

From Mission to Commercial District: Archaeological Excavations at CA-SLO-1419H, San Luis Obispo, California

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1 INTRODUCTION

1.1 PROJECT LOCATION AND DESCRIPTION

On March 9, 2015, Copeland Properties contracted with Applied EarthWorks, Inc. (Æ) to conduct archaeological monitoring and data recovery in connection with the Monterey In-Fill Project (Project) along Monterey Street in the city of San Luis Obispo, San Luis Obispo County, California (Figure 1-1). The Project is located in the vacant lots between the Blackstone and Muzio buildings and in the adjacent Bello Lot east of the Muzio Building. At the start of the Project, the Bello Building remained extant. These buildings face Monterey Street within historic Block 327, Township 30 South, Range 12 East, and Section 26 as shown on the U.S. Geological Survey (USGS) San Luis Obispo, CA 7.5-minute quadrangle (Figure 1-2). Development plans included renovation of the Blackstone Hotel and Muzio Building, demolition of the Bello Building, creation of an open plaza, and construction of new retail space in the area vacated by the Bello Building. New construction will accommodate stores, offices, and commercial space and also will provide residential units on the second floor of the historic building. The general area is known to contain significant archaeological remains based on prior work.

Æ archaeologists have worked extensively in this portion of San Luis Obispo:

Beginning in 1999, the City of San Luis Obispo and Court Street Partners, LLC began to discuss the conversion of surface parking lots in downtown San Luis Obispo into a mixed-use, commercial, residential, office, and parking development. Inspired by the vision of Tom and Jim Copeland and designed by architect Mark Rawson, the plan involved properties owned by either the Copelands or the City. In September 1999, the Copelands presented a conceptual proposal to the City entitled “Chinatown-Court Street: A Vision for the Future of Downtown San Luis Obispo, California, Inspired by its Past.” After several adjustments, the proposal, which became known as the Copelands Project, was put into motion. The Environmental Impact Report (EIR) for the Copelands Project was certified by the City Council in the fall of 2002 [Nettles 2006:1].

Subsequently, Æ conducted several archaeological investigations related to this transformative effort, referred to as the Chinatown Project. These include cultural resource studies in support of the Chinatown EIR (Nettles and Price 2006), preparation of an archaeological research design and testing/mitigation plan for the Chinatown Project (Nettles and Price 2006), archaeological investigation and data recovery in the Court Street and Palm/Morro blocks (Nettles 2006), monitoring of the Yung Building demolition and parking lot construction (Hamilton and Abdo Hintzman 2014), and documentation and recovery of artifacts and features during the retrofit of the Muzio, Blackstone, and Sauer buildings (Hamilton et al. 2014).

Since originally conceived in 1999, and partially due to the economic downturn beginning in 2008, Copeland Properties significantly scaled back the Chinatown Project and undertook it in phases. The 2006 work preceded development of the Court Street Property and the Palm/Morro Lot. The next phase of work did not occur until 2011 when the former Shanghai Low (Yung)



Figure 1-1 Project vicinity in San Luis Obispo County, California.

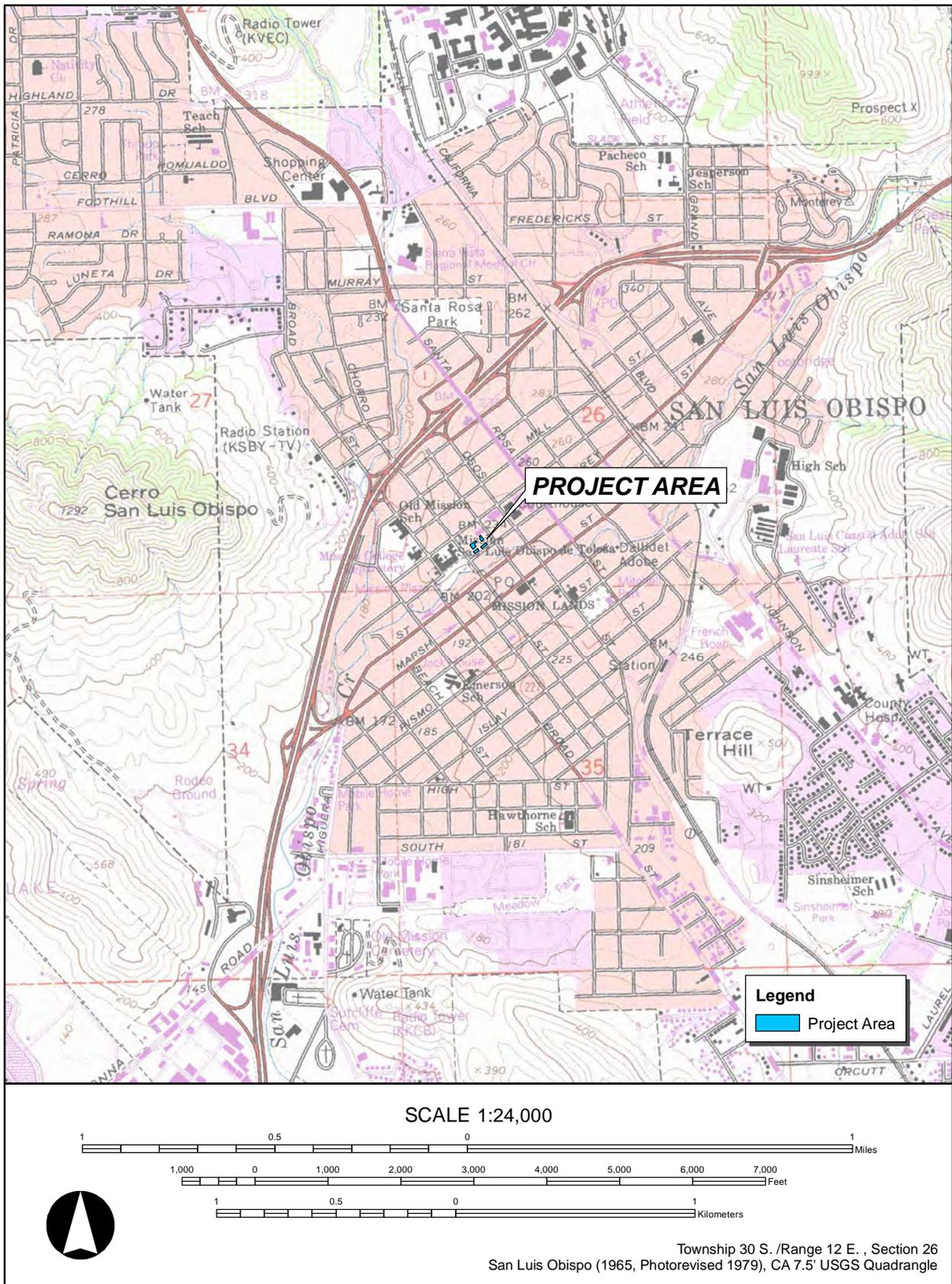


Figure 1-2 Monterey In-Fill Project location in downtown San Luis Obispo.

building was demolished to build a municipal parking lot. In February 2012, Æ tested inside the Blackstone and Muzio buildings prior to the retrofitting of these structures. Then in 2015, development along Monterey Street began. Copeland Properties proposed two separate phases of development in this block, bounded by the Palm Street parking lot to the north, Monterey Street to the south, Morro Street to the east, and Chorro Street to the west (Figure 1-2). The first phase of the Monterey In-Fill Project proposed to build 37 residential units on the second floor of the renovated Muzio Building as well as to add 50,310 square feet of new retail space and 2,780 square feet of office space. Construction of an adjacent 80-room boutique hotel facing Palm Street is planned for the future. A pedestrian plaza in the center of the block will connect the two phases of development.

During elements of this and past development, the Project area has been shown to have high archaeological sensitivity, and both mission-era and post-mission archaeological remains have been exposed. The site was first designated the Palm Street Historic Site (CA-SLO-1419H), or Chinatown, in 1986 during construction of a mid-rise parking structure on the north side of Palm Street. Previous archaeological investigations had occurred in the Kozak Lot in 1995, Palm/Morro Street Lot (on the east side of Morro) in 1999, Yung Lot in September 2012, and Blackstone, Sauer, and Muzio lots in February 2012. All of these excavations revealed mission-era deposits and later Chinese and Anglo-American archaeological remains. Æ archaeologists exposed intact midden within a stone-lined channel beneath the Blackstone Hotel. Inside the Muzio Building, these same deposits were present but extensively mixed.

The level of previous disturbance and development in the Project area has varied. Several buildings along Monterey Street were moved in the late 1900s so that the street could be widened to accommodate the new state highway along Monterey Street. The buildings were set back 12–14 feet from the curb. Historic maps show that street widening occurred from the Muzio Building eastward to the corner of Monterey and Morro streets. However, it appears that widening did not occur in the lot between the Muzio and Blackstone buildings. It was here that historical archaeological remains dating to the mission era were anticipated. The north end of each lot was also undisturbed. Possible presence of intact archaeological remains led the City to require the Project applicants to prepare an archaeological monitoring and mitigation plan prior to demolition and redevelopment.

In 2015, Æ recommended monitoring during demolition of the Bello Building and removal of footings and installation of other subsurface infrastructural elements for new construction. Improvements called for grading and trenching in the vacant lot between the Blackstone and Muzio buildings and for the removal of buried utilities. On this portion of the block, construction plans called for a steep slope at the rear of the lot to be brought down to the current street grade.

Because of the difficulty of performing phased archaeological work in an urban setting where deep fill may be found and the associated scheduling and logistical issues, Æ proposed to combine the discovery, evaluation, and mitigation phases of the Project into a single operation. This afforded the opportunity to manage the resources properly while eliminating Project delays and associated costs. This streamlined approach emphasized detailed background and archival research in advance of fieldwork to identify target areas likely to contain archaeological deposits or human remains. This strategy required target areas to be opened prior to construction so that the significance of identified archaeological features and/or strata could be evaluated. To mitigate

Project impacts, features and strata meeting predefined significance criteria were treated under a program of controlled data recovery excavation.

Æ's mitigation strategy for the Yung Lot project in 2012 was detailed in *Archaeological Monitoring and Discovery Plan for the Steven Yung Building Demolition, 861 Palm Street, San Luis Obispo* (Price 2012). In preparing this document, Æ drew extensively from the *Final Environmental Impact Report for the Chinatown Project* (AMEC Earth & Environmental, Inc. [AMEC] 2007) and the appended *Archaeological Research Design and Testing/Mitigation Plan* (Nettles and Price 2006). These documents guided the Project's monitoring and resource recovery as well. These documents contained the contextual background for the proposed Project, identifying the archaeological property types likely to be found, and outlined the methods for archaeological feature recovery in advance of construction. Based on Æ's previous archaeological excavations and the current Project, our knowledge of the founding of Mission San Luis Obispo, its Native American heritage, and later historic development of downtown is being enhanced.

1.2 ENVIRONMENTAL IMPACT REPORT REQUIREMENTS

Æ's work between 2012 and 2015 was done in accordance with the California Environmental Quality Act (CEQA) and the Final Environmental Impact Report (FEIR) for the Chinatown Project (AMEC 2007; Nettles and Price 2006). Adhering to the principles outlined in the FEIR and research design, archaeological investigations complied with Mitigation Measure Cultural Resources 1 (MM CR-1).

MM CR-1a: An archaeological testing and mitigation program shall be performed pursuant to the City's *Archaeological Resource Preservation Guidelines* and consistent with the archaeological testing and mitigation plan appended to this EIR. If resources are discovered during testing, they will be evaluated for significance with criteria set forth in the testing plan. Impacts to significant finds will be mitigated through a data recovery program using appropriate archaeological field and laboratory methods, outlined in the appended testing and mitigation plan and pursuant to the City's *Archaeological Resource Preservation Guidelines*. Since the project [will] involve significant excavation and redevelopment, the project timeline must accommodate a time prior to project construction to allow for identification and evaluation of cultural resources, and for full recovery of the significant subsurface resources that would be affected by the project. The results of the program will be presented in a report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results and makes provisions for construction monitoring, artifact curation and public display/interpretation of the significant resources [AMEC 2007:3.3-36–3.3-37].

MM CR-1b states:

In order to ensure the information gained in the archeological and historical studies is widely accessible to the public, the applicant shall fund a public display within the development that interprets the history of the site [AMEC 2007:3.3-37].

According to MM CR-1c:

Artifacts recovered from the significant resources shall be housed at a qualified curation facility. The Community Development Director shall choose from one of the following alternatives presented below for curation of archaeological collections.

1. Work with existing public or private institution, such as (but not limited to) the San Luis Obispo County Archaeological Society (SLOCAS), University of California Santa Barbara (UCSB), California Department of Parks and Recreation, or Cal Poly [California Polytechnic University, San Luis Obispo], to secure long-term storage. The chosen institution shall request and receive a one-time lump-sum payment from the project proponent to fund said storage.
2. Each individual development, including the currently proposed project, shall create a secure space for long-term storage and display within the development. This space will be subject to City approval and will be entirely funded by the project proponent [AMEC 2007:3.3-37–3.3-38].

Finally, MM CR-1d states:

It is possible that soil removed from the site during construction activities could contain Native American midden or other cultural artifacts. If this soil is placed in another location and future work uncovers the redeposited, artifact-bearing soil, the location of redeposited soil may be confused with an actual archaeological site. The project proponent shall inform the Native Americans and the project archaeologist as to the disposition of soil removed from the site. The project archaeologist shall document where the soil is placed as a redeposited site and registered it with the Central Coastal Information Center to avoid future confusion [AMEC 2007:3.3-38].

Æ personnel followed these stipulations in their archaeological investigations for the Project.

1.3 KEY PERSONNEL

Æ staff worked closely with the Copeland Properties construction team, JW Design and Construction, to integrate the archaeological activities into the demolition and grading portion of the Project. Mark Rawson served as the primary liaison for Copeland Properties. Æ's field team was directed by Principal Investigators M. Colleen Hamilton (M.A.) and Barry A. Price (M.A.)—both Registered Professional Archaeologists (RPA). Keith Warren served as the Project Archaeologist, and Kholood Abdo (M.A., RPA) supervised laboratory operations. Archaeological excavators were Marc Linder, Neil Rhodes, Phil Clarkson, Katie Cera, J. Lerner, Michelle Newcomb, Simone Schinsing, Katie Asselin, and Vincent Parsick. Fred Collins and Charity Collins, members of the Northern Chumash Council, served as Native American monitors.

1.4 REPORT PROSPECTUS

This report presents the results of archaeological monitoring, feature identification, evaluation and recovery, artifact analysis, and an interpretation of findings for the Project. Fieldwork began on March 9, 2015, and was completed on April 29, 2015.

This document relays the progress of fieldwork, discoveries made, and analysis of artifacts. It also explores previous archaeological investigations in and near the Project area in an effort to better define the historic use of the block bounded by Monterey, Palm, Morro, and Chorro streets. To the southwest is Mission San Luis Obispo and to the northwest were the mission reservoir and orchards. San Luis Obispo Creek meanders to the south of the block. The elevation from Monterey Street climbs steeply to the north. The mission vineyards lay south of the creek.

The Project area was divided into two work areas: Target Area (TA) 1 and TA-2. In TA-1, excavation revealed a mission wall running north to south, with a perpendicular wall stretching to the west. Æ also found two late nineteenth-century pit features, both determined to be privies closed in the late 1800s. Excavators found a concentration of late nineteenth to early twentieth-century pharmaceutical bottles and related items (i.e., crucibles, pipettes, and syringes in the southeast corner of this area. These artifacts date to the early 1900s. Excavation of TA-2, situated between the Blackstone and Muzio buildings, exposed an assortment of mission-related foundations overlain by an early twentieth-century kitchen midden (i.e., cooking items, mixing bowls, utensils, plates, cups, condiment bottles, food refuse, etc.).

Based on these findings, Æ expanded the historic context from the original Copelands/ Chinatown project report (Nettles 2006). This document presents new information that explores the function and association of the identified features. Chapter 5 outlines the investigation of these features and the artifacts recovered from them. The conclusions and site interpretations provide new knowledge gained through archaeological data recovery. Appendices present the reports of specialists. Information abstracted from their studies is incorporated in the body of the document.

2 PROJECT APPROACH

A crew of between two and seven archaeological technicians undertook all excavations and dry and wet screening within the Project site. Due to the amount of fill, Æ performed testing and data collection concurrently. The initial goal of fieldwork was to determine the nature of deposits within the vertical and horizontal path of disturbance, to evaluate the deposits for significance, and to recover those materials that retained integrity and were deemed historically significant. Keith Warren, the Project Archaeologist, conferred with the Principal Investigators on the appropriate excavation strategy and field methods to ensure adherence with *Archaeological Testing and Mitigation for the Monterey Street Infill Project* (Price 2014), the CEQA statute and associated guidelines, and City requirements.

The field effort focused on those areas of high archaeological potential as identified on the basis of background research and prior archaeological excavations in the immediate area. This “consolidated approach,” originally designed by Adrian and Mary Praetzellis for the Cypress Project in Oakland, is generally used where there is a need to minimize construction delays while fully complying with a project’s “Conditions of Approval” and legal requirements of CEQA (Praetzellis 1994; Praetzellis and Praetzellis 1993). Æ subsequently refined the approach and employed it successfully during all Copeland Properties projects in the Chinatown area of San Luis Obispo.

2.1 LOT DEMOLITION AND MECHANICAL STRIPPING

Æ archaeologists monitored all demolition of structures, footings, and parking lot surfaces in the Bello Lot, designated TA-1. The second target area investigated was TA-2, situated in the vacant lot between the Blackstone and Muzio buildings (Figure 2-1). An archaeologist monitored all utility work and removal of underground structural elements. Areas of archaeological concern were isolated upon discovery for further investigation following grading.

Following demolition of the Bello Building, Æ’s crew worked with the demolition team to monitor mechanical stripping and fill removal in both TA-1 and TA-2. The construction contractor hauled excess fill off site and disposed of it elsewhere. There were two discontinuous tracts in each target area designated TA-1 North and TA-1 South and TA-2 North and TA-2 South. The construction contractor completed stripping using first a Bobcat (mini excavator) then an excavator and backhoe (Figure 2-2). The type of heavy equipment used was determined based on the availability of equipment and/or operator in between demolition activities. Up to 8 feet of fill was removed from the back of TA-2 North, while less grading was needed in TA-1 and adjacent to Monterey Street. The equipment operator removed fill in shallow lifts under the direction of Keith Warren. This approach continued until the historic surface of the lot was exposed and all cultural features were defined.

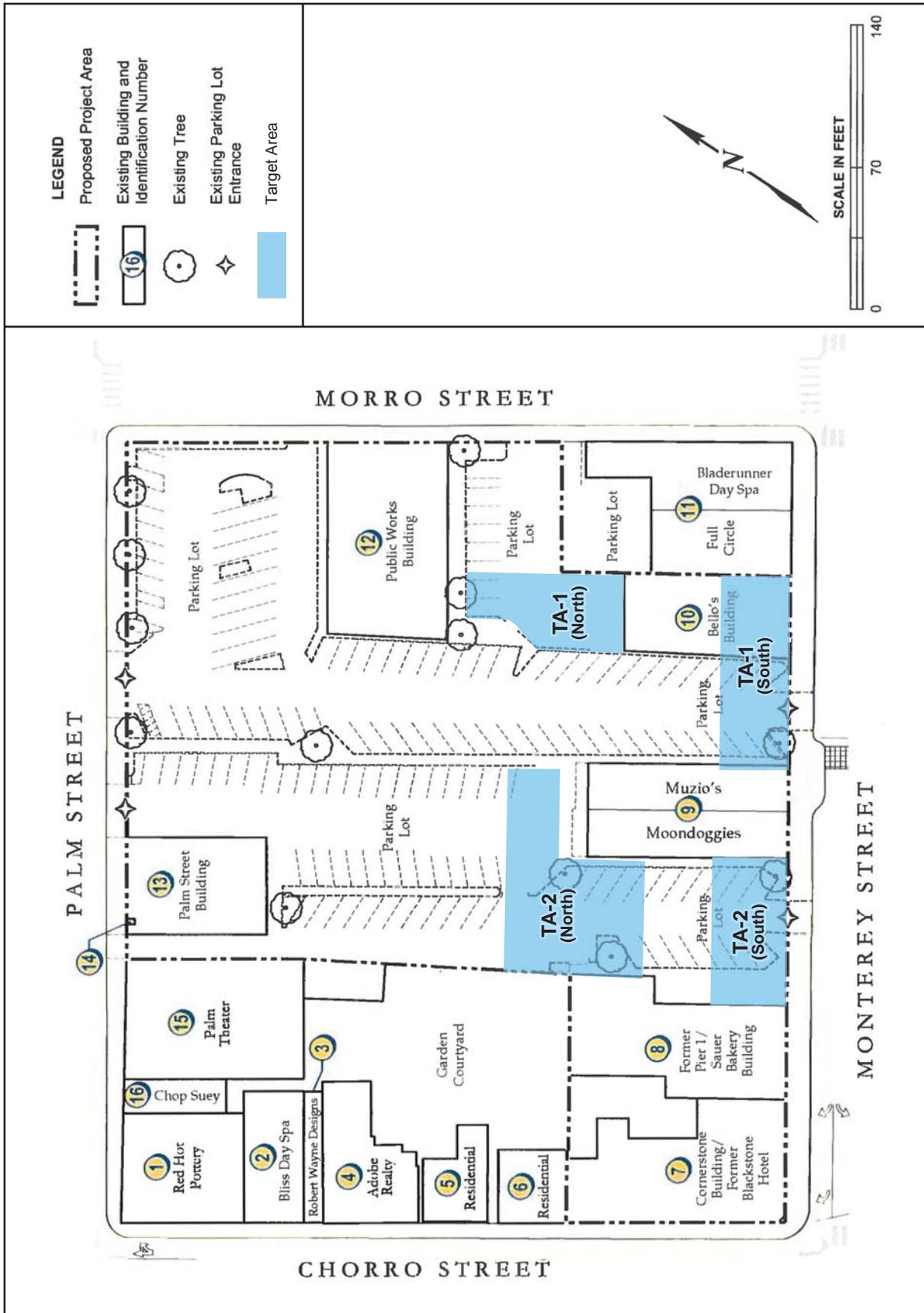


Figure 2-1 Location of target areas for archaeological investigation in the Monterey In-Fill Project area (adapted from AMEC 2007:Figure 3.3-11).



Figure 2-2 Mechanical removal of overburden from TA-1.

Although, Æ's plan anticipated that heavy equipment would be used to clear surface sediments over broad areas of the Project site, Project plans called for less development in portions of the lots. Therefore, hand excavations at key locations across each infill parcel were proposed in areas where the historic surface was believed to be near the modern grade.

After both areas (TA-1 and TA-2) were cleared mechanically and overburden/fill was removed, Æ archaeologists proceeded to manually shovel scrape the graded surface. The goal was to expose and define in situ archaeological features such as privies, rock wall alignments, building foundations, midden, and artifact concentrations. As outlined in the Project work plan, in all areas

test excavations would proceed down to the original historic surface, where significant archaeological features are expected to occur (along the street front and at the rear of each lot). Once exposed, the nineteenth-century living surface will be examined for evidence of intact archaeological deposits. Additional hand excavations may be required in the center of the lot to determine if earlier mission-era deposits occur at these locations. Also, hand excavations may be required to examine feature integrity or expose stratigraphic profiles. Any resources thus discovered and exposed will be further cleared by hand so that the features can be examined in plan view. The evaluation criteria outline in the Research Design will be applied to determine the significance of [exposed features] [Price 2014:2].

Features found during stripping and/or mechanical grading were further exposed, evaluated for significance, and documented.

2.2 CUT/FEATURE EXCAVATION DOCUMENTATION

Table 2-1 summarizes archaeological features by type, location, and association based on initial evaluation in the field. Following feature identification, the evaluation phase began.

Table 2-1
Features Identified within the Project Area

Area	Cut/Feature No.	Feature Type	Association/ Condition
TA-1 North	3	Clam shell landscape feature	Historic
TA-1 North	4	Rock foundation	Mission
TA-1 North	5	Historic sheet refuse	Historic
TA-1 North	6	Rock retaining wall	Historic
TA-1 North	7	Privy	Historic
TA-1 North	8	Privy	Historic
TA-1 South	15	Rock demolition debris	Disturbed
TA-2 South	9	Rock alignment	Mission
TA-2 South	10	Rock foundation	Mission
TA-2 South	11	Rock alignment	Mission
TA-2 South	12	Concrete wall	Modern
TA-2 South	13	Well/cistern	Mission
TA-2 South	14	Rock alignment	Mission
TA-2 South	16	Concrete wall	Modern
TA-2 North	17	Rock foundation	Mission
TA-2 North	18	Rock foundation	Mission
TA-2 North	19	Concrete wall	Modern
TA-2 North	20	Concrete wall	Modern
TA-2 North	21, 22, 23	Sheet refuse	Historic
TA-2 North	24	Rock foundation	Mission
TA-2 North	25	Circular feature of rock	Mission
TA-2 North	26, 27	Post hole	Mission

The goal of this phase of work was to determine the feature structure, stratigraphy, approximate date of deposition, range and quantity of artifacts, integrity, and significance. Often, initial evaluation entailed a simple visual inspection to determine the content, integrity, and age of the feature based on the presence of temporally diagnostic artifacts (e.g., bottles, ceramic sherds, and tools with manufacturers' marks, patent dates, and other product identification). Features that were in highly disturbed contexts and/or deemed too recent to meet the minimum age threshold were not investigated further. These are referred to as modern and/or disturbed in Table 2-1.

If further investigation was warranted, the feature was first drawn and photographed in plan view and then hand excavated to further define its content and integrity (Figure 2-3). Excavations ensued using industry-standard stratigraphic techniques (i.e., according to physical layers of deposition).



Figure 2-3 Æ archaeologist exposing and defining a feature in the Project area.

To document archaeological recovery within the Project area, Æ used context sheets that served to record all relevant excavation data. Each archaeological feature, cultural deposit, or structural remnant (cut, layer, structural element, interface, etc.) was assigned a unique context number. The contexts generally were divided into numerically ordered cuts and layers. Cuts refer to the removal of soil to form hollow features such as pits, privies, wells, cisterns, and trenches as well as some structural remains when found in a worker's trench. Layers are the fills that accumulate within a cut and can include various soil layers or interfaces within the cuts such as wood or brick linings, sheet refuse, rock alignment forming an interface with a historic surface, and other forms of stratigraphic interfaces found at the site. The numbering system applied to the investigated historical deposits was designed to differentiate between cuts and layers. The numbers were continued from Æ's investigations at the Yung Lot in 2012; hence, all cuts were allocated numbers beginning at 3 and all fill layers were assigned numbers beginning at 204.

Context (cut and layer) sheets were used to record detailed information about each cut and layer. The specific data recorded on the cut sheet include the size and shape of the cut, a summary of all the layers found within it, and a preliminary interpretation of the deposit's structure, content, and inferred function. The layer sheet describes the soil composition, color, and compaction; provides a summary of artifacts found within the layer; and presents an interpretation of the layer itself in relation to the cut or as a deposit outside of a cut (e.g., midden or interface). Both the cut sheet and the layer sheet depict stratigraphic relationships among related contexts. Based on the information recorded on the cut and layer sheets, Keith Warren drew a Harris Matrix (a graphic representation or flow chart depicting a context's stratigraphy) illustrating the physical

relationships in the cut and layers and reflecting the site-formation processes observed (Harris 1979, 1989).

Hand-excavated feature fill was collected in buckets and passed through 1/4- or 1/8-inch hardware mesh to recover artifacts. Both dry and wet screening were utilized. Artifacts recovered through this process were bagged according to provenience (TA-1 or TA-2, north or south, cut/layer number, etc.) and the bags were marked with the complete provenience, excavator name(s), and date recovered. When excavation of a stratigraphic layer was completed, a new provenience was assigned and the process was repeated until all layers within a feature were removed, as indicated by contact with undisturbed native soil. Each cut was excavated in cross section (first one half and then the other). The completed cross section was drawn and photographed to illustrate stratigraphic relationships among the various exposed contexts. Large areas of sheet midden were sampled using 1 by 1 meter square units or fractions thereof (e.g., 50 by 50 centimeters). Most features were manually excavated, although in one case, after a controlled sample was collected, the remainder of the feature was mechanically excavated due to the nature of the deposit (densely packed oyster shell).

2.2.1 Values of Significance (QVIA)

Excavations in the Project area targeted only those archaeological deposits thought to have the most potential to yield important data concerning previously researched historical events, trends, or themes (Price 2014). The strategy for assessing significance of a feature or deposit adapted the approach used by Praetzellis (1994) at the Interstate 880 Replacement Project in West Oakland in 1994 and for the Metropolitan Headquarters Project in Los Angeles in 1996 (Costello 1999). According to this strategy, to be considered significant, features must contain a sufficient quantity and variety of artifacts, and possess integrity and demonstrable historical association. The values of quantity, variety, integrity, and association (QVIA) are defined below.

- **Quantity.** This refers to the absolute number and frequency of artifacts within a deposit. Sufficient numbers of artifacts are needed to yield valid interpretations of the behaviors they represent.
- **Variety.** This term refers to the diversity of artifact types within a deposit. However, a lack of variety does not necessarily mean a deposit is not significant. Absent variety, a feature containing a singular deposit of unusual artifacts or unique but uniform information on underrepresented social groups can make a significant contribution to our knowledge of local and regional history.
- **Integrity.** This refers not only to a physically intact deposit (i.e., with undisturbed stratigraphy) but also to what James Deetz (1977) termed “focus.” By focus, Deetz refers to the level of clarity with which archaeological remains can be seen to represent a particular deposit, episode, or event. Archaeological remains that represent several activities, events, or themes that cannot be separated from one another are said to lack focus. Where focus is lacking as the result of disturbance, the phenomenon also lacks integrity (Costello et al. 1996:49).
- **Association.** Vital to the interpretation of integrity is the aspect of historic context and association. A phenomenon must have strong associations with a historic

individual and/or household, commercial establishment, neighborhood, ethnic or socioeconomic group, specific property use, or significant event in the community to possess historical and associative value. The historical events, trends, and themes outlined in the historic context (see Chapter 4) provide the critical framework for evaluation.

The National Park Service (NPS) in defining “historic property” specifies that “the passage of time is necessary” to apply the adjective “historic” (Sherfy and Luce 1996:1). NPS recommends that properties or resources be at least 50 years old to be considered eligible for inclusion in the National Register of Historic Places. The criteria for the California Register of Historical Resources set forth in the CEQA parallel those of the National Register. Remains less than 50 years old must be of exceptional importance to be deemed significant and eligible for either the National Register or California Register. The period of significance for the Chinatown Project began in protohistoric times and continued through the 1960s. Any archaeological resources postdating circa 1966 usually are not considered historically important.

At the Project, features representing known and significant historic events were prioritized for recovery as were deposits representing population segments underrepresented in the historical record. Once a feature was cross-sectioned, a “triage” approach was taken. Each feature was assessed for: (1) significance based on association with identified themes, (2) integrity (disturbed/not disturbed), and (3) potential artifact content. Archival assessment and reevaluation continued throughout the course of fieldwork to aid in significance evaluation. M. Colleen Hamilton, Æ Senior Historical Archaeologist, was responsible for judging a feature’s data potential. Significant features were fully excavated and further evaluated in the laboratory.

