (thus necessitating a night-soil man to muck it out), and the ability and willingness of residents to connect to city sewers. The wealthy Duisenberg family on Block 3 paid for storm-sewer connections along Harrison Street in the 1860s, however, their privy was still in operation until the 1890s. Most of the SF-80 Bayshore privies were not abandoned for connection to city sewer until the 1880s. Plans for the systematic connection of houses to the city sewers were proposed in 1875.

For an indication of just how many privies may be present and how few have been excavated, an estimate will be based on a single year, 1880. In all likelihood, many of the earliest privies from the 1850s and later, would have been replaced, as in the case of the O'Neils on Bayshore Block 4, and more would have been built to accommodate the expanding population. Some privies on piers and wharves over the water would have been emptying directly into the water and lacked a chamber to be filled with artifacts. By 1880 a number of privies would have already been abandoned for sewers. The number of privies previously abandoned since the 1840s and the duplication of privies located at businesses should also be considered and may offset each other numerically. Comparing household size to the size and number of privies recovered during open-area excavation for the West Approach Project, suggests that five people would be about the average-size household using a privy vault of about 36-cubic-feet or more in volume.

Doubling the household size to 10 to account for potential differences in household size in other parts of the city, and dividing the 1880 population by that figure, derives the estimated number of privies. In 1880 there were 233,959 San Francisco residents reported in the U.S. population census. That would place the estimated number of privies using this calculation method at about 23,400. Using the averages from the SF-80 Bayshore

and SFOBB West Approach projects, about three-quarters of those should contain a significant amount of materials for study, or more than 17,500. The estimated 52 privies excavated stratigraphically, containing sufficient materials for analysis, and with association represents conservatively one-third of one percent of the estimated privies constructed within the city.

While this figure is intended as a minimum for the number of privies, it does not account for the survival of those privies. The 1906 earthquake and fire virtually wiped parts of the city landscape clean and brought new construction on a grand scale. Large buildings with basements covered entire city blocks and destroyed many of the former privies; recent construction continues to do so. Trenching for utilities and public-work projects has claimed others, as have landscaping, other underground activities, and bottle hunting. While the remaining number of privies is unknown, we do know that a 52-privy sample hardly begins to tell the stories of 149,473 people in 1870 or 233,959 in 1880, and others before, during, and after, who left evidence of their past buried in privies and other features throughout the city of San Francisco.

COMPARATIVE STUDIES

Preliminary comparative studies using statistical analyses were undertaken with data from the Cypress Freeway Replacement, SFOBB West Approach, and SF-80 Bayshore projects (Figure 11.1). The same field, laboratory, and report techniques, methods, and definitions, were used on all three projects making the resulting data eminently and easily comparable. The Cypress Project reports are available in print (Praetzellis and Praetzellis, eds. 2004) and on-line at

http://www.sonoma.edu/asc/ongoingprojects/cypress/cypresstoc.htm

The West Approach reports will not be completed until 2006, but preliminary details are presented here to facilitate comparison.

THE PROJECTS

Cypress Freeway Replacement Project

Between 1994 and 1996, ASC archaeologists worked with Caltrans to test the 22 archaeologically sensitive city blocks that would be affected by construction of the I-880 Cypress Freeway Replacement project, a 3.1-mile section of freeway in Oakland and Emeryville, California (Figure 11.2). Nearly 2,600 archaeological features were discovered, including 120 significant ones associated with specific households and containing more than 400,000 artifacts and ecofacts dating between the 1850s and 1910. Because of the enormous quantity of data, two separate reports were prepared on the investigations: the seven-volume Block Technical Report (BTR) series (Praetzellis 2001) and the interpretive report (Praetzellis and Praetzellis, eds. 2004).

The Cypress Archaeology Project database is unprecedented in the West. A wide variety of groups is represented, from unskilled working-class households to upper-

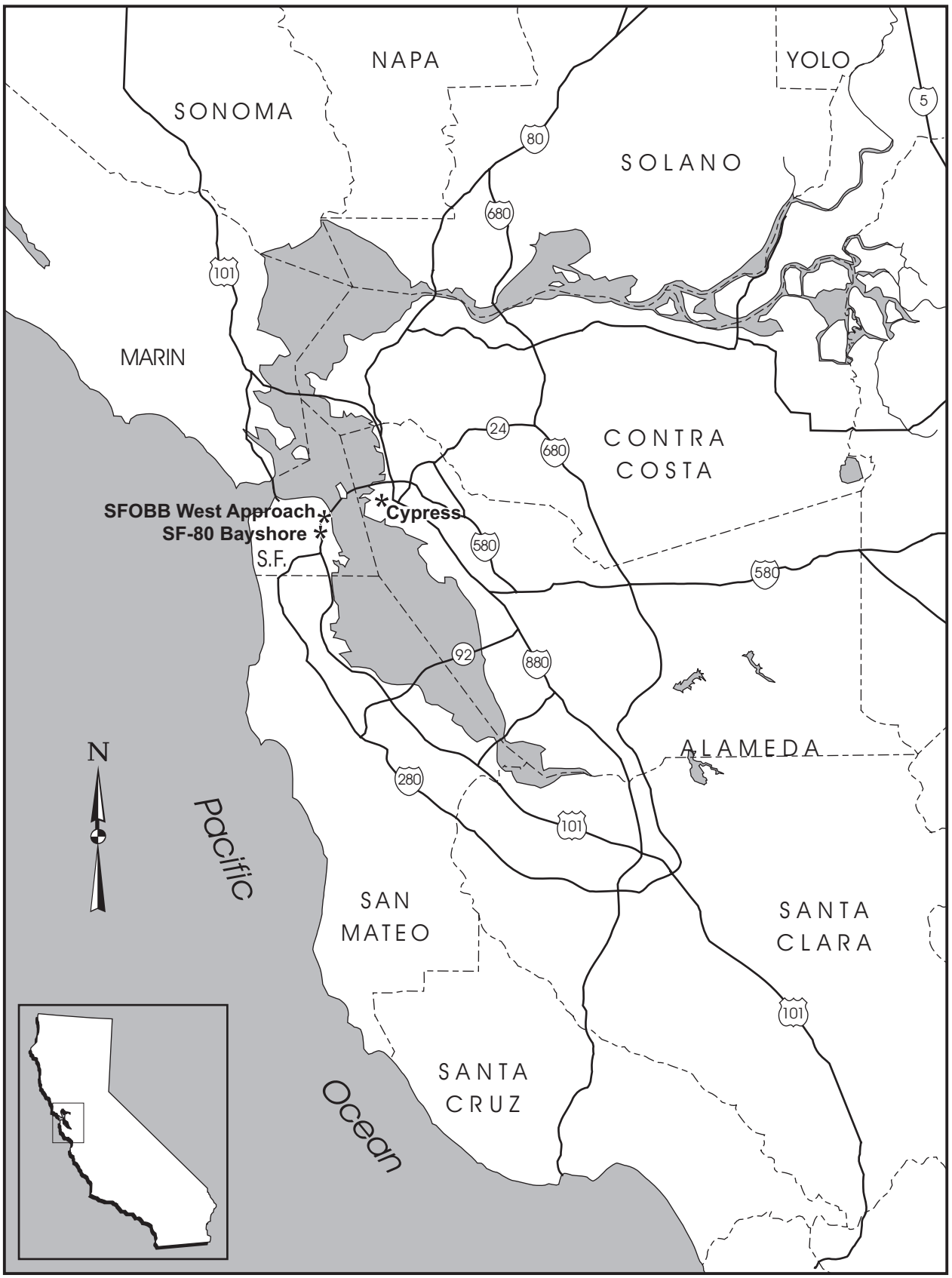


Figure 11.1. Location of San Francisco and Oakland projects

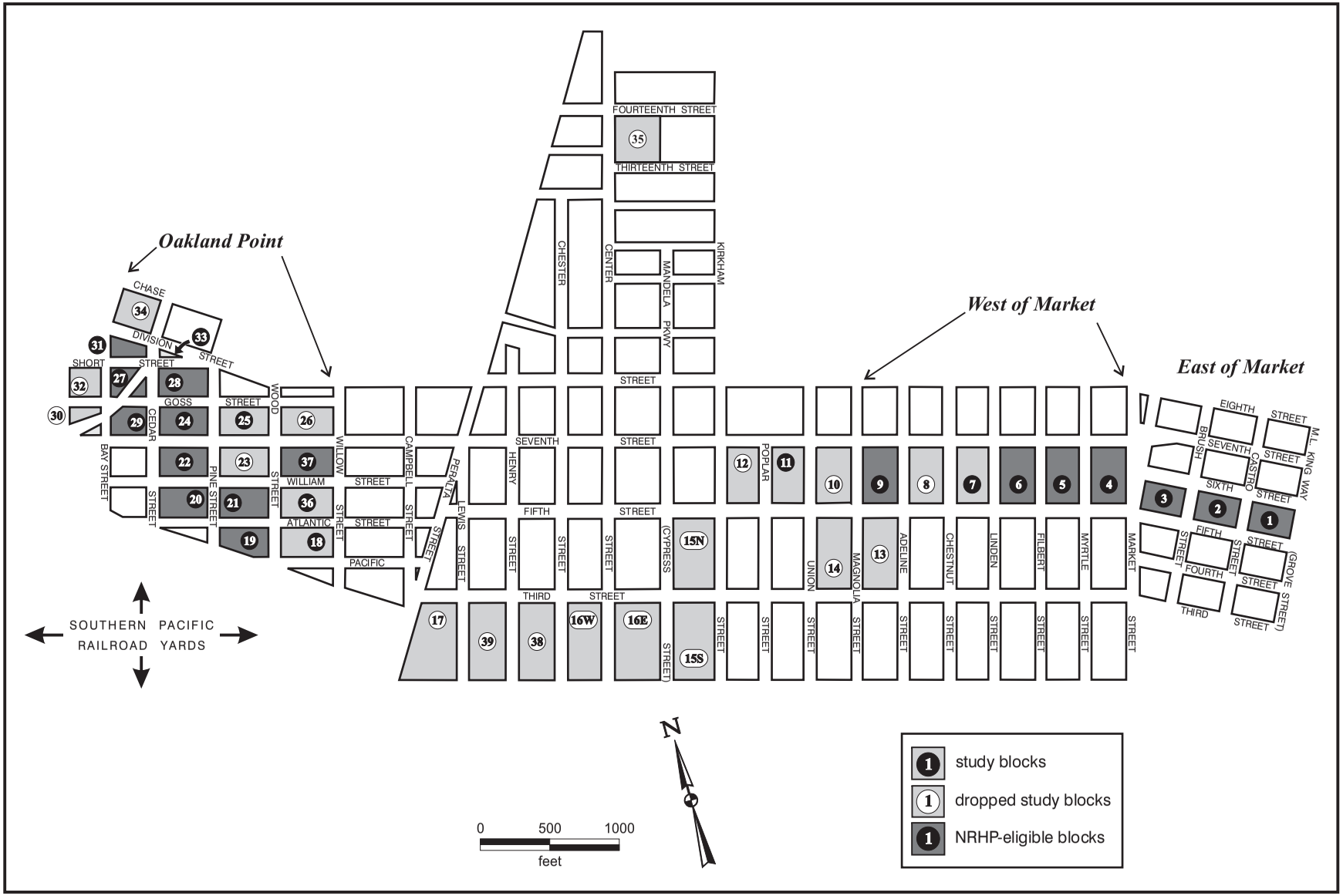


Figure 11.2 Neighborhood locations in the Cypress Freeway Replacement Project, West Oakland

middle-class families, immigrants from a dozen countries, and native-born whites and African Americans. Each BTR is organized by project block and archaeological feature. Complete historical associations are provided for every discrete archaeological assemblage, as are narrative and tabular descriptions of the remains, presented in a standard format. The goal of the BTRs was to allow other archaeologists easy access to all the data on Cypress features determined eligible to the NRHP.

Historical associations can be found in Appendix C of the Cypress interpretive report and in Appendix B of each of the BTRs. The present statistical study uses only pre-1890 deposits, as all of the San Francisco deposits are of that date; the resulting 57 features/feature complexes from the Cypress Project were included in the sample for analysis. These features originated from three distinct neighborhoods: the East of Market, including Blocks 1, 2, and 3 (19 analytical units); West of Market, including Blocks 4, 5, and 6 (17 units); and the Oakland Point neighborhood, including Blocks 20, 22, 27, 29, and 37 (21 units).

San Francisco–Oakland Bay Bridge, West Approach Replacement Project

Jack Mc Ilroy

Archaeologists from the ASC and Caltrans carried out open-area excavation on 6 city blocks in downtown San Francisco intermittently between May 2001 and January 2003 on the SFOBB West Approach Project. The project was related to the seismic retrofit of the West Approach to the San Francisco–Oakland Bay Bridge undertaken by the Caltrans Toll Bridge Program. Fourteen city blocks that would be impacted by the project corridor were researched. Each city block was assigned an identifying number (Figure 11.3). The project corridor, consisting of 14 city blocks, traversed parts of several distinct historical San Francisco neighborhoods. Blocks 1, 2, 3, 4, 12, and 13 were located in the Tar Flat area, site of some of the earliest and most intensive project-area occupation during the historic period. Block 5 on Rincon Hill extended into Pleasant Valley, an enclave of both professional and working-class residents of the early city south of Market Street. Blocks 6, 7, 8, 9, and 14 housed the San Francisco elite of the early years on the slopes of Rincon Hill, the city's first exclusive address. Blocks 10 and 11, mostly residential with some commercial and institutional structures, were located on the southwest side of Rincon Hill, where the land dipped towards the creeks and marshes along Mission Bay. Almost the entire project area was devastated by the 1906 earthquake and fire.

Excavation sites were chosen based on detailed historical research and analysis of the development history of each block. This indicated there was likely to be nothing of archaeological interest within the impact areas in eight of the blocks—1, 2, 3, 6, 8, 12, 13, and 14—principally due to disturbance from modern construction. For the historic period, the selected sites in the remaining blocks were then examined in relation to the process by which people from traditional pre-modern cultures, both immigrant and native-born, adapted to life in the industrial society of 19th-century San Francisco. For prehistory, a geoarchaeological landscape approach was taken aimed at identifying previously unknown buried archaeological sites.

The targeted historical archaeological properties on Blocks 4, 5, 7, 9, 10, and 11 were the pits, privies, and wells in residential, commercial, and institutional backyards on lots occupied in some cases from as early as the 1850s. After water- and sewer-lines

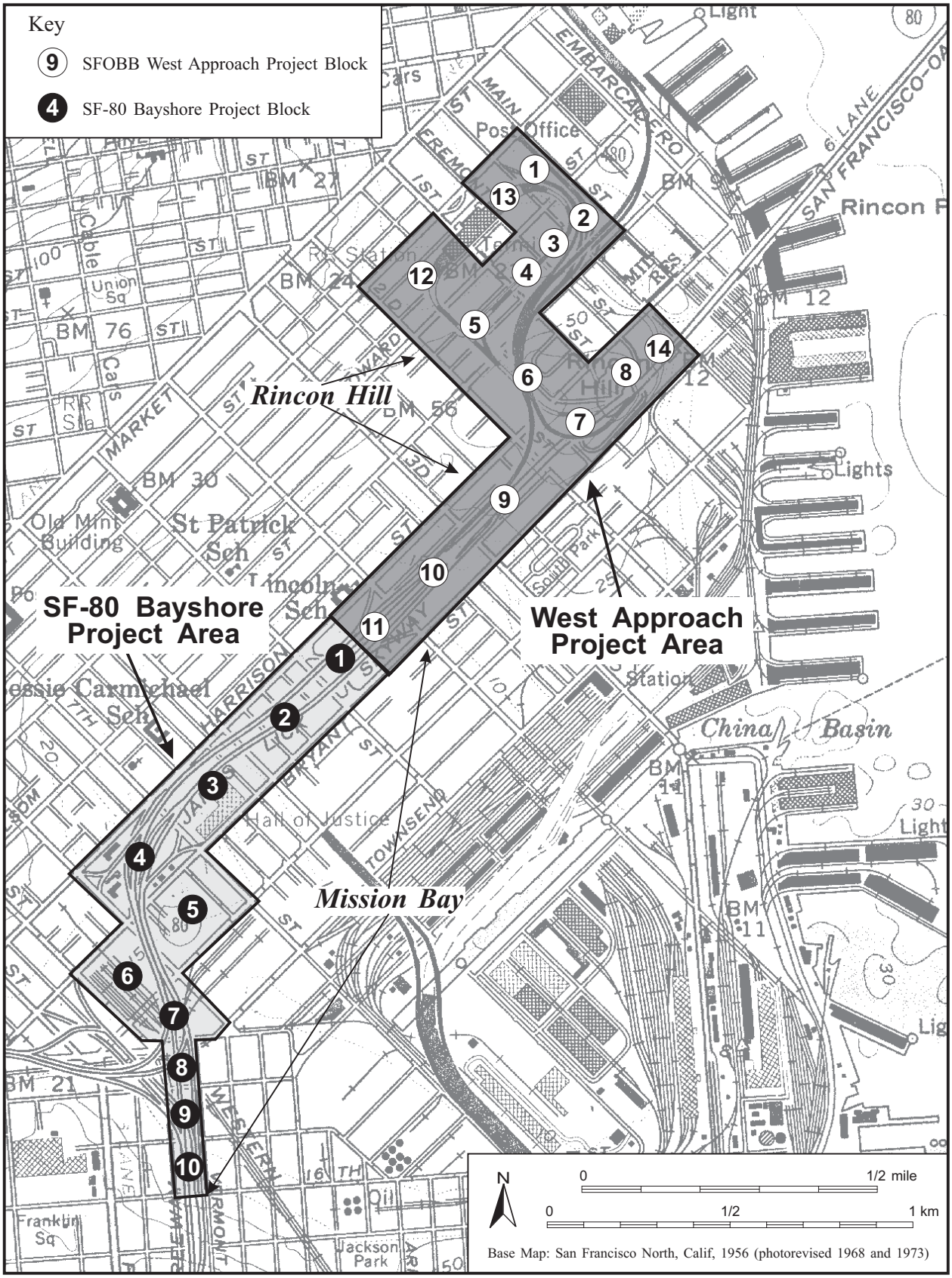


Figure 11.3. Location of SF-80 Bayshore and SFOBB West Approach project blocks, and Rincon Hill and Mission Bay neighborhoods in San Francisco

were hooked up, generally no later than the 1880s, privies and wells were no longer needed, although some may still have been used. They became convenient receptacles for all kinds of unwanted household materials, in addition to objects that were dropped accidentally. The features were often rapidly filled and sealed with a clean layer of sand, turning them into inadvertent time capsules.