2.3 EXCAVATION UNITS

Test excavation units (TEU) were used to recover samples of specific archaeological deposits such as midden and artifact concentrations or were placed in areas of construction disturbance such as pile driving locations (Table 2-2). TEUs were generally excavated in arbitrary 10-centimeter levels. Where artifact concentrations were visible on the surface and stratification

Table 2-2
Test Excavation Unit Summary

Unit Location	TEU	Size (cm)	Depth (cm)
TA-1 North	3	100 x 50	0–30
TA-1 North	4	100 x 50	0–20
TA-2 South	5	50 x 50	0–80
TA-2 South	6	50 x 50	0–60
TA-1 South	7	50 x 50	0–50
TA-1 South	8	50 x 50	0–80
TA-1 South	9	50 x 50	0–30
TA-2 North	10	100 x 100	0–70
TA-2 North	11	100 x 50	0–30
TA-2 North	12 Extension	100 x 50	0–63
TA-2 North	13	100 x 100	0–51
TA-2 North	14	150 x 50	0–65
TA-2 North	15	100 x 50	0–20

was known, natural layers were excavated to determine vertical stratigraphic relationships by artifact content and sediment variation. All sediments were placed in buckets, labeled with provenience information, and dry- or wet-screened through 1/4- or 1/8-inch mesh (Figure 2-4). TEUs were documented on standard Unit/Feature Level Record forms. A separate form was completed for each level/layer excavated in every unit. A representative wall profile showing the unit's stratification was photographed, drawn, and described.



Figure 2-4 Archaeological excavation and water screening on the Project site.

2.4 MAPPING PROCEDURES

A Trimble GeoXH Global Positioning System (GPS) receiver with submeter accuracy was used to record the locations of all excavation units and features. The collected data were downloaded and incorporated into a Geographic Information System (GIS) to create unit location maps. Fieldwork activities were documented with a digital camera. Special attention was given to photographing mission-era structural features. Vincent Parsick, Æ archaeologist and professional photographer, took digital photographs of the structural remains uncovered in both the north and south sections of TA-2. When excavation was completed, all features were also measured and drawn to scale in plan view.

2.5 LABORATORY METHODS

Artifacts were bagged in the field, and bags were marked with provenience information and listed on a bag check log. After fieldwork, bags were transported to Æ's laboratory in Hemet, California, where they were checked against the bag log to verify everything was accounted for and to correct any errors.

Artifacts from each provenience were cleaned and processed separately to prevent mixing of materials. Fragile or unstable artifacts, such as glass with paper labeling, gilt on ceramics, and fragile shell were cleaned with a soft wet brush, without immersion, or were simply dry brushed. Artifacts were then laid out to air dry.

2.5.1 Sorting

When dry, the artifacts were sorted into material type and function for analysis: glass, ceramics, metal, building material (mission tile, brick, wrought or cut nails, etc.), and miscellaneous small items (beads, buttons, gaming pieces, clothing fasteners, etc.), faunal bone (terrestrial and aquatic), and shell. Specimens of each material type were further sorted as outlined below.

2.5.1.1 Glass

The glass from each provenience (layer within a cut or level within a unit) was first sorted into flat or curved fragments representing different artifact types, such as bottles, jars, serving vessels, and window glass. The curved glass and vessel fragments were sorted according to functional categories, including tableware, stemware, bottles, and jars. Where possible, the vessel shape, bottle finish, distinguishing marks, decorations, and embossments were recorded. In the case of bottles and jars, the original content (e.g., liquor, soda, condiment, medicine, food) was determined where possible. Manufacturers' marks, product embossments, and consumer labeling data were noted for further research. The items in each category were then counted, weighed, tagged, rebagged, and cataloged.

2.5.1.2 Ceramics

Similarly, whole ceramics and fragmented vessels from each provenience were sorted by form; vessel function and type; paste, firing, and glaze characteristics; and decorative techniques. All ceramic sherds were retained for detailed analysis. In the case of mission-era ceramics, sherds were sorted by paste type (e.g., majolica, mission brownware, Mexican soft paste earthenware, Chinese porcelain, and British earthenware). Whole vessels, manufacturers' marks, and decorative patterns (i.e., transfer prints, vessel molding, relief patterns, banding, and painted patterns) were noted to be researched at a later stage. The assemblage was then counted, weighed, tagged, rebagged, and cataloged.

2.5.1.3 Bone

Bone was initially sorted into two broad categories, aquatic and terrestrial fauna, and then counted, weighed, tagged, rebagged, and cataloged according to provenience. Bone samples selected for detailed analysis were packaged to prevent breakage and shipped to specialists for taxonomic identification. The terrestrial faunal remains were analyzed by Æ zooarchaeologist Ryan Wendel (M.A., RPA), and the aquatic faunal samples were analyzed by Terry Joslin (Ph.D.). Analysts identified taxa, calculated minimum number of individuals (MNI), and examined the specimens for cut marks. The terrestrial faunal analyst used an in-house comparative collection maintained at Æ's office in San Luis Obispo.

2.5.1.4 Shell

Marine shell was examined and classified to the lowest possible taxon. The MNI was estimated for the sample based on physical attributes such as presence of hinges or other diagnostic elements. Shell analysts considered fragments smaller than 1 inch in diameter as unidentifiable unless diagnostic attributes were present. The shells were weighed, tagged, and cataloged. Reference guides utilized during the identification process included McConnaughey and McConnaughey (1985), Morris (1966), Morris et al. (1980), Rehder (2007), Ricketts et al. (1985), Smith and Carlton (1975).

2.5.1.5 Metal

Where possible, metal was sorted into functional and material classes. Complete nails, spikes, nuts, and bolts were sorted by type, size, and manufacturing technique. The collection was then counted, weighed, tagged and cataloged. All amorphous/unidentified metal was weighed and recorded in the database but was not retained for permanent curation. Metal items were examined for identifiable marks, manufacture attributes, patent dates, and product identification.

2.5.1.6 Other Artifacts

All other cultural artifacts that did not fall into the classes described above, such as personnel hygiene objects (e.g., combs, buttons/fasteners, shoes, textiles, dentures), toys (e.g., marbles, doll parts), and gaming pieces (e.g., dice, tokens, coins, *zhu*) were itemized as miscellaneous in the attribute tables. These artifacts were first sorted by provenience and then by material type, function, and recognizable attributes. When these objects were made of more than one material, the primary constituent was identified and other material types were noted accordingly. Analysts identified product embossments and patent data when present. All items were counted, weighed, tagged, and cataloged.

2.5.1.7 Beads

Æ staff employed methods of glass bead identification and determination of manufacturing techniques as detailed in Karklins (2012), Kidd and Kidd (1970), and other reference works. Each bead was examined and its attributes recorded, including type, material, manufacturing technique, size, and color. Bead length and diameter were measured and recorded in millimeters. Bead sizes were sorted into four ranges, per Kidd and Kidd (1970:66): very small beads (less than 2 millimeters), small beads (2–4 millimeters), medium beads (4–6 millimeters), and large beads (more than 6 millimeters). In addition to identification of color, the analyst noted if a bead was opaque (no light penetrates the outer surface) or translucent and if the outline of the hole was visible when viewed from the side.

Shell beads were analyzed employing methods described by Bennyhoff and Hughes (1987), augmented by Milliken and Schwitalla (2012), and King (1990), augmented by Gibson (1992:12). The shapes of shell beads are largely determined by the portion of shell utilized and the amount of time expended making the bead. Shell bead shapes vary from circular to oval to rectangular, depending on how intensively they were worked. For instance, craftsmen produced *Olivella* (or *Callianax*; olive snail) disk beads from the shell wall, while they broke the *Haliotis* (abalone) epidermis from the nacreous portion of the shell and used it to form disk beads. Both

types of disks go through the same manufacturing process—chipped into shape, drilled, strung, and ground on their peripheries—yet the final appearance of the beads varies greatly.

As recommended by Gibson (1992:13), the perforations of shell beads were examined to determine the hole shape. Gibson identified three distinct hole shapes: biconical, conical, and straight. Biconical refers to perforations that were drilled from both the ventral and dorsal bead surfaces. A conical perforation was drilled from one side of the bead, and the hole is usually cone shaped in cross section. A straight perforation was drilled from one side of the bead and has a parallel-sided hole. It is assumed craftsmen produced the straight perforations by using iron needles rather than stone drills, thus tiny straight perforations mark the bead as of historic age.

2.5.2 Bulk Sorting of Artifacts from Nonsignificant Features

Artifacts from the nonsignificant cuts were sorted into general material types. These classifications includes those itemized above (ceramic, glass, metal, bone, shell, and miscellaneous). Within the glass category, all whole bottles were counted and bagged together, while the remaining glass fragments were bagged as a group. All whole ceramic artifacts (e.g., saucers, bowls, plates, serving vessels, etc.) were counted and bagged together, and the remaining ceramic fragments were given a single catalog designation. Artifacts were stored in 4-millimeter zip-top polypropylene plastic bags and double-bagged as necessary.

The bulk-sorted materials were cataloged under the “Group and Category” headings of the classificatory scheme. The artifact type was entered as undifferentiated, and the object was listed as “bulk” (for bulk sorted).

2.5.3 Artifact Analysis

Artifacts were separated into broad functional groups that were then subdivided by category and type (Table 2-3). The latter two steps in the classification system reflect the known or inferred historical use of the object itself. The resulting system allowed for consolidating large quantities of similar artifacts under descriptive headings, which allowed for the interpretation of features and historical site usage (e.g., Chinese occupation versus mission-era habitation).

Artifacts were sorted under the group headings that reflect broad historical themes of study (e.g., domestic, structural, commercial, personal, leisure and recreation, transportation, and industrial). Domestic or residential groups were then subdivided into categories reflecting daily activities such as food preparation and consumption. Assemblages generated by domestic use were classified under subsistence activities and were divided into categories reflecting artifact function. The final tier in this descriptive classification is intended to describe the object itself (i.e., plate, cup, stemware, tableware, liquor bottle).

Ceramic, glass, and metal objects were examined for distinctive marks that would contribute to the overall temporal placement of the collection. Artifacts with manufacturers’ marks were identified, and dates of manufacture were researched. When available, this information was incorporated into the discussion of the collection as a whole. Artifacts were counted, and the MNI was estimated. Artifact fragment matches or mends found in different levels were noted in an effort to evaluate depositional sequencing and movement of artifacts within the feature sediments due to post depositional events.

**Table 2-3
Historical Artifact Functional Categories**

Group	Category	Type	Object Examples
Activities	Commerce	—	Coins, banks, scale pans, tokens, weight, scale
	Shooting	Ammunition	Cartridges, casings, bullets, head, shell, shot
	Communication	Writing	Pens, pencils, ink bottles, slate, pencil lead, slate tablet, type bar, insulator, telephone, newspaper
	Farming/Gardening	—	Farming, livestock, irrigation equipment, well/pump part, gardening tool, pesticide, sprinkler, hose, terra-cotta pots
Commercial	Commercial	—	Written, photographic, labels
Domestic	Clothing Maintenance	—	Needle, bluing ball, clothes pin, washboard, thimble, clothes hanger, shoe polish, scissors
		Ironing	Iron
	Food Preparation/ Consumption	Drinking Vessel	Tumbler, stemware, pilsner glass, goblet, shot glass, drinking glass
		Kitchen	Baking pan, skillet, pot, pie plate, juicer, teakettle, mixing bowl, griddle
		Serving	Footed dish, decanter, teapot, pitcher, platter, sugar bowl, salt shaker, creamer, castor, serving spoon and fork
		Tableware Flatware	Plate, dish, saucer, cup, mug, bowl, teaspoon, china, spoon, fork, knife, cutlery handle, spoon holder
		Tableware Serving	Dish, body sherd, undetermined fragments (i.e., rims, bases, etc.)
	Food Refuse	Floral, Bone, Shell	Pit, seed, bean, nut shell, fish ,eggshell, shellfish, oyster, clam
	Food Products/Packaging		Can key, can opener
		Container	Soda and mineral water, milk, condiment, baby bottle, olive oil, can, tin (coffee, meat), canning jar, crockery, Chinese storage jar, demijohn, carboy
		Closure	Lid, lid liner, stopper, jar lid
	Utilitarian	Vessel	Brownware, majolica, Tonala, Galera jar, comal
	Household/Furnishing	—	Furniture, vase, figurine, picture, clock, mirror, stove part, caster, hook, upholstery tack
	Household/Maintenance	Lamp	Chimney (rim), shade, font, globe, lantern
		—	Paint can, furniture polish, glue, light bulb, sewing machine oil, poison, whetstone
		Cleaning	Cleaning tools, bleach (Clorox, Purex)
Industrial	Industrial, Machinery	—	Battery, battery cell, crucible, slag, kiln, furniture, gears

**Table 2-3
Historical Artifact Functional Categories**

Group	Category	Type	Object Examples
Leisure and Recreation	Collecting	—	Stalactite, coral, agate, mineral, stone, shell
	Games	Gaming Piece	Dice, checker, marble, GO, <i>zhu</i> , domino
	Social Drugs	—	Spittoon, cuspidor, corkscrew, bottle opener
		Alcohol Container	Bottle (wine, ale/beer, champagne, gin, brandy, whiskey, Chinese liquor), can, flask
		Closure	Cork, crown cap, Hutchinson stopper
		Smoking Accessories	Pipe, opium accessories, ashtray, lighter, tobacco tin, snuff box
	Sports	—	Fishing tackle, pole, reel, baseball, bat, ball, croquet ball
Personal	Accouterments, Decorative	—	Purse and frame, hat pin, hair accessories, watch, fan, pocket knife,
		Jewelry	Inset, earring, necklace, ring, brooch, cuff link, bracelet, collar stud
		Bead	Bead (glass, shell, etc.)
	Clothing/Footwear	—	Shoe, garment, belt, laces
		Fastener	Button, grommet/eyelet, rivets, clasp, clips, hook and eye, snaps, belt buckle, garter fastener, stud
	Grooming	Toiletry	Comb, brush, chamber pot, cosmetics, toothbrush, pitcher and basin, hair products
	Health/Medicine	—	Syringe, eyeglasses, eye dropper
		Container	Bottle (medicine, bitters, extracts), Jamaica ginger jar, aspirin tin, pill bottle, vial, toothpowder
	Toys	—	Doll, tea set, toy truck, toy gun, toy car
	Religious	—	Crucifix, rosary beads, medallion, statue
Structural	Building Material	—	Brick, flat glass, concrete, lumber, fencing, roofing, flooring, asphalt, mortar, sewer pipe
		Electrical	Fuse, insulator, plug, wire
		Plumbing	Pipe, hose fitting, plunger
	Fixture	—	Toilet, sink, cabinet
	Tools/Hardware	—	Doorknob, hinge, screw, nut, bolt, screwdriver, file, paint brush, key, lock
	Metal Fasteners	—	Nail, tack, spike (other than railroad)
Transportation	Transportation	Animal, Mechanical	Railroad spike, spark plug, car part, pedal
Undetermined Use	Misc. Bottle, Jar, Can Closure, Misc. Metal Item	—	Container and fragments with unidentified contents, closure and metal items with more than one potential original use

2.5.3.1 Cross-Mending of Ceramic and Glass Artifacts

After initial sorting, analysts considered the ceramic and glass vessel fragments and unique specialty items (i.e., doll parts, celluloid combs, bone tooth brushes) for cross-mending between layers and cuts. Each fragment was cataloged with a unique number, allowing individual pieces to be compared and fitted together if matched. Time was not expended on physically repairing individual items.

Artifacts between layers within cuts were compared to identify similar or companion fragments from each provenience to determine if they were deposited at the same time or as a result of different events. Cross matches were used to establish associations between layers. If pieces from a single object were found in several sequential layers within a single cut, then these layers were as assumed to have been deposited at a single time. If cross-mended artifacts were found between cuts, then the features were determined to be open at the same time and it was assumed that artifacts/objects derived from the same source.

2.5.3.2 Minimum Number of Individual Items

An integral part of the cross-mending process and interpretation of phased depositional sequencing was determination of the MNI represented in any given provenience. Hundreds of ceramic fragments in a single layer could represent one whole item or several vessels. It is important to quantify vessel numbers as opposed to fragment counts to provide meaningful comparisons between features, between different layers within a feature, and variation across a lot.

The MNI provides a basis for estimating how many items are represented within a given provenience. Each cut and layer was examined for associations between artifacts that might represent a single vessel or individual item. Shared attributes might include, but were not limited to, color, paste, manufacturing technique, and decorative pattern.

Each of the following categories of artifacts was assigned an MNI value of one:

- Intact objects such as whole bottles and plates;
- Fully reconstructible items; and
- Fragments of partially reconstructible items.

The remaining artifacts were carefully studied to ascertain whether nonmended fragments could be from a single vessel. These variables might include:

- Artifacts with duplicate characteristics (e.g., vessel sherds of the same material, function, color, decoration, and glaze) reliably belonging to a single vessel or object;
- Fragments with makers' marks that could be associated with no other items;
- Artifacts of unique or distinctive color, material, or function not represented elsewhere in the collection (e.g., a single willow ware transfer print fragment).

Artifacts that always would have been used together also were assigned an MNI of one (e.g., teapot and lid, both the lid and dish of a soap-dish drainer). As a result, certain objects of different materials can be combined and given an MNI of one (e.g., a glass nursing bottle and its associated ceramic cap, a glass beer bottle and its associated crown cap). Shoes were given MNIs based on pairs (e.g., three shoes, two left and one right, were assigned an MNI of two). Examples of items that are often considered a set but not always used, or even purchased, together are a cup and saucer or a basin and pitcher. These pairs were assigned an MNI of two.

Some artifacts were not useful for making comparisons between features and were therefore not assigned an MNI. For example, it is difficult to establish an MNI for window glass without knowing the original window size. Fragments were counted but not assigned an MNI. Nonetheless, glass thickness and color can provide indicators of the number and type(s) of windows present in a structure. In very general terms, such observations were recorded.

After cross-mending was complete, the MNI of artifacts was estimated for each cut and layer. In order to record MNI for cross-mended items accurately when artifact summary tables were compiled, the fragment(s) recovered from the uppermost context were assigned an MNI of one and the MNI for all other companion pieces was listed as zero.

2.5.3.3 Dating Methods

Historical artifacts were examined for physical attributes, decorative patterns, and/or product information that indicate the date of manufacture or period of use. Ceramic vessel styles and decorative techniques changed quickly during the late nineteenth and early twentieth centuries. These techniques are indicators of chronology and economic status within the larger community. Glass artifacts frequently exhibited manufacturing attributes (mold seams, bottle finishes, container color) that reflected advances in technology in the rapidly developing glass industry. The emergence of brand-name products, the rise in marketing strategies, and the regulation of the consumer product industry also can be reflected in the artifacts. Evidence of these trends provides clues to dates of manufacture and use. Standard references used to identify manufacturers' marks, dates of production, and location of manufacture were DeBolt (1994), Gibson (2011), Godden (1991), Kovel and Kovel (1986), and Kowalsky and Kowalsky (1999).

Historical ceramics were sorted by paste, density, color, and firing technique. Typically, this classification system distinguished between refined and unrefined earthenwares, stonewares, and porcelain. Unrefined earthenwares include domestically produced redware, "cream colored" ware, and yellowware as well as Mexican soft-paste earthenwares. Also, majolica manufactured in Mexico during mission times can be found at sites of this date. Majolica is a soft-paste earthenware with tin glaze. The refined earthenware fragments, generally imported from Britain, China, or Germany, were further sorted by paste/glaze color and density. Terms such as whiteware and ironstone reflect broad changes in the ceramic industry and consumer preferences during the late nineteenth and early twentieth centuries. Blue-on-white Chinese porcelain was marketed to the New World from the sixteenth century until 1810, when distribution from San Blas ceased.

Decorative elements considered to be temporal indicators include edge decoration, raised geometric or stylized floral motifs, painted designs, molded ironstone renderings, transfer prints, and decals. The colors employed in design application also can be temporal indicators. Specific

colors or combinations of colors reflect peaks in ceramic popularity. For example, single-color transfer print was introduced in the early 1800s and dominated the ceramic market through the 1860s. Multicolor transfer prints were produced after the 1870s. As early as the 1860s, manufacturers introduced decal design applications, but it was not until the 1880s that decals superseded transfer-printed wares in popularity. Their production continued into the early 1900s. Similarly, combinations of decorative methods reflect temporal placement and economic status.

Detailed analysis of the ceramic assemblage included identification and evaluation of manufacturers' marks, distributors' registry marks, and patented ceramic patterns. Many guides are available for the identification of British and American makers' marks. These were employed to determine production dates. The McKinley Tariff Act, passed in 1891, provides a terminal date for the manufacture of some vessels. The act required that the country of origin be printed on imported vessels (e.g., "Made in Japan"). It follows that vessels without a stamp of origin precede 1891. However, caution must be taken here, as Kovel and Kovel (1986:229) observed that "sometimes country names were used as part of the mark before 1891." British ceramics, in particular, were popular with American consumers, and American manufacturers mimicked British marks. In part, it was the American manufacturers' drive to dominate the domestic market that spurred passage of the McKinley Tariff Act.

When present, ceramic registry marks can be useful in dating vessels. The Patent Office of London issued registry marks for many ceramic patterns and vessel shapes. The registry patent was good for 3 years. As with American patent dates, however, care must be taken when applying the date because manufacturers renewed registry marks, used them prior to actual listing, and frequently copied them. Many British design patterns have been dated and recorded by collectors of historical ceramics. Such sources can be used for identified patterns.

Æ's laboratory staff also researched manufacturers' marks, embossments, and product information represented in the collection of diagnostic bottles and bottle fragments recovered from the Project area. Using standard references (Bender 1986; Fike 1987; Jones and Sullivan 1989; Toulouse 1971; Wilson and Wilson 1971) and online sources, researchers often determined manufacturing dates, vessel contents, and place of origin.

Bottle fragments were inspected for evidence of manufacturing techniques (e.g., mold seams, pontil marks, finish, and closure types) and pressed, optic, and patterned molds. Diagnostic attributes in bottle manufacturing technology include pontil scars (prior to 1860–1870) or eliminated mold seams midway along the neck of the vessel (hand-tooled techniques circa 1870–1920). Extension of the mold seam onto the rim of the bottle finish indicates fully automated manufacture. This attribute postdates 1904, when the automatic bottle machine was patented and first used for production. As Miller and Sullivan (1984:90) observe, a considerable lag occurred between the introduction of the first bottle-making machine and full acceptance of the technology by the industry. Fully automated bottle production did not occur until after the 1910s, and some manufacturers were still producing mold-blown bottles with hand-formed finishes as late as 1925.

Date ranges for glass bottles are based on when a manufacturing company was formed, when it changed ownership or moved to a new address, when a product was patented or marketed, and/or the type of manufacturing technique employed. By using both the date of operation and the

manufacturing technique, date ranges of production can be narrowed or bracketed. For example, a bottle manufactured by Illinois Pacific Glass Co., in operation between 1902 and 1930, produced employing an automatic bottle machine would provide a production date range of 1904 to 1930.

For locally specific product names that appear as embossments or manufacturers' marks, laboratory analysts consulted a variety of local sources, including San Luis Obispo city directories and company histories. Because few of these sources were available, this task usually proved unfruitful. The sources that identify local historical manufacturers' and product marks are shrouded in the gray literature. No comprehensive book on the subject has been published since Toulouse's pivotal study published in 1971; however, many collectors, historians, museums, and archaeologists are increasingly presenting manufacturers' histories on personal and agency websites. These sources can be invaluable when researching the products available to consumers around the turn of the twentieth century.

In very general terms, glass color can be used to date items where little other information is available. For example, black or dark olive green glass is usually representative of early nineteenth-century glass production. These colors were the result of natural impurities in the silica used to manufacture glass. Color in combination with other technology-based attributes, such as a pontil mark, provides a reliable indication of date of manufacture. Sun-colored amethyst glass generally dates from the 1880s to 1918, whereas straw-colored glass is diagnostic of the period between 1914 and the 1930s. Differences in the two glass colors are the result of neutralizing agents employed to produce clear glass. Bottle glass from the former period turns "amethyst" after exposure to ultraviolet rays, as a reaction of manganese dioxide to sunlight. After 1918, manganese dioxide was replaced by selenium as demanded by the war effort. Selenium reaction to sunlight resulted in glass turning a straw color or light pink over time.

Other items were examined for manufacturing marks, patent identification, and temporally diagnostic attributes (e.g., shell casing marks, button makers' marks, and insulator marks). As appropriate, these were identified using standard reference guides. Where additional information might be found through archival research, further studies were undertaken.

Terminus Ante Quem (TAQ)/Terminus Post Quem (TPQ)

Once the basic sorting was complete, all significant proveniences were examined for temporally diagnostic artifacts. The intent was to provide a *terminus ante quem* (TAQ) and/or *terminus post quem* (TPQ) date for each feature to assist in determination of the feature's historical association and depositional sequence.

Terminus ante quem is Latin for "the end [date] before which" a deposit must have been made. So if a deposit is known to have been sealed before a particular date, for example a building was built and covered the deposit in 1910, then that date provides a time before which the deposit could have been made.

A TPQ is the point in time after which a deposit must have been emplaced. For example, if Layer A contained an artifact that was first manufactured in 1906 but continued to be manufactured through 1922, that layer could not have been deposited before 1906, although it might have occurred any time after 1906, and most likely between 1906 and 1922.

The combined TAQ and the TPQ dates are used to determine a date that a deposit could not be later or earlier than. In this example, the deposit dates from 1906 to 1910, proving a narrower date than the TPQ alone.

Basic references used to date artifacts and identify the TPQ included Lockhart et al. (2006), Gibson (2011), and Kowalsky and Kowalsky (1999). Online sources were consulted as well. Once datable artifacts were identified, all items from a single provenience (cut or layer) were considered, and a single TPQ was established for that context, feature, layer, etc.

2.5.4 Material Discard

Some types of materials from significant cut/excavation units were designated for discard. This decision was based on lack of long-term research values, excessive quantity, poor condition, and/or health and safety risks. These items included:

- Window glass;
- Bottles with contents still inside;
- Glass body fragments from bottles and jars as well as all nondiagnostic glass;
- Redundant nondiagnostic ceramic fragments;
- Most unidentified ferrous metal fragments;
- Nails (rusted midsections);
- Metal scraps, sheets, strips, and wire;
- Mission *ladrillo* (flat tile) and *teja* (roofing tile) fragments;
- Large items lacking interpretive value and for which curation would be a problem (e.g., barrel hoop, metal rod); and
- Leather shoes and cloth fragments.

The items designated for discard were recorded on an inventory list and noted in the catalog record. As deemed appropriate, items selected for discard were photographed prior to disposal. Those items were returned to the developer for disposal at an identified location so that they would not be mistaken for an archaeological deposit at the place of disposal. A sample of all artifact types was retained with the collection to be curated.

2.5.5 Final Curation

The Project artifacts and documents will be curated at the Central Coast Center for Archaeological Research in San Luis Obispo, a facility managed by the San Luis Obispo County Archaeological Society (SLOCAS). Artifact curation procedures will follow the *Guidelines for the Curation of Archeological Collections* (California Department of Parks and Recreation 1993) and the San Luis Obispo County Archaeological Society Research and Collections Facility requirements. Æ Laboratory Manager Kholood Abdo worked closely with the curation facility staff to formulate these guidelines.

The items to be curated, individually or in groups, were given unique catalog numbers. These artifacts were stored in 4-millimeter zip-top polyethylene plastic bags containing acid-free paper tags labeled with the site trinomial and primary number. The accession number, site provenience information, artifact descriptions (material type, object, count, weight), and date and initials of the cataloger also are provided on the tags. These bags were then organized sequentially by cut/excavation unit and layer/level and then stored in standard acid-free archive boxes (15 by 12 by 10 inches). The boxes were labeled on the outside with the accession number assigned by SLOCAS, site trinomial, and box number (e.g., 1 of 12). A box list, kept with the collection, provides an inventory of materials within each box.

3

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS AT CA-SLO-1419H

The traditional use area of the Northern (Obispeño) Chumash, the northernmost of the Chumash people (Gibson 1991; Greenwood 1978; Kroeber 1976) has been defined as land from the Pacific Ocean east to the Coast Ranges and from the Santa Maria River north to approximately Point Estero. The city of San Luis Obispo is near the center of this area. Chumash and Obispeño language, material culture, social organization, traditions and rituals, and cosmology have been described by many scholars, including Blackburn (1975), Gibson (1983), Golla (2011), Grant (1993), Greenwood (1978), Hudson and Blackburn (1982–1987), Hudson and Underhay (1978), Hudson et al. (1978), Johnson (1988), and King (1990).

Many archaeological studies have focused on the blocks surrounding CA-SLO-1419H, although the knowledge of precontact Native American site utilization within the city is limited. There may have been a precontact camp (CA-SLO-1424) on the southwest corner of Mill and Morro streets, two blocks northeast of the Project (Figure 3-1). Extensive midden found there contained shells of Pismo clams and abalone along with ground stone tools (von Werlhof 1973; Appendix A). These artifacts are thought to date to the Milling Stone/Early Archaic Period between 8000 and 3500 B.C. (Jones et al. 2007). As early as 1948, Arnold Pilling reported the discovery of four Native American graves (CA-SLO-30) nearby at Mill and Morro streets. Others found human remains behind the Ah Louis store located at the northeast corner of Chorro and Palm streets (Pilling 1948). These discoveries are poorly documented but suggest a Native American prehistoric presence within the area that would become the City of San Luis Obispo. The association of these remains with the Obispeño Chumash is unclear; the most definitive evidence of late prehistoric Chumash occupation within the city limits comes from CA-SLO-44, a site along Stenner Creek at the base of the hills roughly 1 mile north of the mission church (Gibson 1986; Price and Baloian n.d.).

The first Europeans the Chumash encountered were Spanish explorers in the sixteenth century. In 1587, Pedro de Unamuno landed his ship in Morro Bay and his party explored inland to San Luis Obispo. At first the native people they encountered were “extremely timid,” but later the Spanish were attacked by the natives who killed two among the exploration party and wounded several others. The Gaspar de Portolá expedition likely passed through Oceano in 1769, and Juan Bautista de Anza followed practically the same route as Portolá in 1774 and 1776 (Hoover et al. 1990:359).

Mission San Luis Obispo de Tolosa was founded in 1772 by Junipero Serra. This location was selected for its abundant water and level terrain. Francisco Palóu wrote in 1792:

At the site or place where the mission was founded there was no permanent village. . . .
But, attracted by the news, they came. From the very first they began to visit the father
and the mission [Palóu 1926:362].

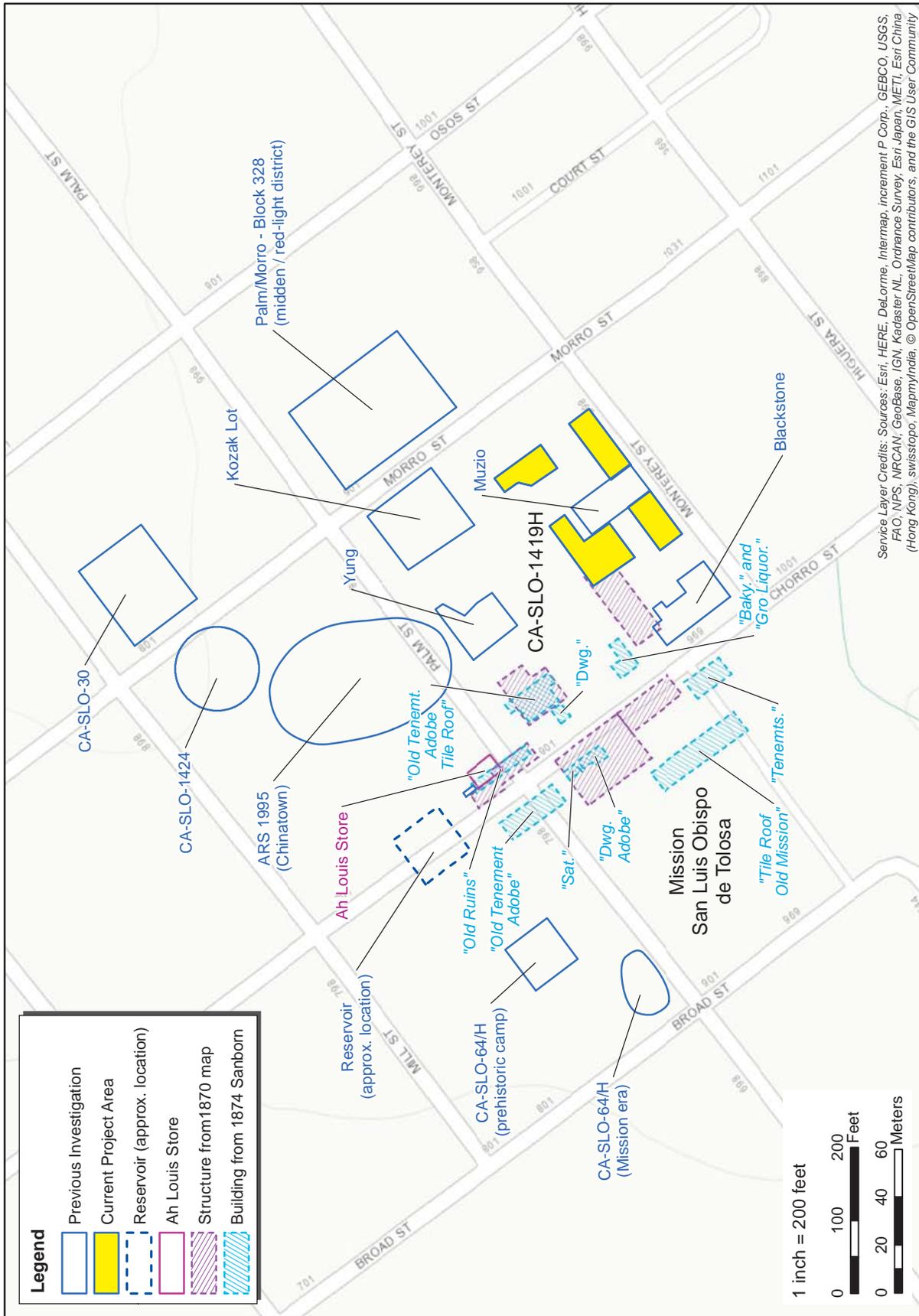


Figure 3-1 Known sites and discoveries in relation to CA-SLO-1419H.

In 1776, rebellious Obispeño Chumash damaged the mission buildings by shooting burning arrows into the roofs thatched with tule (Hoover et al. 1990:360). An adobe church replaced the original chapel in 1794. The native people at the mission suffered and the population declined rapidly. In 1803 there was a peak of 919 Native Americans residing at the mission, but by 1838 the population had declined to 170. According to the Roll of 1928 compiled by the Bureau of Indian Affairs, only four Native Americans living at the time claimed to be survivors of San Luis Obispo Mission Indians (Greenwood 1978:521).

In 1949 Arnold Pilling recorded the mission as CA-SLO-64. In visiting the site he found artifacts related to the mission and to later city development. The mission quadrangle is located along Chorro and Palm streets, southwest of the Project.

Elements of the Palm Street Historic Site (CA-SLO-1419H) were first exposed in 1986 during construction of a three-story parking structure on the north side of Palm Street, east of Ah Louis's store. Construction exposed extensive archaeological remains dating to the Mission Period and elements of historic Chinatown. Archaeologists found many intact features but lacked the funding for post-field analysis. Volunteers working with Dr. John Parker attempted to organize the collection that remained in storage for many years. The collection has since been transferred to Sonoma State University and students have begun to provide results of this find.

In the summer of 1995, Heritage Discoveries, Inc. exposed additional mission deposits and elements of Chinatown across the street in the city-owned Kozak Lot when it was improved as a parking lot. Test excavations revealed a variety of well-preserved archaeological deposits, including mission-era deposits identified as an element of the Palm Street Historic Site (CA-SLO-1419H). This site is described as a large habitation site bounded by Mill Street, Chorro Street, Monterey Street, and Osos Street (Heritage Discoveries 1995), although the full dimensions of the site were not defined at that time. The Kozak project stands out as the first systematic attempt to fully assess the archaeological remains prior to a construction project.

Æ archaeologists began investigating the site in 2003 when they carried out controlled testing in advance of construction of the Copeland Properties project. That project encompassed two discontinuous blocks: the Court Street area in Block 349 to the south of Monterey Street and the Palm/Morro area in Block 328 (Nettles 2006). During the 2003 investigation, Æ sampled the mission-era midden in the Palm/Morro area of the project (referred to in this report as the Morro Street midden). This midden covered the slope of the hill between Palm and Monterey streets, east of the current project. Excavations revealed very dark brown organic soils bearing cultural material. Abundant fragments of Spanish roof and flat tiles (*tejas* and *ladrillos*, respectively), adobe blocks, and daub were observed throughout the deposit, but no intact structural remains were found. The Morro Street midden contained remains of domesticated animals and nonnative cultigens, mission brownware, majolica, Mexican earthenwares, and glass and shell beads. Artifacts of native production included shell beads, bead-making detritus, flaked stone tools, and debitage. Recovered data revealed that this section of CA-SLO-1419H had functioned primarily as a refuse disposal area. Site utilization likely started there soon after the founding of the mission in 1772 and continued until around 1800 (Nettles 2006).

Æ's 2006 report compared the Morro Street midden and the Kozak Lot midden, situated on opposite sides of the street, east of the current Project area. The mission-era Morro Street midden

identified during the Court Street project is likely a continuation of the midden recorded in the Kozak Lot. For this reason, the two deposits were subsumed under the same site number (CA-SLO-1419H). The shell beads from the Morro Street midden have small diameters that correspond with the period between 1776 through 1800. The diameters and colors of the glass beads also suggest a similar period of site use. The absence of certain mission cultigens that were planted only after 1804 (particularly barley) supports an early date. Comparable data from the Kozak Lot midden suggest a longer depositional sequence, likely spanning the 1770s through 1815. Occupation at the Morro Street portion of CA-SLO-1419H appears to have fallen off drastically after 1800, while occupation continued in the Kozak portion of the site for at least another 15 years (Nettles 2006).

During Æ's 2008 monitoring for the City Waterline Replacement Project, linear trenching in the southeast-bound lane of Chorro Street, between Mill and Palm Streets, uncovered a dense and extensive concentration of rocks. In November 2008 that feature was again encountered in a lateral trench near the location where Bertrando (2007) originally recorded this same rock feature. Bertrando (2007) concluded that these remains most likely represent the mission reservoir depicted on at least one map from the middle of the nineteenth century and referenced in historical texts. In particular, the location of the feature generally corresponds to the depiction of the reservoir on a circa 1870 land petition map (Figure 3-1).

In 2012, mission-era deposits were found beneath both the Muzio and Blackstone buildings on the north side of Monterey Street. Excavations during retrofitting of the buildings demonstrated that the deposit uncovered in the Muzio Building was disturbed by later construction and retained little integrity. What was learned from the discovery was that mission-era deposits did once exist there. The presence of a displaced bear phalanx, lithic debitage, shell, *tejas*, and bone butchered in the Spanish manner confirmed the area was utilized at the time when CA-SLO-1419H was occupied. Deposits and structural remains found beneath the Blackstone Hotel building to the west retained greater integrity. There, an in situ foundation appeared to represent the remains of a mission-era structure, possibly one built for native housing. A segment of a possible drainage ditch predating this structure also was found. It contained mission-era artifacts that date between 1772 (the founding of the mission) and 1828 (based on the chronology of shell and glass beads). This feature apparently was an early irrigation ditch that was later abandoned, filled with midden, and then further filled with construction debris. A newspaper article published in the *San Luis Monitor* in 1938 noted that an aqueduct located "near the settlement, at the right of the road now called Monterey Street was filled with debris when a street was cut through next to it" (AMEC 2007:3.3-5). It is not known when the aqueduct was filled, but the Monterey Street midden would suggest it was after the mid-1830s.

In September, 2012, Copeland Properties retained Æ to monitor demolition of the Yung Building at 861 Palm Street prior to construction of a surface parking lot. The Yung Building sat west of the Kozak midden. Archaeological investigations at the Yung Lot exposed mission-era deposits and structural remains as well as later period Chinatown occupation debris. Deposits were found immediately beneath the surface at the eastern edge of the Yung Lot. The excavation of TEU 5 revealed a layer of concentrated building rubble that appeared to represent the mission building phase, from 1788 to 1811. This layer contained early mission artifacts, including mission brownware vessel fragments, alongside early imported Chinese ceramic fragments (predating

1810), majolica, and Mexican soft paste earthenware. Utilization of this portion of the site appears to have continued through the 1830s.

Deposits and structural remains were also recovered from the northern edge of the Yung Lot along Palm Street as well as from the southern edge of that lot. There, in situ cobble floor and wall foundation remnants of at least one structure, possibly first used as native housing. These structural features are likely a continuation of the Native American habitation area identified on the Kozak Lot in 1995.

The city block bound by Monterey, Chorro, Morro, and Palm streets continued to be occupied into the 1830s. By the 1860s it became Chinatown, including stores, restaurants, a pharmacy, and nearby brothels. Artifacts recovered at the Yung Lot in 2012 exhibited aspects of the daily life of Chinese residents. Artifact classes included black and white gaming pieces (*zhu*), buttons, beads, coins, opium pipes and vials, ceramics (bamboo, four seasons, and celadon), and brown glazed stoneware storage jars.

The first documented arrival of Chinese immigrants in San Luis Obispo County was in 1869, and by 1870 the *Tribune* reported 59 Chinese people living in the county (Ochs 1970). These residents settled along both sides of Palm Street, between Morro and Chorro streets. A distinct Chinatown emerged in San Luis Obispo at the turn of the twentieth century. Sanborn fire insurance maps from the late 1880s and early 1890s label numerous shops, laundries, and restaurants along both sides of Palm Street, between Chorro and Morro streets, as Chinese. In 1890, the Chinese in San Luis Obispo numbered 284, or a little less than 10 percent of the local population (Ochs 1970:19). They worked to construct the Southern Pacific Railroad, and some acquired property. As the unofficial mayor of Chinatown, Ah Louis, who operated a store and import business, served as the liaison between the Chinese residents and the rest of the community as well as the arbiter of disputes among his compatriots.

4 HISTORIC CONTEXT

A detailed historic context for the city of San Luis Obispo encompassing the larger project area was presented in *The Copelands Project: Neophytes, Shopkeepers, and the Soiled Doves of San Luis Obispo* (Nettles 2006). The current focused context draws from that document and the Chinatown Project research design (Nettles and Price 2007) as well as brings into play specific references that highlight events and development trends important to the interpretation of cultural resources from the Project. Following field excavations, Æ staff completed additional archival research specific to Block 14/327 and the features found there.

4.1 SPANISH INCURSION—THE MISSION AND HISTORICAL NATIVE AMERICAN OCCUPATION

Spanish settlement in the area began with the establishment in 1772 of Mission San Luis Obispo de Tolosa in the valley of Los Osos. The site was described by Father Francisco Palóu in 1792:

This place seemed to everybody to be more suitable for the mission on account of having two small arroyos of water, with plenty of land which could be irrigated with a little labor. Choice was made of a site for the mission on the summit of a low hill, on the skirts of which ran the two arroyos [Palóu 1926:361].

Upon arriving in the region:

The father set to work, building a two-room dwelling of wood, with a tule roof, another house of the same materials for the soldiers, and a chapel, also of the same materials, to serve as a church. Afterwards he went on little by little adding more rooms for workshop and granary [Palóu 1926:362].

A more permanent church with an adobe foundation was erected in 1774, but in 1776 a fire destroyed most of this structure as well as many supplies. Two more fires, one in 1777 and another in 1781, caused similar destruction. Construction of the current mission began in 1788, and the building was constructed primarily of adobe.

The craft of adobe construction originated some 10,000 years ago in the Near East. The Moors brought it to eighth-century Spain, where the Arabic word “atob” became adobe. At the missions of California, this building material was made by natives. They dug a pit and filled it with chunks of clay soil that were softened with water. First they stomped on the clay to produce a smooth wet mud, then they added sand and chopped straw or weeds. The moist conglomeration was molded in wood forms measuring about 4 by 11 by 22 inches. After the material had solidified, it was removed from the forms and set out to bake in the sun; within a month the blocks could be laid to form a wall. As many as 5,000 bricks might go into building a single-story one-room adobe structure, whereas a large mission chapel required more than 40,000 bricks. White lime plaster, made from pulverized fire-roasted seashells and water, was spread over the inner and outer surface of the walls, giving them a smooth and clean appearance while

protecting them from moisture. The roofs of such buildings and structures were made of thatch and were apt to leak during rainstorms in addition to being highly flammable. After the disastrous fires, the friars at Mission San Luis Obispo tried making clay tiles for more permanent fireproof roofs. This terra-cotta technique involved lining handmade semicylindrical molds with damp clay, which when hardened was removed and kiln baked. After the trial experiment succeeded in San Luis Obispo, the other California missions began to locally manufacture roof tiles, which are a key feature of Spanish-style architecture in southern California (O'Hara 2011).

Monsignor Francis J. Weber's *Mission in the Valley of the Bears: A Documentary History of San Luis Obispo de Tolosa* (1985), provides a description of the mission and associated buildings.

At its highest point of development, the mission establishment was quite extensive. A quadrangle, as usual consisted of the church and sacristy, the Padres' dwelling, numerous storerooms and shops, hospital and women's quarters, built around a patio (or courtyard). Along the east side of the quadrangle, on both sides of the street (now Chorro), were two rows of red-tiled adobe houses which were homes of the married neophyte Indians. Within the patio, paths paved with tiles led one under a delightful arbor of mission grapevines. The church floor was paved with flags of a soft, yellow color, as were the approaches to the church and the zaguan [entrance to the quadrangle], which still stands at the rear of the sacristy.

Back of the mission quadrangle was a large reservoir whose water turned the wheel of the grist mill standing by its side. Nearby were two round brick tanks, adjacent to which were the tanning vats. Along the road to Monterey was the work shop of the guards, a large building with arched doorways. Near this building and by the side of San Luis Creek, was another power grist mill which was completed in 1798 and was the second to be built in Alta California [Weber 1985:163]

The native population residing at or near Mission San Luis Obispo reached a peak of 919 in 1803. By 1804 native villages in the area were abandoned and most of the Obispeño were living at the mission or its outposts. Historical and archaeological evidence suggests that the general population density in the Obispeño Chumash region was far less at the time of contact than in earlier prehistoric times, and the native population at Mission San Luis Obispo was never as high as at the more southerly missions at Santa Barbara, near Lompoc (i.e., La Purísima Concepción), and Santa Ynez (Greenwood 1978).

California became a Mexican territory when Mexico gained its independence from Spain in 1822, and after much political upheaval, the Mexican government secularized the missions in 1834–1836. The prevailing justification was that with the native populations declining every year, the missions had no basis for occupying the large expanses of lands under their control. Additionally, political, economic, and social factors made it difficult for the Mexican government to supply the California missions. When a proclamation for secularization was issued in 1834, the government appointed Innocente Garcia the administrator for Mission San Luis Obispo lands. By then disease and destruction of the native subsistence base had forced the Chumash to abandon most of their traditional way of life. By 1838, only 170 Chumash remained at the mission (Greenwood 1978).

In 1846, the mission land was sold to Petronillo Ríos, ending Franciscan control the same year that the Bear Flag Revolt occurred. California briefly gained independence from Mexico, but the

United States soon took control of the territory following the gold discovery in January, 1848. Statehood was granted on September 9, 1850 (Krieger 1988a).

Numerous buildings were erected outside the mission proper as the area grew into a Spanish pueblo. Monterey Street, formerly named Mission Street because it went past the mission as a small segment of El Camino Real (O'Hara 2011), became an important thoroughfare (Becker 1983). According to the 1870 land petition map on file at the San Luis Obispo County Historical Society, many residences and other buildings were erected in the surrounding area, including the Sauer adobe on Monterey Street and the Quintana adobe at the northeast corner of Monterey and Chorro streets (Figure 4-1).

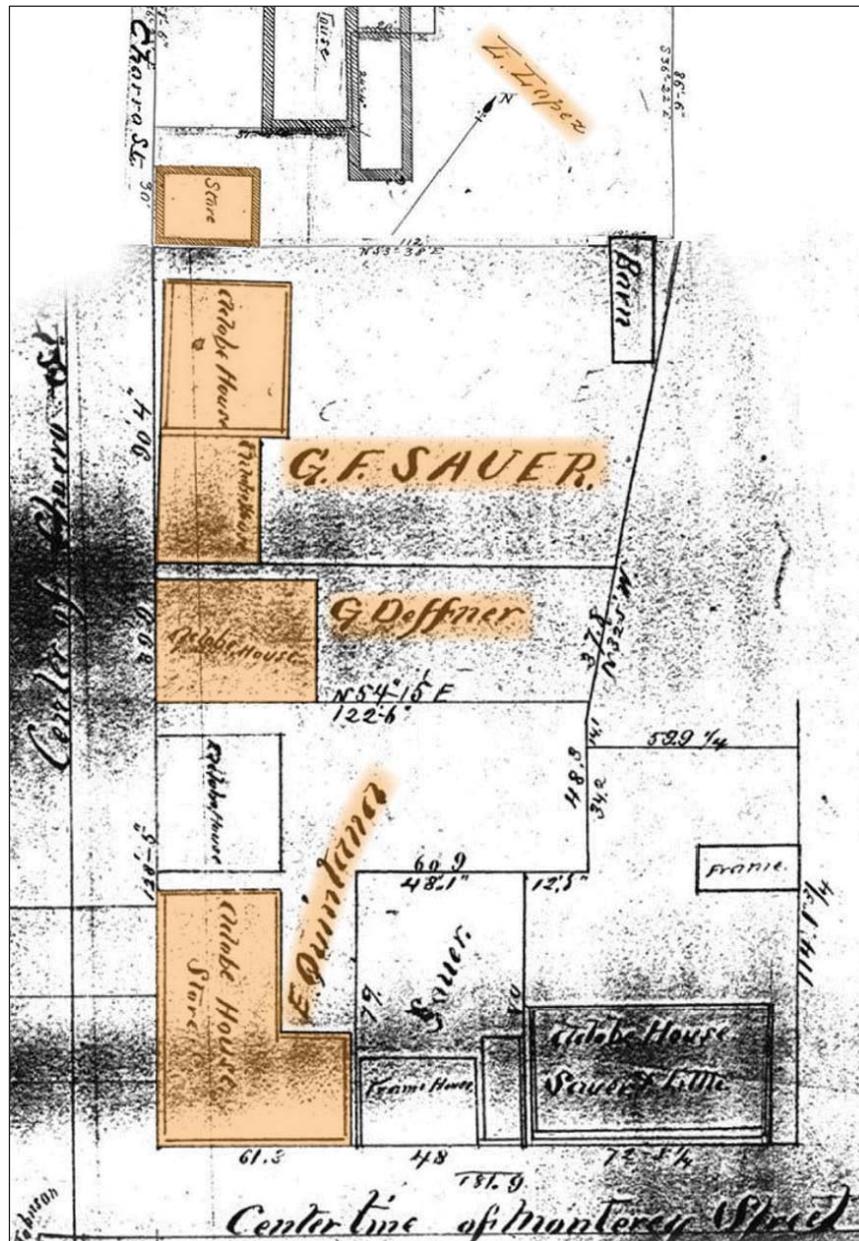


Figure 4-1 San Luis Obispo 1870 land petition map showing the Project area.

4.2 EARLY AMERICAN SETTLEMENT

Before California joined the Union in 1850, newcomers were mainly interested in the riches to be found in the gold fields of California. By this date immigrants encountered some semblance of the culture they left behind in the northern part of the state and the San Francisco Bay area, but southern and central California remained less developed. As a result, the population in San Luis Obispo grew slowly, and Spanish/Mexican (Californio) families remained in the majority. Up to that time the Spanish pueblo surrounding the mission had grown without a formal plan. The layout conformed to the local topography, and Monterey Street had developed into the main thoroughfare.

The County of San Luis Obispo was officially established when California achieved statehood. A month earlier, in August 1850, William R. Hutton was authorized to survey and lay out the town. In the typical American grid pattern, the main street was to be 20 yards wide and all others 15 yards. This survey is shown on the 1862 map made by civil engineer William C. Park. Park's map shows streets, but none are labeled, and some of them had yet to exist except in the imagination of the draftsman. Land southeast of the creek is marked "Priest's Garden," "Corral," "Marsh Land," and "Cultivated Land." Development boomed along Higuera and Monterey streets around Chorro Street. Visitors complimented the level topography, cold water, and rich soil, but complained of the "miserable plan of streets." They were narrow and ran at "all but right angles" (*La Vista* 1969). Even residents complained of the dusty streets (*San Luis Obispo Tribune* 1868).

Disaster hit California between 1862 and 1864 when an extended drought caused the death of hundreds of thousands of sheep and cattle. This event bankrupted Hispanic families who depended on the income from their large ranch holding. Many of these families were forced to sell their land to Euro-American entrepreneurs (Krieger 1988a). San Luis Obispo saw an influx of Euro-American landholders, growth came rapidly, and by 1868 demand for housing far exceeded the supply.

In 1870, R. R. Harris and H. Ward surveyed the town for the Security Title Insurance Company. By the time authorities finally received a certificate of purchase for the town site from the U.S. Land Office in February, 1871, many public improvements had been made. Bridges spanned San Luis Obispo Creek at Mill, Court, Morro (historically spelled "Moro"), Chorro (or Choro), Nipomo, and Broad streets. Sidewalks had been constructed and trees planted. Gas and water works were established, the fire department was on call, a brick city hall had been built, the Bank of San Luis Obispo was open for business, and three weekly and two daily papers were published (Angel 1883:357, 361).

The 1874 Sanborn fire insurance map reported the condition of firefighting equipment available:

Water Facilities: Not Good. Water Works in process of construction. Full 90' – 10
Hydrants to be located in street & a Truck & supply of Hose to be provided. – No
Engines. Prevailing Winds: NW.

In 1875, De Guy Cooper expounded on the resources of San Luis Obispo County and provided his impression of the town. At that time, 2,500 people were concentrated in a 4-square-mile area and the outskirts were sparsely settled.

The city waterworks maintained a 2-mile-long open flume that carried water from springs above the town to a stone and mortar reservoir. This water was then distributed through 5 miles of pipes that ran below principal streets. The architecture was described as “rather primitive but of late marked improvement” (Cooper 1875:17). There were now buildings of a more permanent nature (Figure 4-2), and many people who had been renting were building. Rental housing was in demand, and there was a limited supply; these had “reasonable rents at \$10–25/month according to size and location” (Cooper 1875:23). In 1875, Paulson reported four hotels, six livery stables, and one paper—the *Weekly Tribune* (Paulson 1875:23).

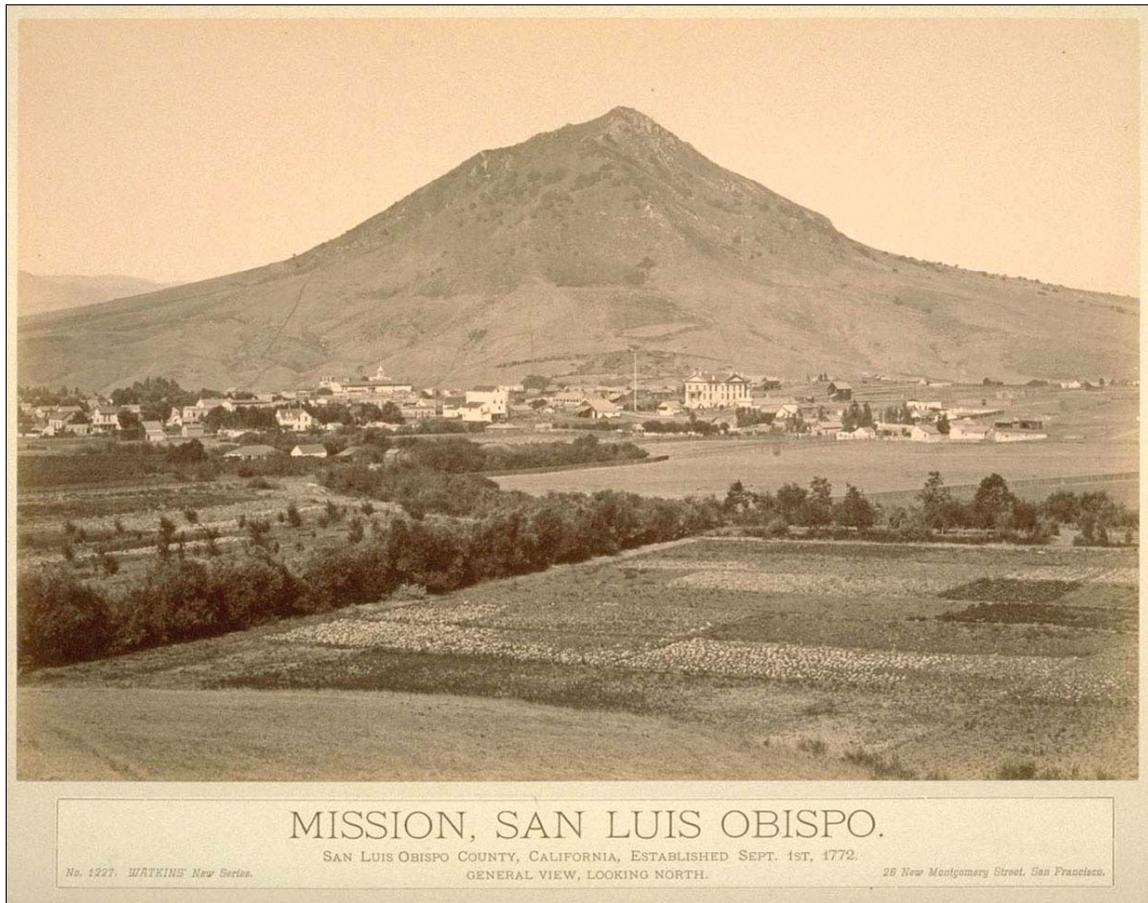


Figure 4-2 San Luis Obispo, circa 1876 (Bancroft Library, University of California, Berkeley).

Access to the outside world was through the Coast Line Stage. This company carried U.S. mail for Wells Fargo & Company to points north and south of the city. There also were passenger coaches that ran from the city to the harbor, and a tri weekly stage between the city and Cambria provided a connection with the communities of Morro Bay, Old Creek, and Cayucos. Additionally, a telegraph line from San Francisco to Santa Barbara ran through San Luis Obispo, with an additional line from the city to the port (Cooper 1875:18).

The narrow-gauge Pacific Coast Railway from Port Harford to Los Alamos, which started operation in 1876, made San Luis Obispo the commercial center of the region and provided access for passenger steamer service from the port at Avila (Angel 1883:361). San Luis Obispo was incorporated on March 20, 1876, and a codified system of ordinances was enacted (Angel

1883:358). At the time of the 1880 census there were 2,500 residents in the city. Just 3 years later, the number was said to have increased to 3,000 (Angel 1883:361).

When the city plan was ratified in 1778, Higuera Street stopped at Morro Street, a block east of the Muzio and Blackstone buildings, and Osos Street went only as far south as Monterey Street. The 1877 bird's-eye view provides a glimpse of the city at this time (Figure 4-3).

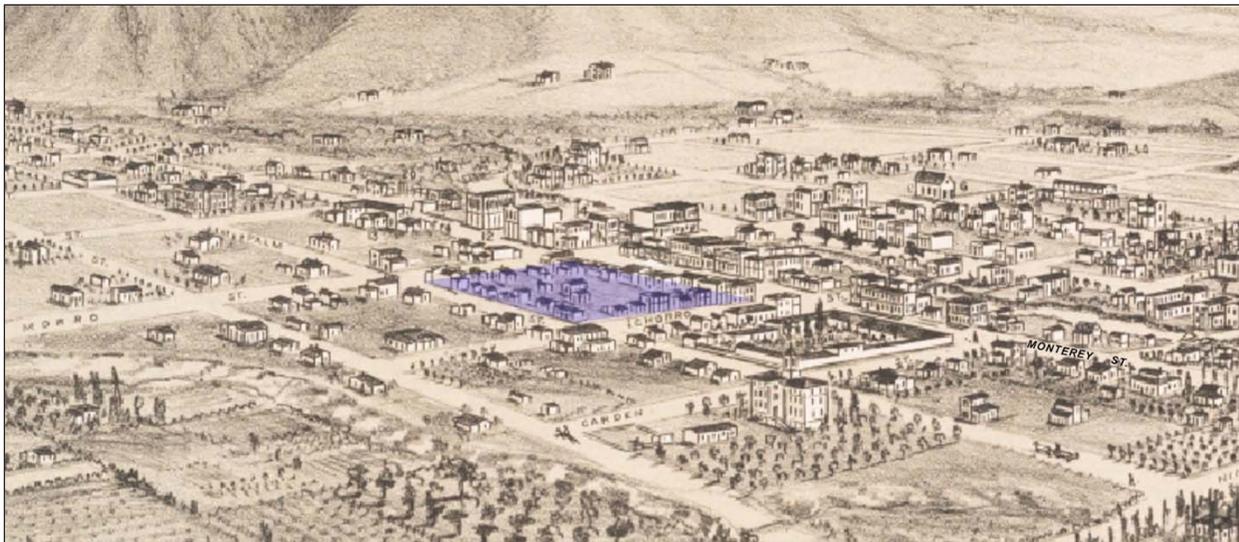


Figure 4-3 Bird's-eye view of San Luis Obispo in 1877, with current project area highlighted (Glover 1877).

4.3 INDUSTRIAL AND COMMERCIAL GROWTH

In 1900, Monterey Street was lined with a combination of old wood false-front buildings and boarded-over adobes with a scattering of stone and brick buildings. To meet the growing needs of horse-drawn traffic, the city began improving Marsh Street by grading the road and filling in low places with gravel. Some thought Marsh Street would become the center of the town and its main thoroughfare, but Monterey Street retained that honor (Curry 1968:18).

Several events spurred growth of the city in the early twentieth century. By 1901 the Pacific Coast Railway joined the mainline of the Southern Pacific that ran between San Francisco and points south (Krieger 1988a:72). The completion of a rail line allowed travel and shipment of goods to the south, offering greater opportunities for selling and buying commodities. The original California Polytechnic School, which grew into today's CalPoly State University, was established in 1903 to provide vocational education and was important to the development of the city. By this time San Luis Obispo had a population of 4,500, and the continued prosperity of the town can be seen in this 1910 postcard (Figure 4-4).

Shortly after the turn of the twentieth century, the automobile began replacing horse-drawn vehicles and the city was changing once again. The first state motorway through the county was open for travel in 1915, and San Luis Obispo was in a prime location for travelers to rest on the long trip between San Francisco and Los Angeles. Commercial ventures catering to travelers, such as motels, restaurants, and service stations, cropped up along Monterey Street. The corners

of Monterey, Santa Rosa, and Higuera Streets hosted gas stations and automobile sales and repair facilities. Paving of these streets in the 1920s aided this trend (City of San Luis Obispo 1983:22; Krieger 1988a; Palmer et al. 2001).