During the course of the project, 83 exposed historical archaeological features were targeted for excavation. Currently, 40 have been assessed as potentially CRHR-eligible and 9 remain to be evaluated. Ineligibility was generally determined if a feature contained too few materials for analytical purposes (Mc Ilroy 2004).

Preliminary data from Blocks 5, 9, and 11 are included in this discussion; identification and analysis continues on features from Blocks 4, 7, and 10. Block 5 (Howard, Folsom, First, and Second) and Block 9 (Harrison, Bryant, Second, and Third) are on the western slopes of Rincon Hill. Block 11 (Harrison, Bryant, Fourth, and Fifth) is on low-lying land closer to Mission Bay. Eleven SFOBB West Approach features/feature complexes were used in the statistical analysis. These features came from three blocks representing two neighborhoods: Blocks 5 and 9 on the edges of Rincon Hill (10 analytical units) and Block 11 on the shore of Mission Bay (1 unit).

Block 5

Block 5 was located on the northern slope of Rincon Hill. At the time of the 1852/53 Coast Survey map, Block 5 was a landscape of irregular ridges of sand, contouring east to west, with a declivity between the hills. Part of San Francisco's Pleasant Valley, Block 5 was the locus of domestic activity during the Gold Rush, perhaps even experiencing some of the intensive, temporary habitation characteristics of the shore of Yerba Buena Cove in 1849 and 1850. It was established as a residential area by 1852/53, when many structures appear on the Coast Survey map within the project area. Scattered small trees, oaks, and possibly willows appear on the southwestern rises of Block 5 in the early 1850s. Their presence, along with the number of houses already built along Folsom and Clementina, suggests that well water was readily available. Even more structures are depicted on the 1857/59 Coast Survey map, when the project corridor on Block 5 was densely built, with structures occupying nearly every lot. Block 5 developed as a mixed residential area for members of the professional class, with the addition of the families of skilled tradesmen. This residential block was devastated by the 1906 earthquake and fire. Post-fire buildings were almost entirely industrial. All of the buildings on the block were demolished in the 1930s during construction of the West Approach to the San Francisco–Oakland Bay Bridge.

Undisturbed historical archaeological features were exposed on Block 5 at a depth of approximately 6 ft. below the modern parking lot. Four CRHR-eligible features were recovered, two related to the relatively prosperous family of English-born merchant Jonathan Peel. The others rated lower on the economic scale, associated with an American ship's carpenter, a Canadian sawyer, an Irish marble polisher, and a German dentist. The privies dated from the 1860s to 1880, reflecting the early occupation on this block. Table 11.1 lists the preliminary associations for CRHR-eligible features from Block 5; artifact-layout photographs and summary data are presented in Appendix C, Figures C.1 to C.4, at the end of this report.

Table 11.1. SFOBB West Approach Historical Associations for Block 5

Feature	Address	Association	Origin	Date
Privy 505	546 Folsom	John Mayne family, ship's carpenter	U.S.	1880
		Thomas O'Connor family, sawyer	Canada	
		James Murphy family, marble polisher	Ireland	
Privy 507	540 Folsom	Jonathan Peel family, merchant	England	early 1870s
Privy 516	540 Folsom	Jonathan Peel family, merchant	England	1880
Privy 515	47-49 Clementina	Louis Bush family, dentist	Germany	1860s

Block 9

Block 9 lies on the southern slope of Rincon Hill, isolated from early development by its geography. In 1852/53 there were no structures shown here on the U.S. Coast Survey map. Third Street was near sea level, Second Street at Harrison at 100 ft. in elevation. The lower elevations of Block 9 along Third Street began to be developed for residential use as early as the mid-1850s. Fully built by 1887, the block's residential character was largely maintained through the late 19th and early 20th centuries, despite the intrusion of light industry onto the main streets. The back streets of the project corridor, such as Silver (later Stillman) and Perry, were largely working-class neighborhoods. The Silver Street Kindergarten was the most significant institution on Block 9. Its importance was as an agent of social reform and a catalyst to the entire free-kindergarten movement in San Francisco. Although the buildings of Block 9 were destroyed in the 1906 fire, there was a rebirth of a residential community afterwards, with a number of residential flats constructed along Stillman (formerly Silver). The site of the Silver Street Kindergarten was now solidly built up, with two-story flats and a row of dwellings. All of the buildings on the block were demolished in the 1930s during construction of the West Approach to the San Francisco–Oakland Bay Bridge.

The undisturbed historic-period surface on Block 9 was found from 2 to 3 ft. in depth. The 1906 disaster was marked by debris and burn-layers of brick and concrete building rubble; melted, twisted bottles; and black charred wood, with the underlying sand burnt red. CRHR-eligible features included an 1884 privy from the Silver Street kindergarten and an 1870 privy from the grammar school that preceded it. Another 1870 privy was associated with the residence of American-born insurance agent Ebenezer Shaw. Other American features were associated with sailmaker John Usher (1880) and seaman Frank Johnson, who shared the facility with a German upholsterer, Henry Myers. Cistern 13 provided the only commercial/domestic deposit on the block, associated with a grocery and liquor store on Third Street run for many years by Henry Knoche from Germany and his clerk who lived on the premises. Two wells were located: one was associated with an 1880 American ship's carpenter; the second, dating to the mid-1880s, was associated with the family of an Irish boilermaker. Table 11.2 lists the preliminary associations for CRHR-eligible features from Block 9; artifact-layout photographs and summary data are presented in Appendix C, Figures C.5 to C.10 included at the end of this report. The two schools (shaded in grey below) are not included in the statistical

Table 11.2. SFOBB West Approach Historical Associations for Block 9

Feature	Address	Association	Origin	Date
Privy 9	20 Perry	John Usher family, sail maker	U.S.	1880
Privy 18	16 Perry	Ebenezer Shaw family, insurance agent	U.S.	1870
Well 8	16 Perry	Albert Rowe family, ship carpenter	U.S.	1880
Privy 2	14 Perry	Frank Johnson family, seaman	U.S.	early 1880s
		Henry Myers family, upholsterer	Germany	
Well 6	12 Perry	James Hannan family, boilermaker	Ireland	mid 1880s
Privy 1	64 Silver	Silver Street Kindergarten		1884
Privy 7	64 Silver	Earlier grammar school		1870
Cistern 13	423 Third	Henry Knoche, grocery, liquors	Germany	1880

studies for this report; they will be included in analyses for the upcoming SF0BB West Approach interpretive report.

Block 11

The 1857/59 Coast Survey map shows Block 11 to have been marshlands in 1857, cross-cut by winding channels characteristic of San Francisco Bay tidelands. The alignment of Bryant Street was mostly under water. By 1868, following land-filling, the corner of Fourth and Bryant streets had become the site of the Kimball Carriage Works, one of the largest manufacturers in the city at that time. The project corridor traversed both sides of Perry Street, a side street that had developed as mostly residential by the late 1880s, except for stables for horse teams and a Chinese laundry. The rest of Perry consisted of one- and two-story houses and flats, largely built in twos and threes. In 1887 the New Fourth Street Hotel (formerly the U.S. Hotel) opened onto 205 and 203 Perry Street, with a narrow connecting passageway shown on the Sanborn map leading directly into a Fourth Street saloon at 423 Fourth.

The 19th-century residents of Block 11 were mostly working-class immigrants, many of who had come from Ireland. But Block 11 was also culturally diverse in 1880, with immigrants from Germany, Sweden, France, England, and Prussia sharing space with the Irish- and U.S.-born residents. Among the Block 11 residents in 1880 were several Chinese men living and working at the laundries on the block. This diversity continued through 1900, although the census lists more U.S.-born people than immigrants. Following its complete destruction in the 1906 fire, Block 11 was mostly reconstructed by 1913. Only a few house sites along Harrison and Perry were rebuilt as residences, together with the Mizpah Presbyterian Church. Most housing types ranged from two- to three-story flats. But much of the block was given over to lumber yards and drayage companies, and additional industries appeared from 1913 through the 1920s. Construction of the SFOBB West Approach in the 1930s dramatically affected the built environment on Block 11. All of the structures on the central part of the block between Perry and Bryant were removed to make way for the elevated roadway. Many of the

Table 11.3. SFOBB West Approach Historical Associations for Block 11

Feature	Address	Association	Origin	Date
Privies 1600 + 1601	207-209 Perry	George Donnelly family, blacksmith	Scotland	1880s
		William Beal family, goldminer	U.S.	

remaining industrial buildings on the block were later removed to make way for the construction of SF-80 in the 1950s.

Two privies on the same lot were located within the limited accessible impact zone. Extensive crossmends permitted them to be treated as a single depositional event. They are associated with U.S.-born William Beale, a former goldminer who lived on Perry Street in 1880, and blacksmith George Donnelly from Scotland, and their families. Not surprisingly, given the extensive filling on this block, they were uncovered below about 7 to 8 ft. of fill. Table 11.3 lists the preliminary associations for the CRHR-eligible feature from Block 11; an artifact-layout photograph and summary data are presented in Figure C.11 included in the appendix at the end of this report.

SF-80 Bayshore Project

The BTRs detailing historical and archaeological findings for the SF-80 Bayshore Project are presented in Chapters 7 through 9 of this report; the historical associations are summarized in Table 11.4. The seven-feature sample originated on three blocks in the same neighborhood on the shore of Mission Bay. This brings the San Francisco sample size to 18, with 8 features in the Mission Bay neighborhood and 10 on the edges of Rincon Hill.

Table 11.4. SF-80 Bayshore Historical Associations

Block	Feature	Address	Association	Origin	Date
3	Privy 3	1031 Harrison	Duisenberg family, merchant	Germany	1888
4	Privy 1	3 Maria	Thomas O'Neil family, glasscutter	Ireland	1870s
4	Privy 30	36 Kate	Anne Mills family, widow	Ireland	1882
4	Privy 38	31 Kate	Anthony Dean family, laborer	Ireland	1882
4	Privy 39	31 Kate	John Wendt family, express-man	Germany	1882
4	Privy 41	414 Seventh	Andrew Buckley family, liquor-store porter	Ireland	1882
6	Privy 20	520 Eighth	Noonan Lodging-house, mainly laborers	Ireland	ca. 1880

THE STATISTICAL METHOD

Bruce Owen

The statistical analyses in this report share a common approach and methodology, which are summarized briefly here (see Appendix H for full details). The analyses all seek statistically significant patterning in the distribution of specific artifact types, such as beef bone or beer bottles, among excavated features divided according to potentially meaningful cultural categories established from documentary sources. The historic data categories used in the analysis are summarized in Table 11.5; features used for the analysis and their historic characteristics are listed in Table 11.6. A similar analysis was prepared for the Cypress Project in Oakland (Owen 2004a, 2004b). This study required that households be categorized for analysis into one of several occupational categories. Our divisions are those commonly used by American social historians since Thernstrom (1973) and subsequently employed by Ethington in his 1994 work on San Francisco. What we call Wealthy Professional, or P+, on the table is Ethington's High White-Collar; Professional, or P, is his Low White-Collar; Skilled, Semiskilled, and Unskilled are the same in both classifications, although Semiskilled was lumped with Skilled for analysis on this study. The comparative data from that project used here are limited to contexts dating to before 1890, and include some additional datasets. The San Francisco contexts are categorized using a slightly different set of variables as noted in Table 11.5.

Table 11.5. Cultural Categories for Statistical Analysis

Category	Includes/Rationale
Ethnicity	San Francisco: German, Irish, English, U.S.-born white, Mixed. Oakland: African American, German, Irish, U.S.-born white, several uncommon ethnicities. Mixed and uncommon ethnicities are included when comparing each of the above with "all others."
Occupation	Wealthy professional, Professional, Skilled, Unskilled. Households with Semi-skilled workers are lumped with Skilled.
Dwelling Type	San Francisco: Single-family residence (may have boarders/lodgers); Multi-family residence (duplex, flats, may have boarders/lodgers); "Lodgings" (multiple, presumably low-status); Commercial property with lodging. Oakland: Different housing categorization, not considered here.
Street Frontage	Main (Harrison, Bryant, Folsom); Interior (Chesley, Kate, Maria, Perry, Clementina); Numbered (Seventh, Eighth, Third). Oakland: Category not used.
Tenancy Status	Owner, Tenant, Unknown.
Neighborhood	San Francisco: Mission Bay, Rincon Hill. Oakland: East of Market Street, West of Market Street, Oakland Point
City	San Francisco or Oakland
Feature Type	Privy, Well, Other/mixed

(continued on page 412)

Table 11.6. Archaeological Features Used for Statistical Analysis – SF-80 Bayshore, SFOBB West Approach, and Cypress Projects

Project Block	Feature	Date	Ethnicity/Origin	Occ	Tenure	Neigh	Dwell	Street	Type	Feature Type
Cypress										
1	951	1878 ca.	U.S.	P	T	E	I	na	R	Privy
1	955	1880	Scots/Irish	P	O	E	I	na	R	Privy
1	947	1880 ca.	Irish	S	T	E	I	na	R	Privy
1	954	1880 ca.	U.S.	S	T	E	A	na	R	Privy
1	985	1880 ca.	German	P+	O	E	P	na	R	Privy
1	993	1880 ca.	German	P	T	E	R/C	na	R/C	Privy
1	933, 1112	1880s early	African Am	S	T	E	I	na	R	Privy
1	900	1885 ca.	U.S.	P+	O	E	A	na	R	Privy
2	1300	1876 - 1880	Irish	U	T	E	A	na	R	Well
2	1376	1880s ca.			U	E	A	na	R	Privy
2	1404, 1452, 1461	1880s ca.	African Am	P	O	E	P	na	R	Privy, Pit
2	1358, 1372	1880s early			U	E	I	na	R	Privy
2	1431	1880s	U.S.	S	U	E	I	na	R	Privy
2	1321B	1880s mid			U	E	I	na	R	Privy
2	1409	1880s mid	German	S	T	E	I	na	R	Privy
3	1785	1874 ca.	U.S.	P+	O	E	NA	na	R	Privy
3	1747	1880 ca.	U.S.	S	T	E	I	na	R	Privy
3	1858	1882	Irish	U	T	E	I	na	R	Privy

Table 11.6. Archaeological Features Used for Statistical Analysis *(continued)*

Project Block	Feature	Date	Ethnicity/Origin	Occ	Tenure	Neigh	Dwell	Street	Type	Feature Type
Cypress (continued)										
3	1753	1884 ca.	U.S.	S	T	E	I	na	R	Pit
4	3382	1875 ca.	U.S.	P	T	W	I	na	R	Pit
4	3106, 3119	1880 ca.			U	W	A	na	R	Privy
4	3137	1880 ca.	U.S.	P	O	W	I	na	R	Pit
4	3196	1880 ca.	U.S.	S	T	W	P	na	R	Pit
4	3185	1880s	Irish	U	O	W	I	na	R	Privy
4	3139	1880s early		S	T	W	A	na	R	Privy
4	3178	1880s early	Canada	S	O	W	P	na	R	Privy
5	3830	1875 ca. - 1880	Irish	S	O	W	I	na	R	Privy
5	3800	1880 ca.	Irish	W	O	W	A	na	R	Privy
5	3802	1880s early	Scotland	P	T	W	A	na	R	Privy
5	3828	1880s early	U.S.	P	O	W	P	na	R	Privy
6	4243	1877 ca.			U	W	I	na	R	Privy
6	4220	1880 ca.	Irish	U	O	W	I	na	R	Privy
6	4245	1880 ca.	Irish	S	O	W	I	na	R	Privy
6	4239	1880s early			U	W	I	na	R	Privy
6	4281	1880s early			U	W	I	na	R	Privy
6	4234	1887 ca.	Irish	S	O	W	D	na	R	Privy