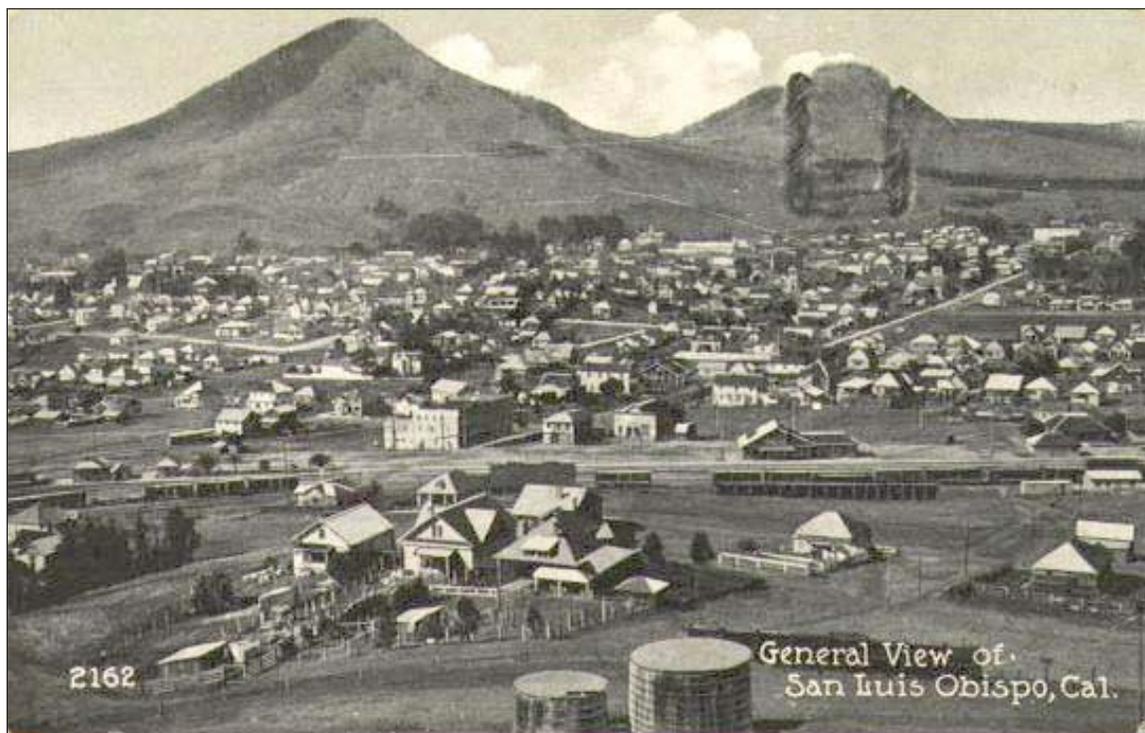


Figure 4-4 1910 postcard of the city of San Luis Obispo.

During the 1920s and 1930s, transportation-oriented businesses dominated the landscape around the Project area. Auto storage, greasing, gas, oil, refinishing, and painting businesses occupied buildings in the general area of the Project. Nearby, the Greyhound Bus Terminal and the Anderson Hotel added to the study area's transportation-related function and emphasized San Luis Obispo's role as a resting place for travelers passing through the region (Gebhard and Winter 1977:589; Palmer et al. 2001). As civic buildings were erected (such as the courthouse, the San Luis Obispo Public Works Department, the City Development Department, and City Hall), vacant lots on Monterey, Chorro, Palm, and Morro streets were converted to parking, and development in this portion of the city was minimized.

4.4 DEVELOPMENT OF BLOCK 14 (327)

There are few drawings, maps, or photographs that reveal details of development of the land surrounding the mission between 1772 and 1850. There were likely many adobes built outside the mission that served the needs of the secular community. Articles and recollections by local residents indicate that mission buildings may have been located within or in near proximity to the Bello and Sauer lots.

A mission retrospective discusses the location of the Native American housing (Weber 1985:170–171). It describes two low rows of buildings along both sides of Chorro Street. One row of these dwellings formed the outer wall of the cemetery (which was located along the

eastern wall of the church). A simple adobe wall with a gateway to the cemetery connected this row of Native American houses with the vestibule, or portico, of the church building.

[The soap and tallow vats] seem to have stood in that row of adobe buildings that formerly lined the right, or north, side of what is now Chorro Street. At least Luis Moreno's father told him that when Francisco Estevan Quintana built the brick store for the Schwarz [*sic*] Brothers some "smelters" were uncovered along that line. They were located at that spot where the entrance to E. M. Payne's Plumbing Shop now is [Webb 1952:199–200].

The Schwartz brothers' store was located in the Quintana Building (adobe house/store) on the northeast corner of Monterey and Chorro streets. It later became the location of the Blackstone Hotel.

Adobes were present along Chorro Street as early as 1870, and many are purported to have remained in place until 1875. Land petition maps from that period illustrate that Leonardo Lopez's house and store, G. F. Sauer's adobe house and adjoining bakery, G. Deffner's home, and Estevan Quintana's adobe home and store were located on Chorro Street (see Figure 4-1). Similarly, the structures at the southwestern corner of Chorro and Monterey streets are irregularly aligned, and the street takes a distinct jog here despite a street grid laid out in the 1850s. This relationship can be viewed in the 1877 bird's-eye view provided above (see Figure 4-3). Some researchers have speculated that these structures, including the Sauer adobe, may have been constructed as early as 1820 as part of the mission outbuildings (Hamilton et al. 2014; Tritenbach 1989). The 1874 Sanborn map (Figure 4-5) shows the Sauer buildings at an odd angle to the street, possibly supporting the contention that they were built during the mission era or at least before Hunter laid out the street grid in 1850. Various property owners are known to have lived in Block 14 in the 1870s, including Leonardo Lopez, George F. Sauer, George Deffner, Estevan Quintana, H. W. Little, the Goldtree brothers, and S. B. Call (Figure 4-6).

By the 1870s, Monterey Street already boasted a number of commercial ventures anchored by the Quintana Building (general merchandise) at the northeast corner of Chorro and Monterey streets and the Call Building (jewelry) at the Morro corner. The Sauer/Little adobe sat mid-block. Residents could shop for meat, cigars, and general merchandise, visit one of two barber shops, fill prescriptions at the Eagle Pharmacy, enjoy a restaurant meal, or do banking. Buildings along Chorro Street were primarily of adobe construction. These structures housed the St. Charles Hotel, George F. Sauer's first grocery and liquor store, Deffner's saloon, a restaurant, and a lodging house. By this date, a number of buildings at the corner of Palm and Morro streets, one block to the north, were occupied by Chinese businesses. A large stable sat at the center of the block.

By 1886, commercial development boomed. The thriving Monterey Street area (Figure 4-7) was occupied by general stores, jewelers, tailors and milliners, cigar shops, saloons, restaurants, drug stores, and lodgings. The Sauer family had two enterprises in this area. The Sauer Bakery, now owned and run by the other members of the Sauer family, was moved between 1874 and 1886 from the original Chorro Street location to a new two-story building fronting on Monterey Street. The second story of this building, topped by a large cupola, was occupied by a photography studio. Sauer and Little ran the Crystal Palace Saloon in an adjacent building.

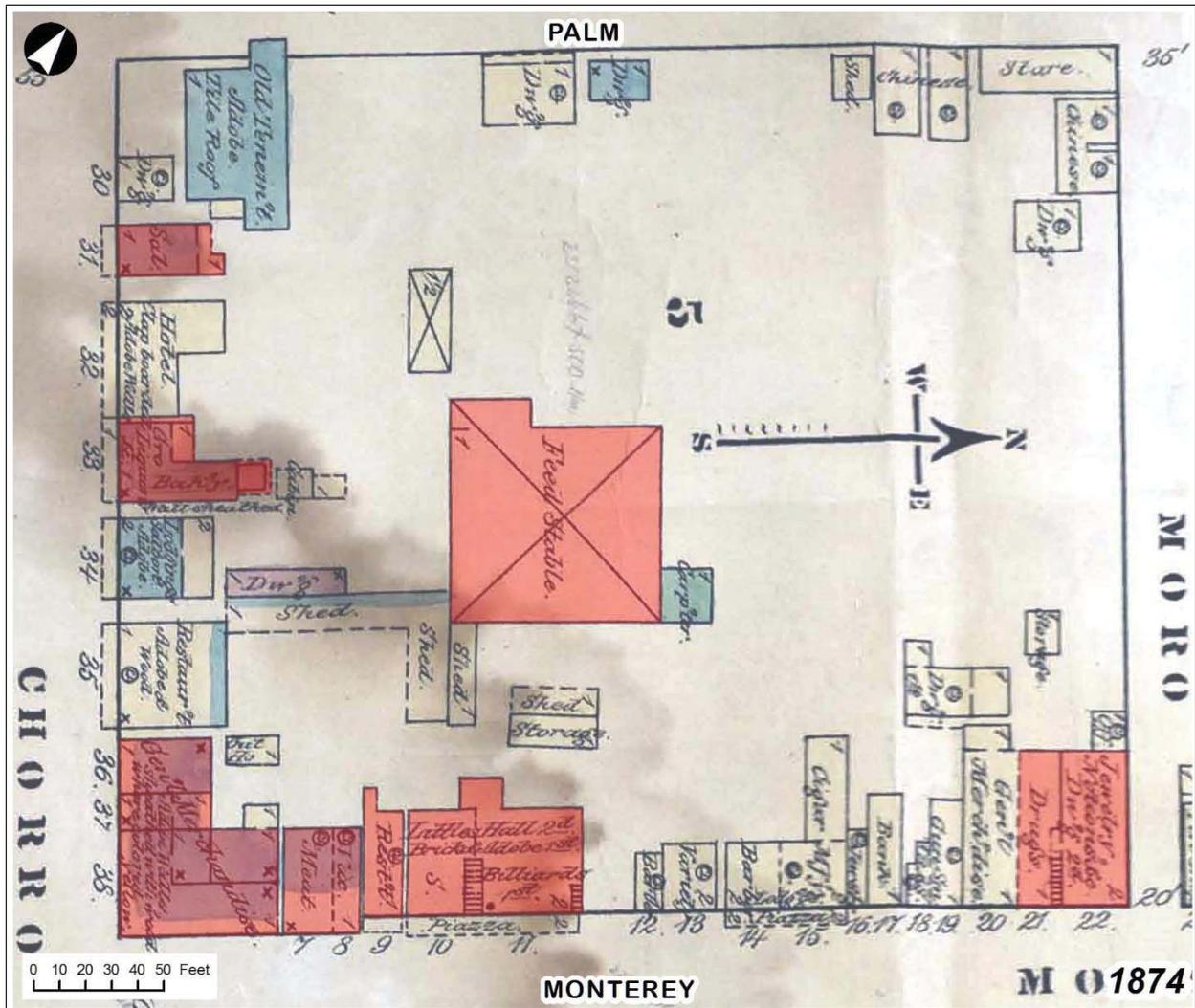


Figure 4-5 1874 Sanborn fire insurance map showing the Project area.

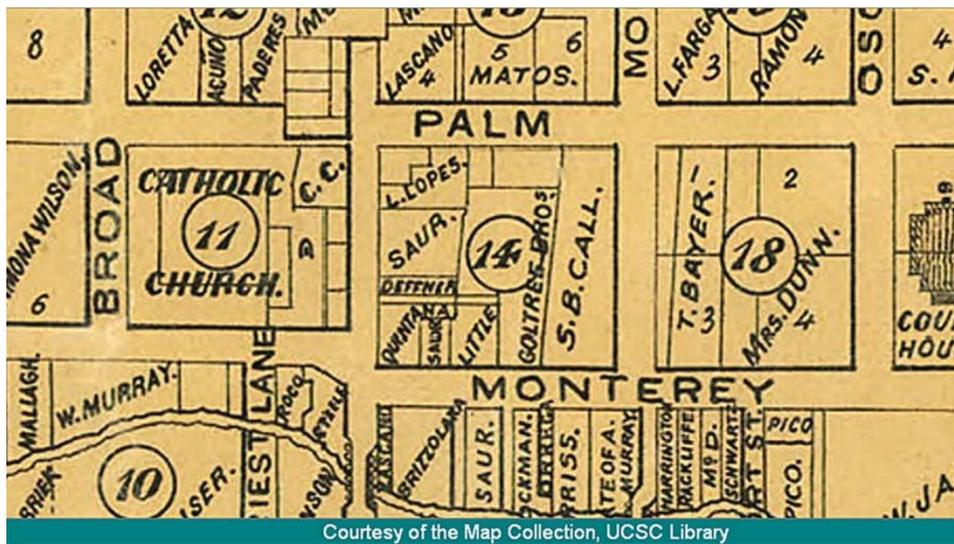


Figure 4-6 R. R. Harris' 1870 map, approved in 1878, showing the Project area.



Figure 4-7 View of Monterey Street in the 1880s (Robert E. Kennedy Library Special Collections, California Polytechnic State University, San Luis Obispo).

The Lytton Theatre, an early entertainment venue, occupied the second story of the Little and Sauer building. Quintana's new building, constructed in 1876, had already been altered with an eastern addition that housed a wholesale liquor store. Quintana operated a clothing store on the premises, and the building would later house the Donata, Righetti, and Codoni Department Store (Penn Franks 2004:37). To the west of this building was a new two-story structure housing the post office.

Many single-story adobes on Chorro Street were still extant in 1886. The triple-seater outhouse shown on the Sanborn fire insurance map behind George Deffner's saloon likely served as a community privy for the block (Figure 4-8). The large tenement on Lopez's property had been demolished, and a smaller dwelling with detached kitchen had been constructed on the lot. David Muzio opened a grocery store along Monterey Street in 1888. Chinese dwellings and shops stretched the entire length of Palm Street. A saloon and dance hall sat at the corner of Palm and Morro streets surrounded by "female boarding houses," a euphemism for houses of prostitution. The Fashion Livery and Feed stable building, accessed by a driveway to the east of the Little and Sauer building, stood old and dilapidated in the center of the block.

Few changes had occurred by 1888 (Figure 4-9). The most notable addition to the block was a bakehouse and oven behind the Sauer grocery store. The Lytton Theatre had closed and the Board of Trade took over the second story of the Little and Sauer building.

In 1891, the post office had moved to another location, and the original post office building was converted into a dwelling. The Salvation Army took over the old Board of Trade space (Figure 4-10). Many of the Monterey Street businesses remained. Additions were made to some of the boardinghouses at the corner of Palm and Morro streets. Chinese stores and residences of wood still lined Palm Street, and the Fashion Livery and Feed operated in the center of the block.

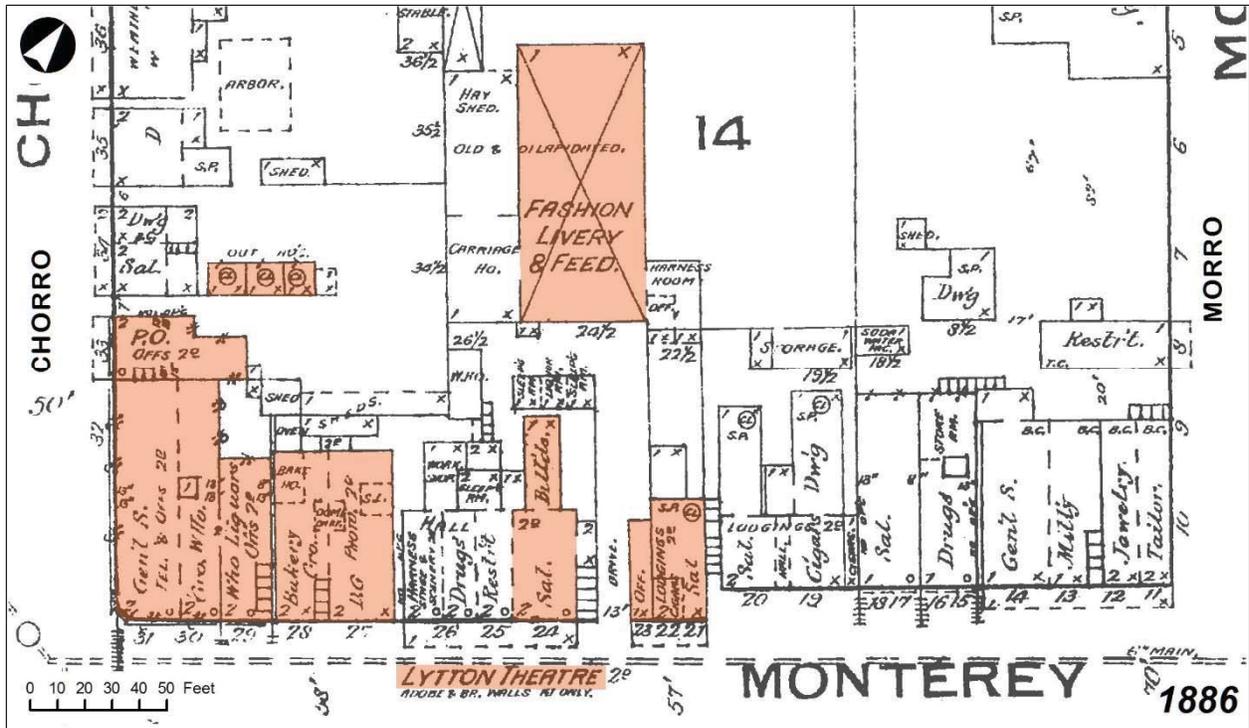


Figure 4-8 1886 Sanborn fire insurance map showing the Project area.

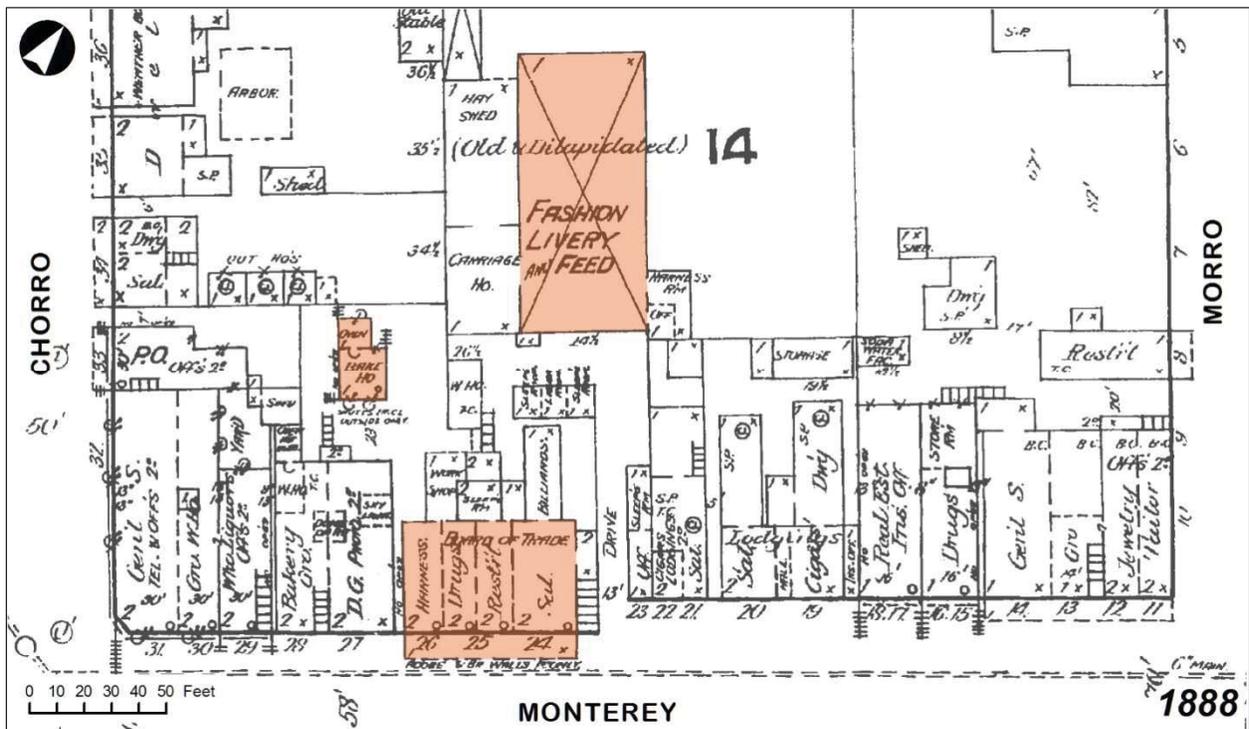


Figure 4-9 1888 Sanborn fire insurance map showing the Project area.

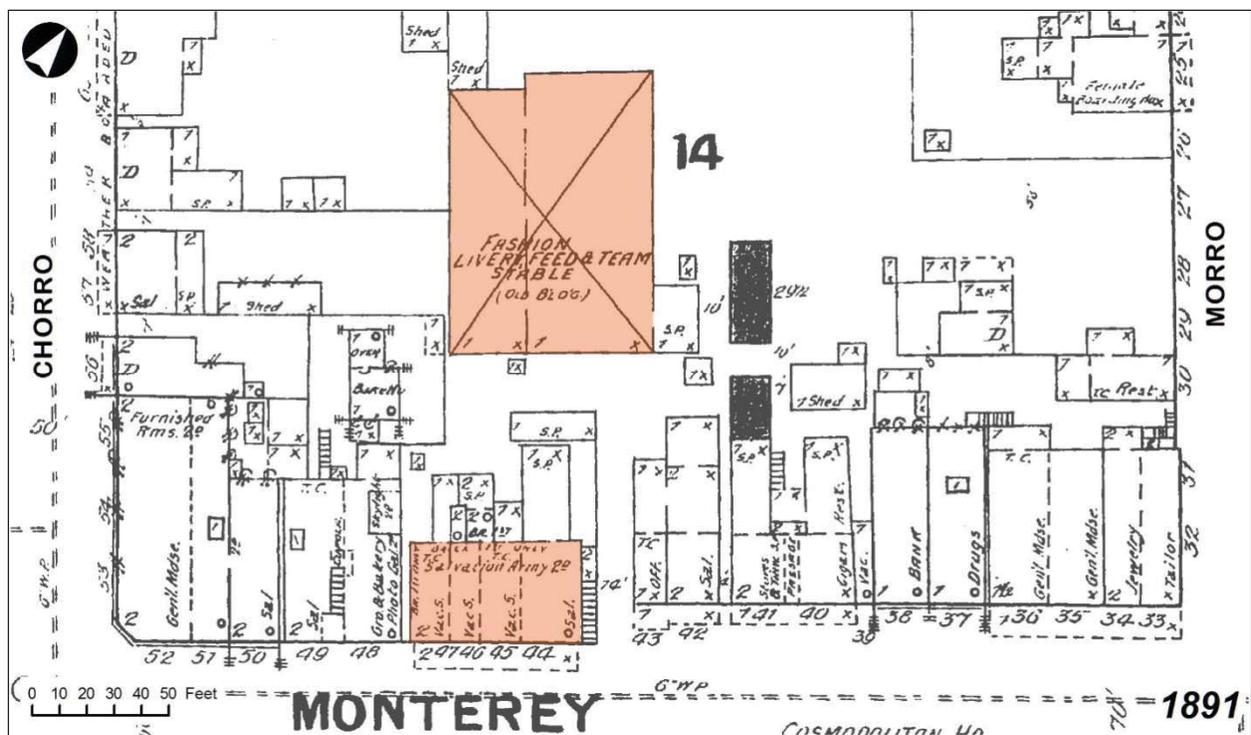


Figure 4-10 1891 Sanborn fire insurance map showing the Project area.

The 1903 Sanborn map (Figure 4-11) shows further changes. Almost all of the brothels had been demolished, although one remained on Morro Street. A new building that housed an agricultural implement shop, wagon storage, and a warehouse had been constructed just south of the one remaining brothel. The restaurant on Morro Street near the corner of Monterey had been demolished. J. L. Anderson opened a clothing store in the corner space of the Call Building. New shops included a piano store, also in the Call Building, and Chiesa’s French restaurant, called Maison Doree, in the Little and Sauer building. However, the most notable change was a large gap left by the fire that destroyed a Monterey Street building on the night of February 13, 1903. The origin of the fire, which started around 11:15 p.m., was unknown. The fire destroyed a two-and-a-half-story structure occupied by H. N. Hansen’s saloon, Mrs. Carlon’s restaurant and lodging house, A. W. Steinhart’s cigar store, and M. Marshall’s shoe shop.

The flames broke forth so suddenly that the 10 inmates were forced to flee for their lives with such scant garments as they could don while their rooms were filling with smoke. Kate Garcia, who had been confined to her bed for a month, was carried thru stifling smoke to a rooming house across the street by Ed Bean. John Barrett and a roommate waited to get their trunk out on the back porch and as a result had a narrow escape. They started down the back stairs but were driven back by smoke and flames and finally made their exit by the front stairway. The roomers in the house lost all their effects save what they wore when they made their hurried exit [*San Luis Obispo Tribune* 1903a:1].

The *San Luis Obispo Tribune* (1903a:1) reported that “the stock of D. Muzio in the building adjoining was badly damaged by smoke and water.” Two days later:

It was reported on good authority that Charles Erickson, owner of the Monterey Street property which was burned Friday night, will build two 100 feet brick store rooms on the lots thus vacated [*San Luis Obispo Tribune* 1903b:1].

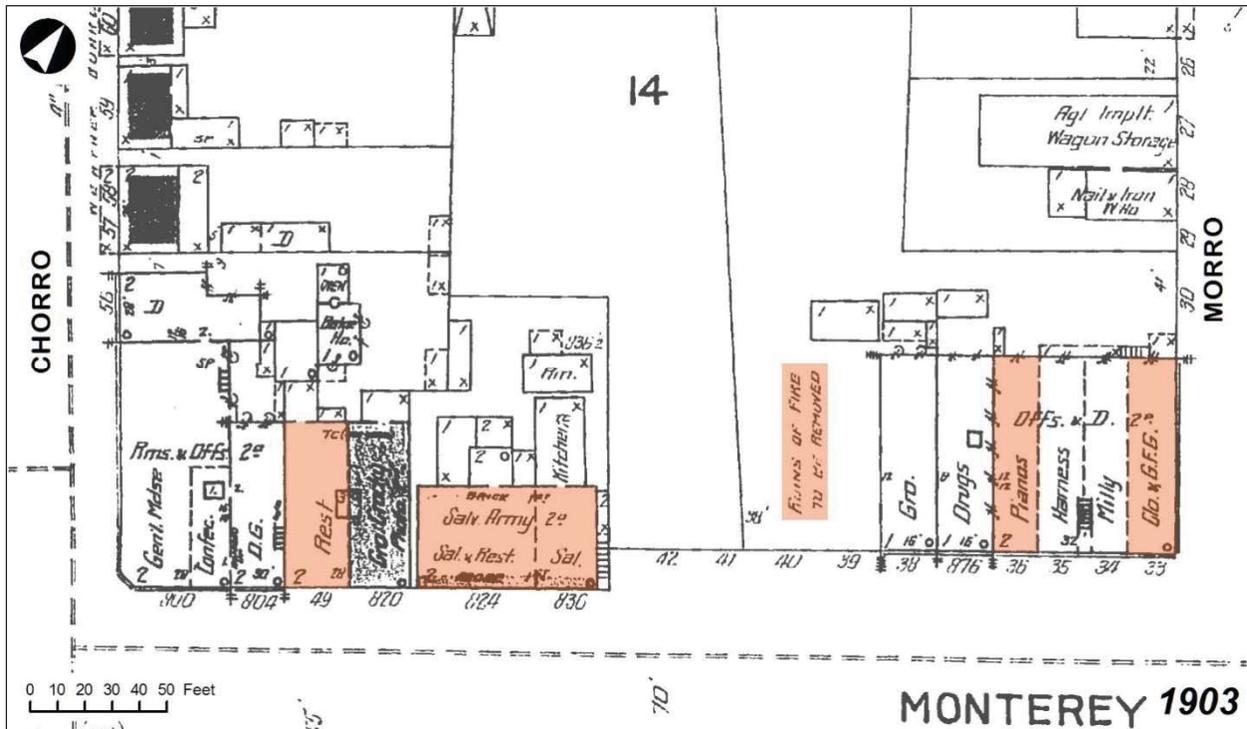


Figure 4-11 1903 Sanborn fire insurance map showing the Project area.

Despite this promise, little change is seen 2 years later when the Sanborn Map Company produced the 1905 fire insurance map of San Luis Obispo (Figure 4-12). Some development of the fire-scarred area of the block was beginning to occur, with the construction of a pool hall, a movie theatre, and two very small retail spaces.

Between 1909 and 1926 (Figure 4-13), many of the changes that occurred in the city were related to the increase in use and ownership of automobiles and the ease of travel. In the early 1910s, the City was wooing the state to route the new Highway 1 through San Luis Obispo. City leaders decided that Monterey Street would best serve that purpose, but a half block of buildings between Morro and Chorro streets on Monterey Street stood in the way. Constructed before the 1870s, these structures were built prior to set-back requirements and fronted the curb. To clear Monterey Street for the new state highway, these buildings had to be moved. After months of negotiations, the owners agreed to reestablish the building fronts 14 feet away from the street edge in return for compensation (*San Luis Obispo Tribune* 1912). By mid-1913, this work had been completed and Monterey Street stretched a full 70 feet from curb to curb.

Many auto-related businesses opened thereafter. Charles A. Maino converted the pool hall and movie theatre into an auto agency and garage (Figure 4-14) and sold many different types of cars, including Marmon, Locomobile, White, Hudson, Essex, Star, and Chandler (Maino 1990). Maino's property stretched to Palm Street, where there was another garage.

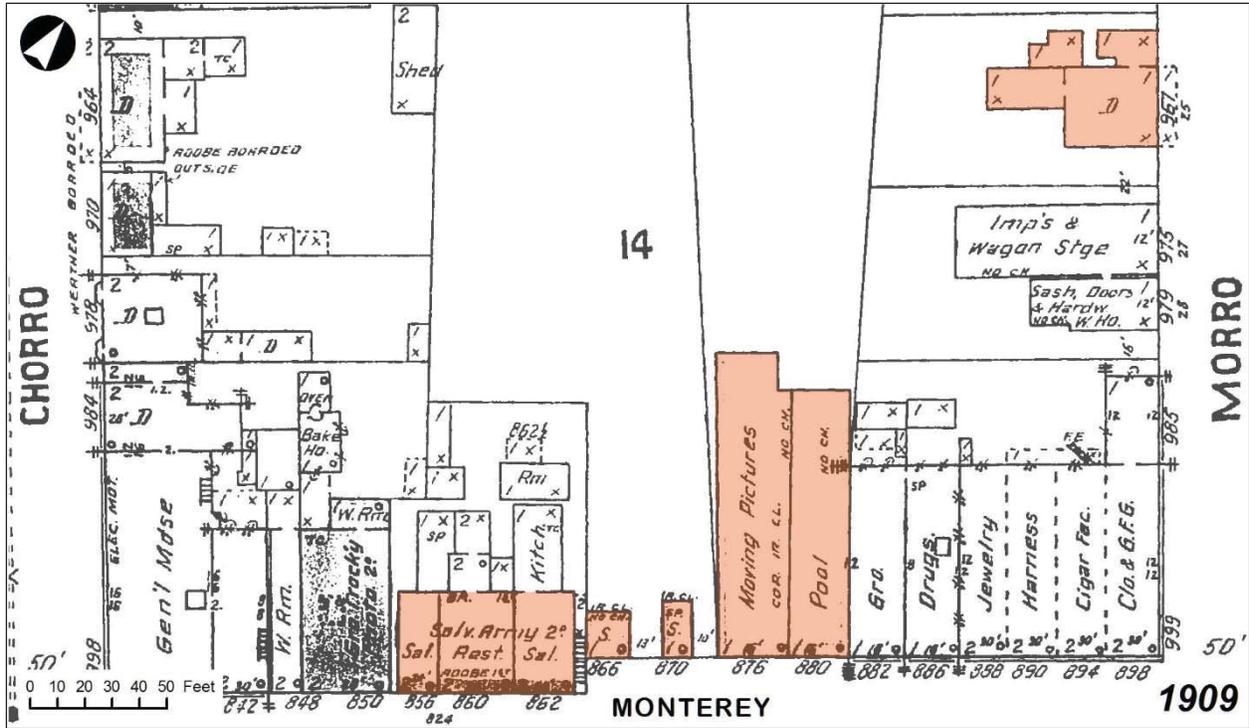


Figure 4-12 1909 Sanborn fire insurance map showing the Project area.

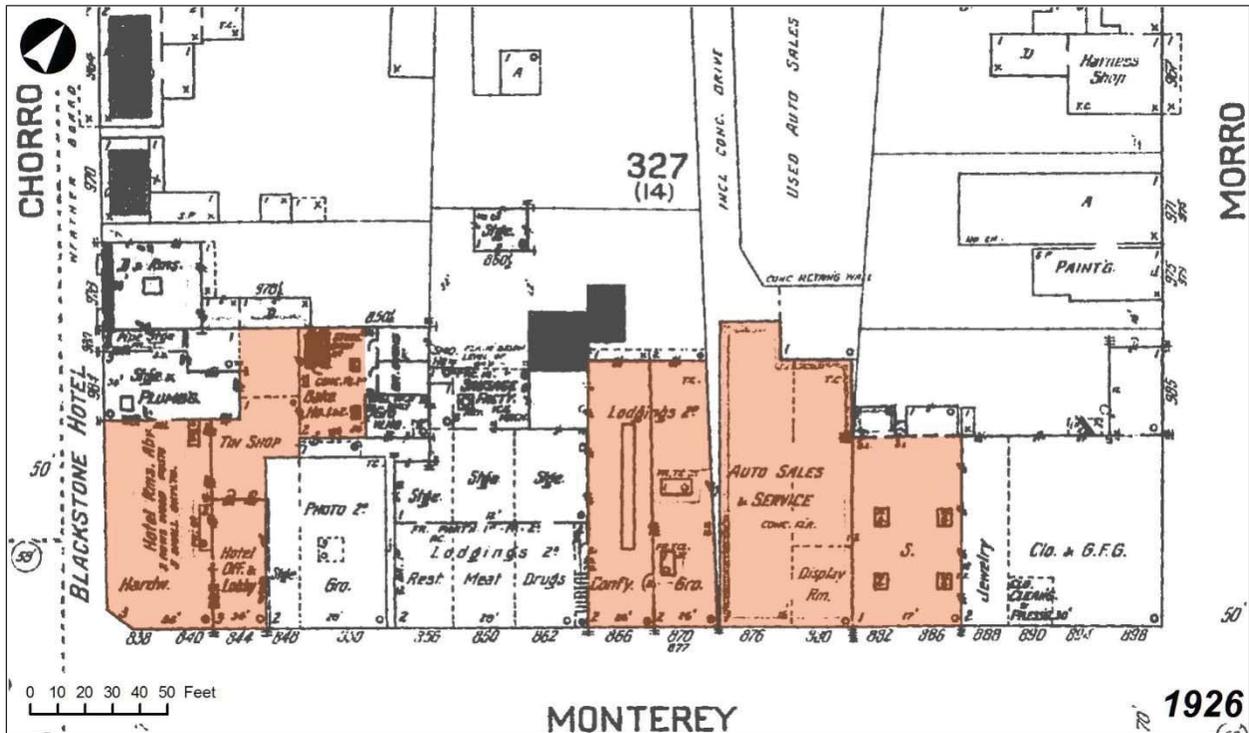


Figure 4-13 1926 Sanborn fire insurance map showing the Project area.



Figure 4-14 Monterey Street façade of Maino's Garage in 1929 (Maino 1990).

The Quintana Building was now referred to as the Blackstone Hotel. Newly remodeled in the nascent Streamline Moderne style, it housed E. M. Payne's plumbing store downstairs and hotel rooms upstairs. In 1912, Muzio and Fernando Chiesa formed a partnership to construct a new building, which currently stands at 868-870 Monterey Street. The building was designed by San Francisco architects Righetti and Headman (Penn Franks 2004:47, 48). By 1919, Chiesa had vacated his portion of the building and Lawrence Austin opened a confectionary shop there.

In keeping with San Francisco tradition, Austin's had both dark-grained mahogany paneled booths and small round tables with wire-looped "ice cream chairs". We all had watched Mr. and Mrs. Austin, helped by the Chong boy from Palm Street, dip and expertly swirl each candy. Elegant glass showcases displayed rocky road and chocolate creams on frilled white paper doilies [McKeen 1988:116].

The success of the Sauers' business is evidenced by the construction of a large new bakehouse with brick ovens built sometime between 1909 and 1926.

By 1950, the modernization of the city was very evident throughout the block. The last of the old Chinese stores were demolished to make way for county and state office buildings. The Quintana family sold the Blackstone Hotel to the Zegars. This trend of demolition and replacement continued in 1957 with the closing of many old businesses. The 1957 Sanborn map shows that Maino's buildings on Monterey and Palm streets had been demolished to make room for a city parking lot. Austin's Restaurant closed, and a paint and wallpaper shop took over the space. This was also the era when many businesses were established that were well known by San Luis Obispo residents in the second half of the twentieth century, including the Bello Building, Sno-White Creamery and Coffee Shop, the Pacific Gas and Electric Company office in the Call Building, and Bell's at the corner of Palm and Morro streets. Zegar's furniture store became the

Crocker-Anglo Bank before the entire Blackstone Hotel was purchased by Tom Coull. In the late 1960s, the old building between Muzio's grocery (later Moondoggies Beach Club) and Sauer's bakery was demolished to allow additional parking spaces in the City lot. With the exception of changing businesses, structures on the block remained relatively the same until current development.

4.5 LOT-SPECIFIC HISTORY ALONG MONTEREY STREET

Two parcels are of specific interest in their association with post-mission archaeological features identified during the current project: the Call Lot and the Sauer/Little Lot (see Figure 4-6).

4.5.1 Call Lot: Dwelling and Restaurant

Silas Buell Call appears to be the first owner of the Call Lot. Call, a New Hampshire native, was a saddler and harness maker (Paulson 1875:37).

Silas B. Call, arrived in SLO [in 1861] and established a harness business, which from a small beginning, gradually assumed substantial and permanent proportions. . . . He became the owner of several business houses on Monterey Street [Guinn 1902:47].

Call was elected to the Board of Town Trustees in 1867. On October 1, 1870, he petitioned for land along both sides of Morro Street between Monterey and Palm streets, and the deed was issued February 14, 1872 (Bertrando 1996:[II]2). The petition stated that the property had been settled since 1863. By 1870 he had \$12,000 in real estate assets and \$2,000 in personal property (U.S. Census Bureau 1870). In the spring of 1874, Silas and his wife built a "grand two-story residence at the corner of Higuera and Morro streets" (Krieger 1988b:1988b). This address, two blocks south of the Call Lot, later became 1104 Morro Street. After a protracted illness (Angel 1883:384) and "B'des [unknown abbreviation] of Kidneys" (U.S. Census Bureau 1880b), Silas Call died on May 26, 1880 at age 41. His second wife, Nancy Emeline Call, inherited his property. Mrs. Call is referred to in historic documents as Emeline or Mrs. N. E. Call (Krieger 1988b:19). As a native of Illinois, she reportedly settled in San Luis Obispo in 1866 (*Semi Weekly Breeze* 1905:1).

Mrs. Call inherits the estate of her husband, including the large stores on Monterey Street. Since his death she has erected a fine brick building where was formally a frame structure [Guinn 1902:47].

This brick building became known as the Call Building (Figure 4-15) and Emeline Call became a "real estate owner" (L. M. McKenney & Co. 1884:417). By 1886, a row of "female boardinghouses" occupied the northern half of the Call Lot, and a general store stood at the corner of Monterey and Morro streets. It is unclear if these buildings were constructed before or after Silas Call's death. However, by at least 1886, Emeline was renting the buildings to people who were carrying out the business of prostitution. Further discussion of Emeline Call and these "houses of ill repute" can be found in *The Copelands Project: Neophytes, Shopkeepers, and the Soiled Doves of San Luis Obispo* (Nettles 2006). Emeline Call died in 1905, and the Call Lot remained in the Call family until the 1920s.

While ownership history of the Call Lot is clear, the occupation and use of the property is less definitive. The 1874 Sanborn fire insurance map depicts a roughly 40 by 20 foot "cloth lined"



Figure 4-15 Call Building from 1904 Souvenir Book (courtesy, History Center of San Luis Obispo County).

(walls were cloth over frame) dwelling and a 20 by 10 foot “storage” building at the rear of a general merchandise store situated at 20 Monterey Street (Figure 4-16). No other structures are depicted in the lot, and it seems unlikely that Silas Call and his wife occupied this makeshift building as a dwelling. His original harness shop was located at the northwest corner of Monterey and Morro streets, and a dwelling is depicted at the rear which seems a more likely residence for the family. Sometime between 1874 and 1886 the smaller dwelling was moved roughly 25 feet to the northwest and was improved as a one-story structure with shingle roof, stovepipe, and a shed (based on a comparison of Sanborn maps). In 1886 the address is given as 8½ Morro Street. A new structure occupied as a restaurant, with shingle roof and a terra-cotta chimney, is depicted at 8 Morro Street (Figure 4-17).

The 1880 census lists Morro Street addresses only as east or west of the street and provides no house numbers designation. It is not specified if this refers to the west side of the street or west of another street (i.e., Morro Street, west of Monterey Street, etc.). Enumeration includes two courtesans on West Morro Street, so the assumption is that this is the right section of the street as shown by the presence of female boardinghouses on Morro on the 1886 Sanborn

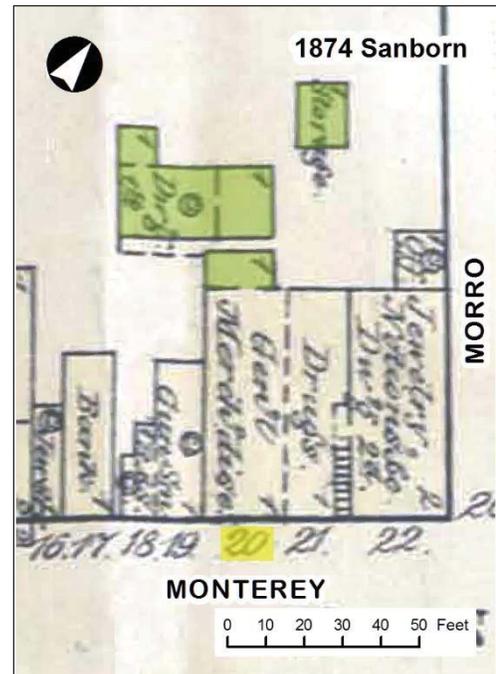


Figure 4-16 Dwelling and storage at 20 Monterey Street as depicted on the 1874 Sanborn fire insurance map.

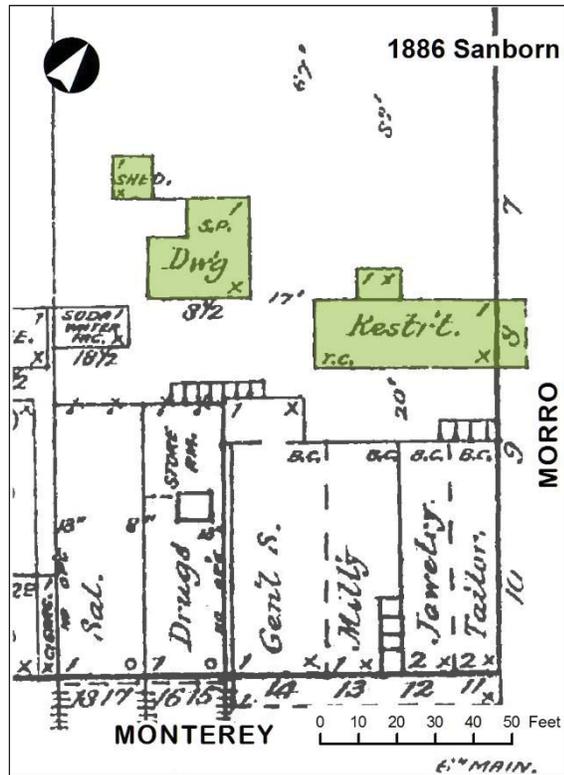


Figure 4-17 1886 Sanborn fire insurance map showing change and restaurant at 8 Monterey Street.

designated 30 Morro Street. By 1903 the dwelling and restaurant are gone and outbuildings for Monterey Street businesses are the only buildings remaining.

4.5.2 Eagle Pharmacy

The Call Lot also included the Eagle Pharmacy. The store was established in 1867 by Ernest Krebs, who in 1873 was advertising “Physicians Prescriptions Carefully Compounded” (*San Luis Obispo Tribune* 1873). The 1874 Sanborn map depicts a drugstore at 21 Monterey Street, and by 1886 there is a drugstore at 15/16 Monterey Street (Figures 4-19 and 4-20). The location is different and it seems likely that the drugstore moved into a newer building in the 1880s.

In 1878 Alfred Booth came to San Luis Obispo and bought the Eagle Drug Store. The store was then operated by Booth and Benjamin Latimer (Morrison and Haydon 1917:668). By 1891 the address had changed to changed to 37 Monterey Street (but the

map. Other 1880 census entries for Morro Street include Andus Galindo, 50, Mexican, restaurant keeper; Querina Romero, 47, Mexican, cook; Matilda Romero, 30, wife, housekeeper, born California; and Felipe Garcia, 58, Mexican, waiter. These individuals are listed as living at the same residence on west Morro Street. Also enumerated are Francisco Herrera, 54, Mexican, restaurant keeper; Silferenina, wife, boarders and families; and Chinese servant/cook, totaling 15 people at the same residence (U.S. Census Bureau 1880a). These entries may refer to the restaurant located at 8 Morro Street. An 1882 *San Luis Obispo Tribune* advertisement offers another possibility (Figure 4-18).

Only two restaurants are depicted on the 1886 and 1888 Sanborn maps on Morro Street between Palm and Monterey streets. By 1891 the number and configuration of outbuildings associated with the dwelling (now 29 Morro Street), has changed; the former shed has been replaced by another building. The restaurant appears the same as on the 1888 Sanborn map but is now

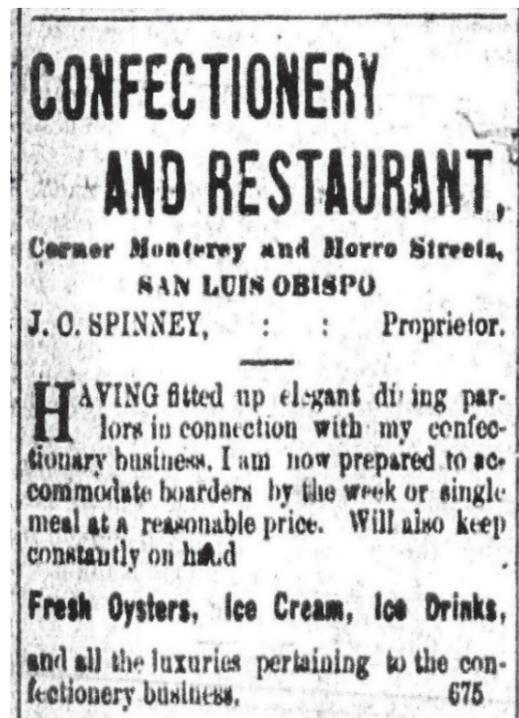


Figure 4-18 An 1882 Monterey Street restaurant advertisement (*San Luis Obispo Tribune* 1882).

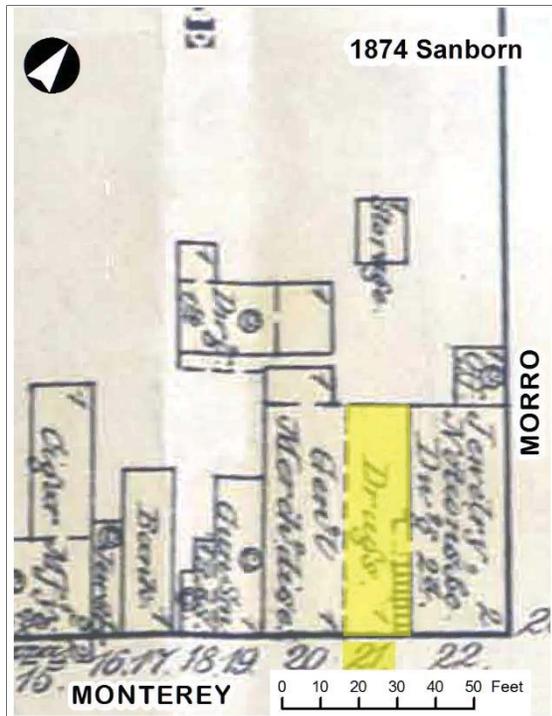


Figure 4-19 Eagle Drug Store as depicted on the Sanborn 1874 fire insurance map.

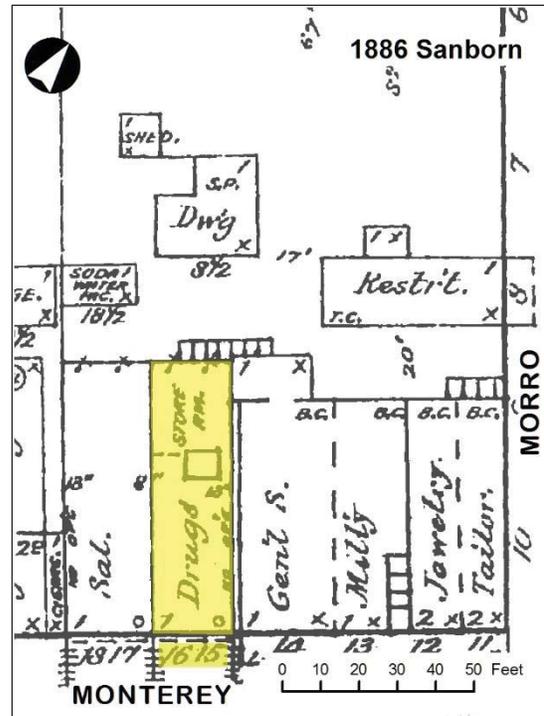


Figure 4-20 Eagle Drug Store as depicted on the 1886 Sanborn fire insurance map.

location remained the same). The *Tribune* carried this advertisement (Figure 4-21).

A. R. Booth was “a senior partner in the proprietorship of two drug stores, one at San Luis Obispo and the other at El Paso de Robles. Booth and Latner [*sic*] have a fine drug store at the former place” (Storke 1891:347–348).

The 1900 census lists “Benjamin Latimer, druggist, born Maryland October 1851, age 48, Helen, wife 35, adopted son William, parents German, age 16, druggist.” Sometime before 1904, Latimer became sole proprietor of the drugstore, which had moved to 886 Monterey Street, and the family resided at 642 Monterey Street. Booth Drugs remained in business until 1922 when Matthews and Carpenter, who took over stores

in San Luis Obispo, Santa Maria and Lompoc, have purchased the pharmacy of B. G. Latimer, in the first named place”. The sale was made by B. G. Latimer, the former owner who several years ago succeeded A. G. Booth as proprietor. The store for many years was conducted under the name of the Eagle Pharmacy and was established in the seventies [*sic*] by the late Ernest Krebs [Henry 1922:430].

By 1926 the drug store was no longer in operation.



Figure 4-21 Eagle Drug Store advertisement (*San Luis Obispo Tribune* 1873).

4.5.3 Sauer/Little Lot

As early as 1870 the land petition map depicts an “Adobe House,” fronting Monterey Street, ascribed to “Sauer and Little.” It is described as a frame structure situated at the rear (see Figures 4-1 and 4-5). By 1874, the Harris survey map depicts the area as owned by “Little.” The 1874 Sanborn map describes the structure at 10/11 Monterey Street as a brick and adobe building (Figure 4-22). A billiard parlor was on the first floor and the Little Hall was on the second. A store occupied 10 Monterey Street, and a piazza extended out into Monterey Street on both stories.

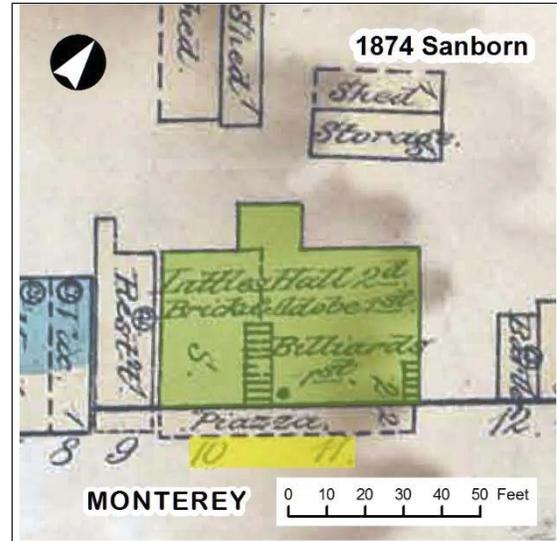


Figure 4-22 1874 Sanborn fire insurance map showing 10/11 Monterey Street.

Henry William Little was born in Ohio in 1837 and is listed in various records as “Hotel Keeper” (Great Register of Voters 1867), “saloon keeper” (U.S. Census Bureau 1870), and “Inn Keeper” (Great Register of Voters 1871). At that date his real estate was valued at \$5,240, and his personal estate at \$1,500 (U.S. Census Bureau 1870).

George Frederick Sauer, Little’s partner, was born in Bavaria, Germany, in 1836.

He spent his boyhood and was educated at his home. In 1856 he came to New York City, remaining there for two years. In 1858 he journeyed to California, coming to San Luis Obispo. It was here that he met his future wife, and was married April 23 1862. Four children were the result of this union, two of whom are now living, a son and daughter. Mr. Sauer was engaged in the bakery and grocery business, and made San Luis Obispo his home until his death occurred July 31, 1873. He served as city Treasurer during the years 1865 and 1866. The subject of this sketch was a man of the strictest integrity and. As the proprietor of one of the earliest places of business in the city, occupies an important position in its history [Storke 1891:668].

In 1873 Sauer and Little operated the “Palm Billiard,” a saloon in the Monterey Street adobe (Figure 4-23), where they intended “to spare no expense in giving satisfaction to their customers.”

The 1874–1875 tax assessment files (at SLOCGS) shows that Sauer and Little owned a lot in the Mission Gardens area and the estate records of G. F. Sauer (deceased in 1873) stated he held lots in San Luis



Figure 4-23 Palm Billiard advertisement.

Obispo on Monterey Street and a lot on Chorro Street. Paulson's (1875) directory lists H. W. Little Saloon and Hall on Monterey Street and Little and Cochran Saloon and Hall on Monterey Street, presumably the same establishment.

At least by 1881 the Little Hall became the Lytton Theatre. No Lytton was found listed in any city directories for that time. The similarity between the names Little and Lytton is, however, noteworthy, and a William Lytton may have been connected with the Salvation Army, which occupied the building by 1886 (see below).

Henry Little was not found in any records after 1879. Yet, the theater was available for rent and could furnish "Full Brass and String Bands, for Parades, Funerals, Picnics, Balls, Parties, and Serenades etc." in 1881 (*San Luis Obispo Tribune* 1881b; Figure 4-24).

LYTTON THEATRE.

This new Theatre is now open for engagements. The hall is large and well ventilated, with

Ample Stage Room

The Theatre will be let on reasonable terms for theatrical entertainments, concerts, balls, festivals, etc.

Call on or address
CHAS. TAUBERT,
 San Luis Obispo,
 Cal.

**S. L. P. M. A.
 Cornet Band.**

The S. L. P. Musical Association will furnish
FULL BRASS
 --AND--
String Bands.

For Parades, Funerals, Picnics, Balls, Parties, Serenades, etc.

The Cornet Band have lately received new and beautiful uniforms, and is one of

The Best Bands
 In Southern California.

MONTEREY STREET, SAN LUIS OBISPO, CAL.

Figure 4-24 Lytton Theatre advertisement.

In 1883 Professor Hinton's Dancing School offered lessons in the hall on Tuesday and Friday evenings (*San Luis Obispo Tribune* 1883), and in 1884 the *Daily Alta California* advertised a boxing match to be held at the Lytton Theatre:

Grand sparring exhibition at Lytton Theatre, March 1st, between the following well-known boxers, in full ring costume. Jim Connelly, light-weight champion of Washington Territory. Dan Sieman, light-weight champion of Colorado. Martin Murphy, light-weight champion of Ireland. Tom Nolan, lightweight champion of the Pacific Coast. Jeff Gear of Stockton, and Billy Sullivan of San Luis Obispo. A host of local talent will appear. Grand wind-up between Sieman and Jim Connelly, making the most scientific exhibition ever given on the coast. To be followed by a grand ball. Jim Connolly is matched to fight Tom Manning of Los Angeles, who beat Billy Morgan for \$500 a side. Billy Jordan will act as master of ceremonies. General admission, \$1; ladies free [*Daily Alta California* 1884].

The 1886 Sanborn map depicts 24, 25, 26 (number change) on Monterey Street as:

1st Floor, Harness, Drugs, Restaurant and Saloon/Billiards. 2nd Floor, Lytton Theatre, Adobe and Brick walls 1st only. Hall, Stage and Scenery. Buildings at rear, Work Shop, Sleeping Rooms, Liquor Room, Warehouse.

The 1888 Sanborn map is largely the same as the 1886 iteration; however, the Lytton Theatre has been replaced by the Board of Trade (Figures 4-25 and 4-26). According to Ryan and Breschini (2010), “businessmen in San Luis Obispo formed a Board of Trade in 1886 to promote their town and offer inducements to the Southern Pacific to continue construction.”



Figure 4-25 Sauer/Little Lot shown on the 1886 Sanborn fire insurance map.

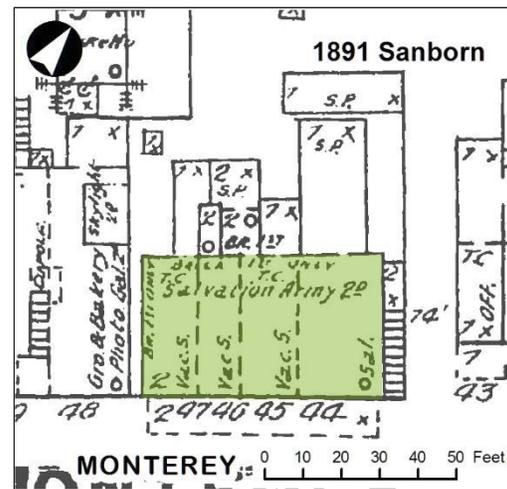


Figure 4-26 Sauer/Little Lot shown on the 1891 Sanborn fire insurance map.

By 1891 the street address for this building had changed from 44 to 47 Monterey Street and this brick structure (first floor only) was vacant. The first floor contained stores, and the Salvation Army occupied the second floor. The outbuildings are largely the same as on the 1888 map, but no specific use is attributed to them.

4.5.4 Salvation Army

In 1879, the first meeting of the Salvation Army in America was held in Philadelphia. By 1883 salvationists had expanded their operation into California (Salvation Army USA 2016). Sanborn fire insurance maps indicate Salvation Army use of the second story of the Monterey Street adobe. In 1886 the building is depicted as the Lytton Theatre.

The Salvation Army’s Lytton Springs rehabilitation center north of Healdsburg, California, was established in 1905. The original owner of the property, sea captain William Litton, built a plush resort hotel there in 1875. It was named after the mineral springs on the property, but a misspelling on maps later changed Litton’s name to “Lytton” (Mason 2016). The connection, if any, between the Lytton Theatre and the Salvation Army is unknown.

The *San Luis Obispo Tribune* includes articles referring to pie-eating contests and phonograph performances in the hall and this article, which refers to “barracks”:

About 7:30 when the Salvation Army appeared on the streets for their usual evening open meeting, they were compelled to meet in “joint session” with a whole raft of boys each one armed with a tin horn. For once, apparently, the Army had more recruits than it could take care of.

Acting Chief Ramon Carlon, of the Fire Department, issued an order early in the day that the fire bell should not be rung according to the usual custom. It was a wise move.

The Salvation Army held a special meeting at the barracks and watched the old year out and the new one in. The services were of unusual interest and many visited the barracks during the evening and for the nominal price of 15 cents, enjoyed the oyster supper. The Army knows how to make people happy and especially on New Year’s Eve [*San Luis Obispo Tribune* 1898].

According to notations on the Sanborn maps, the Salvation Army’s use of the building on Monterey Street began sometime after 1886 and before 1891. Sanborn maps show that its use of the building continued until at least 1909 but had ceased by 1926.

The 1903 and 1909 Sanborn maps both describe the first floor as adobe, and it remained extant until the Monterey Street widening project was completed in 1913 (Nettles and Price 2007:33). It was on these two lots that archaeologists exposed structural remains and historic pit features likely associated with these building.

RESULTS OF DATA RECOVERY INVESTIGATIONS

5.1 INTRODUCTION

The archaeological features identified during monitoring, exploratory excavations, and data recovery within the Project area included mission-era rock alignments, water conveyance features, a possible mission well/cistern, and Victorian-era privies and landscape features as well as mid-twentieth-century structural remains. AEC's archaeological excavations focused on two areas: the first included areas below the Bello Building (now demolished) and in the Bello Lot, which were designated TA-1 South and TA-1 North, respectively, and a second area located in the vacant lot between the Muzio and Blackstone buildings, herein referred to as the Sauer/Little Lot where the Sauer/Little adobe stood for many years (see Figure 2-1). The archaeological mitigation plan for the Project (Price 2014) called for the removal of fill in each area down to the historic surface. Fill was removed to a maximum depth of 8 feet from the front of the Sauer/Little Lot and less from the back of each lot. Archaeological remains found in each area are described in greater detail below. For the purposes of this discussion, it is assumed that Monterey Street runs generally east to west, while Morro and Chorro streets align with the grid north to south. Grid north is 37 degrees east of true north.

Mission-era and late nineteenth-century features were discovered in the northern portion of TA-1, including Cuts 7 and 8—two 1880s privies possibly associated with a local residence/restaurant (Figure 5-1). Cut 5 was historic sheet refuse associated with a nineteenth-century drugstore. A single layer of clam shell (Cut 3) was found above Cut 4, a north-south trending stone wall alignment dating to the mission era. A stone retaining wall bisects the lot east to west behind the recently demolished Bello Building. A concentration of cobbles and other construction debris was found in the southwest corner of the Bello Lot along Monterey Street (TA-1 South). Likely this building rubble relates to mission-era construction and represents material stockpiled for further construction, a pattern observed at other mission-era sites (Figure 5-2).

In TA-2, in the northern portion of the Sauer/Little Lot, late nineteenth to early twentieth-century sheet refuse covered much of the back lot (Figure 5-3). This appears to be a midden associated with a kitchen behind a saloon located at 44 Monterey Street. Structural features were exposed in both portions of TA-2, some of which were determined to be portions of foundations built during mission times. At least one of these foundations was improved upon later, extending its use through the 1870s and beyond. What appears to be an abandoned well or cistern was found in TA-2 South with associated cobble floors/partitions and an arched walkway (Figure 5-4). Exploratory excavations revealed mission-era midden in TA-2 North, which accumulated along two parallel cobble walls built during mission times. These walls appear to be water conveyance features that funneled water from a reservoir to the north, through the Yung Lot, and south to the possible well and beyond. At least two distinct building episodes were represented within these walls.