Table 11.6. Archaeological Features Used for Statistical Analysis *(continued)*

Project Block	Feature	Date	Ethnicity/Origin	Occ	Tenure	Neigh	Dwell	Street	Type	Feature Type
Cypress (continued)										
20	6270	1870s early			U	O	I	na	R	Privy
20	6282	1880s	U.S.	S	T	O	I	na	R	Privy
20	6239	1880s early	German/English	S	T	O	D	na	R	Privy
20	6260	1880s early	German	S	T	O	I	na	R	Privy
20	6300	1880s early			U	O	I	na	R	Privy
20	6292	1880s mid	U.S.	S	T	O	D	na	R	Privy
20	6325	1880s mid	Canada	P	O	O	A	na	R	Privy
22	5293	1875 ca.				O		na	C	Pit
27	2784, 2877C	1880 ca.			U	O	I	na	R	Privy, Pit
27	2786, 2864, 2873, 2874	1880 ca.	U.S.	S	T	O	I	na	R	Pit
27	2822	1880 ca.	Irish	P/U	O	O	I	na	R	Privy
27	2809, 2812	1880s ca.	Irish	P/U	O	O	I	na	R	Pit
29	4714	1870s early	Prussian	P	O	O	S	na	R	Privy
29	4724, 5112	1870s late	Irish	U	O	O	I	na	R	Privy, Pit
29	4600	1870s-1880s				O		na	C	Well
29	4648	1880s		U	T	O	I	na	R	Privy
29	4731, 5167, 5169	1880s mid-late			U	O	I	na	R	Privy
37	141	1878 ca.	Irish	S	T	O	I	na	R	Pit

Table 11.6. Archaeological Features Used for Statistical Analysis *(continued)*

Project Block	Feature	Date	Ethnicity/Origin	Occ	Tenure	Neigh	Dwell	Street	Type	Feature Type
Cypress (continued)										
37	100	1880 ca.	U.S.	S	T	O	A	na	R	Privy
37	101	1881 ca.	U.S.	S	T	O	A	na	R	Privy
37	156	1882 ca.	German	S	T	O	NA	na	R	Privy
SF-80										
3	3	1888	German	P+	O	MB	SF	M	R	Privy
4	1	1870	Irish	S	O	MB	SF	I	R	Privy
4	30	1882	Irish	W	NA	MB	SF	I	R	Privy
4	38	1882	Irish	U	NA	MB	SF	I	R	Privy
4	39	1882	German	SS	NA	MB	SF	I	R	Privy
4	41	1882	Irish	SS/S	NA	MB	SF	N	R	Privy
6	20	1880	Irish	U	T	MB	L	N	R	Privy
SFOBB										
5	505	1880	U.S., Irish, Canada	S	T	RH	MF	M	R	Privy
5	507	1870s	English	P+	O	RH	SF	M	R	Privy
5	516	1880	English	P+	O	RH	SF	M	R	Privy
5	515	1860s	German	P	O	RH	NA	I	R	Privy
9	2	1880	U.S., German	SS/S	T	RH	MF	I	R	Privy
9	6	1880s	Irish	S	T	RH	SF	I	R	Well

Table 11.6. Archaeological Features Used for Statistical Analysis *(continued)*

Project Block	Feature	Date	Ethnicity/Origin	Occ	Tenure	Neigh	Dwell	Street	Type	Feature Type
SFOBB (continued)										
9	8	1880	U.S.	S	T	RH	SF	I	R	Well
9	18	1870	U.S.	P	T	RH	SF	I	R	Privy
9	9	1880	U.S.	S	T	RH	SF	I	R	Privy
9	13	1880	German	P	NA	RH	C	N	R/C	Cistern
11	1600, 1601	1880s	Scotland, U.S.	S	NA	MB	MF	I	R	Privy

Key
OCC = Occupation: P+ = Wealthy Professional, P = Professional, S = Skilled, SS=Semi-Skilled (lumped w/Skilled), U = Unskilled, W = Widow.
TENURE: T = Tenant, O = Owner, U = Unknown (for Cypress), NA = Not available (for S.F.).
NEIGH = Neighborhood: E = East of Market (Oakland), W = West of Market (Oakland), O = Oakland Point (Oakland), MB = Mission Bay (S.F.), RH = Rincon Hill (S.F.)
DWELL = Dwelling: I = Informal Worker's Cottage (Oakland), A = Almost Polite House (Oakland), P = Polite House (Oakland), D= Duplex (Oakland), SF = Single Family Dwelling (SF), MF = Multifamily Dwelling (MF), L = Lodging, C= Commercial.
STREET = S.F. only: I = Interior Street (alley), N = Numbered Street, M = Main Street.
TYPE = Building Type: R= Residential. C = Commercial.

Approach and Methods

Most of these analyses use percentage data in order to look at the composition of the assemblage from each analytical unit without considering the relative amounts of material from each context. The assumption in using percentage data in this way is that, over the long run, households used relatively similar amounts of meat, glass, ceramics, and so on. Thus comparing the proportions of specific types of bone, glass, and so on relative to the total amount recovered should bring out differences in consumption that would otherwise be masked by culturally unimportant differences in the size and artifact density of features excavated. This is clearly an imperfect assumption, and it should be borne in mind that these analyses refer to percentages of items within their artifact classes (as in "15% of all identifiable meat weight from Feature X was beef"), not to absolute amounts consumed.

The analytical units in these analyses are single or multiple stratigraphic units that are taken to represent a single phase of refuse deposition from a single residential context, such as a house or a hotel. Each such context is represented by only one analytical unit, and each phase, feature, or association of features are taken to represent just one residential context, although this may be a simplification in some cases. By analyzing the percentage composition of artifact types (animal bone, bottle glass, etc.) from each analytical unit, differences in the size of these features and their depositional history are eliminated from consideration. Again, only the mix of artifact types is considered here; the amounts discarded are not evaluated.

The statistics used give equal weight to each feature. In effect, each analytical unit represents the mix of artifact types discarded by a single residential unit. Thus the analyses are comparisons of the artifact-type mixes of these residential units. The analyses proceed in steps, summarized here.

1. Select features suitable for the particular analysis.
2. Print a table showing the average values of each of the variables of interest for each category (such as Wealthy Professional, Professional, Skilled, and Unskilled).
3. Compare pairs of categories (such as Professional vs. Skilled) to see if any variable (such as beef) is significantly different in the two categories being compared.
4. Do similar pairwise comparisons using lumped categories (such as Irish vs. all non-Irish).
5. Do additional pairwise comparisons between comparable categories in San Francisco and Oakland (such as Professionals in San Francisco vs. Professionals in Oakland).
6. Do comparisons of categories (such as Professionals vs. Skilled) in the entire sample of both San Francisco and Oakland, lumped together as representative of the urban San Francisco Bay area.
7. Interpret the results.
8. Perform additional, different statistical tests to answer specific questions that arise.

First, the features to be included in any given comparison were selected to include only those for which the relevant context data were available. Additional restrictions were also applied in many cases (e.g., limiting the cases to residential, as opposed to commercial, properties).

Second, the data were summarized according to cultural categories (such as English, German, Irish, U.S.-born white) and reported in a table showing the mean values of all the variables (such as pork). These values average the percentages of the features, so small features count the same as large ones. They give a sense of the central tendencies of each context category. These means of percentages may not add up to 100 percent.

The third step of the analysis attempts to resolve these problems by evaluating the statistical significance of the differences between categories of features. The statistics used are nonparametric, that is, they do not assume a normal (bell-shaped) distribution of values. This is important, since the small sample sizes mean that the luck of the draw is likely to produce non-normal sample distributions even if the underlying patterns are normal. Moreover, humans are complicated, and there is no reason to assume normal distributions of behavior in such historically particular, individualistic matters as food preferences. Parametric tests, such as the familiar t-test, will often find "significant" differences between small samples of archaeological data simply because they are not normal and thus fit poorly to the t-test's null hypothesis: that both samples are drawn from a single normal distribution.

The statistic used here is the Wilcoxon rank-sum test (also called the Mann-Whitney-Wilcoxon test) for cases with two classes, such as a comparison of percent alcohol bottles in Professional features vs. Unskilled features (Gibbons 1993). In essence, the test arranges all the values in rank order, from smallest to largest, disregarding the size of the differences between them. If the percentage of alcohol bottles was greater in single-family houses than in multifamily houses, the values from single-family houses would mostly be towards the high end of the list, and the values from multifamily houses would mostly be towards the low end. If the percentage of alcohol bottles was the same in single-family and multifamily houses, then the values for each kind of house would be uniformly scattered through the whole list. The tests evaluate whether or not the list is significantly unbalanced by calculating the odds of getting a pattern at least that unbalanced if you were to put the values in order by chance, such as by randomly drawing "single-family" or "multifamily" from a collection of slips of paper with the appropriate number of each type. If the chance of getting a list as unevenly distributed as the observed one is low (less than 10%, or less than 5%), then the pattern is deemed to be significant, that is, probably due not to chance, but to a real difference between the two categories.

The Wilcoxon rank-sum test is used to compare all the possible pairs of cultural categories, such as single-family vs. multifamily houses. These results are easy to interpret: a significant result means that the variable (such as percent alcohol bottles) is significantly different in the two categories. Significantly different means that the difference is consistent enough that it is unlikely to be random, so it is appropriate to look for a cultural explanation. A difference with a probability of 5% has only a 5% chance of having occurred randomly, so we can consider it probably the result of some systematic process, rather than the luck of the draw. A significant result does not mean that the

difference is large. A real, significant difference might nevertheless be subtle and not very important.

The fourth step repeats the third, but using lumped categories such as features from Professional and Wealthy Professional households vs. Skilled and Unskilled workers' households, or Irish vs. all others.

The fifth step is logically similar to the previous two, but it compares categories in San Francisco with their counterparts in Oakland, limited to contexts dated to before 1890 in order to improve contemporaneity with the San Francisco sample. This process starts by lumping all the San Francisco contexts and comparing them to all the Oakland contexts, and continues by comparing narrower categories with the analogous ones in the other city. This is possible only for categories that are identified in both cities. There are no comparisons of dwelling types across the two cities, for example, because the dwelling-type categories are different in each. Similarly, there is no comparison of African American households in San Francisco versus Oakland, because no African American households were sampled in San Francisco.

The sixth step is, again, logically similar. In this case, the entire sample from San Francisco and Oakland is lumped together, treating it as a single population representative of the urban San Francisco Bay area. The larger sample size may permit more subtle patterns to be detected among the categories (such as Germans vs. all non-Germans).

The seventh step is interpretation, in which the results are subjectively evaluated to see if they make sense. This was done in part by ordering the tables of significance tests so as to juxtapose comparisons that seem to be related, helping the reader to abstract generalizations from them. Appendix B, at the back of this report, contains tables showing significant statistical findings. Others might notice and emphasize different patterns in the results. It is also important to look for multiple tests that confirm related trends. This is because the method used here is inductive.

The eighth step is needed only when the previous one raises specific questions. For example, in the faunal analysis, some results suggested an unexpected relationship between meat-species preferences and the price of cuts. In order to evaluate this, plots of meat-species percentages versus cut-price percentages were made, and the correlations between the variables calculated. These additional checks are described in Appendix H.

Finally, the lack of statistically significant differences between most of the categories does not mean that there necessarily are no differences between the categories. It simply means that any differences present are not great enough to be detected with confidence based on the given sample size and variability.

The statistics were run on SAS software, using programs and data files specified in Appendix H. Percentages are presented rounded to the nearest percent, but all calculations were done to the full precision of the original data.

Findings at 5 and 10% Significance

Three statistical analyses were run. The first looked at faunal remains using meat type (beef, mutton, pork, chicken) and meat price (high, medium, low) in relation to the variables listed in Table 11.5. Using the San Francisco data alone, only two differences in

meat price reached the 5% level of significance and only four additional differences in meat type reached the lower threshold of 10%. The comparison between San Francisco and Oakland proved more interesting, with 14 differences at the 5% level and another 14 at the 10% level of significance (Table B.1). The populations of the two cities clearly took different approaches to their foodways (see below for analysis).

The second study looked at differences in glass and ceramic containers, again in relation to the variables on Table 11.5, to explore the purchasing and disposal (recycling) practices of households in different San Francisco and Oakland neighborhoods. Using the San Francisco data alone, 31 differences reached the 5% level of significance and an additional 68 reached the 10% level. The greatest number of differences related to alcohol consumption, with street frontage and occupation being relevant factors. The comparison between San Francisco vs. Oakland showed significant differences in almost every variable tested: 195 reached the 5% significance level and an additional 141 reached 10%. Most of the differences related to alcohol consumption. San Francisco and Oakland were then lumped together to look for differences in consumption and recycling in relation to occupation and ethnicity. Thirty-five differences reached the 5% confidence level, while an additional 71 reached the 10% level; as in previous correlations, alcohol consumption differed the most between the variables (Table B.2).

The last study looked at differences in the body type of ceramic tableware and serving vessels according to the Table 11.5 variables to explore the level of formal dining in the various households and neighborhoods. Within the San Francisco sample, 61 differences reached the 5% level of significance, while an additional 81 reached the 10% level. Table settings differed according to occupation, ethnicity, neighborhood, and street frontage, but not type of dwelling or tenancy. Comparisons between San Francisco and Oakland showed 46 differences at the 5% level of significance and an additional 47 at the 10% level. The biggest differences were found in relation to occupation, tenancy, and neighborhood, while ethnicity did not factor into variations in table settings. When viewed at the city level, Oakland and San Francisco differed only minutely in their table settings; this is probably because of sample size and the occurrence of one rare category of artifact. Lastly, San Francisco and Oakland data were combined to look at differences in table settings related to occupation and ethnicity. Only 8 differences reached the 5% level of significance, while 25 reached the lower threshold of 10%. Occupation correlated more strongly with differences in table settings than did ethnicity (Table B.3).

QUANTITATIVE COMPARATIVE STUDIES OF HOUSEHOLDS, NEIGHBORHOODS, AND CITIES

Adrian Praetzellis

RECONSIDERING SCALE IN HISTORICAL ARCHAEOLOGY

In the spring of 1984, I was examined by a committee of five, chaired by James Deetz, for advancement to Ph.D. candidacy at U.C. Berkeley. After the usual round of questions, Deetz and I spent the remaining 30 minutes discussing scale in historical archaeology. With a background in cultural resources management, my orientation had always been toward determining the research potential of archaeological remains in the short term, to make the case to government regulators that a deposit was worth digging: what could this deposit tell us here and now? Deetz took the long view, wondering how the material might be useful in some undefined way in the future. In keeping with the regulatory context in which I did my research, my preference was for discrete deposits with tight historical associations whose potential was clear. But Deetz's archaeological imagination had no such limitations, and he repeatedly made the case for what he called "noisy" collections—ones that could not be attributed to historically documented households or similarly delineated social units.

According to Deetz, research potential was "a matter of scale," and our conversation (although we never did agree) contributed to his paper "Scale in Historical Archaeology" presented at the 1986 meeting of the Society for Historical Archaeology. While much of presentation dealt with international comparison, his conclusion is worth repeating here:

> In the final analysis, if we adopt such an international comparative perspective on assemblages that lack the provenience control necessary for answering questions of local significance, we see that such collections are not without value. It is just that their value is of another order, not lacking but different . . . . many extant collections from complex, noisy and mixed contexts (particularly urban ones) can be seen to have a value after all, once we have adjusted our scale to fit [Deetz 1986].

Characteristically, Deetz saw the potential for research but did not suggest a *method* for carrying it out. Structuralism had been his principal entry into the understanding of material culture from the 17th and 18th centuries, but it was unclear to me exactly how that approach would be applied to mid-19th-century collections and research issues relating to that era. Structuralist analysis of the type done by Henry Glassie (1975) and Deetz (1996) never caught on among historical archaeologists, many of whom saw its results as irreproducible. Others were (and are) simply intimidated by Glassie's powerful imagination, feeling that any attempt by a lesser mind to do similar analyses could only be derivative of his brilliant tour de force.

Structuralism a la Deetz and Glassie—as well as intensively contextualized interpretations, such as those offered by Paul Mullins (2004)—can provide insights into historical processes at scales that can be obtained through no other approach. That the following section of this report utilizes an entirely different method to expand the scale of our analysis should not be taken to mean that the writer privileges quantitative over qualitative data or considers the former to be more reliable, justifiable or simply 'better'

or than the former. In a reality of limited good (Foster 1965)—and with little time remaining—I simply choose to emphasize a statistical examination of the present San Francisco collection in order to begin the process of expanding the scale of analysis in a way that may be of immediate benefit to other researchers. The meaning of some of these findings remains elusive and could very well benefit from a structuralist or other qualitative approach once the methods to carry such an analysis to fruition have been defined. We hope to undertake such a study when the additional features from the SFOBB West Approach have been processed and analyzed.

The data used here are derived from Bruce Owen's statistical analyses of various artifact categories, which he outlines above. His report and full statement of methods are included as Appendix H, where he also offers his interpretation of some of the data. Owen is a very experienced archaeologist, having worked in the coastal valleys of Peru for over 20 years. His lack of connection with American historical archaeology benefited this analysis: he has none of the preconceived notions or taken-for-granted positions that would be expected of a historical archaeologist and, consequently, no investment in any of the outcomes. Conversely, I am a historical archaeologist and bring to this discussion both my experience and biases. I have drawn extensively from Owen's work—he identified the patterns I refer to and constructed some of the tables, and should receive the credit. He may not, however, agree with some of my interpretations.

QUANTITATIVE ANALYSES OF HOUSEHOLDS, NEIGHBORHOODS, AND CITIES

The study area contains portions of two San Francisco neighborhoods—Rincon Hill and Mission Bay. Unlike some of their eastern counterparts, 19th-century western city neighborhoods were not homogeneous in the economic or demographic characteristics of their residents. Wealthy families' fashionable homes were frequently close to the cottages of the working class, although the latter tended to occupy the alleys, while the professional class favored homes that fronted the streets. Although the San Francisco sample is smaller than that of West Oakland, it consists of proportionally more wealthy households (Table 11.7).

Fortunately, the San Francisco sample size is just large enough for statistical methods to rectify this imbalance for the purpose of analysis. Distinguishing between factors related to wealth/occupation and ethnicity/nativity is more problematic for San Francisco. The relatively small sample size is further compounded by the fact that ethnicity and wealth tend to be associated: most Irish households are on the lower end, while most English and German families fall in the Professional and Wealthy Professional categories.

In our earlier studies of West Oakland, food bone was found to be highly patterned in relation to wealth/occupation, ethnicity/nativity, and dwelling type. Owen's statistical analysis of food bone from San Francisco is most notable because of the lack of patterning it reveals in relation to these characteristics. In contrast to West Oakland, neighborhood is the only statistically significant factor that relates to the measured qualities of food bone in San Francisco.

In Table 11.8, Owen shows meat cuts by the mean price (% high/medium/low) of all cuts representing two neighborhoods in San Francisco and three in West Oakland. Rincon Hill and Mission Bay fall at the opposite ends of this ordering, with Rincon Hill at the highest end. Six of eight comparisons between these five neighborhoods were found to be statistically significant at the 5% level, which gives the ranking a high level of confidence.

Ethnicity/nativity do not appear to have affected meat-purchasing patterns in the San Francisco sample, although the nature of the sample households—in which Irish families tend to be Skilled and Unskilled—may have affected this interpretation. The weak tentative relationship between Irish households and sheep bone suggested by the West Oakland data, which would have supported the reported preference of this group for lamb and mutton, is made even weaker by addition of the San Francisco data.

Neighborhood also is an important factor in relation to the distribution of ceramic wares. Table 11.9 shows the trend, by neighborhood, of five types of ceramics. While these are organized by ware fabric, they include the complete range of functional types and vessel forms: food preparation, serving ware, tableware, and bric-a-brac; ceramic ale bottles are excluded.

There is a clear correspondence between Owen's meat price and ceramic data, as shown on the preceding tables. Both datasets rank the neighborhoods in the same order, with the affluent Rincon Hill at the high end and the predominantly working-class Mission Bay at the bottom, while the three West Oakland neighborhoods fall in between. This adds to our already high level of confidence that the patterns that he identified are behaviorally significant and not mere statistical artifacts. If converted into graphic form, the data that form the basis of Table 11.9 would create a series of parabolic figures with overlapping ends, of the type known to archaeologists as "battleship curves."

The overall percentages of ware types are very similar between San Francisco and West Oakland. Owen notes that that this distribution is far more consistent than those for meat and the alcohol and food containers. This suggests that supply channels of ceramics to the consumer were relatively uniform in comparison to those of meat. The overwhelming majority of ceramics found in project-area features, as well as those in the comparative collections from West Oakland, are of porcelain and various types of earthenware. Most of this material consists of tableware and serving vessels, although bric-a-brac of Parian (a type of statuary porcelain), Chinese porcelain, and pearlware is also present in collections from both cities. Table 11.10 shows trends in the percentage occurrence of the ceramic ware types by the occupation/wealth of the household with which they are associated. The proportional occurrence of ceramic types is clearly related to wealth/occupation within the sample population.

Although less than two dozen pieces of Asian porcelain bric-a-brac were found in the present San Francisco and West Oakland collections combined, this type is exclusively associated with the wealthiest households. The clearest explanation for this pattern lies in the aesthetics of the era. Asian ceramics were recommended by the era's tastemakers to add exotic interest to the parlor. The Anti-Chinese movement had many supporters in San Francisco of the 1870s and 1880s, yet displaying Asian bric-a-brac does not appear to have been viewed as aligning the household with this despised group. Rather, it

Table 11.7. Household Wealth/Occupation in San Francisco and Oakland Samples

Occupation	SF Households	Oakland Households	Total Households	% SF
Wealthy Professional	3	3	6	50%
Professional	3	10	13	23%
Skilled	9	22	31	29%
Unskilled	2	6	8	25%

Table 11.8. Meat Price by Neighborhood

Neighborhood	Features (n)	High (%)	Medium (%)	Low (%)
Rincon Hill, S.F.	9	41	35	25
East of Market, Oakland	17	36	39	26
West of Market, Oakland	15	33	40	27
Oakland Point, Oakland	21	29	40	31
Mission Bay, S.F.	5	19	33	48

(Note: not all features had sufficient faunal remains for analysis)

Table 11.9. Occurrence of Ceramic Wares by Neighborhood

Neighborhood	Asian Porcelain	Non-Asian Porcelain	OP/WIE	Earthenware	"Basic" Wares
Rincon Hill, SF	High	High	Low	Low	Low
East of Market, Oak.	Low	High	Low	High	High
West of Market, Oak.	Low	High	Low	High	High
Oakland Point, Oak.	Low	Lowest	High	High	High
Mission Bay, SF	Low	Low	Highest	High	High

OP = opaque porcelain; WIE = white improved earthenware

Table 11.10. Occurrence of Ceramic Wares by Occupation/Wealth

Profession Category	Asian Porcelain	Non-Asian Porcelain	OP/WIE	Earthenware	"Basic" Wares
Wealthy professional	High	High	Low	Low	Low
Professional	Low	Low	Medium	Low	Low
Skilled	Low	Low	Medium	High	High
Unskilled	Low	Low	High	High	High

OP = opaque porcelain; WIE = white improved earthenware

displayed one's sophistication and refinement. As long as these artifacts were not found in the parlors of the lower socioeconomic strata—which still displayed conventional bric-a-brac—they could still function as symbols of refinement and class exclusivity.

The occurrence of non-Asian porcelain—mostly plain French-made tableware's—is also correlated with wealth/occupation: Better-off households disposed of proportionally more of this material in relation to earthenware. The reverse of this pattern can be seen at the middle and medium-low end of the socioeconomic scale, except in relation to households in the Unskilled category, who resemble the wealthiest in their ceramic servingware. Residents of Rincon Hill, the neighborhood that is ranked highest in food bone and ceramic wares, also has the least number and lowest proportion of "basic ware" types (i.e., red-bodied earthenware, CC ware, stoneware, and yellowware); this pattern has a high confidence value. Unskilled households have more of these types as a proportion of table and serving wares than Wealthy Professional households.

Lest we create the impression that wealth/occupation is the sole determinant of ceramic purchasing habits, other patterns—and the lack of expected patterns—are worth noting. The Victorians' social relations and the associated mores that formed around their domestic artifacts were complex; they cannot be reduced to simple formulae. Owen found, for example, no difference in the proportions of serving and tableware vessels that correlated with wealth/occupation; since dining practices varied by social class, other factors are clearly involved. The residence's neighborhood and orientation to the street were factors in both San Francisco and West Oakland. Dwellings that faced interior streets and alleys in Rincon Hill, and in both east and west of Market Oakland neighborhoods, had more serving vessels relative to food containers than homes in the Oakland Point neighborhood and in Mission Bay residences that faced the main street. The latter neighborhoods are, based on historical data and archaeological assemblages, at the lower end of the socioeconomic scale.

Thus, the wealth/occupation characteristic accounts for some, but not all, of the statistically significant patterns in the ceramic data. Households' ceramic purchases involved important cultural factors that are unclear at this time.

The distribution of glass and ceramic containers in the San Francisco sample generally crosscut ethnicity/nativity, wealth/occupation, and neighborhood. Street frontage, however, is a factor in the consumption of alcohol, with households on the interior streets favoring beer over wine and liquor in relation to the residents of houses that face main streets at the 5% level of confidence. In West Oakland, this consumption pattern is related to wealth/occupation. In San Francisco, the refuse deposits of interior-facing households consumed far more glass- and ceramic-packaged food products than their neighbors on the main streets.

West Oakland residents appear to have preferred beer and ale, whereas San Franciscans consumed more alcohol in the form of wine and liquor. On the city level, 40% more glass alcoholic-beverage containers were found per household in San Francisco households than in West Oakland households. Furthermore, San Francisco glass and ceramic containers combined averaged 20% more than were found in West Oakland households.

THE POTENTIAL OF NEIGHBORHOOD ARCHAEOLOGY

In the foregoing discussion, I emphasized only a few of the patterns identified through statistical analysis. As indicated in the previous section, "Findings at 5 and 10% Significance," many more patterns exist; their significance have yet to be determined. Two results stand out from those I have mentioned:

- Neighborhood rankings arrived at independently through either ceramic wares or mean meat price are identical.
- Purchasing patterns of Unskilled households resemble those of the Wealthy Professional group.

The first of these results validates our method. That there is correspondence between two archaeologically defined rankings and a presumed emic ordering of neighborhoods based on historic social status is strong support for the position that these are interpretatively meaningful divisions. Furthermore, it demonstrates that the urban archaeological record is patterned in a way that we can decipher on a city scale, in addition to the household level. The second of the observations, that the Unskilled had purchasing patterns similar to the Wealthy, was similar to that uncovered in the West Oakland data. There we suggested that the use of artifacts from above their conventionally assigned status was an aspect of the bricolage of symbolic structures constructed by working-class people (Praetzellis and Praetzellis, eds. 2004:11.25), who "improperly consumed" these artifacts in relation to society's expectations (Partington 1992:156). Similar forces may have been in play in San Francisco; the interpretative process, however, is complex. Although the first point shows that data *are* patterned, the following discussion warns against familiar, intuitive understandings.

Historical archaeologists have been reconstructing the cost of commercial meat cuts since Peter Schulz and Sherri Gust published their now-classic article, "Faunal Remains and Social Status in 19th-Century Sacramento" in 1983. Similarly, many have used George Miller's (1980, 1991) ceramic-scaling index to calculate the value of 18th- and 19th-century English earthenware. The San Francisco and West Oakland data have allowed us, in a sense, to test these methods. In addition we have been able to expand our critique of the intuitive notion (implicit in both techniques) that, all else being equal, purchasing patterns are directly related to wealth; in short, that affluent people buy expensive things because they can afford them, while the less prosperous do not because they cannot.

While the Oakland data at the household level hinted that the everyday decisions were far more complicated, the results from San Francisco challenge us to change the scale of our understanding to the neighborhood and beyond. While the San Francisco artifacts show a ranking at the neighborhood level, there is a great deal of variation among individual households. And while the occurrence of certain artifacts (such as Asian bric-a-brac and the relative proportions of ware types) may be indications of given social classes, many households do not fit the mold. The increased sample size offered by lumping the West Oakland and San Francisco data has, in many cases, improved the clarity of our results. In other cases, however, our understanding remains murky, as we find ourselves at present unable to untangle the social and historical web through which these collections of artifacts were assembled.

Data representing the smallest social scale—the household—are intuitively the most accessible. Yet the similarity in purchasing patterns of the wealthiest and poorest residents—a pattern identified in West Oakland and strengthened by addition of the San Francisco data—banishes this naïve hope. To "retrodict" the wealth characteristics of the social unit that created an archaeological deposit on the basis of the remains must be done with great care. Household-level archaeology is, as Deetz would have insisted, only one possible scale. As we have seen, some patterns that have unequivocal behavioral reality are visible only on the neighborhood level. We do not yet understand the meaning of many of these patterns and, consequently, cannot construct the "research questions" and "data requirements" demanded by normative science to address them. Household-level archaeology is reassuring in that we interpret things in relation to well-documented historical contexts. Eligibility to the National Register of Historic Places (or the California Register of Historical Resources) requires a level of "integrity of association," and this is sometimes understood as meaning that we must know from historic sources the social unit that was responsible for the remains (Little and Seibert 2000:36). Neighborhood-level archaeology requires us to step out of this comfort zone. It takes from us both the security blanket and the tyranny of the historic document. The "written and archaeological remains of the past," writes John Moreland, "were not created with questions of future archaeologists and historians in mind" but functioned in the reproduction of social life in the past itself; since text is and was an agent of social transformation, the practice of historical archaeology is more than simply a series of experiments carried out in "text-controlled laboratories" (Moreland 2001:26). The interpretive value of archaeological collections with tight historical associations is uncontested. However, Moreland points out that archaeological data have integrity in their own right. As the material products of their era they may be the source of important insights available from no other source.

Faced with the necessity of quickly and defensibly evaluating the research potential of literally thousands of archaeological deposits for the Cypress Freeway Project in West Oakland, we devised a series of principles—dubbed by the mnemonic devised by Jack Mc Ilroy, AIMS-R—that served as a practical aid for these important decisions. To address the concern that the project's limited resources should be directed toward getting the "most bang for the buck," the principles (which were also applied to SF-80 Bayshore) included the following:

> Relative rarity: All else being equal, remains from a 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 [Mc Ilroy and Praetzellis 1997:277].

This tenet would, it was hoped, allow decision-makers to sample a number of contexts that had similar historical associations, rather than having to recover them all. "How many Irish deposits do you *need*?" was the question asked by agency officials, who saw no end to the archaeology. The rationale for this principle seemed reasonable and eminently practical.

Since Foster's (1965) notion of "limited good" holds for archaeology in the sense that there is limited funding for this activity, it will always be necessary for archaeologists to distinguish between more- and less-important remains. The AIMS-R tenet has utility

and I have suggested that it might even be applied to individual archaeological collections (Praetzellis and Costello 2002). With the analysis of both the Cypress/West Oakland and the present SF-80 Bayshore San Francisco collection behind us, however, it is appropriate reflect on how it should be applied in the future.

In a practical sense, then, should household collections with certain categories of association—Irish, for example—be considered redundant because (as has been said of historic farmsteads) "we've got thousands of those"? (Wilson 1990:25). The implication here is that the archaeologist can define the research potential of a site if they know its supposedly defining characteristic—in this case, the national/ethnic origin of its creators. The SF-80 Bayshore analysis shows that this is incorrect or, at least, only partly true. If our goal were to study the Irish *per se*, then the case could be made that a sample would be sufficient. It turns out, however, that our statistical study of wealth, nativity, ethnicity, and so on has revealed patterns that cannot be explained by reference to conventional analytical categories. As we have shown, some patterns relate in an understandable way to economics and nativity/ethnicity; that they do so consistently within and between data sets is strong evidence that the statistically revealed patterns are behaviorally meaningful. Other characterizations are not so easily understood. While they do not appear to be mere statistical artifacts, they have no immediate intuitive meaning. The scale of urban archaeology that has given us the opportunity to dramatically increase our sample size has also presented us with a conundrum that will only be resolved by taking a more sophisticated approach to the definition of 19th-century, urban social units.

That differences in artifact patterns occur *within* populations suggests that the categories we are using to define these units are missing some elusive factor that is not discernable from the sociological characteristics of the households of which they are formed. Similarly, dissimilarities in patterns of material culture between San Francisco and West Oakland emphasize differences between and within these cities that have no apparent sociological referents. Additional well-controlled samples will help future researchers distinguish between statistically significant patterns that are creations of the analytical process and those that are behaviorally significant.

It is worth emphasizing yet again that these results are only possible because of the controlled nature and size of the sample. The data were extracted in the field and the lab using rigorously consistent methods to ensure comparability. Without an adequate sample size our interpretation would have been limited to the materials' qualitative characteristics; the SF-80 Bayshore samples were barely large enough. We suggest that the archaeology of neighborhoods will be served by the kind of statistical studies begun here. Using these methods, the research potential of an archaeological collection is not restricted by its known or assumed ethnic affiliation or the wealth of its contributors. Indeed, "integrity of association" may be achieved by the ability to date the deposit and reconstruct its neighborhood context. What is most important, however, is the size and variety of the collection itself. For example, although they may be useful for some qualitative household-level interpretations, collections of faunal remains of less than 100 items do not have a place in our quantitative scheme. Much the same can be said of other artifact categories. We suggest giving more emphasis to the size and contents of archaeological collections

when it comes to evaluating the neighborhood, city, or region-level research potential of discrete refuse caches.

Elsewhere we have suggested that conventional, imposed socioeconomic categories are inadequate to describe the social reality of West Oakland (Praetzellis and Praetzellis, eds. 2004). Born in the era of the New Social History and the U.S. Bicentennial, American historical archaeology has long emphasized social (often ethnic) groups that are visible in the historic documentary record, the archaeological record, and preferably (like the Overseas Chinese) both. I suggest that the scale of analysis made possible through the application of statistical methods to the urban archaeological record can help break up these monoliths and define emic, self-defined groups that existed within the larger population and thereby help us achieve a more nuanced understanding of life as it was lived in the 19th-century city.