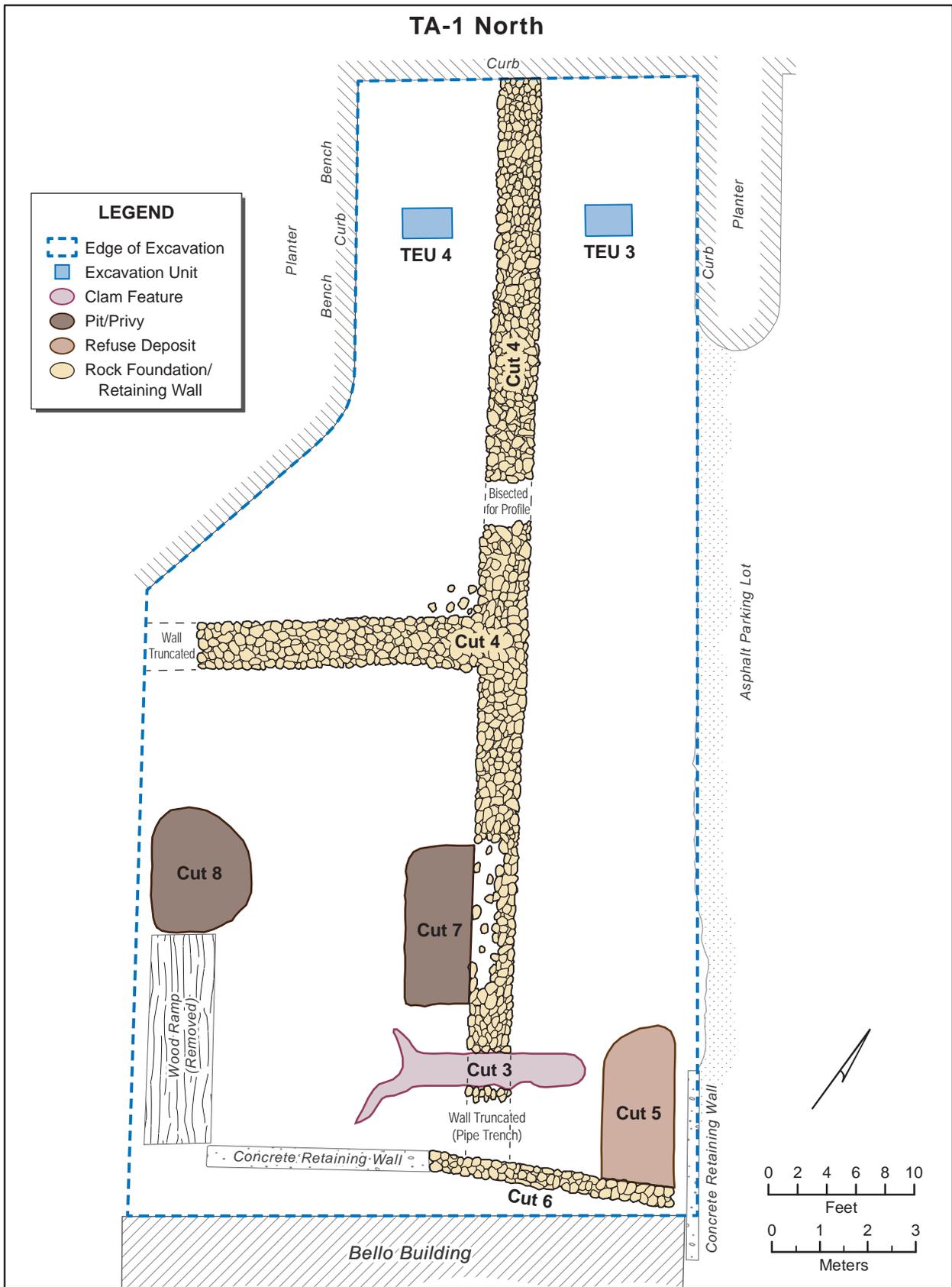


Figure 5-1 TA-1 North excavations.

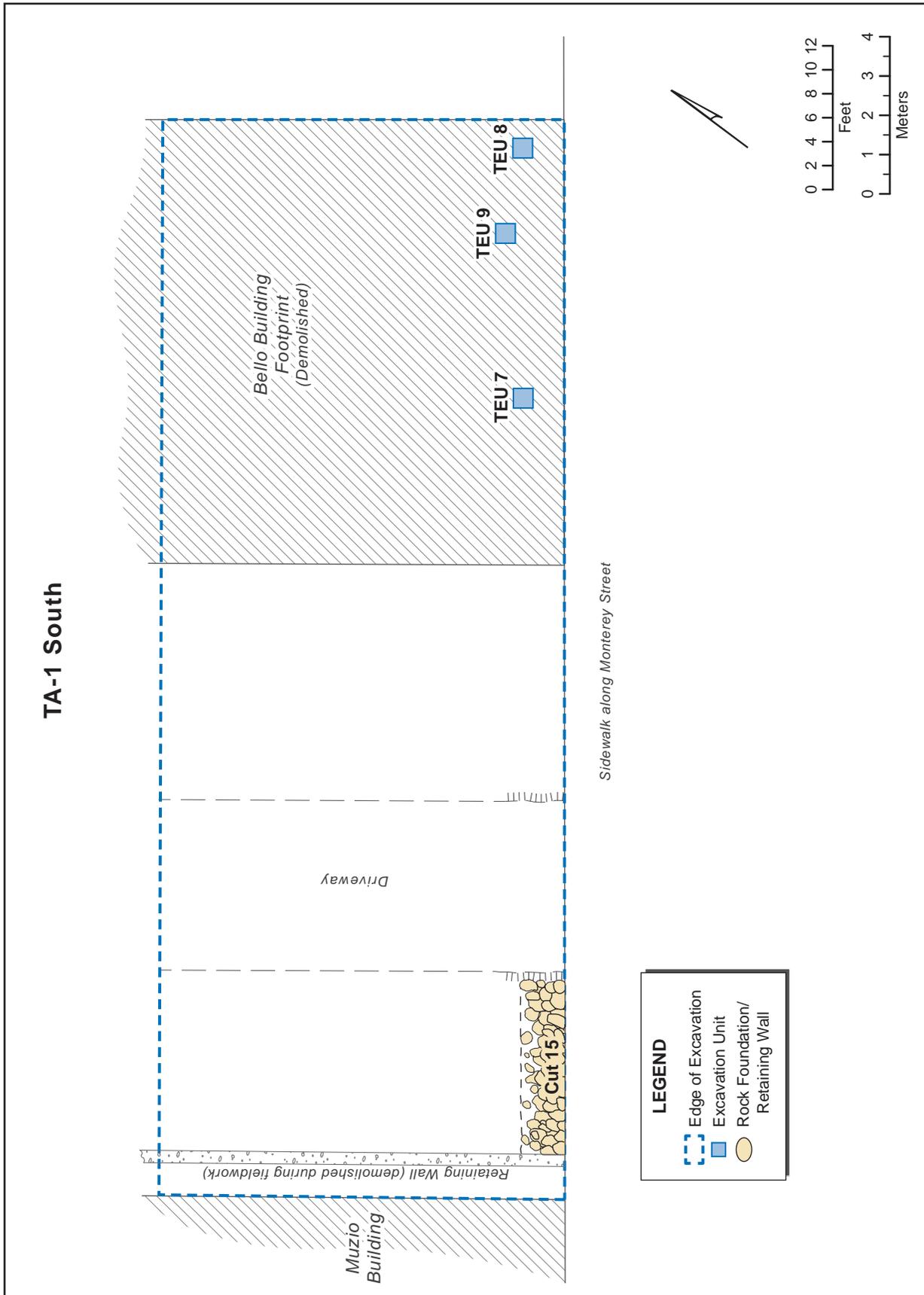


Figure 5-2 TA-1 South excavations.

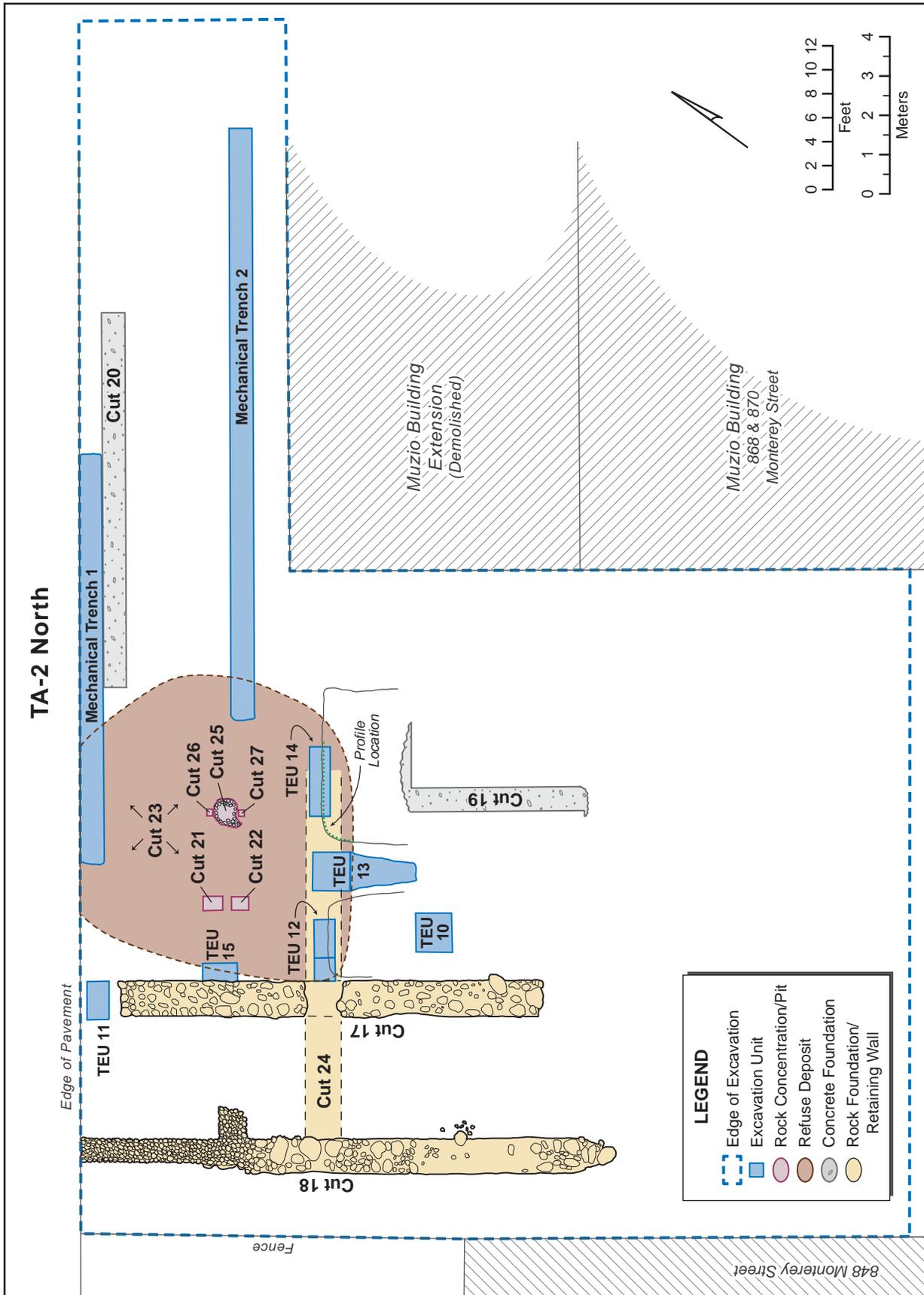


Figure 5-3 TA-2 North excavations.

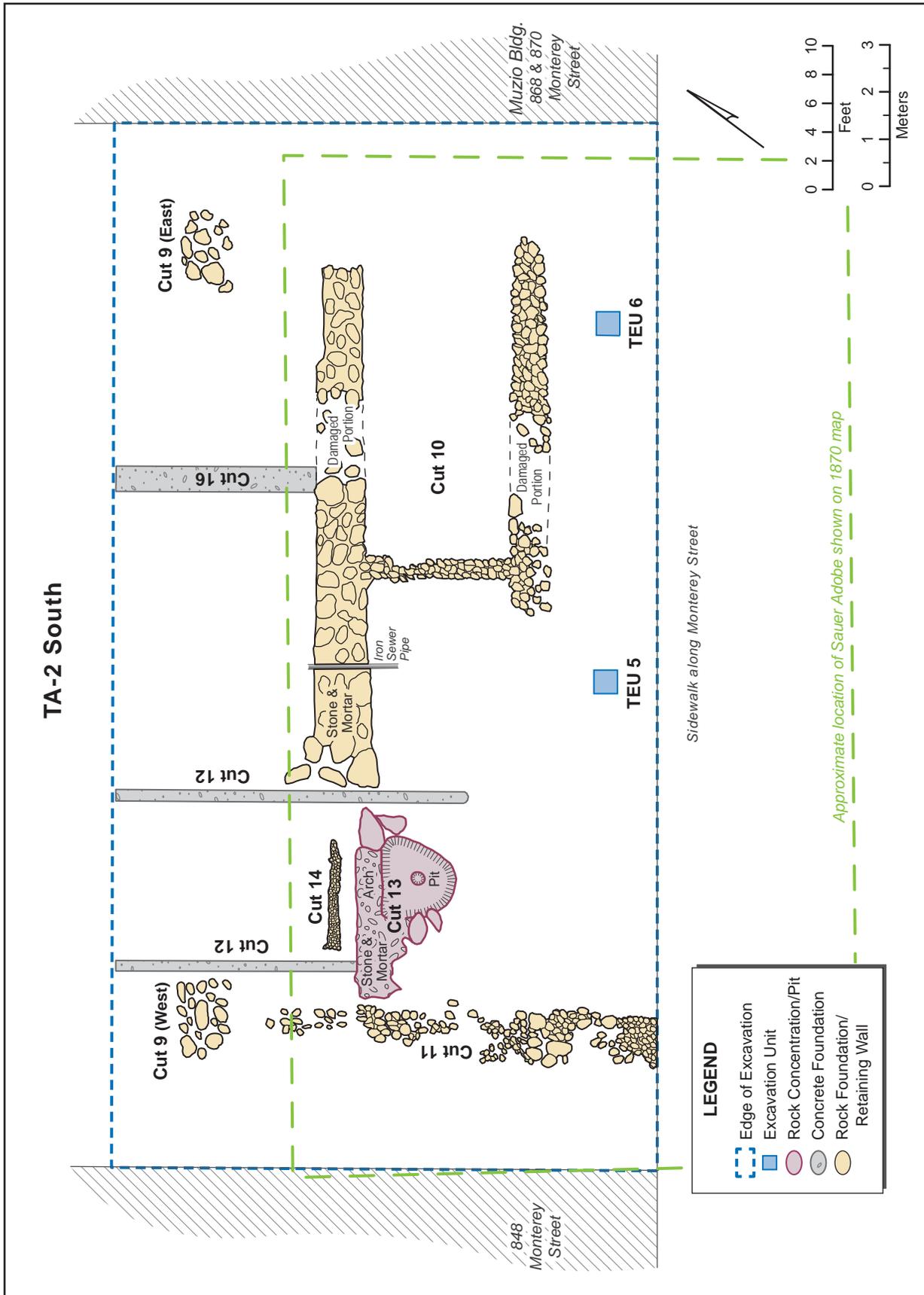


Figure 5-4 TA-2 South excavations.

Table 5-1 summarizes the features discovered during this effort. Twelve of these cuts were determined to be historically significant according to the QVIA values outlined in Section 2.2.1.

**Table 5-1
Archaeological Features Identified during the Monterey Street In-Fill Project**

Area	Cut	Feature Type	Dimensions	Date/Association	Evaluation
TA-1 North	3	Shell feature	16 x 2 ft	Nineteenth-century dwelling and restaurant	Significant
TA-1 North	4	Rock foundation	95 x 3 ft; 30 x 30 ft	Mission-era	Significant
TA-1 North	5	Sheet refuse	4 ft x 3 ft x 6 in.	Late 1800s and early 1900s	Significant
TA-1 North	6	Rock retaining wall	15 x 6 ft	Mid-to-late 1800s/post mission-era	Significant
TA-1 North	7	Privy	11 x 4 x 4 ft	1886	Significant
TA-1 North	8	Privy	11 x 4 x 4 ft	1880	Significant
TA-1 South	15	Broken rock debris	15 x ?	1800s and 1900s	Not Significant
TA-2 South	9	Rock alignment	3 ft wide	Mid-1800s	Significant
TA-2 South	10	Rock foundation	37 x 3.5 ft E-W, 13 ft N-S, 33 ft x 30 in. E-W	Mission/mid-1800s addition	Significant
TA-2 South	11	Rock alignment	21 x 2.5 ft?	Mission-era	Significant
TA-2 South	12	Concrete wall		Post-1950 lot development	Not Significant
TA-2 South	13	Well/cistern	4 ft (dia.) x 10 ft	Mission well/cistern	Significant
TA-2 South	14	Rock alignment		Mission-era	Significant
TA-2 South	16	Concrete wall		Post-1950 lot development	Not Significant
TA-2 North	17	Rock foundation	40 x 3 ft; 3 ft tall	Mission-era	Significant
TA-2 North	18	Rock foundation	45 x 3 ft	Mission-era	Significant
TA-2 North	19	Concrete wall		Post-1950 lot development	Not Significant
TA-2 North	20	Concrete wall		Post-1950 lot development	Not Significant
TA-2 North	21, 22, 23	Historic sheet refuse		Early 1900s	Significant
TA-2 North	24	Rock foundation	35 x 3 ft	Mission-era	Significant
TA-2 North	25	Circular rock feature		Mission-era	Significant
TA-2 North	26, 27	Post hole		Associated with Cut 5 (mission-era)	Significant

Each significant feature/cut is discussed by type below, as is the mission-era midden and twentieth-century kitchen midden. Sections of twentieth-century formed concrete footings/walls exposed in TA-2 North and South are not considered archaeologically significant. The walls appear to be associated with post-1950 development and are not discussed further. Exploratory TEUs that did not contain significant deposits likewise are not discussed further. Significant discoveries from each area of the Project site provide insight into the use of those portions of the lots along Monterey Street beginning in mission times and continuing through the early twentieth century.

5.2 BELLO LOT (TA-1 NORTH)

5.2.1 Cut 7: Privy

Cut 7 represents an unlined privy pit roughly rectangular in shape. The pit measured 11 feet north-south by 4 feet east-west with a depth of 4 feet (3.3 by 1.2 by 1.2 meters). The pit was dug next to a disturbed portion of a north-south stone wall alignment that appears to date to mission times. The upper portion of the privy (approximately 2.5 feet) was packed with eastern oyster (*Crassostrea virginica*) shells. What limited sediments were present around the shell consisted of gray clay with inclusions of charcoal and ash. Due to the large amount and density of the shell, excavators removed only a portion (25 percent) of Cut 7 manually. During this recovery few artifacts were encountered and excavation of the pit was temporarily suspended due to the lack of significant data being recovered (specifically quantity and variety of artifacts). As time allowed, the rest of the cut was mechanically excavated and artifacts were collected from the feature fill. An area for placement of the fill was prepared to assure that contamination of the fill did not occur. The pit was bisected and fill was removed in shallow lifts. A monitor was assigned to observe the removal of fill and collect artifacts from the back dirt pile. Collection was intensive, although not all glass shards, bone, and shell fragments were collected. With the removal of the eastern half of the pit, the feature was inspected in cross section, and the profile was drawn and photographed before removal of the second half of the feature. Layers observed were numbered in the field as a means of horizontal and vertical control. Shell from the manually excavated section was placed in buckets, and an estimate of the total volume of shell removed from the privy was made after the completion of excavations. Further, a sample of the shell was collected for laboratory analysis.

Following cross-mending of artifacts between and among layers identified in the field, analysts consolidated layers into analytical Phases B and C. Layers 211 and 214 represent the abandonment and filling of the privy (Phase C). Beneath these two layers was Layer 215 (Phase B), which represents the period of privy use. Phase A represents the physical act of digging the privy pit itself (Figure 5-5).

5.2.1.1 Phase C

The uppermost deposits (Layer 211/214) contained a large volume of eastern oyster shell ($n = 1,4290+$) mixed with associated late nineteenth-century artifacts ($n = 918$; MNI = 252). The sheer volume of oyster shell argues for the cut's association with a nearby restaurant. Table 5-2 summarizes artifacts recovered by functional classification. Four categories represent the most dominant classes of materials: each accounts for at least 10 percent of the assemblage, and together they make up approximately 70 percent of the total collection. The monitoring archaeologist recovered most of these artifacts from beneath the shell layer (Figure 5-6).

Food preparation and consumption items recovered from Cut 7 represent an MNI of 26 ($n = 42$), which is 10 percent of the total collection from this phase. The ceramic assemblage was primarily composed of undecorated earthenware and ironstone, sometimes referred to as hotel ware. Ironstone and hotel wares tended to be very durable. They resist breakage and therefore were ideal for restaurant fare. Vessel forms represent hollowware (serving dishes), cups, saucers, bowls, and plates (MNI = 16). There also were sugar bowl fragments among the serving dishes

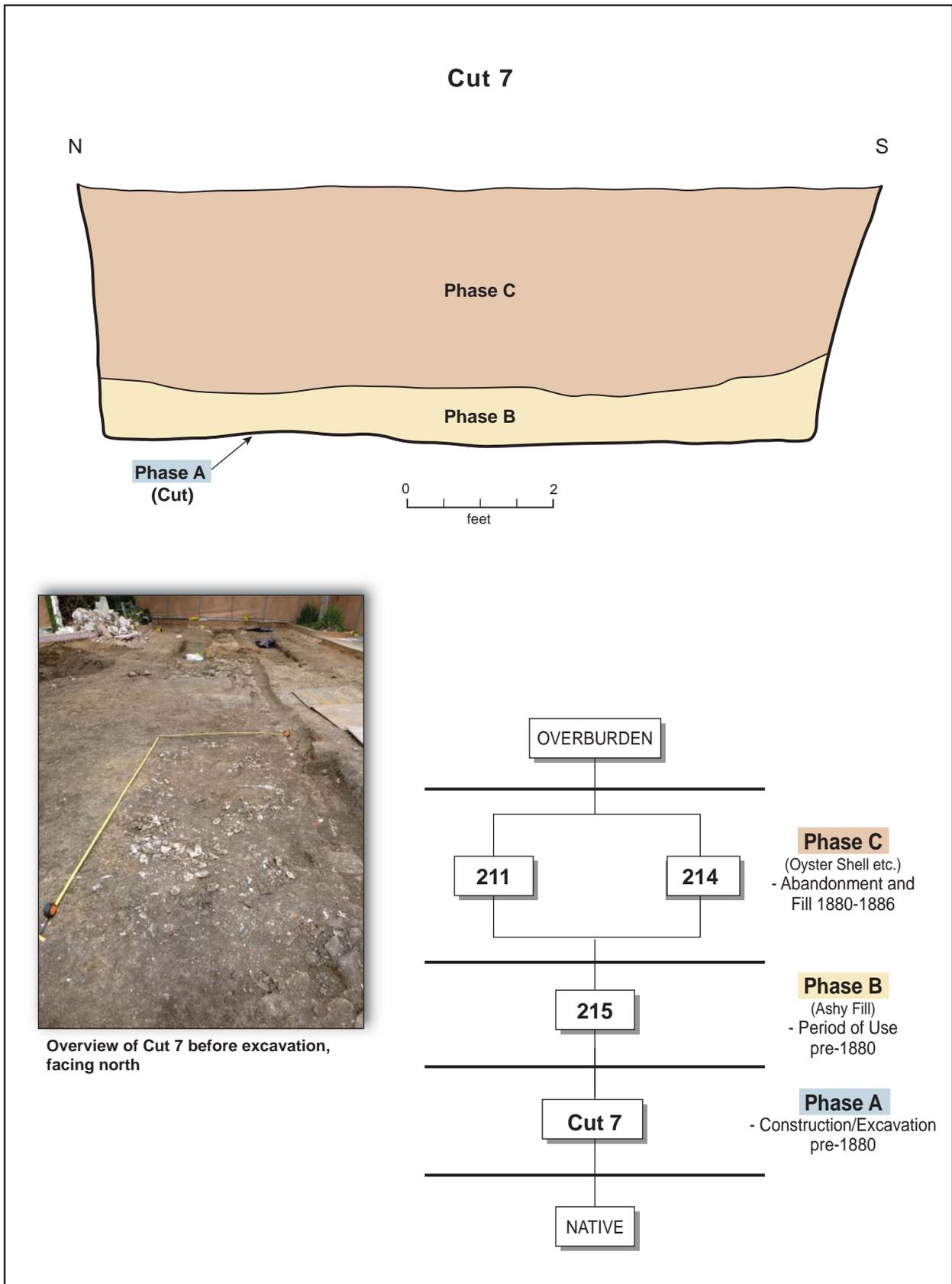


Figure 5-5 Cut 7 overview, profile, and Harris Matrix.

Table 5-2
Artifacts by Category from Phase C, Cut 7

Category	MNI	Percent
Communication	4	1.6
Farming /Gardening	1	0.4
Firearms	1	0.4
Transportation	1	0.4
Food Preparation/Consumption	26	10.3
Food Products/Packaging	39	15.5
Social Drugs	75	29.8
Accouterments	1	0.4
Grooming	8	3.2
Toys	1	0.4
Clothing/Footwear	6	2.4
Health/Medicine	34	13.5
Household Furnishing	7	2.8
Building Material	8	3.2
Misc. Bottle, Jar, Can	15	6.0
Misc. Metal Item	6	2.4
Nails	17	6.7
Undifferentiated	2	0.8
Total	252	100.0

and the rim of a pot. A single plate rim fragment with a peasant-style thick-line–thin-line painted motif and cut-sponged pattern dates to 1820–1840. Similarly, an annular-banded earthenware bowl or cup fragment is an equally early decorative style. These sherds represent ceramic styles dating to the mission era and likely were introduced from deposits disturbed when the privy pit was dug. A large broken stone bowl in the pit is a Native American ground stone artifact (see Figure 5-6). It was either found locally and reused or redeposited in the pit when it was dug. Clear glass stemware (MNI = 2) and tumbler fragments represent drinking vessels (MNI = 2) used by contributors to the privy.

Marked and datable items found in Cut 7 include a ceramic sugar bowl base manufactured by the Knowles, Taylor and Knowles Company, which operated out of East Liverpool, Ohio, and utilized this particular mark between circa 1880 and circa 1890. Charles Meakin Company of Staffordshire, England, manufactured the second marked sugar bowl fragment, which was produced between 1876 and 1889 (DeBolt 1994:70; Gibson 2011:107).

Food products and packaging artifacts (n = 81; MNI = 39, or 15.5 percent) included mainly condiment jars, such as a Gothic-style pickle bottle, olive oil bottles, and Lea & Perrins Worcestershire sauce bottles and bottle stoppers. The number of Worcestershire bottles present in the pit was notable. Excavators also recovered blob-top soda bottles, rounded bottom soda bottles, and stoneware mineral water bottles (n = 9) (Figure 5-7).

Leisure and recreation items comprise the single most abundant class of artifacts and show the importance of alcohol consumption and smoking to the patrons of establishments associated with Cut 7. Alcohol containers, with an MNI of 75 bottles, make up 30 percent) of the artifacts,



Figure 5-6 Artifacts from Cut 7.



Figure 5-7 Lea & Perrins Worcestershire sauce and other condiments bottles and jars from Cut 7.

second only to oyster shells. Clear, brown, aqua, and olive glass bottles as well as stoneware bottles and bottle fragments present once contained wine, champagne, whisky, beer, and ale (Figure 5-8). Fragments of three Duncan McDougall clay tobacco pipes represent imports from Glasgow, Scotland. Their manufacture dates to between 1846 and 1891. Manufacturers' marks and product labels found on a number of the bottles suggest alcohol was shipped in by rail from the east and arrived by steamer from San Francisco Bay (Appendix B).

The personal items recovered included clothing and footwear (n = 16; MNI = 6). Among those were worn leather shoes, a single metal button, and two shell buttons. Grooming articles include a perfume bottle, a white opaque glass cold cream jar, a bone hair brush, and a bottle of "Ayer's Hair Vigor" a popular hair-care product (Figure 5-9). Two sets of vulcanite rubber dentures were collected as well as fragments of a thermometer. The monitor recovered a chamber pot lid and fragments of a white opaque glass soap dish. The only toy/game piece found was a shooter-sized clay marble. Recovery of such artifacts would suggest that the privy had a domestic component in addition to its use for the disposal of kitchen waste.

Items in the health/medicine category were nearly as abundant as the alcohol containers with an MNI of 34 (n = 73). These containers represented apothecary/medicine bottles, some of which were embossed with the local Eagle Pharmacy drugstore brand. The Eagle Pharmacy (later Booth and Latimer's Pharmacy) was located nearby on Monterey Street.



Figure 5-8 Alcohol bottles recovered from Cut 7.



Figure 5-9 Ayer's Hair Vigor bottle with label.

Household furnishings included clock gears, opaque white lamp chimney glass shards, and lamp burner parts. Few artifacts that represented communication items were present in this layer, but it did include a green master ink bottle with a pouring spout for use in refilling smaller ink bottles. Two such smaller bottles were collected, including a small clear glass ink bottle and a single stoneware ink bottle fragment.

Additional items from this phase included a 10-gauge shotgun shell and miscellaneous building materials, such as pipe and tile fragments and cut and wire nails.

A total of 278 faunal elements (2,414.7 grams) was recovered from Cut 7. Beef was apparently the preferred meat, at 77 percent of the total bone weight, and the deposit included a small percentage each of pig, sheep, and goat remains. Wild game, including deer and rabbit, was represented in very small percentages. Poultry consisted of domestic chicken and wildfowl, including ducks and sandpipers (Table 5-3). Wild species, including mammal and bird, make up 15 percent of the recovered remains. Fish comprised a very small amount (2.81 grams) of the diet, represented by cod, ray, and rockfish. Some of the faunal sample exhibited cut marks. Those observed were primarily made with a metal saw; only a small fraction has evidence of knife or cleaver butchering. Medium- and high-value retail cuts were being consumed, including T-bone steak, sirloin steak, and round steak (Appendix C).

Table 5-3
Faunal Remains Recovered from Phase C, Cut 7

Taxon	Count	Percent	Weight (g)	MNI
Aves				
Anatinae (ducks)	1	0.4	0.1	1
<i>Gallus gallus</i> (domestic chicken)	24	8.6	30.6	2
Scolopacidae (sandpiper)	3	1.1	0.5	2
Birds, undifferentiated	33	11.8	6.5	—
Mammalia				
Lagomorpha (rabbits and hares)	1	0.4	0.8	1
<i>Felis domesticus</i> (domestic cat)	45	16.2	46.7	3
<i>Sus scrofa</i> (pig)	4	1.4	69.4	1
<i>Odocoileus</i> sp. (deer)	3	1.1	76.7	2
Caprinae (sheep/goat)	1	0.4	4.4	1
<i>Ovis aries</i> (sheep)	2	0.7	38.2	—
<i>Bos taurus</i> (cattle)	63	22.7	1,854.00	3
Mammals, undifferentiated	79	28.4	286.2	—
Undifferentiated				
Bone	19	6.8	0.6	—
Total	278	100	2,414.7	

The dominant food item present was shellfish. Oyster was the most numerous, but mussel, abalone, and clam also were represented. An estimated approximately 14,290 eastern oyster shells suggest commercial consumption. Oyster seed imported to West Coast bays was raised until mature and then harvested for shipment to restaurants and markets. An advertisement in the

San Luis Obispo Tribune noted that eastern and California oyster were shipped in on every steamer in the mid-1870s (*San Luis Obispo Tribune* 1874). In addition to the shell that filled Cut 7, there was a pathway a few feet south of Cut 7 formed of clamshell meticulously placed ventral side down (see Cut 3 below).

Other food refuse recovered in Phase C included a single peach pit and fragments of egg shell. The remains of three cats were present.

5.2.1.2 Phase B, Layer 215

Phase B yielded a low quantity of food refuse (oyster, mussel, and clam shell) and artifacts (a single alcohol bottle fragment; three clear medicinal bottle fragments; and an unidentifiable ferrous metal disk).

A review of fire insurance maps from as early as 1874 showed a residence near this location along with a storage shed. The residence sat at the back of the lot behind a general merchandise store that fronted Monterey Street. A restaurant situated to the east fronting Morro Street was built between 1874 and 1886. The 1886 Sanborn map shows a residential structure covering the location of Cut 7. It is at a slightly different location and is of sturdier construction than the one shown on the 1874 map. The new structure (or moved and expanded structure) effectively sealed the deposits contained within Cut 7 and provides a TAQ for the closure of the pit. The TPQ date for Cut 7, however, is represented by an Eagle Pharmacy bottle embossed with “B. G. Latimer” [proprietor]. This bottle postdates 1907 based on a Blue Ribbon product mark on the bottle base (Whitten 2016). At first the conflicting TAQ of 1886 and TPQ of 1907 for Cut 7 appeared unresolvable; however, further review of the Sanborn maps showed that the second dwelling was removed sometime between 1891 and 1903, re-exposing Cut 7 during the time that Latimer became the sole proprietor of the Eagle Drug Store on Monterey Street (Morrison and Haydon 1917). A deposit of Latimer bottles was found close by in Cut 5. Based on the next most recent datable artifact from Cut 7, the TPQ date becomes 1880. It appears that the pit was abandoned and closed after 1880, a data that is not in conflict with the 1886 TAQ when the pit was covered. After re-exposure by 1903 (as shown by the absence of a structure at this location on the Sanborn map of that year), the contents of the pit would have shifted, leaving a slight depression. The Latimer bottles were discarded in Cut 5, and one found its way into Cut 7 at the back of the drugstore (Figure 5-10).