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APPENDIX A

Personnel List

PERSONNEL LIST

Name	Title	Qualifications*	Responsibilities
Adrian Praetzellis	Principal Investigator	Ph.D., Anthropology; RPA	fieldwork design, report writing, overall supervision
Mary Praetzellis	Project Manager	M.A., CRM; RPA; CCPH	project management and design, report writing
Erica S. Gibson	Lab Director	M.A., Archaeology, RPA	lab supervision, artifact catalog compilation, report writing
Jack Mc Ilroy	Field Director	M.A. Prelim., RPA	fieldwork direction, report writing
Jack Meyer	Geoarchaeology Manager	M.A., CRM; RPA	geoarchaeology direction, report writing
Michael D. Meyer	Field Supervisor, Lab Specialist	M.A., CRM; RPA	field supervision, lab work, report writing
Suzanne B. Stewart	Archaeologist/Editor	M.A., CRM; RPA	report editing
David Bieling	Archaeologist	M.A., CRM; RPA	geoarchaeology lab and report writing
Sarah Blanchfield	Lab Technician	CRM graduate student, B.A., Anthropology	lab work
Melinda Button	Lab Technician	B.A., Anthropology	lab work
Chris Caputo	Archaeologist	M.A., Archaeology	geoarchaeology lab
Dina Coleman	Geoarchaeology Specialist	CRM graduate student, B.A., English	geoarchaeology fieldwork
Robert Douglass	Archaeologist	M.A., CRM; RPA	report writing
Brian Gassner	Lab Technician	B.A., Anthropology	lab work
Regina George	Lab Technician	CRM graduate student B.A., Anthropology	lab work
Karin Goetter	Lab Technician	CRM graduate student; B.A., Anthropology	lab work
Jillian Guldenbrein	Lab Technician	B.A., Anthropology	lab work
Virginia Hellmann	Field & Lab Specialist	CRM graduate student; B.A., History	fieldwork, lab work
Madeline Hirn	Lab Specialist	M.A., CRM; RPA	lab work
Suzanne Howard-Carter	Lab Technician	CRM graduate student; B.A., Anthropology	lab work
Heidi Koenig	Researcher	CRM graduate student; B.A., Anthropology	archival research
Maria LaCalle	Researcher	B.A., Community Studies	archival research

Personnel List *(continued)*

Name	Title	Qualifications*	Responsibilities
Christina MacDonald	Lab Technician	CRM graduate student; B.A., Anthropology	lab work
Margaret Markwyn	Researcher	M.A., History	archival research
Sandra Massey	Lab Technician	CRM graduate student; B.A., Anthropology	lab work, archival research, report graphics
Kristin Meyer	Production Specialist	B.A., Philosophy	report production
Margo Schur Meyer	Field Specialist & Production Manager	B.A., Art History	fieldwork, report graphics and production
Lorinda Miller	Lab Specialist	M.A., CRM; RPA	lab work, report graphics
Brian Mischke	Field Specialist	B.A., Anthropology	fieldwork
Michael Newland	Field Specialist	CRM graduate student B.A., Anthropology	fieldwork
Bruce Owen	Archaeologist	Ph.D., Anthropology	statistics
Nina Paone	Lab Technician	CRM graduate student; B.A., Communications/ Marketing	lab work
Sunshine Psota	Lab Specialist, Textile & Footwear Analyst	M.A., CRM; RPA	lab work, textile and footwear analysis
Maria Ribeiro	Graphics Specialist	B.A., Anthropology	report graphics and production
Ruth Roades	Lab Technician	CRM graduate student; B.A., Anthropology	lab work
Elaine-Maryse Solari	Researcher	M.A., CRM, Juris Doctor	archival research, report writing
Lori Stevens	Lab Technician	CRM graduate student; B.A., Anthropology	lab work
Michael Stoyka	Field Specialist, Faunal Analyst		fieldwork, faunal analysis
Annita Waghorn	Archaeologist	M.A., CRM	report writing
Arlene Waller	Lab Technician		lab work
Chris Ward	Faunal Analyst	B.A., Anthropology B.S. Biology	faunal analysis
Grace Ziesing	Field Supervisor	M.A., Archaeology; RPA	field supervision

*Qualifications: CCPH = Registered Professional Historian; CRM = Cultural Resources Management; RPA= Registered Professional Archaeologist.

APPENDIX B

Significant Statistical Findings

SIGNIFICANT STATISTICAL FINDINGS

Table B.1. SF-80, SFOBB West Approach, and Cypress Projects
Number of Significant Statistical Findings—Faunal Remains

Cultural Category/Variable	None	5%	10%
SF only: Occupation/Meat Type			3
SF only: Occupation/Meat Price	X		
SF only: Ethnicity/Meat Type	X		
SF only: Ethnicity/Meat Price	X		
SF only: Dwelling/Meat Type	X		
SF only: Dwelling/Meat Price	X		
SF only: Tenancy/Meat Type	X		
SF only: Tenancy/Meat Price	X		
SF only: Neighborhood/Meat Type			1
SF only: Neighborhood/Meat Price		2	
SF only: Street Front/Meat Type	X		
SF only: Street Front/Meat Price	X		
SF only: Feature Type/Meat Type	X		
SF only: Feature Type/Meat Price	X		
SF vs. Oakland/Meat Type		1	2
SF vs. Oakland/Meat Price		1	
SF vs. Oak: Occupation/Meat Type			5
SF vs. Oak: Occupation/Meat Price			2
SF vs. Oakland: Tenancy/Meat Type	X		
SF vs. Oakland: Tenancy/Meat Price	X		
SF vs. Oakland: Ethnicity/Meat Type		1	2
SF vs. Oakland: Ethnicity/Meat Price	X		
SF vs. Oakland: Neighborhoods/Meat Type		6	
SF vs. Oakland: Neighborhoods/Meat Price		5	2
SF vs. Oakland: Feature Type/Meat Type	X		
SF vs. Oakland: Feature Type/Meat Price			1

Table B.2. SF-80, SFOBB West Approach, and Cypress Projects
Number of Significant Statistical Findings—Glass and Ceramic Containers

Cultural Category/Variable	None	5%	10%
SF only: Occupation/Alcohol			25
SF only: Occupation/Food		2	5
SF only: Occupation/Grooming			6
SF only: Occupation/Patent med		1	4
SF only: Occupation/Writing	X		
SF only: Occupation/Recycling	X		
SF only: Ethnicity/Alcohol	X		
SF only: Ethnicity/Food		7	1
SF only: Ethnicity/Grooming		2	
SF only: Ethnicity/Patent med	X		
SF only: Ethnicity/Writing		2	2
SF only: Ethnicity/Recycling	X		
SF only: Dwelling/Alcohol	X		
SF only: Dwelling/Food			3
SF only: Dwelling/Grooming			2
SF only: Dwelling/Patent med	X		
SF only: Dwelling/Writing	X		
SF only: Dwelling/Recycling			2
SF only: Tenancy/Alcohol	X		
SF only: Tenancy/Food			2
SF only: Tenancy/Grooming	X		
SF only: Tenancy/Patent med			1
SF only: Tenancy/Writing	X		
SF only: Tenancy/Recycling	X		
SF only: Neighborhood/Alcohol			2
SF only: Neighborhood/Food	X		
SF only: Neighborhood/Grooming	X		
SF only: Neighborhood/Patent med	X		
SF only: Neighborhood/Writing	X		
SF only: Neighborhood/Recycling	X		

Table B.2. Significant Statistical Findings—Glass and Ceramic Containers *(continued)*

Cultural Category/Variable	None	5%	10%
SF only: Street front/Alcohol		17	5
SF only: Neighborhood/Food			4
SF only: Street front/Grooming	X		
SF only: Street front/Patent med			1
SF only: Street front/Writing	X		
SF only: Street front/Recycling	X		
SF only: Feature type/Alcohol	X		
SF only: Feature type/Food			1
SF only: Feature type/Grooming	X		
SF only: Feature type/Health			2
SF only: Feature type/Writing	X		
SF only: Feature type/Recycling	X		
SF vs. Oakland/Alcohol		15	12
SF vs. Oakland/Food		7	2
SF vs. Oakland/Health		4	2
SF vs. Oakland/Patent med			2
SF vs. Oakland/Writing	X		
SF vs. Oakland/Asian containers		6	
SF vs. Oakland/Recycling		1	1
SF vs. Oakland Occupation/Alcohol		18	5
SF vs. Oakland Occupation/Food		5	11
SF vs. Oakland Occupation/Health		4	1
SF vs. Oakland Occupation/Patent med		1	1
SF vs. Oakland Occupation/Writing	X		
SF vs. Oakland Occupation/Grooming			1
SF vs. Oakland Occupation/Recycling		1	1
SF vs. Oakland Tenancy/Alcohol		7	12
SF vs. Oakland Tenancy/Food		9	
SF vs. Oakland Tenancy/Health			2
SF vs. Oakland Tenancy/Patent med			1
SF vs. Oakland Tenancy/Asian containers		5	1

Table B.2. Significant Statistical Findings—Glass and Ceramic Containers *(continued)*

Cultural Category/Variable	None	5%	10%
SF vs. Oakland Tenancy/Writing			1
SF vs. Oakland Tenancy/Recycling		1	2
SF vs. Oakland Ethnicity/Alcohol			10
SF vs. Oakland Ethnicity/Food		5	5
SF vs. Oakland Ethnicity/Health			2
SF vs. Oakland Ethnicity/Patent med			6
SF vs. Oakland Ethnicity/Grooming			2
SF vs. Oakland Ethnicity/Asian containers			4
SF vs. Oakland Ethnicity/Writing	X		
SF vs. Oakland Ethnicity/Recycling		1	1
SF vs. Oakland Neighborhoods/Alcohol		43	26
SF vs. Oakland Neighborhoods/Food		26	9
SF vs. Oakland Neighborhoods/Health		9	2
SF vs. Oakland Neighborhoods/Patent med		4	6
SF vs. Oakland Neighborhoods/Grooming			3
SF vs. Oakland Neighborhoods/Asian containers		16	2
SF vs. Oakland Neighborhoods/Writing	X		
SF vs. Oakland: Neighborhoods/Tobacco		4	
SF vs. Oakland Neighborhoods/Recycling		3	5
SF and Oakland Occupation/Alcohol		8	18
SF and Oakland Occupation/Food		6	3
SF and Oakland Occupation/Health		1	7
SF and Oakland Occupation/Patent med	X		
SF and Oakland Occupation/Pharmacy med			1
SF and Oakland Occupation/Grooming		1	2
SF and Oakland Occupation/Asian containers	X		
SF and Oakland Occupation/Writing		3	
SF and Oakland: Occupation/Tobacco		2	
SF and Oakland: Occupation/Recycling			1
SF and Oakland Ethnicity/Alcohol			15

Table B.2. Significant Statistical Findings—Glass and Ceramic Containers *(continued)*

Cultural Category/Variable	None	5%	10%
SF and Oakland Ethnicity/Food		4	6
SF and Oakland Ethnicity/Health	X		
SF and Oakland Ethnicity/Patent med		8	4
SF and Oakland Ethnicity/Pharmacy med			5
SF and Oakland Ethnicity/Grooming	X		
SF and Oakland Ethnicity/Asian containers	X		
SF and Oakland Ethnicity/Writing		1	3
SF and Oakland: Ethnicity/Tobacco			4
SF and Oakland: Ethnicity/Recycling		1	2

Table B.3. SF-80, SF0BB West Approach, and Cypress Projects
Number of Significant Statistical Findings—Ceramic Table and Serving Wares

Cultural Category/Variable	None	5%	10%
SF Only: Occupation/Asian Porcelain		5	3
SF Only: Occupation/Porcelain		4	4
SF Only: Occupation/OP-WIE			4
SF Only: Occupation/Earthenware			3
SF Only: Occupation/Basic			2
SF Only: Occupation/Asian Porcelain Tableware		6	4
SF Only: Occupation/Porcelain Tableware		6	4
SF Only: Occupation/OP-WIE Tableware		2	2
SF Only: Occupation/Asian Porcelain Serving	X		
SF Only: Occupation/Porcelain Serving		2	5
SF Only: Occupation/OP-WIE Serving	X		
SF Only: Occupation/Earthenware Serving			2
SF Only: Occupation/Basic Serving			2
SF Only: Occupation/ Misc. rare Serving		2	4
SF Only: Ethnicity/Asian Porcelain		4	1
SF Only: Ethnicity/Porcelain		1	3
SF Only: Ethnicity/OP-WIE		1	1
SF Only: Ethnicity/Earthenware			1
SF Only: Ethnicity/Basic	X		
SF Only: Ethnicity/Asian Porcelain Tableware		4	
SF Only: Ethnicity/Porcelain Tableware		1	3
SF Only: Ethnicity/OP-WIE Tableware		1	1
SF Only: Ethnicity/ Misc. rare Tableware			2
SF Only: Ethnicity/Asian Porcelain Serving		1	1
SF Only: Ethnicity/Porcelain Serving			2
SF Only: Ethnicity/OP-WIE Serving		2	
SF Only: Ethnicity/Earthenware Serving			5
SF Only: Ethnicity/Basic Serving			4
SF Only: Ethnicity/ Misc. rare Serving			4
SF Only: Dwelling/Asian Porcelain	X		

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF Only: Dwelling/Porcelain	X		
SF Only: Dwelling/OP-WIE	X		
SF Only: Dwelling/Earthenware	X		
SF Only: Dwelling/Basic	X		
SF Only: Dwelling/Asian Porcelain Tableware	X		
SF Only: Dwelling/Porcelain Tableware	X		
SF Only: Dwelling/OP-WIE Tableware	X		
SF Only: Dwelling/ Misc. rare Tableware	X		
SF Only: Dwelling/Asian Porcelain Serving	X		
SF Only: Dwelling/Porcelain Serving	X		
SF Only: Dwelling/OP-WIE Serving	X		
SF Only: Dwelling/Earthenware Serving	X		
SF Only: Dwelling/Basic Serving	X		
SF Only: Dwelling/ Misc. rare Serving	X		
SF Only: Tenancy/Asian Porcelain	X		
SF Only: Tenancy/Porcelain	X		
SF Only: Tenancy/OP-WIE	X		
SF Only: Tenancy/Earthenware	X		
SF Only: Tenancy/Basic	X		
SF Only: Tenancy/Asian Porcelain Tableware	X		
SF Only: Tenancy/Porcelain Tableware	X		
SF Only: Tenancy/OP-WIE Tableware	X		
SF Only: Tenancy/ Misc. rare Tableware	X		
SF Only: Tenancy/Asian Porcelain Serving	X		
SF Only: Tenancy/Porcelain Serving	X		
SF Only: Tenancy/OP-WIE Serving	X		
SF Only: Tenancy/Earthenware Serving	X		
SF Only: Tenancy/Basic Serving	X		
SF Only: Tenancy/ Misc. rare Serving	X		
SF Only: Neighborhood/Asian Porcelain		1	1
SF Only: Neighborhood/Porcelain	X		

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF Only: Neighborhood/OP-WIE			1
SF Only: Neighborhood/Earthenware		2	
SF Only: Neighborhood/Basic		2	
SF Only: Neighborhood/Asian Porcelain Tableware	X		
SF Only: Neighborhood/Porcelain Tableware	X		
SF Only: Neighborhood/OP-WIE Tableware			1
SF Only: Neighborhood/ Misc. rare Tableware	X		
SF Only: Neighborhood/Asian Porcelain Serving			2
SF Only: Neighborhood/Porcelain Serving	X		
SF Only: Neighborhood/OP-WIE Serving	X		
SF Only: Neighborhood/Earthenware Serving		2	
SF Only: Neighborhood/Basic Serving		2	
SF Only: Neighborhood/ Misc. rare Serving	X		
SF Only: Street Front/Asian Porcelain		4	
SF Only: Street Front/Porcelain			2
SF Only: Street Front/OP-WIE	X		
SF Only: Street Front/Earthenware	X		
SF Only: Street Front/Basic	X		
SF Only: Street Front/Asian Porcelain Tableware		4	
SF Only: Street Front/Porcelain Tableware			2
SF Only: Street Front/OP-WIE Tableware			1
SF Only: Street Front/ Misc. rare Tableware	X		
SF Only: Street Front/Asian Porcelain Serving	X		
SF Only: Street Front/Porcelain Serving		1	1
SF Only: Street Front/OP-WIE Serving		1	1
SF Only: Street Front/Earthenware Serving	X		
SF Only: Street Front/Basic Serving	X		
SF Only: Street Front/ Misc. rare Serving			2

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF and Oakland: Asian Porcelain	X		
SF and Oakland: Porcelain	X		
SF and Oakland: OP-WIE	X		
SF and Oakland: Earthenware	X		
SF and Oakland: Basic	X		
SF and Oakland: Asian Porcelain Tableware	X		
SF and Oakland: Porcelain Tableware	X		
SF and Oakland: OP-WIE Tableware	X		
SF and Oakland: Misc. rare Tableware		1	
SF and Oakland: Asian Porcelain Serving	X		
SF and Oakland: Porcelain Serving	X		
SF and Oakland: OP-WIE Serving	X		
SF and Oakland: Earthenware Serving	X		
SF and Oakland: Basic Serving	X		
SF and Oakland: Misc. rare Serving		1	
SF vs. Oakland: Occupation/Asian Porcelain			1
SF vs. Oakland: Occupation/Porcelain			1
SF vs. Oakland: Occupation/OP-WIE	X		
SF vs. Oakland: Occupation/Earthenware			2
SF vs. Oakland: Occupation/Basic			2
SF vs. Oakland: Occupation/Asian Porcelain Tableware			1
SF vs. Oakland: Occupation/Porcelain Tableware			2
SF vs. Oakland: Occupation/OP-WIE Tableware	X		
SF vs. Oakland: Occupation/Misc. rare Tableware	X		
SF vs. Oakland: Occupation/Asian Porcelain Serving		2	
SF vs. Oakland: Occupation/Porcelain Serving	X		
SF vs. Oakland: Occupation/OP-WIE Serving	X		
SF vs. Oakland: Occupation/Earthenware Serving			2
SF vs. Oakland: Occupation/Basic Serving			2
SF vs. Oakland: Occupation/Misc. rare Serving	X		
SF vs. Oakland: Tenancy/Asian Porcelain			1

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF vs. Oakland: Tenancy/Porcelain			1
SF vs. Oakland: Tenancy/OP-WIE			1
SF vs. Oakland: Tenancy/Earthenware		2	
SF vs. Oakland: Tenancy/Basic		2	
SF vs. Oakland: Tenancy/Misc. rare			2
SF vs. Oakland: Tenancy/Asian Porcelain Tableware		1	1
SF vs. Oakland: Tenancy/Porcelain Tableware		1	
SF vs. Oakland: Tenancy/OP-WIE Tableware	X		1
SF vs. Oakland: Tenancy/Misc. rare Tableware	X		
SF vs. Oakland: Tenancy/Asian Porcelain Serving		2	
SF vs. Oakland: Tenancy/Porcelain Serving	X		
SF vs. Oakland: Tenancy/OP-WIE Serving			1
SF vs. Oakland: Tenancy/Earthenware Serving		2	
SF vs. Oakland: Tenancy/Basic Serving		2	
SF vs. Oakland: Tenancy/Misc. rare Serving			2
SF vs. Oakland: Ethnicity/Asian Porcelain	X		
SF vs. Oakland: Ethnicity/Porcelain	X		
SF vs. Oakland: Ethnicity/OP-WIE	X		
SF vs. Oakland: Ethnicity/Earthenware	X		
SF vs. Oakland: Ethnicity/Basic	X		
SF vs. Oakland: Ethnicity/Misc. rare	X		
SF vs. Oakland: Ethnicity/Asian Porcelain Tableware	X		
SF vs. Oakland: Ethnicity/Porcelain Tableware	X		
SF vs. Oakland: Ethnicity/OP-WIE Tableware	X		
SF vs. Oakland: Ethnicity/Misc. rare Tableware	X		
SF vs. Oakland: Ethnicity/Asian Porcelain Serving	X		
SF vs. Oakland: Ethnicity/Porcelain Serving		1	1
SF vs. Oakland: Ethnicity/OP-WIE Serving		1	
SF vs. Oakland: Ethnicity/Earthenware Serving	X		
SF vs. Oakland: Ethnicity/Basic Serving	X		
SF vs. Oakland: Ethnicity/Misc. rare Serving	X		

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF vs. Oakland: Neighborhoods/Asian Porcelain		2	2
SF vs. Oakland: Neighborhoods/Porcelain		2	2
SF vs. Oakland: Neighborhoods/OP-WIE		3	
SF vs. Oakland: Neighborhoods/Earthenware		3	3
SF vs. Oakland: Neighborhoods/Basic		3	2
SF vs. Oakland: Neighborhoods/Misc. rare	X		
SF vs. Oakland: Neighborhoods/Asian Porcelain Tableware			
SF vs. Oakland: Neighborhoods/Porcelain Tableware		2	3
SF vs. Oakland: Neighborhoods/OP-WIE Tableware		2	3
SF vs. Oakland: Neighborhoods/Misc. rare Tableware	X		
SF vs. Oakland: Neighborhoods/Asian Porcelain Serving		2	2
SF vs. Oakland: Neighborhoods/Porcelain Serving		2	
SF vs. Oakland: Neighborhoods/OP-WIE Serving		2	2
SF vs. Oakland: Neighborhoods/Earthenware Serving		5	2
SF vs. Oakland: Neighborhoods/Basic Serving		2	2
SF vs. Oakland: Neighborhoods/Misc. rare Serving	X		
SF and Oakland: Occupation/Asian Porcelain			5
SF and Oakland: Occupation/Porcelain	X		
SF and Oakland: Occupation/OP-WIE	X		
SF and Oakland: Occupation/Earthenware			4
SF and Oakland: Occupation/Basic	X		
SF and Oakland: Occupation/Misc. rare	X		
SF and Oakland: Occupation/Asian Porcelain Tableware		3	1
SF and Oakland: Occupation/Porcelain Tableware			2
SF and Oakland: Occupation/OP-WIE Tableware			2
SF and Oakland: Occupation/Misc. rare Tableware	X		
SF and Oakland: Occupation/Asian Porcelain Serving	X		
SF and Oakland: Occupation/Porcelain Serving	X		
SF and Oakland: Occupation/OP-WIE Serving	X		
SF and Oakland: Occupation/Earthenware Serving	X		

Table B.3. Significant Statistical Findings—Ceramic Table and Serving Wares *(continued)*

Cultural Category/Variable	None	5%	10%
SF and Oakland: Occupation/Basic Serving	X		
SF and Oakland: Occupation/Misc. rare Serving		2	
SF and Oakland: Ethnicity/Asian Porcelain			2
SF and Oakland: Ethnicity/Porcelain			1
SF and Oakland: Ethnicity/OP-WIE	X		
SF and Oakland: Ethnicity/Earthenware		1	
SF and Oakland: Ethnicity/Basic			1
SF and Oakland: Ethnicity/Misc. rare	X		
SF and Oakland: Ethnicity/Asian Porcelain Tableware			2
SF and Oakland: Ethnicity/Porcelain Tableware			1
SF and Oakland: Ethnicity/OP-WIE Tableware	X		
SF and Oakland: Ethnicity/Misc. rare Tableware		2	
SF and Oakland: Ethnicity/Asian Porcelain Serving	X		
SF and Oakland: Ethnicity/Porcelain Serving	X		
SF and Oakland: Ethnicity/OP-WIE Serving	X		
SF and Oakland: Ethnicity/Earthenware Serving			2
SF and Oakland: Ethnicity/Basic Serving			2
SF and Oakland: Ethnicity/Misc. rare Serving	X		

APPENDIX C

SFOBB West Approach Feature Snapshots

SFOBB West Approach Feature Snapshots



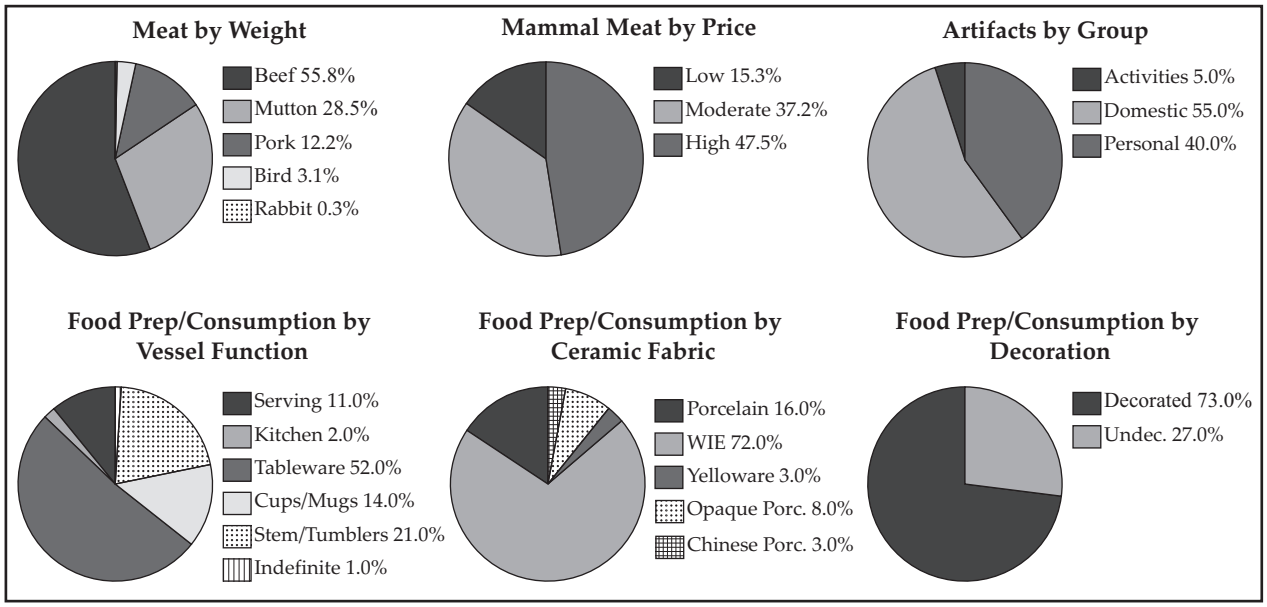


Figure C.1. SFOBB West Approach, Block 5, Privy 505 feature snapshot



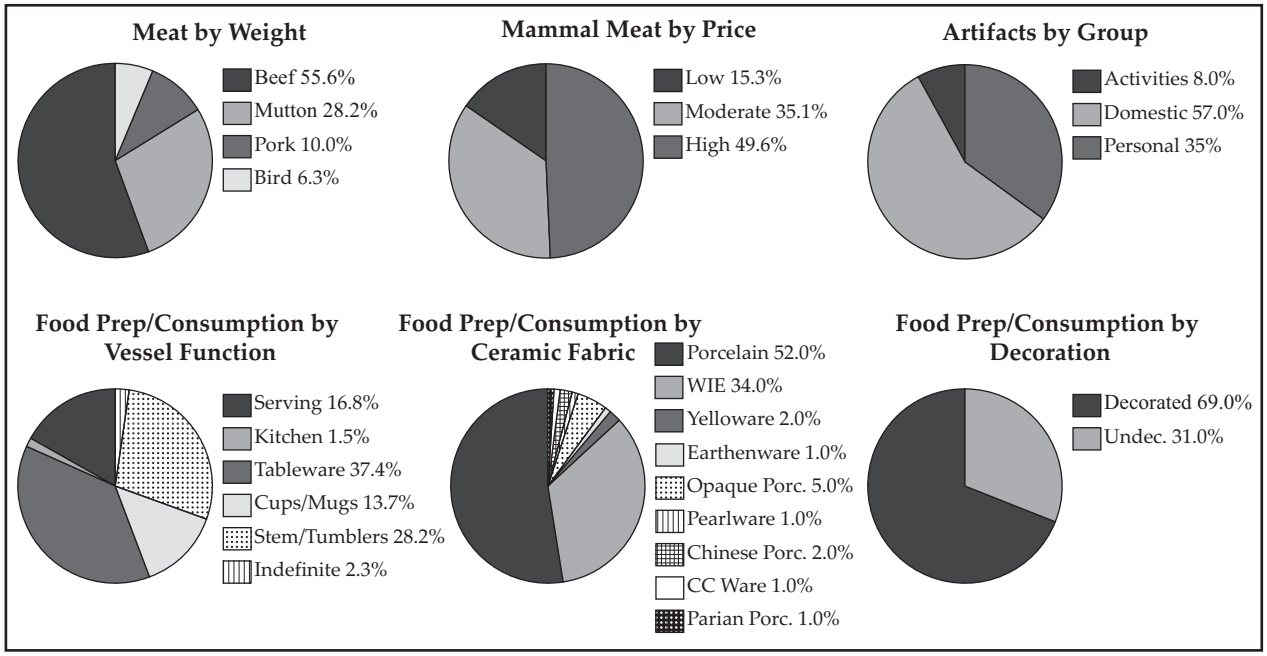
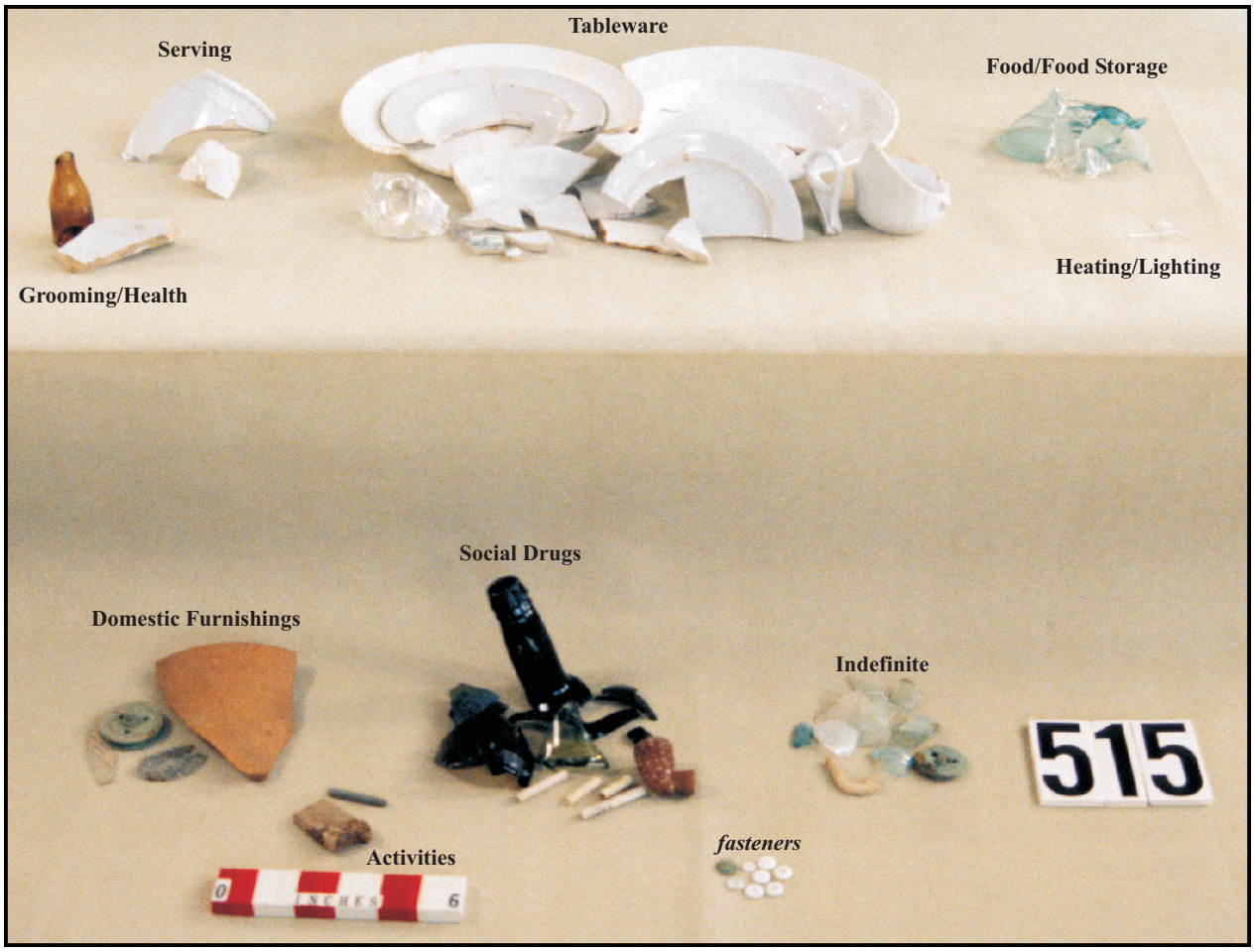