The first building at this location was a residence built by 1874. It was of cloth and frame construction. In that year a drug store was at 21 Monterey Street. By 1886 a restaurant had opened at 8 Morro Street and the drug store had moved one store south, occupying 15/16 Monterey Street. It would appear from the privy contents, which included minimal domestic artifacts (2.8 percent) and abundant food waste (including large quantities of oyster and faunal remains), alcohol bottles (29.8 percent), and food product bottles (15.5 percent), that this cut was associated primarily with a restaurant, likely the one on Chorro Street. Oysters were common fare at San Luis Obispo restaurants. As early as 1874, oysters were being shipped in daily by steamer from San Francisco Bay (*San Luis Obispo Tribune* 1874:23). A popular drink was an oyster cocktail served up with whiskey and Worcestershire sauce—all well represented in Cut 7.

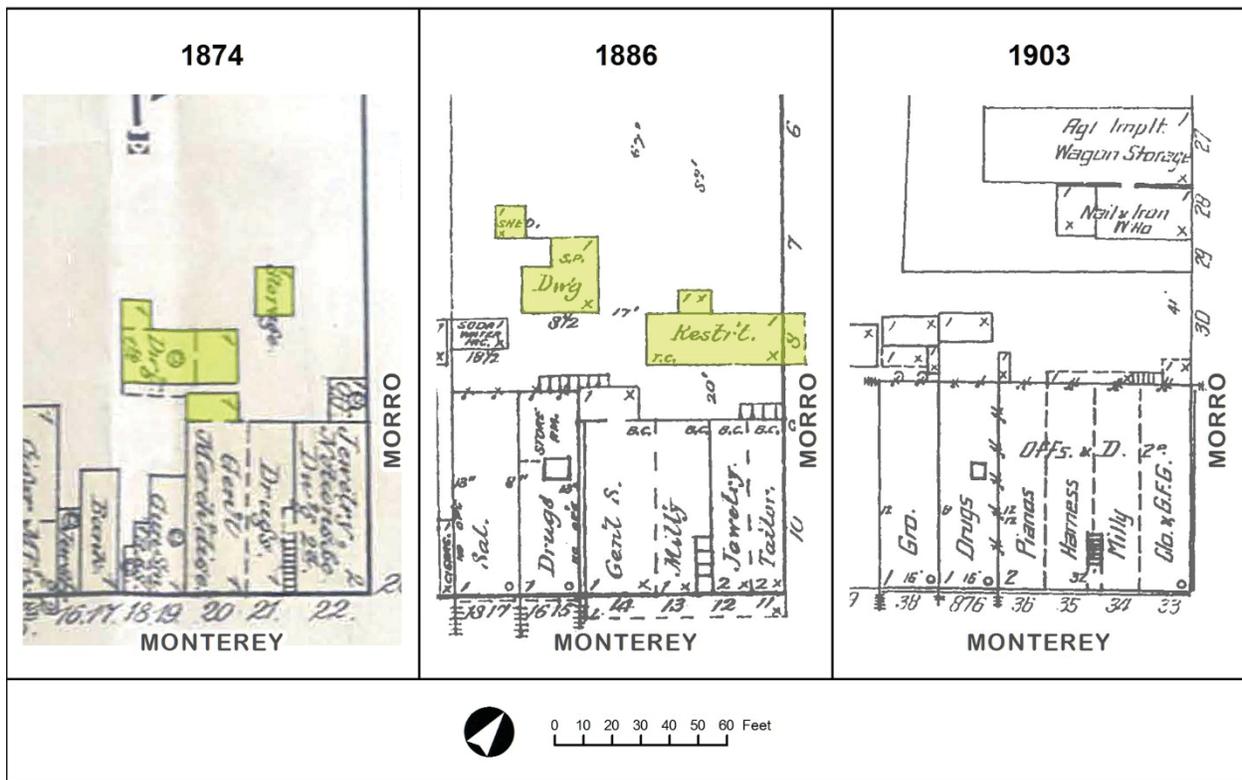


Figure 5-10 Dwelling and restaurant locations as depicted on the 1874, 1886, and 1903 Sanborn maps.

5.2.2 Cut 8: Privy

Cut 8 is the remains of a redwood-lined privy at the back lot line west of Cut 7. It measured 9.5 feet (2.89 meters) north-south by 5 feet (1.5 meters) deep. The width was indeterminate. The west side of the privy had been disturbed by construction of a concrete block retaining wall which followed the lot line and was built at a later date. It is estimated that this resulted in the removal of approximately half of the feature. There was also disturbance at the south end. While roughly oval when exposed as part of Æ's investigation, it most likely was originally rectangular. Sediments removed consisted of gray sandy clay with inclusions of charcoal and ash. The redwood plank lining was decomposed; only traces were present in the southern corner and in portions of the northern and eastern walls. The western wall was removed at an unknown date.

Several layer numbers were assigned in the field as a means of horizontal and vertical control. Following laboratory analysis and cross-mending of artifacts, these layers were consolidated into two analytical phases: Phase B and Phase C. Phase A represents the construction pit forming the cut. Phase B (Layer 221) consists of sterile soil accumulated during the period of privy use and found only in the deepest portion of the pit along the south face. This layer yielded no artifacts and appeared to be native soil, slumped from freshly cut walls during construction. Phase C (Layers 212, 216, 217, 218, 219, 220, 224, 225, and 226) represents the abandonment and filling of the privy (Figure 5-11).

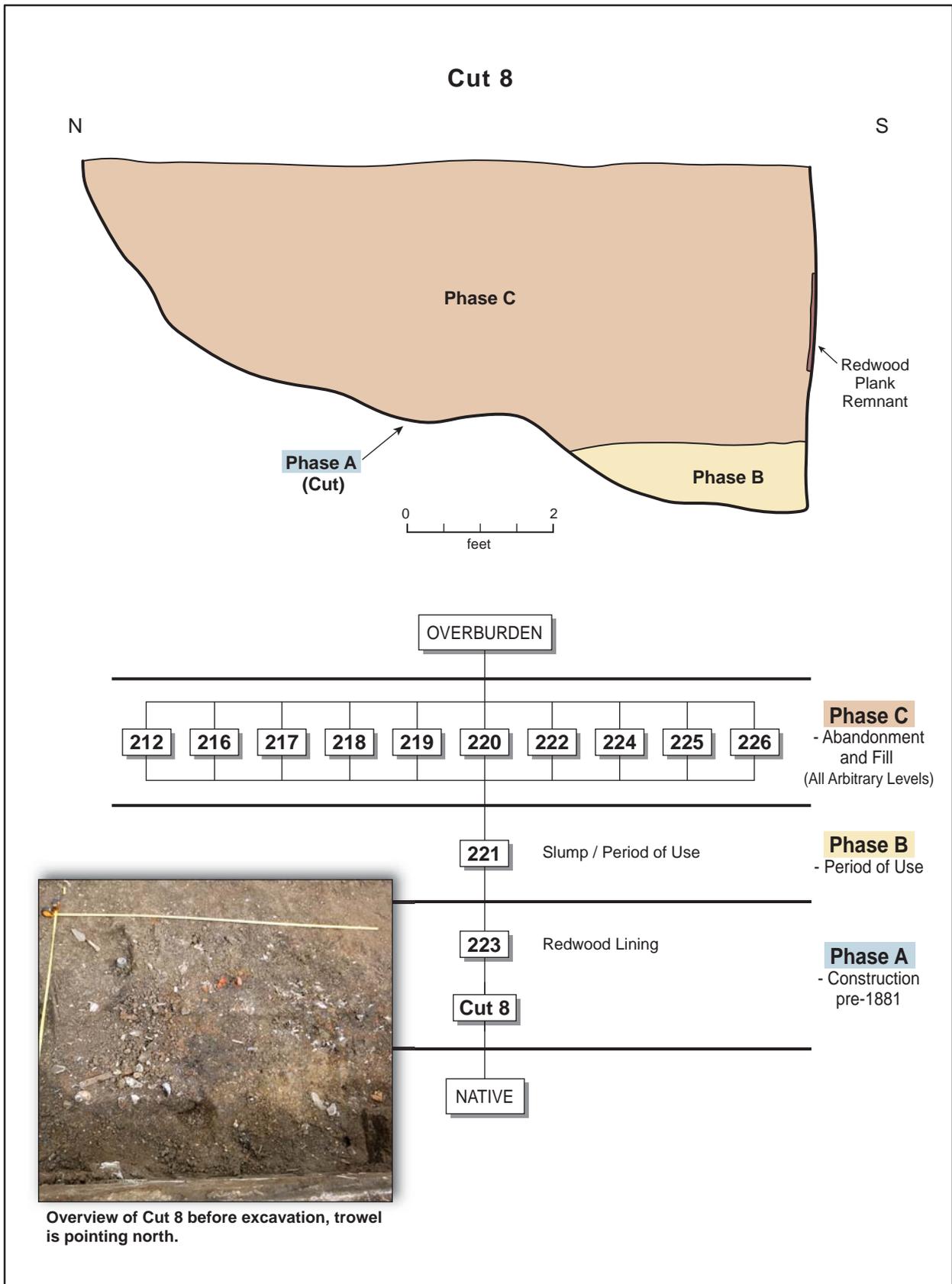


Figure 5-11 Cut 8 overview, profile, and Harris Matrix.

More than 5,000 artifacts as well as food refuse recovered from Phase C of Cut 8 provide an MNI of 1,340. The high count of debris includes faunal remains, shell, nails, broken ceramics, fragmentary bottles and jars, and other domestic refuse. Table 5-4 details the artifacts count, MNI, and percentages by category. Of the artifacts recovered, nails comprise 68.9 percent by count. The table offers percentages of each category with and without nails.

Table 5-4
Artifacts by Category from Phase C Cut 8

Category	MNI	Percent	MNI without nails	Percent without nails
Communication	9	0.7	9	2.2
Commercial	2	0.1	2	0.5
Firearms	3	0.2	3	0.7
Food Preparation/Consumption	105	7.8	105	25.2
Food Products/Packaging	48	3.6	48	11.5
Music	1	0.1	1	0.2
Games	3	0.2	2	0.5
Social Drugs	86	6.4	86	20.7
Accouterments	1	0.1	1	0.2
Grooming	14	1.0	14	3.4
Clothing/Footwear	33	2.5	33	7.9
Health/Medicine	48	3.6	48	11.5
Household Furnishing	13	1.0	13	3.1
Building Material	5	0.4	5	1.2
Hardware	15	1.1	15	3.6
Misc. Bottle, Jar, Can	16	1.2	16	3.8
Misc. Metal Item	11	0.8	11	2.6
Nails	923	68.9	—	—
Undifferentiated	4	0.3	4	1.0
Total	1,340	100.0	416	100.0

Also abundant were food preparation and consumption items. When nails are excluded, these items make up 25.2 percent of the collection, followed in frequency by alcohol containers (20.7 percent), food packaging items (11.5 percent), and social drugs (11.5 percent) (Figure 5-12). These four categories combined account for nearly 70 percent of the collection.

Food preparation and consumption items numbered 412 fragments, providing an MNI of 105. These items represented white earthenware, ironstone, creamware, and yellowware, in addition to Chinese porcelain. The ceramic assemblage exhibited a greater variety of decorations than was observed in Cut 7, including transfer prints, painted items, gilding, and molded relief as well as Rockingham ware and lusterware. Representative Chinese patterns included bamboo, celadon, and four season vessels. Vessel forms encompassed tableware, serving dishes, and kitchen vessels. Fragments were identified as plates (n = 22), saucers (n = 15), cups and bowls (n = 23), Chinese rice bowls (n = 5), a Chinese spoon (n = 1), dishes (n = 10), serving dishes (n = 1), and a baker's pan (n = 1). A nearly complete tea pot (n = 1) also was recovered.



Figure 5-12 Artifacts from Cut 8.

Marked and datable ceramic vessel fragments include an ironstone dish base imprinted with “Burgess & Goddard Importers to the USA” (ca. 1840s and 1890s). Burgess & Goddard was located at Lane End in Longton, Staffordshire, England (Kowalsky and Kowalsky 1999:133). Another base mark represents a product manufactured by Robert Cochran & Company of Glasgow between 1856 and 1891. Finally, an ironstone plate base fragment displays a

manufacturer's mark employed by Powell & Bishop of England in use between 1867 and 1878 (see Appendix B). The only American-made product was a Rockingham tea pot decorated with the widely recognized "Rebekah at the Well" molded pattern. This very popular product dates after 1851, when Edwin Bennett introduced the design, until 1936, when the factory closed its doors (Claney 2004:81).

Glass tableware recovered from the privy included fragments of a cut glass fruit bowl, a cut glass celery vase, and cut stemware and tumblers (n = 12). The assemblage also include two bone knife handle fragments and a battered metal cooking pan (n = 3). These artifacts would have contributed nicely to a moderate Victorian table setting and/or kitchen. The greater variety in ceramic vessel types and their decorative elements would suggest association with a residence as opposed to the nearby restaurant on Morro Street (Figure 5-13).



Figure 5-13 Food preparation and consumption artifacts recovered from Cut 8.

Food products and packaging items (n = 110; MNI = 48), however, are remarkably similar to those found in Cut 7. Such items include condiments and pickles bottles and Lea & Perrins Worcestershire sauce bottles and bottle stoppers. Also present in both pits were a number of stoneware mineral water jugs, a smaller number of blob-top soda bottles fragments, and stoneware ale bottles.

Leisure and recreation items found in Cut 8 consisted of a large number of alcohol containers (n = 166; MNI = 86). Clear, brown, aqua, and olive glass from wine, champagne, whisky, vermouth, and beer bottles in addition to stoneware ale bottles represented 21 percent of the collection. A Jesse Moore Old Bourbon & Rye bottle was manufactured by Moore Hunt & Company between 1876 and 1885 (Wilson and Wilson 1968:63), and a light olive beer bottle

base, embossed “C.V. NO.2, MILW, 8,” which can be attributed to Wisconsin/Chase Valley Glass Factory 2 in Milwaukee was marketed between 1880 and 1881 (Maas n.d.). It is this artifact that provides the TPQ of 1880 for Cut 8.

Smoking, gambling, and gaming are represented by opium pipe fragments, two Chinese tokens, and one die. A harmonica fragment was also present. Commercial and writing activities (MNI = 11) are represented by two ink bottle fragments, slate pencils, a wooden pen fragment, and two silver coins. The coins include an 1853 quarter and an 1861 dollar.

Personal items recovered from this cut (n = 102; MNI = 43) include clothing fasteners, prosser and shell buttons, a Bakelite button, ferrous metal button insets, and shoe eyelets. A single traditional Chinese button also was found (Figure 5-14). This, among other items, such as the Chinese rice bowls and recreational items, strongly suggest the presence of one or more Chinese occupants. Toiletry items found in the privy included chamber pot fragments, urn and basin fragments, a cold cream jar, Murray and Lanman Florida Water (New York), and a fragment from a Hoyt’s German Cologne bottle (Figure 5-14). The latter product was introduced in 1870, while Florida Water was popular throughout the 1800s (Meyer 2013). Florida Water was first introduced by Robert Murray in the early 1800s. The name “Florida Water” refers to the fabled fountain of youth, which in legends was said to be located in Florida, as well as the “flowery” scent emanating from the product. Like other colognes of the era, Florida Water was valued for its refreshing and tonic qualities as well as its scent, and could be used as a skin toner or as what we would now call a “body splash.” It also could be used as a skin freshener (*eau de toilette*) by adding it to bath or wash water. Florida Water and its successors are still popular today (Meyer 2013).



Figure 5-14 Fasteners and grooming and toiletry artifacts recovered from Cut 8.

If all categories of personal items (music, gaming, grooming, and footwear) were combined, the greater quantity and variety of personal items (12 percent) found in Cut 8 suggest its association with a domestic household as opposed to a commercial establishment. And yet the similarity of products found in both Cuts 7 and 8 suggests their link as well.

Health and medicine containers (n = 97; MNI = 48) consisted of general and patent medicine bottles fragments, ointment jars, bitters bottle fragments, vials, and broken syringes. Whitall Tatum & Company manufactured some of the medicine bottles found, which date to between 1880 and 1895. Some have the local Eagle Drug Store logo (Lockhart et al. 2006) as well as a pharmacy bottle made after 1870 (Toulouse 1971:544). Other branded products represented include Dr. J. Hostetter's Stomach Bitters (Pittsburg) made between 1853 and the early 1950s and Dr. Shiloh's System Vitalizer introduced in 1873 (Fike 1987:105). Perhaps also related to health and medicine activities were fragments of ceramic crucibles (Figure 5-15).



Figure 5-15 Medicine bottles recovered from Cut 8.

Lamp chimney glass shards and figurine fragments represented household furnishing, while other household items included miscellaneous metal hardware and an electric insulator. Close to 1,000 nails were recovered from the privy. These included forged, cut, and wire nails, suggesting construction, renovation, and/or demolition occurred just before or at the time of privy closure. Wire nails did not become available until after the 1890s and were not widely used until the early 1900s.

A total of 1,809 fragments (1,3145.1 grams) of terrestrial mammal bone was recovered. Beef appears to be the preferred meat type, making up 66 percent (by weight) of the bone assemblage, with lesser percentages of pig, sheep, and goat. Wild game, including deer, rabbit, duck, and wildfowl (turkey, goose, and quail), was represented in minimal amounts (4 percent). Bones

from domestic chicken also were found. Some of the bones exhibited cut marks, similar to those observed in Cut 7. Cut marks were made primarily with a metal saw; only a small fraction of the bone had evidence of knife and/or cleaver butchering marks. In general, medium- and high-value retail meat cuts were consumed (see Appendix C). Fish consumption was very minimal: only 1.7 grams of ray and cabezon bone was found. Other dietary constituents are represented by eggshell as well as oyster, mussel, abalone, and clam shells (21,636.7 grams).

**Table 5-5
Faunal Remains Recovered from Phase C Cut 8**

Taxon	Count	Percent	Weight (g)	MNI
Aves				
Anatinae (ducks)	8	0.4	5.7	1
Anserini (geese)	3	0.2	4.5	1
Columbidae (pigeon)	8	0.4	2.5	1
<i>Gallus gallus</i> (domestic chicken)	89	4.9	111.9	6
Galliformes (turkey, grouse, chicken, quail)	10	0.6	6.3	—
<i>Melegris gallopavo</i> (turkey)	4	0.2	9.3	1
Laridae (gulls)	1	0.1	0.9	1
Scolopacidae (sandpiper)	2	0.1	0.4	1
Birds, undifferentiated	107	6	41.4	—
Mammalia				
Lagomorpha (rabbits and hares)	14	0.8	5.8	2
<i>Felis domesticus</i> (domestic cat)	36	2	45.8	4
<i>Sus scrofa</i> (pig)	53	2.9	833.7	2
<i>Odocoileus</i> sp. (deer)	15	0.8	235.7	1
Caprinae (sheep/goat)	12	0.7	219.9	2
<i>Ovis aries</i> (sheep)	4	0.2	49.7	—
<i>Bos taurus</i> (cattle)	302	16.7	8638.1	6
Bovidae (bison, cow, sheep)	4	0.2	120.5	—
Mammals, undifferentiated	1,095	60.5	2810.3	—
Undifferentiated				
Bone	42	2.3	2.7	—
Total	1,809	100.0	13,145.1	

A review of Sanborn maps suggests that a residence occupied the back lot of 20 Monterey Street between 1874 and 1903 (see Figure 5-10). The first building on the site was described as having “cloth lined” walls (cloth over frame). It appears to have been replaced later with a more substantial residential structure as the building location shifted and its configuration changed between 1891 and 1903. Either way, Cut 8 appears to be associated with a residential dwelling at that location. The privy was abandoned and filled between 1880 and 1903, although more likely closer to the mid-1880s than the early 1900s.

The similarity in artifacts found in both Cut 7 and Cut 8 is noteworthy, although it seems clear that Cut 8 was associated with the residence and Cut 7 was associated with a nearby restaurant. This conclusion is based on the quantity and variety of artifacts found in each feature. The

ceramics recovered from Cut 7 were largely undecorated, sturdy ironstone. Those from Cut 8 were more varied in style and decoration, including traditional Chinese bamboo, celadon, and four seasons patterns.

**Table 5-6
Comparison of Artifacts from Cut 7 and 8**

Category	Cut 7 (%)	Cut 8 (%)
Food Preparation/Consumption	10.3	25.2
Food Products/Packaging	15.5	11.5
Social Drugs	29.8	20.7
Health/Medicine	13.5	11.5
Household Furnishing	2.8	11.5
Misc. Bottle, Jar, Can	6.0	3.8
Total	77.9	84.2

Products found in both features include Booth and Latimer’s medicine bottles, not surprising since the drugstore was in operation nearby. Alfred Booth purchased the drugstore by 1878. Booth continued its operation through 1891 when he brought in Benjamin Latimer as a partner. Booth and Latimer operated the shop until the early 1900s. The presence of bottles referencing both Booth and Latimer would suggest a pre-1900s closure for both privies. While a 1907 Latimer bottle was found in Cut 7, it is believed to have been deposited at a later date when the privy was re-exposed after the demolition of the residential structure that once covered it.

Other products found in both privies included soda water from Dublin Belfast, Lea & Perrins Worcestershire sauce from England, and Milwaukee beer from Wisconsin. Oyster, mussel, clam, and abalone shell were found in both privies. The faunal assemblages from both were similar, dominated by cattle bones (beef being typical of a Euro-American diet). Domestic chicken bones and eggshell were found in both, as were remains of deer, rabbit, duck, and geese. Duck and geese were favored and traditional meals served during Chinese celebrations. These similarities could be due to proximity of the residence and the restaurant; however, there are other things shared, including personal items such as dentures of the same construction.

Based on review of Sanborn fire insurance maps, sometime between 1874 and 1886 the first residence on the lot was moved, renovated, or demolished, and a second structure stands at a slightly different location. The new construction or relocated residence covered Cut 7. Excavators retrieved 923 nails from Cut 8, which would argue for some form of construction or demolition occurring at the time the privy was open. This event corresponds well with the datable artifacts recovered from Cuts 7 and 8, which generally date after 1880 and before 1886, by which time the residence was moved and Cut 7 was sealed. Cut 8 remained open, and construction debris was discarded in the open hole. The TPQ date for Cut 8 is 1880, so it was closed shortly after, or at the same time as, Cut 7.

5.2.3 Cut 3: Clam Shell Feature

This feature was located in TA-1 North (see Figure 5-1). It is best described as an ornamental landscape or garden feature. It is irregular in shape and measured 16 feet (4.8 meters) long and

2 feet (0.6 meter) wide. It generally consisted of Pismo clam (*Tivela stultorum*) shell. The clam shells were carefully placed with their ventral side down to form a level surface; it may have represented a garden border or other decorative landscape feature (Figure 5-16). The western end of the feature was disturbed but appeared to have once formed a semicircle, perhaps around a tree or planter. Oyster shell was also observed at the western end of the feature, and numerous basalt chips were laid above the Pismo clam shells. Stratigraphically, Cut 3 covered a rock wall or foundation (Cut 4) and was below a layer of general late nineteenth to early twentieth-century sheet refuse (Layer 204) (Figure 5-17). Cut 3 is likely associated with Cut 7 and lay between the dwelling and restaurant depicted on the 1874 to 1891 Sanborn maps, perhaps linking the two. Its intent appears purely decorative.



Figure 5-16 Overview of Feature 3.

Very few artifacts were recovered from this feature when it was cross-sectioned and removed. An ironstone ceramic dish base manufactured by Knowles Company of East Liverpool, Ohio was similar to those found in Cut 7. This mark dated the feature to between 1880 and 1890 (DeBolt 1994:70–71). Wire nail fragments and flat glass fragments were also recovered. Wire nails were introduced in the late 1890s but were not in wide use until the early 1900s.

5.2.4 Cut 5: Sheet Refuse (Eagle Drug Store Refuse)

Cut 5 represents artifacts recovered from a controlled sample of sheet refuse accumulated against the rock retaining wall (Cut 6) at the rear of the former Bello Building (see Figure 5-1). Excavators observed Layer 207 as a dark brown to black (moist) sediment containing a wide variety of late nineteenth to early twentieth-century glass pharmaceutical bottles and other drugstore paraphernalia. The collection sample unit was placed in the densest and least disturbed portion of the deposit. It measured 4 by 3 feet (1.2 by 0.9 meter) and continued 6 inches

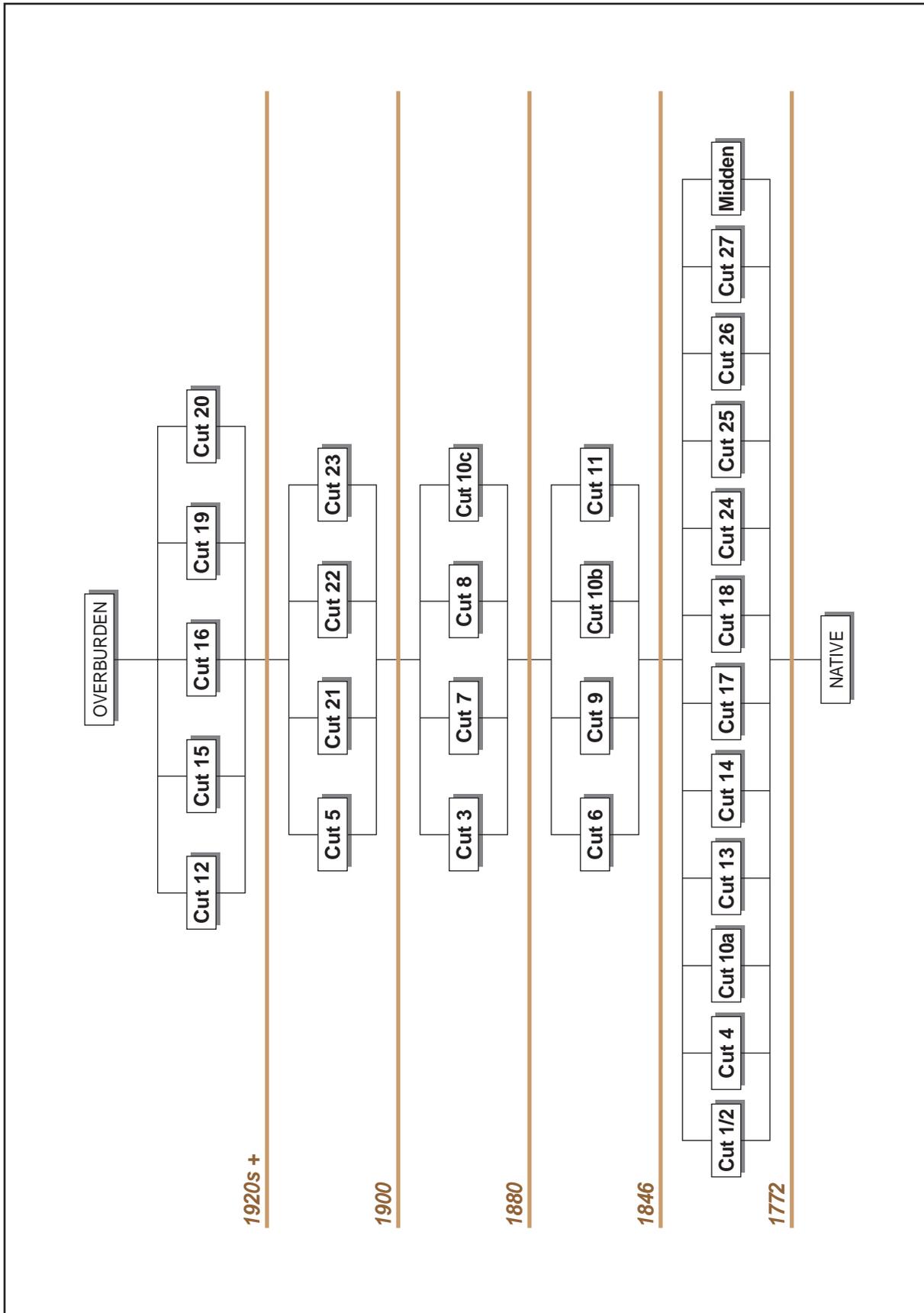


Figure 5-17 Monterey In-Fill site Harris Matrix.

(0.15 meter) in depth. The sheet refuse was amorphous, covering an area of 10 by 4 feet (3.0 by 1.2 meters). All sediments recovered from the collection sample unit were screened to retrieve 100 percent of artifacts present. In addition, diagnostics elements were collected from the sample area and during monitoring of mechanical and manual cleanup of the deposit. The layer at the base of the deposit was medium grayish brown clay with some mixing due to rodent activity. Excavators also noticed traces of ash, historical debris, and oyster shell. Native soil was encountered at a depth of 30 centimeters (11.8 inches), although the base of the deposit was irregular in depth.

Recovered artifacts included numerous medicine bottles, pill bottles, glass bottle stoppers, ink bottles, fragments of a balance scale, a measuring cup, perfume bottles fragments, toothbrushes, cold cream jars, a metal stirrup from an examining table, crucibles, a Petri dish, mortar and pestles, and vials and syringes (Figure 5-18). Among the brand-name products collected were Wood's Cough and Cold Cure (post-1881); Bromo Seltzer (1891–1920); Rumford Chemical Works (patented 1868); Angier's Petroleum Emulsion (ca. 1915); Fairmount Glass Works (1889–1906); Booth's Drug Store bottles (1878–1891); A. R. Booth Squirrel and Gopher Poison (1880–1891); Booth and Latimer's Drug Store bottles (1891–1904); and Eagle Pharmacy B. G. Latimer Blue Ribbon bottles (1907; see Appendix B). The association of Cut 5 with the Booth and Latimer drugstore appears clear.



Figure 5-18 Medical artifacts recovered from Cut 5.

5.3 TA-1 STRUCTURAL FEATURES

5.3.1 Cut 4: Stone Wall

Cut 4 was a linear alignment exposed in TA-1 North that stretched the length of the Project area. It continued 95 feet (30 meters) north-south and was approximately 3.5 feet (1 meter) wide. A shorter segment, measuring 30 feet (9 meters) long and also 3 feet (1 meter) wide was exposed extending at a 90-degree angle on the west side of the main section of the wall (see Figure 5-1). The western segment was disturbed by modern construction; however, it might have once extended much farther south, toward the mission, and might have connected with and been the same foundation recorded as Cut 24 in TA-2 North in the Sauer/Little Lot. The larger segment of Cut 4 (on a bearing of 323 degrees) extended beyond the current project area to the north and was disturbed by a modern pipe trench to the south. At the southern end there was a second narrower wall (Cut 6) that served as a retaining wall where the elevation dropped sharply. The wall starts at the higher elevation and continues to the base of the drop in elevation. This is likely an artificial cut made when the Bello Building was constructed.

A mechanical trench was dug through a section of the Cut 4 foundation to determine its cross section. No builder's trench was visible in this trench, and the rocks appeared to have been dry-laid directly onto native soils. The rocks are small (4 inch [10 centimeter]) to large (16 inch [40 centimeter]) unfaced pieces of basalt and serpentine, and the surrounding soils packed around the wall contained uncut cattle bone and *teja* fragments, suggesting that the wall was built during mission times. No diagnostic material beyond the *tejas* was found in association with this feature.