Figure C.2. SFOBB West Approach, Block 5, Privy 507 feature snapshot



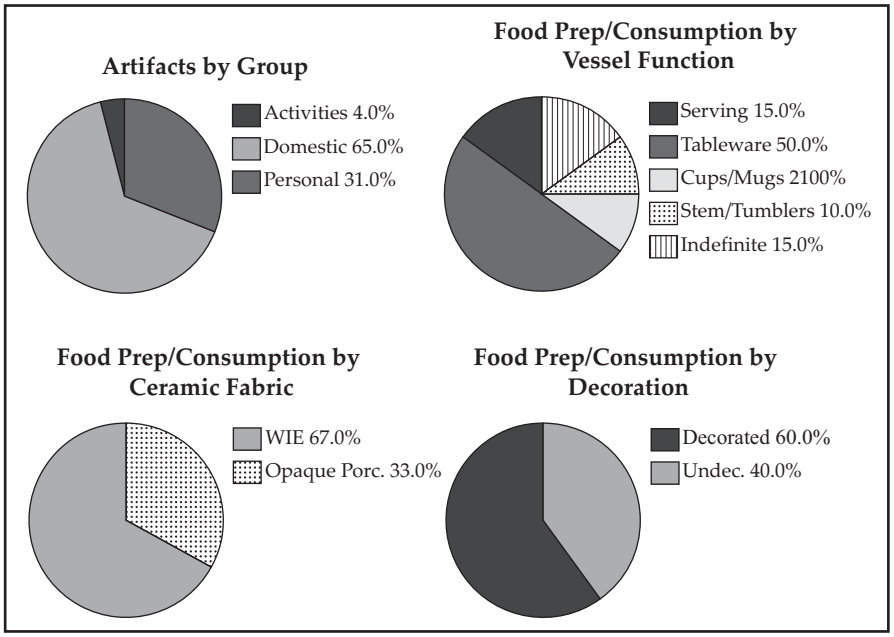
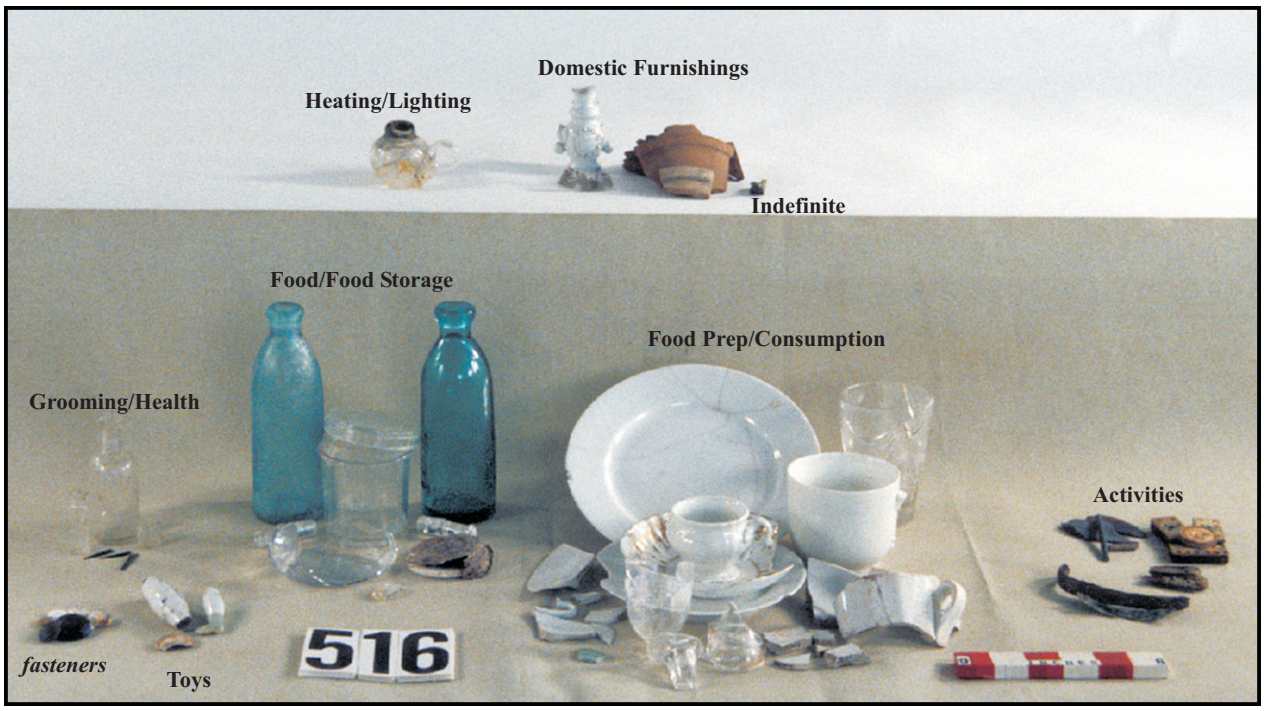


Figure C.3. SFOBB West Approach, Block 5, Privy 515 feature snapshot



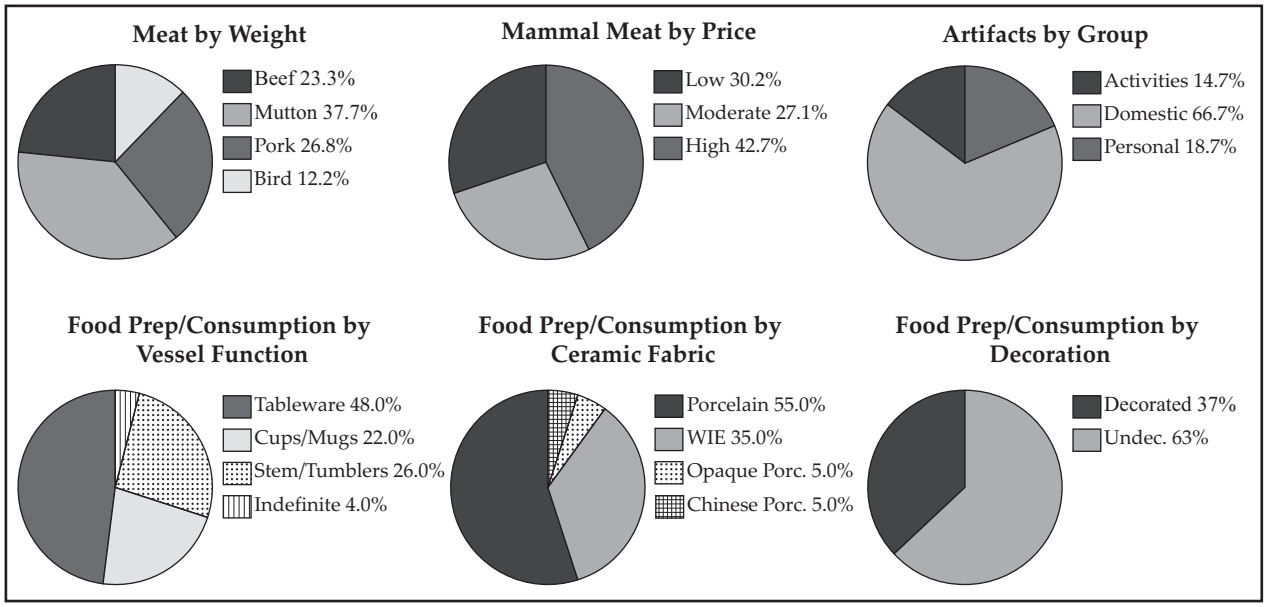


Figure C.4. SFOBB West Approach, Block 5, Privy 516 feature snapshot



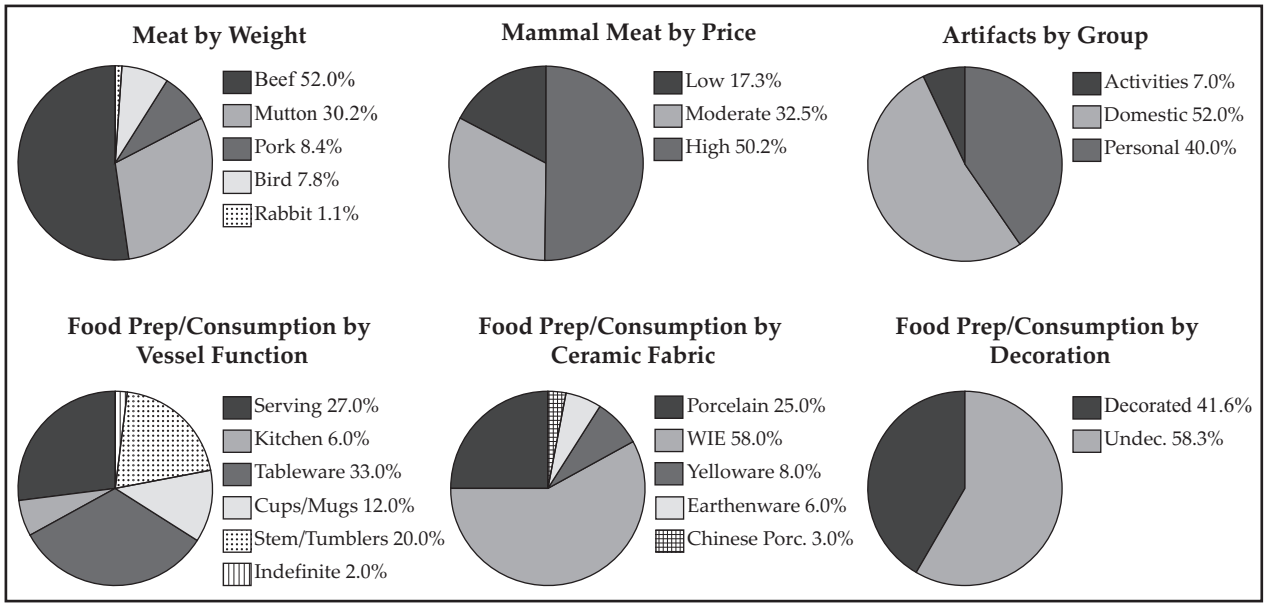


Figure C.5. SFOBB West Approach, Block 9, Privy 2 feature snapshot



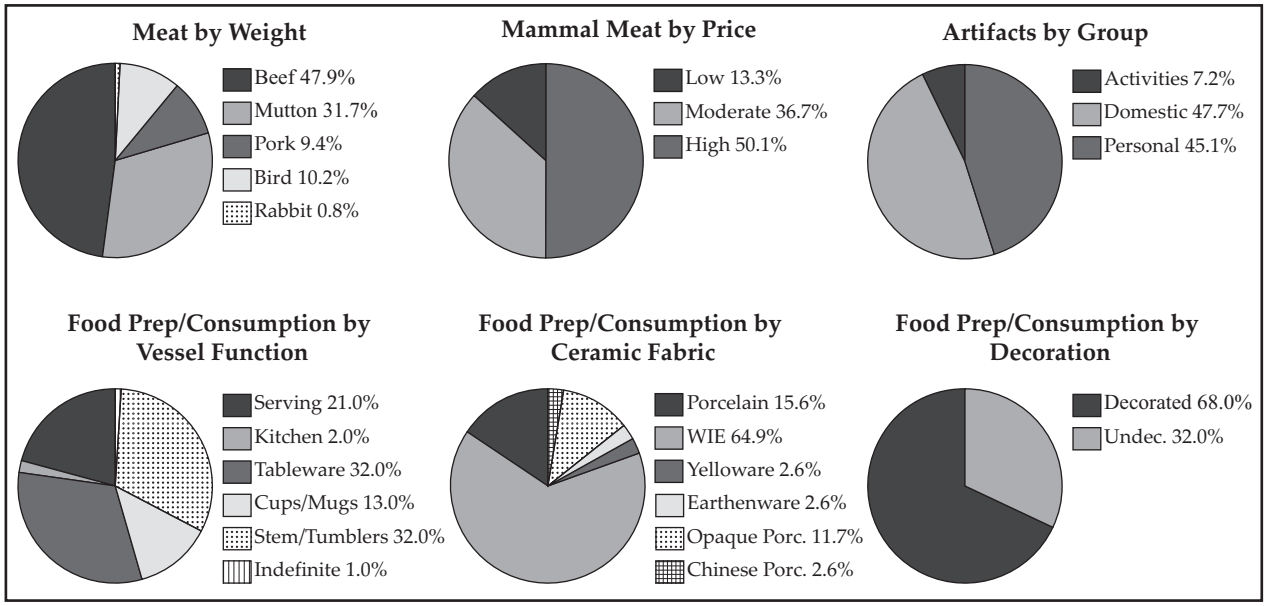
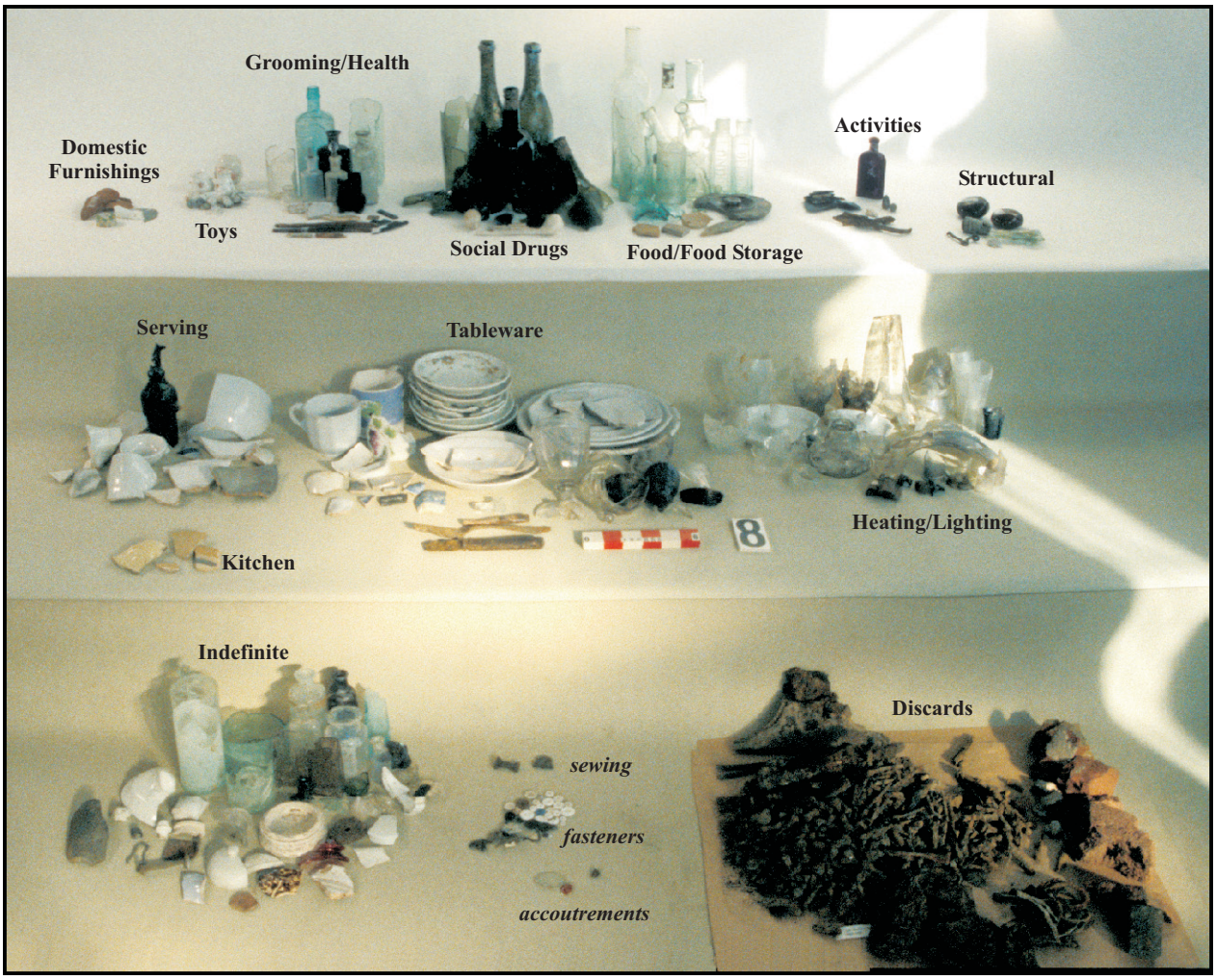


Figure C.6. SFOBB West Approach, Block 9, Well 6 feature snapshot



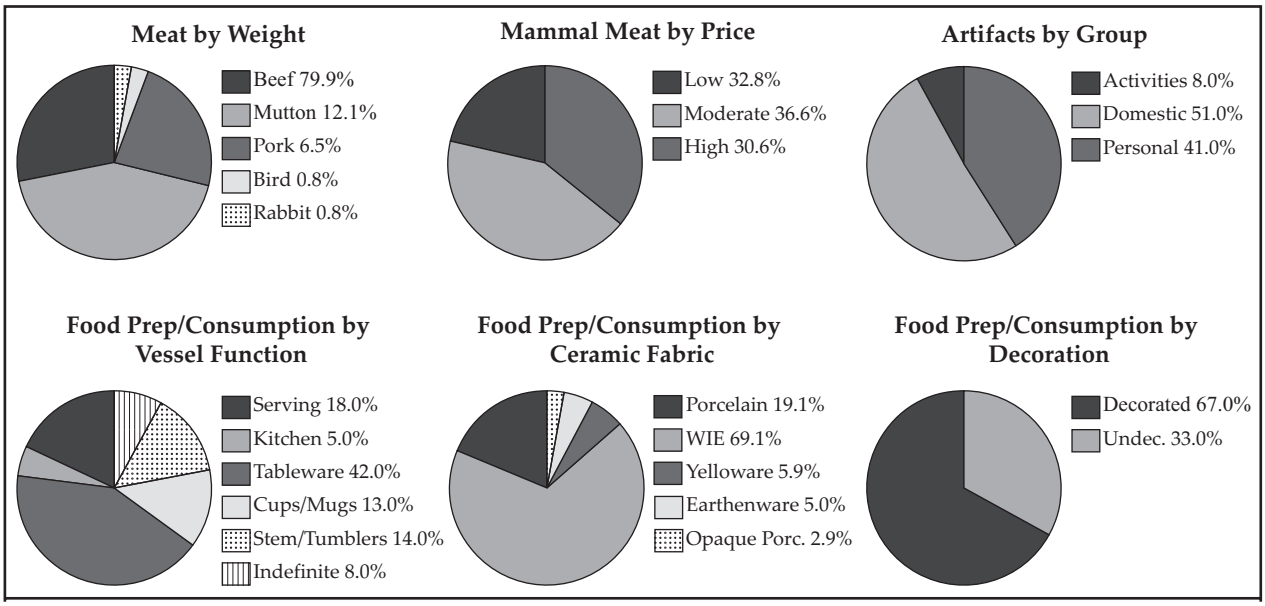


Figure C.7. SFOBB West Approach, Block 9, Well 8 feature snapshot



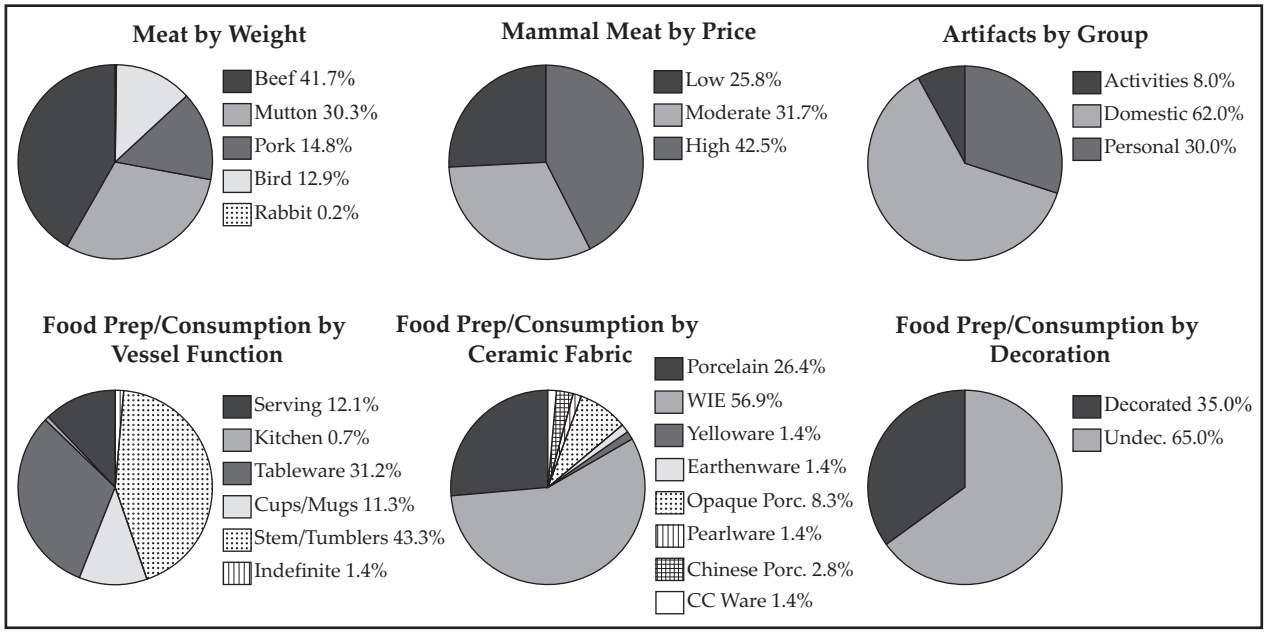
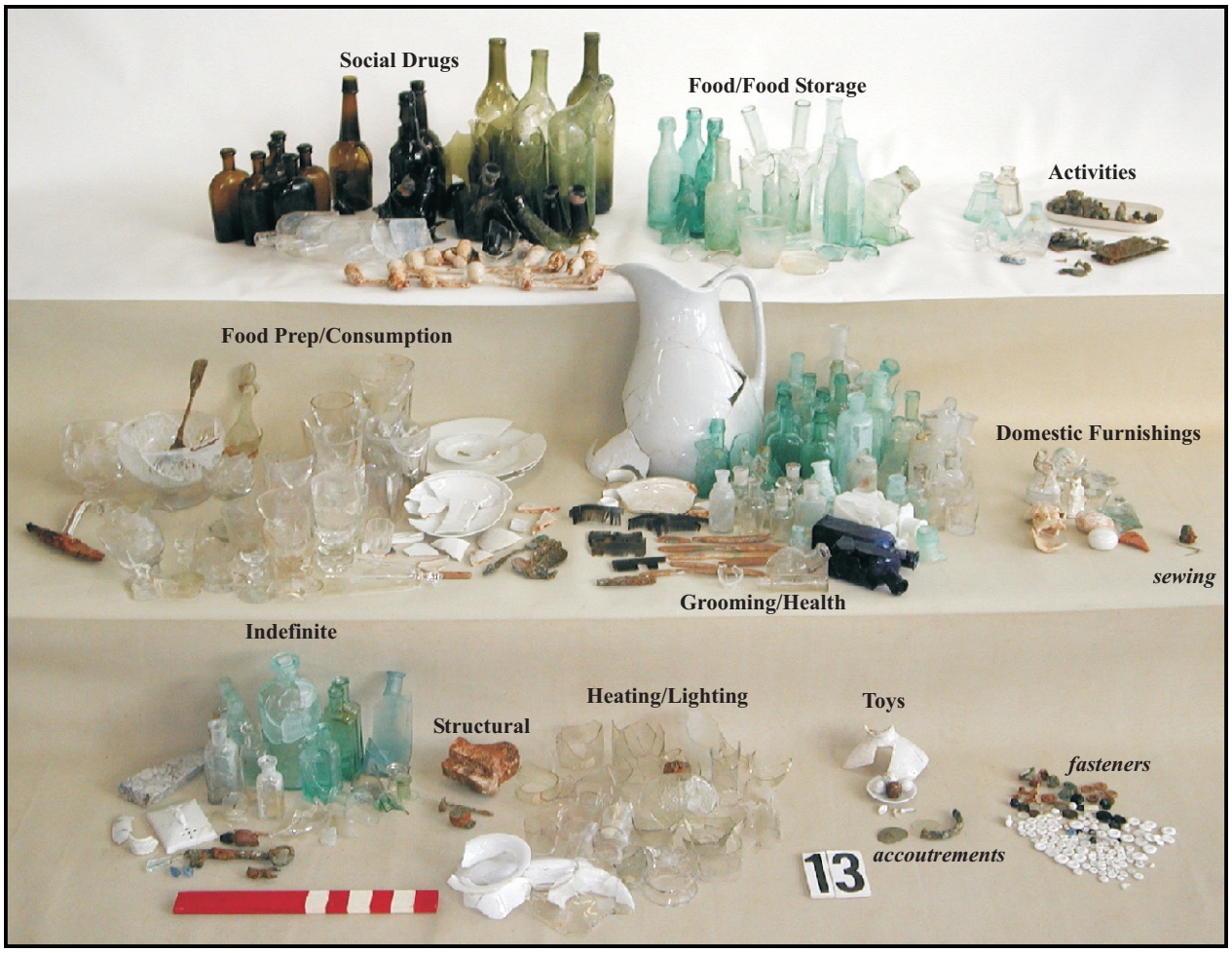


Figure C.8. SFOBB West Approach, Block 9, Privy 9 feature snapshot



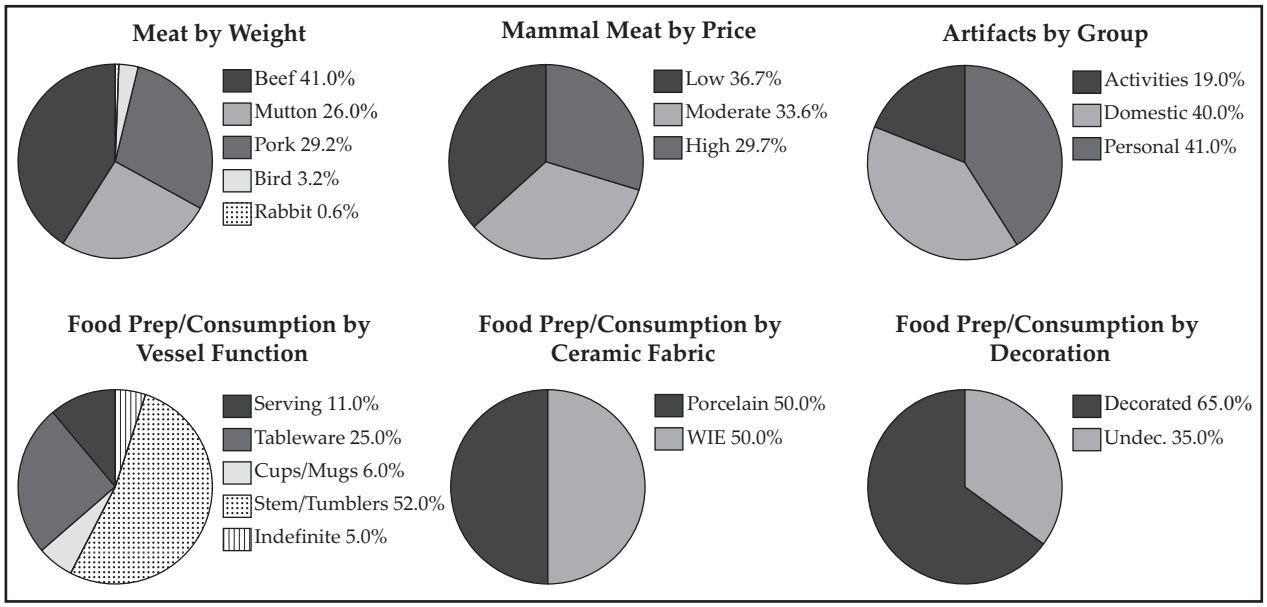


Figure C.9. SFOBB West Approach, Block 9, Cesspool 13 feature snapshot



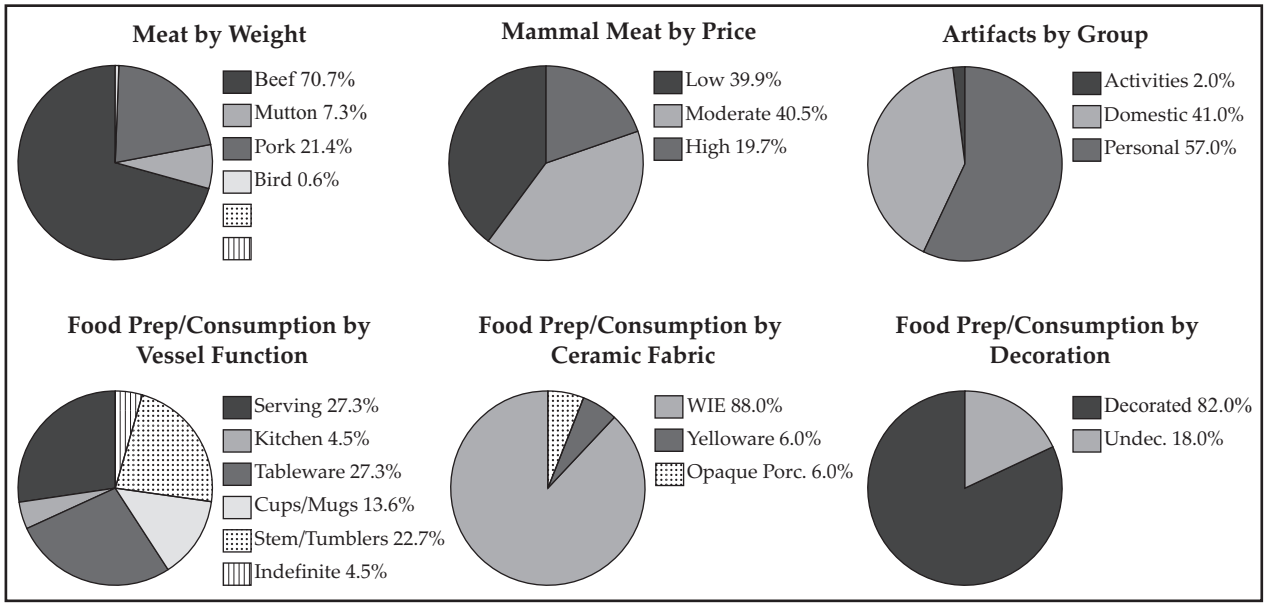
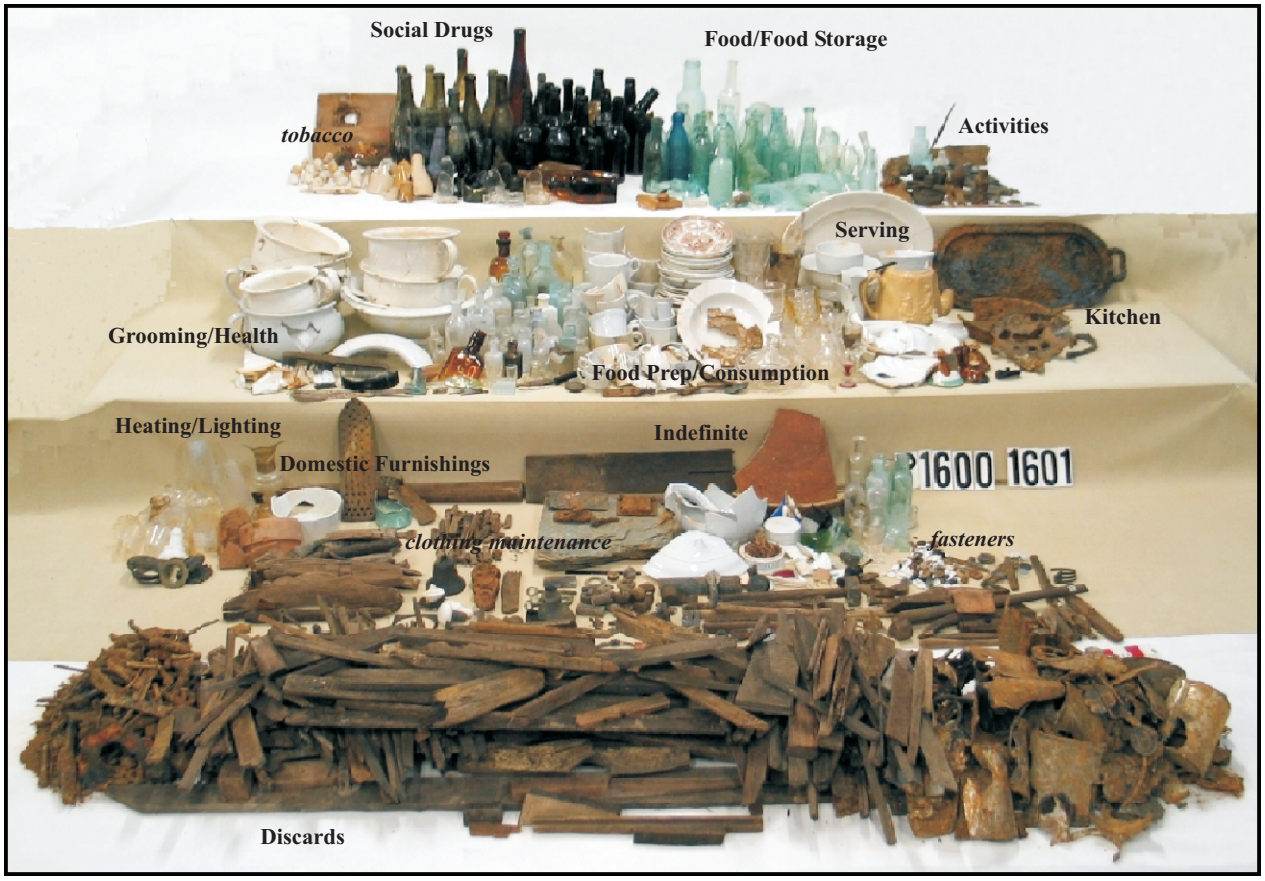


Figure C.10. SFOBB West Approach, Block 5, Privy 18 feature snapshot



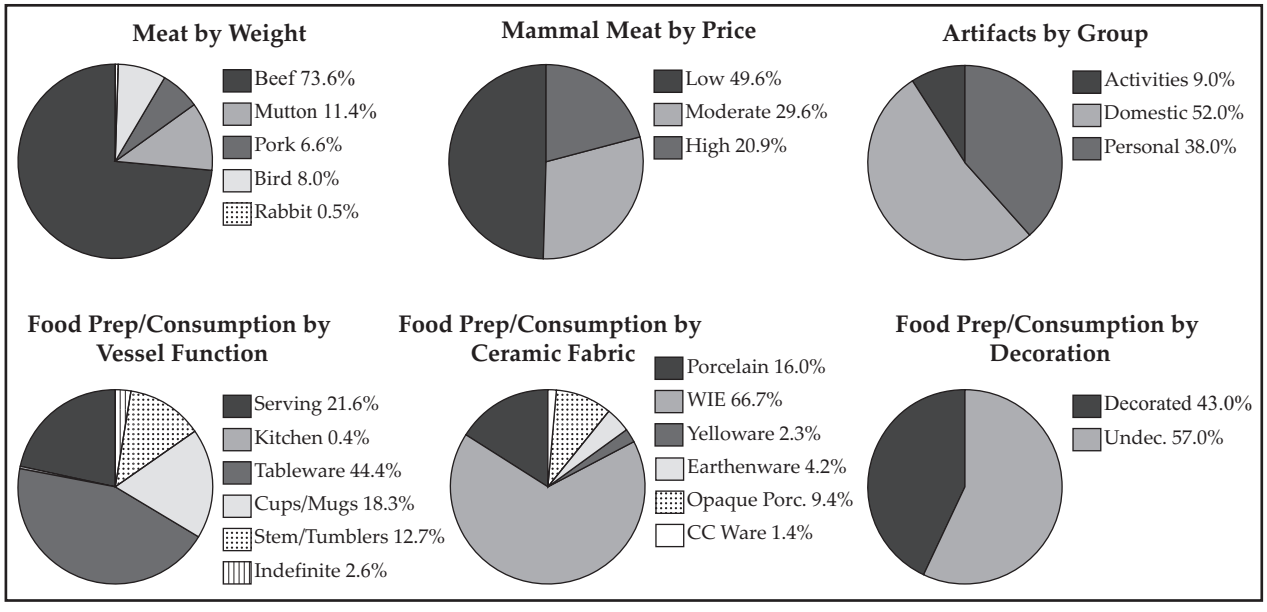


Figure C.11. SFOBB West Approach, Block 11, Privy 1600/1601 feature snapshot

Appendixes on CD

APPENDIX D

Site Record Forms

APPENDIX E

Concordance

APPENDIX F

Prehistoric Archaeological Core Descriptions

APPENDIX G

Radiocarbon-dating Methods and Results

APPENDIX H

Statistical Analysis

APPENDIX I

Artifact Catalog