5.3.2 Cut 6: Rock Retaining Wall

Cut 6 is a segment of a rock retaining wall exposed in TA-1 North at the rear of the Bello Building. The rocks were initially secured with burned-lime mortar. Each was irregularly shaped, and the wall was up to 18 inches (0.4 meter) wide. It extended 15 feet (4.5 meters) long and was 6 feet (1.8 meters) high (see Figure 5-1). It appears that this retaining wall was made from reused rock salvaged from mission-era features and likely was constructed in the mid-1800s. The wall was further lengthened with a concrete extension, probably at the turn of the century when commercial redevelopment and grading in the lot took place.

5.3.3 Cut 15: Building Material

Cut 15 is a stockpile of stone building material formed of loose rock rubble. The rocks appeared haphazardly stack and ranged in size from 4 to 30 inches (0.1 to 0.7 meter). Open space can be seen between the rocks. The stockpile was found along the sidewalk adjacent to Monterey Street. Excavators exposed the concentration in TA-1 South at 2 feet (0.6 meter) below street grade. It abutted a modern concrete retaining wall that extended north-south along the lot line. Cut 15 was 3 feet (0.9 meter) high, 15 feet (4.5 meters) long, and 4 feet (1.2 meters) wide. It was formed of local dacite, sandstone, chert, and serpentine, similar to materials used to construct the various mission-era foundation walls exposed in the Sauer/Little Lot and farther north in the Bello Lot. The telltale *teja* fragments and adobe melt were absent from the concentration, but among the rubble, excavators observed "modern to recent" debris such as nails, concrete, amorphous metal, and paint. It appears likely that the material was moved to this location in the last 20–30 years.

5.4 TA-2 SOUTH STRUCTURAL FEATURES

5.4.1 Cuts 10 and 16: Rock Foundations

Cut 10 is a roughly H-shaped series of three interconnected rock foundation walls exposed in areas of TA-2 South (see Figures 5-4 and 5-19). There is a mortared east-west alignment and two narrower walls—a mortared north-south alignment and a dry-laid east-west alignment. These foundations appear to be the remains of the Sauer/Little adobe and may represent extensions and additions to the original adobe.

The wider segment of wall and the one farther north measured 37 feet (11.2 meters) long and was 3.5 feet (1.0 meter) wide. It was built of locally acquired cobbles and boulders ranging in size from 5 to 30 inches (0.1 to 0.7 meter). The intact portions of the foundation ranged from 6 to 30 inches (0.15 to 0.7 meter) high. Sandstone, chert, and metamorphic and igneous rock were set onto the native clay forming the historic surface; there was no discernible builder's trench. The mortar used in its construction was burned lime. It corresponds closely with the rear wall of the Sauer adobe shown on the 1870s land petition map.

The north-south segment of wall measured 13 feet (3.9 meters) long and was of similar construction to the east-west section described below. This rock foundation also was mortared with burned lime.

The southernmost east-west segment of wall (Figure 5-19 [left]) measured 33 feet (10 meters) long and 30 inches (0.7 meters) wide. This foundation wall was composed of cobbles and boulders that were smaller than those in other portions of Cut 10, and the stones in this part of the wall were dry-laid. Two courses of water-rounded rocks used in its construction measured from 3 to 25 inches (0.07 to 0.60 meter) long. Excavators observed a low quantity of mammal bone and mission-era tile fragments embedded in the foundation as elements of construction. A similar observation was made in the walls found in the northern half of TA-2 within the Sauer/Little Lot. No builder's trench was observed, and the foundation was laid directly onto the native clay forming the historic surface. This appears to be the earliest portion of wall built within the Sauer adobe, and likely was an internal partition of the original adobe. On the site Harris Matrix it is designated as Cut 10a built during mission times.

All parts of Cut 10 were disturbed by twentieth-century construction and/or grading, and a concrete stem wall extending perpendicular to the northernmost stone wall was added at a later date, perhaps after the turn of the century. A trench for an iron sewer pipe cut through the northernmost foundation wall at a later date.

It appears the walls forming Cut 10 represent three separate construction phases. The southernmost east-west wall and north-south foundation wall appear to have been built at the same time and represent the earliest construction phase (Cut 10a). Smaller cobbles were used in their construction, and *tejas* and bone were found embedded in the foundation walls. Both walls appear to have been dry-laid when constructed. At a later (unknown) date, burned lime mortar was added to the north-south wall when the wider east-west wall was built of larger river cobbles (Cut 10b). An upper brick second story was added to the original adobe by 1874 (Cut 10c). This final construction phase shows the addition of Portland cement as mortar in the wider east-west



Figure 5-19 Overview of Cut 10.

wall. Portland cement originated in Britain during the 1820s and was further refined in the 1850s, although the specifications were not well established until the late 1870s. While some domestic production began in the 1870s, most of this product was imported to the United States from Germany and Britain until the early twentieth century. The final phase of construction associated with Cut 10 (Little Hall or Lytton Theatre) likely occurred after this date (Cut 10c). A portion of the older wall was damaged at the time when the concrete stem wall was added, and it is not part of the early construction or use.

5.4.2 Cuts 9, 11, and 14: Rock Alignments

Excavators exposed other rock foundations/alignments within TA-2 South that are probably not parts of the Sauer adobe, including Cuts 9, 11, and 14. Cut 9 consisted of two disturbed segments of a rock wall (see Figure 5-4) built of irregularly shaped unmortared basalt and serpentine rocks. These were large rounded river rock measuring 12–18 inches (0.4 meter) in diameter, similar to those used in the northernmost wall of Cut 10. This alignment appeared to have extended east to west across the Sauer/Little Lot behind the Sauer adobe and may have stretched the full length of the lot.

Only two small remnants remained in situ during the 2015 excavation for the Project. Found during the removal of fill from behind the Sauer adobe (Cut 10), the easternmost remnant measured 6 feet (1.8 meters) long and was two courses wide. It lay 4 feet (1.2 meters) beneath overburden and was found during mechanical removal of fill. This wall remnant was made up of large rounded river cobbles and the stone was dry-laid. A second rock wall remnant was found to the west. It was formed of a cluster of large cobbles with smaller cobbles placed between the rocks to fill in the gaps. Here, *tejas* (roofing tiles) were found among the rock, but no other artifacts were observed. The remnant originated 2.5 feet (0.76 meter) below the modern grade and measured roughly 6.5 feet (2 meters) long. There was no evidence of mortar present. The rock alignment sat at the historic surface. It was disturbed on the western end and may once have continued to and beneath the building at 848 Monterey Street.

Cut 11 lay south of Cut 9 and generally was formed of small rocks overlaying larger cobbles. Excavators interpreted this feature as a foundation for an adobe structure. It extended roughly 21 feet north-south and continued up to the sidewalk along Monterey Street. The foundation was disturbed in places and was constructed of a single layer of small cobbles ranging in size from 3 to 6 inches (0.07 to 0.15 meter) set on top of larger basalt and serpentine cobbles. The cobbles ranged in size from 5 to 20 inch (0.1 to 0.5 meter). Again the rock was unmortared and there was no evidence of a workers' trench. The 3 foot (0.9 meter) wide foundation was exposed at 2.5 feet (0.76 meter) below the current Monterey Street grade. No artifacts were found in association.

Cut 14 was found east and perpendicular to Cut 11. It appears to have been disturbed by later construction when a concrete stem wall (Cut 12) was built. Cut 14 was a linear arrangement of very densely packed small rounded cobbles. This rock surface was north of and adjacent to a possible well/cistern (Cut 13, described below). Cut 14 consisted of an area measuring 6 feet (1.8 meters) long and was 12 inches (0.3 meter) wide and composed of 4 to 8 inch (0.1 to 0.2 meter) rounded rock set onto native sediments. This feature appears to be a remnant pathway or prepared work surface associated with Cut 13.

5.4.3 Cut 13: Well/Cistern

Cut 13 is a possible well or cistern. Construction of the feature seems to date to mission times. At the ground surface this circular feature was lined with large boulders of similar size and material to those used in the construction of Cuts 9 and 10 (see Figure 5-4). The feature measured 4 feet in diameter and was at least 8 feet (2.4 feet) deep. The large rocks were present around 75 percent of the circumference of the pit opening. A rock and brick arched walkway crossed the feature from west to east along the northern edge, forming the remainder of the opening of the well/cistern. This walkway was 4 feet (1.2 meters) long and 2 feet (0.6 meter) wide. It appeared

originally to have been built of rock and mortar, and the brick was a later addition. The large boulders forming the rim of the opening were partially sunk into the plastic clays forming the walls of the pit. At least two courses of rock were present, continuing to a depth of 2 feet (0.6 meter). The large rock component and the arched walkway provided access to the opening of the well. The brick component (single layer) may have been a later addition (Figure 5-20). Beyond the arched walkway was Cut 14, the concentration of densely packed small rounded stones. This feature seems to be associated with the well, perhaps as a walkway or work surface.



Figure 5-20 Overview of Cut 13.

Excavators manually removed 2 feet (0.6 meter) of brick and mortar rubble from the pit opening. This fill appears to be from demolition and abandonment resulting in the closure of the well. After excavators removed the brick fill, the walls of the cut were cleaned and defined. When excavations reached 5 feet (1.5 meters) deep, clayey fill remained in the base of the cut and excavators resorted to augering the clayey sediments. Sediments were inspected as removed, and these gray clays contained brick, Spanish tile, and burned lime mortar. At approximately 8–10 feet (3 meters) below the existing Monterey Street grade, the sediments became waterlogged, and wood fragments were observed in the auger spoil. A second auger bore in a different location produced the same results. The wood appeared to line the bottom of the pit and may have been redwood. Because the pit was to remain below new construction and its depth exceeded permissible safe excavations limits, no further investigations were undertaken in the pit itself.

During final cleanup of the pit prior to photo-documentation, excavators recovered a number of artifacts, including ceramics (found between the large rocks at the surface) and a 1901 coin. They also recovered a bottle base from the cistern floor, and a bottle finish was found between the rocks at the top of the archway. The two ceramic sherds recovered from between the rocks were manufactured between the 1820s and 1840s. They represent two separate vessels decorated with a single-colored British transfer print. They both appear to be applied to a pearlware base, which dates them closer to the 1820s than the 1840s. The dark green glass found on the floor and in the foundation wall was the remains of wine bottles. These glass shards could date to roughly the same time period as the ceramics. The 1901 coin reportedly came from the floor of the well/cistern but is believed to have been introduced during cleanup of the feature walls during the 2016 excavations.

5.4.4 Cuts 1 and 2 (beneath the Blackstone Building)

During the 2012 seismic retrofit of the Blackstone Building, Æ staff exposed a feature that may relate to the well/cistern complex found during the Project. Inside the Blackstone Building and beneath its floor, excavations exposed Feature 1—an east-west oriented rock foundation (Figure 5-21).

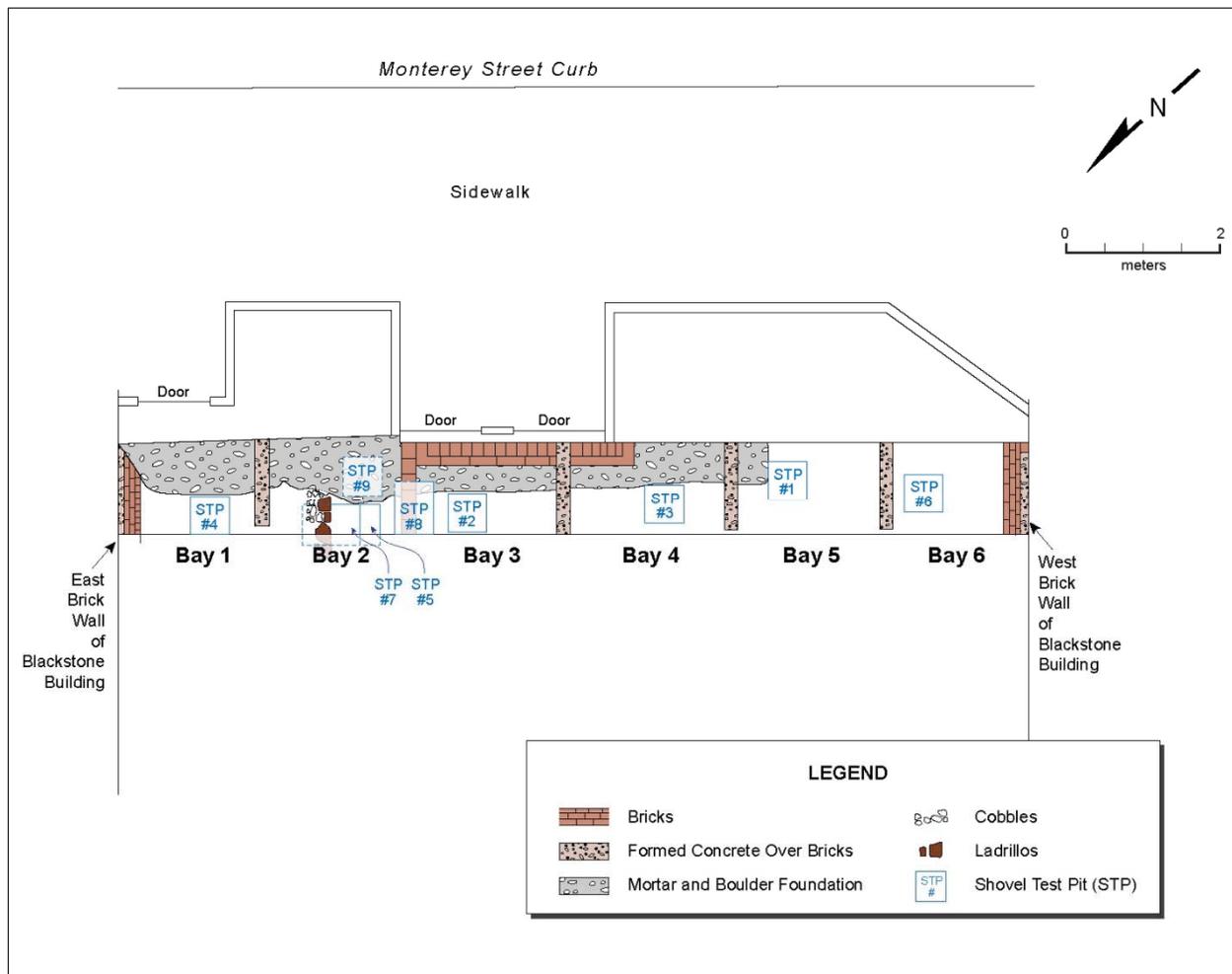


Figure 5-21 Locations of Blackstone Building test pits.

[It] was visible when the floorboards were removed and measured 26 feet (7.9 meters) long, and where exposed, was 3 feet (0.9 meter) wide. It was 3 feet (0.9 meter) deep (from the top of the foundation at initial exposure below the floorboards) found at 1.5–2.0 feet (0.4–0.6 meter) below the current grade of Monterey Street. The full width of the feature was not determined as the foundation extended south beyond the retrofit trench beneath portions of the floor that were not removed. The foundation consisted of large granite and serpentine boulders bonded by a burned lime mortar. . . . The mortar contained coarse gravel [Hamilton et al. 2014:28].

Within the retrofit trench the foundation was of very solid construction and had to be removed with a jackhammer.

Cut 2 found beneath the floor of the Blackstone Building was a north-south-oriented linear feature of hollow construction, likely a construction trench, ditch, or natural depression. It was filled with mission-era midden. Spanish tile was observed around the edge of this feature. Excavators exposed a cobble layer at 40 centimeters below grade. Cut 2 extended beneath Cut 1 and predated Cut 1. Archaeological materials found in the fill of Cut 2 included shell, fish bone, large mammal bone, *tejas*, *ladrillos*, lithic debitage, and beads of shell and glass. The final layer within the ditch was 25 centimeters deep and contained *ladrillo* fragments, two shell beads, and a projectile point (Figure 5-22). Upon excavation, the cut measured 4 feet (1.2 meters) wide and 3 feet (0.9 meter) deep. Its length remains unknown.



Figure 5-22 Cottonwood Triangular projectile point recovered from the Blackstone building in 2012.

5.5 TA-2 NORTH STRUCTURAL FEATURES

Within the northern half of the Sauer/Little Lot excavators exposed two parallel stone walls (Cuts 17 and 18), a third associated wall (Cut 24), two postholes and a stone platform (Cuts 25, 26, and 27), mission-era midden (TEU 10, 12, 13, and 14), and an early twentieth-century kitchen midden. Also found were two concrete foundations postdating the 1950s (Cuts 19 and 20) (see Figure 5-3). All features but the concrete foundations are described in greater detail below.

5.5.1 Cut 17: Rock Wall

Cut 17 is a linear rock alignment (Figure 5-23). This cobble and boulder wall measured 40 feet (12 meters) long and 3 feet (0.9 meter) wide. In some locations it stood 3 feet (0.9 meters) high. The various rock types forming the wall included regionally available basalt and serpentinite similar in size to those used to construct the northernmost wall of Cut 10 and the wall remnants of Cut 9 in TA-2 South. The Cut 17 wall was dry-laid onto native clay sediments, and mission tile and cow bone fragments were found embedded between the rocks as part of its construction. No builder's trench was observed. The feature extends to the north beyond the current Project limits. To the south the wall was disturbed by twentieth-century developments, but it is assumed to have continued south and might have been associated with Cut 13, the well/cistern. An association with Cuts 18 (a parallel wall) and Cut 24 (an east-west wall in TA-2 North) was clear.



Figure 5-23 Overview of north end of Cut 17.

5.5.2 Cut 18: Rock Wall

Cut 18 is a second rock alignment that parallels Cut 17 (see Figure 5-3). The distance between the two walls consistently measured 10 feet (3.0 meters). Cut 18, like Cut 17, was constructed of cobbles and boulders and measured 45 feet (13.7 meters) long by 3 feet (0.9 meter) wide. In some locations it was intact up to 3 feet (0.9 meter) in height. The regionally available basalt and serpentinite rocks were dry-laid onto native clay sediments with larger cobbles placed at the bottom. Excavators observed mission tile and fragmented cow bone between rocks. They collected an occasional chert flake debitage while exposing the wall. The northern portion of this feature was more intact and consisted of boulders below cobbles. Builders laid *teja* and *ladrillo* fragments (misshapen and poorly fired) above the cobbles, resulting in a very tightly constructed and level surface (Figure 5-24).

Like Cut 17, Cut 18 extends to the north beyond the current Project limits. To the south the feature was disturbed by twentieth-century development. It is assumed it formerly continued south and likely was associated with Cut 13, the well/cistern. If the wall continued to the south up to Monterey Street, which is suspected, it was partially removed by the construction of



Figure 5-24 Overview of Cut 18.

buildings facing Chorro Street. An association between Cuts 17 and 18 is assumed (see Figure 5-17). The two walls appear to form an aqueduct channel that would have conveyed water toward the well/cistern in the southern half of the lot, probably from the mission reservoir, which was located to the northwest along Chorro Street north of Palm Street. Cut 24 (described in greater detail below) was an east-west wall that crosscut Cuts 17 and 18 at a 90-degree angle and continued to the east. North of Cut 24 was a small, but intentionally formed, projection off Cut 18 also constructed of small cobbles. This structure measured 3.0 by 2.5 feet (0.91 by 0.76 meter) and was roughly wedge shaped. It projected into the channel that was formed by the two walls. It is believed that it functioned as a flow-control structure.

5.5.3 Cut 24: Rock Wall and Midden

Cut 24 is a linear rock alignment that crosscuts the two cobble walls (Cuts 17 and 18) at a perpendicular angle. It extends east-west and was built of cobbles and boulders similar in

construction to Cuts 17 and 18. Cut 24 was intact for 35 feet (10.6 meters) and was 3 feet (0.9 meter) wide. The rocks were dry-laid onto native clay sediments, and mission tile and mammal bone were occasionally found embedded between the rocks. To the east, Cut 24 was disturbed by modern construction. However, it may once have extended much farther east to connect with the wall designated as Cut 4, exposed in TA-1 North in the Bello Lot.

Cut 24 was also exposed in TEUs 12, 13, and 14 (see Figures 5-3 and 5-25). A cross section of the wall was observed in a bank cut below TEU 14. Here 2 feet of fill was removed to expose the original historic surface. Starting in the center of the block, the surface sloped dramatically south toward Monterey Street and was buried in up to 8 feet (2.4 meters) of fill. The removal of the fill resulted in a bank cut exposing the cobble/boulder wall designated Cut 24. Mission-era midden accumulated behind (south of) the wall. The midden is discussed below in describing the results of excavation of TEUs 10, 12, 13 and 14.

Based on field observations during excavation of a cross section exposing the stratigraphic relationship between Cut 24 and Cuts 17/18, it became clear that Cut 24 postdated the construction of Cut 17. However, Cut 24 abutted Cut 18 and appears to extend below Cut 18, suggesting it was earlier than this cut. These stratigraphic relationships and possible associations are shown in the site Harris Matrix (see Figure 5-17). The excavator of this cross section (Cut 12 Extension) collected cattle bone, *tejas*, shell, and one piece of British pearlware manufactured between the 1780s and 1820s. This dates the construction of the east-west wall (Cut 24) to that time period.

5.6 MISSION-ERA MIDDEN DEPOSIT

During mechanical stripping of TA-2 North, an area of concentrated mission tile was exposed in a bank cut and surface shovel scrapes below and south of Cut 24. Following this discovery, Æ manually excavated six exploratory units (TEUs 10, 11, 12, 13, 14, and 15) to investigate any mission-era midden (see Figure 5-3). All TEUs were excavated in 10-centimeter arbitrary levels until native/sterile soil was encountered (Table 5-7). Excavations focused on defining the vertical and horizontal extent of the midden within each unit and retrieval of artifacts. As a result, intact mission-era midden was identified in TEUs 10, 12, 13, and 14. A cross section of the stratigraphy in TEUs 12, 13, and 14 is illustrated in Figure 5-25 and summarized below. TEU 10 explored an isolated concentration of *tejas*, and TEU 11 was excavated at the northernmost extent of Cut 17 in order to provide a cross sectional view of that feature. TEU 15 contained mixed sediments and artifacts associated with both the mission-era midden and a historical artifact concentration characterized as an early-1900s midden.

Table 5-7
Mission-Era Midden Test Excavation Units in TA-2 North

Unit	Size (cm)	Depth (cm)	Volume Excavated (m ³)	Deposit Type
TEU 10	100 x 100	0–70	0.7	Mission-era midden
TEU 12 and Extension	100 x 50	0–63	0.315	Mission-era midden
TEU 13 and Extension	100 x 100	0–51	0.51	Mission-era midden
TEU 14	150 x 50	0–65	0.0004875	Mission-era midden

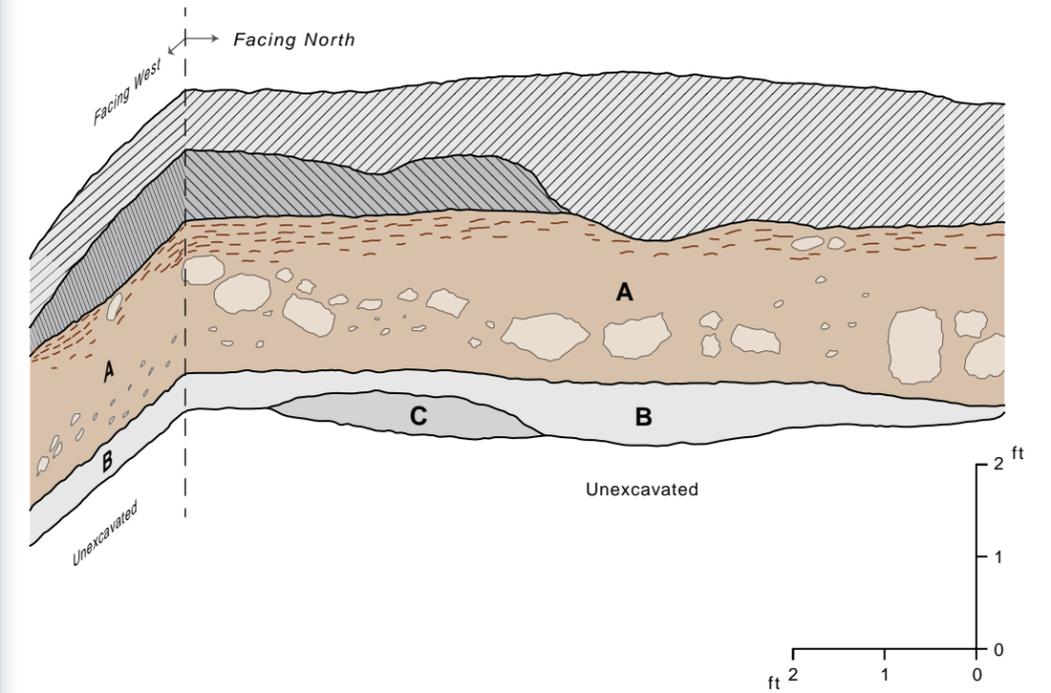
TEU 12
North Wall



TEU 13
North Wall



TEU 14
Profile Drawing



-  Loose fill sediments of native silty loam mixed with sand, imported road base gravels, concrete and mixed mission- to modern-era structural rubble and debris; color is dark grayish brown
-  Compact fill sediments of native dark grayish brown silty clay loam with native rocks and gravels and minimal mission- to modern-era debris; mechanically disturbed native soil.
- A** Native dark grayish brown loamy clay with visible mission-era and prehistoric cultural debris including Spanish *tejas* and faunal bone, Monterey chert lithic debitage, charcoal, and marine shell; native rocks and gravels include chert, serpentine, dacite, and similar material; larger rocks in lower portion of stratum represent mission-era stone foundation (Cut 24)
- B** Sterile light gray silty clay with scattered native rocks and gravels; below cultural stratum
- C** Sterile reddish brown clay with sparse native gravels; only exposed in northwest portion of trench
-  Spanish tile and faunal bone
-  Rocks and gravels (rock wall)

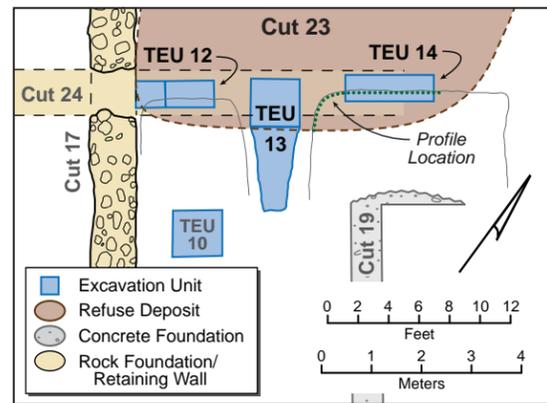


Figure 5-25 Test excavation unit photos and profile showing TA-2 North stratigraphy.

5.6.1 Midden Stratigraphy

The excavations along Cut 24 (TEUs 12, 13, and 14) revealed an intact midden deposit 2 feet (0.6 meter) below layers of disturbed modern fill. Sediments consisted of two layers (see Figure 5-25). The upper layer was a loose dark grayish brown silty loam mixed with sand, imported gravel (used as road base), and decomposing asphalt; mixed throughout were mission-era artifacts, historic and modern structural rubble, and historic artifacts. The second layer below the asphalt consisted of compact dark grayish brown silty clay loam with native rocks and gravels and minimal modern-era debris. In this layer mission-era artifacts dominated.

The intact mission-era midden was compact dark grayish brown clay loam approximately 30–40 centimeters thick. This layer was observed in TEUs 10, 12, 13, and 14 and contained terrestrial mammal bone (1,767.3 grams), a small amount of fish bone (54.2 grams), and shell (633.9 grams). Ceramics from this stratum have been identified as Chinese Canton/Nanking wares (post 1780s–1810s) and contemporary British earthenware sherds identified as pearlware (1780–1820s) (Figure 5-26) as well as mission brownware and Mexican-produced tin-glazed earthenware (majolica) (Figure 5-27). Other artifacts include *Olivella* (*Callianax*) shell disk beads, flaked stone tools, and debitage along with European-made glass trade beads. In addition, excavators recovered dark green bottle glass fragments. Construction material included 23,263.6 grams of mission roofing tiles (*tejas*) and cut nails. Larger rocks in the lower portion of this stratum were components of a mission-era stone wall extending east-west across the Sauer, Muzio (Cut 24), and Bello lots (Cut 4).

Mission-era strata overlay a light gray silty clay representing native soil. This zone contained scattered cobbles and gravels. Generally, it represents the historic surface at the time of mission development.



Figure 5-26 Chinese and British ceramic artifacts from mission-era midden.



Figure 5-27 Brownware ceramics from mission-era midden.

5.6.2 TEU 10

As monitors observed the removal of fill east of Cut 17, they identified a concentration of *tejas* and bone. They stopped the grading and opened a 1 by 1 meter excavation unit at the location of the concentration to explore the contents of what appeared to be a domestic mission-era midden. This deposit continued for 50 centimeters below the historic surface before native soil was encountered.

The first layer excavated in this unit consisted of dark brown silty loam, which overlay smooth compact clay. Artifacts collected at the surface include *tejas*, clear glass, a small blue-on-white majolica sherd (1770s–1835), and fragments of white earthenware. This appears to be Stratum I identified elsewhere containing nineteenth-century artifacts. In addition, excavators recovered 8 grams of mammal bone and a small turquoise glass trade bead. Mission tile fragments were abundant. In the next 10-centimeter level (10–20 centimeters below the historic grade) excavators recovered terrestrial mammal bone (265.3 grams), some with signs of burning, fish bone (11.0 grams), a copper inset button, and clear and olive bottle glass. Unidentifiable ferrous metal, mission roofing tiles, and *teja* fragments were abundant. This level represents Stratum II as no nineteenth-century artifacts were present. Excavators recovered a brownware wheel-thrown vessel base at 14 centimeters below the interface between the nineteenth-century historic grade and the earlier mission-era surface. A second brownware base fragment appeared to be from a coiled pot. Interestingly, excavators reported observing slag. Slag, or highly vitrified bone, has been found in other mission-era deposits (Abdo-Hintzman et al. 2010).

In the 20–30-centimeter level, artifact frequency increased and included a large amount of animal bone (107.4 grams, mostly cow), abundant *tejas* (n = 159), a chert flake/shatter, a turquoise glass seed bead, a brownware vessel base fragment, and a Chinese porcelain fragment (Stratum III). Chinese imported porcelain is considered an early hallmark of the mission-era collection, predating the 1810s. Excavators observed the ferrous metal, and noted sediments were becoming more compacted.

Excavations continued an additional 30–40 centimeters due to the occurrence of dark midden-like sediments. However, no additional artifacts were recovered. Gradually, soils lightened in color and became predominately compacted clayey silt (Stratum IV).

5.6.3 TEU 12

Again Æ's monitor observed a heavy concentration of *tejas* (68 pounds [30.8 kilograms]) and terrestrial faunal remains at this location. Grading was stopped and excavators opened a 1.0 by 0.5 meter unit above the east-west wall (Cut 24) to investigate the possibility that a feature or midden was present. Excavations began below what appeared to be an oiled compacted surface. This surface lay in the area of the historic Fashion Livery and Feed structure within the location of a carriage house. On the 1888 Sanborn map this structure was recorded as old and dilapidated, and by 1903 the Sanborn map indicates that it was gone. Pieces of this oiled surface were driven into the mission-era deposits below. Excavators identified four distinct strata in TEU 12.

Stratum I continued below the top of the historic grade (starting below the oiled surface) down to 22 centimeters. Here burned mammal bone and shell were mixed in light brown clayey sediments. Excavators observed a concentration of Spanish tile in the northeastern corner of the unit between 5 and 20 centimeters deep. Cumulatively, recovered tile weighed 15.4 pounds (6.8 kilograms). At 20–22 centimeters the occurrence of shell, charcoal, and bone increased.

Stratum II began with this observed increase in cultural material. Excavators characterized this layer as sheet midden that consisted of rich dark brown silty sediments mixed with loose clay. Toward the bottom of the zone, they observed lessening of artifact frequency and a change in soil color from dark brown clay to a lighter brown clayey-sandy loam. Stratum II included *tejas* (7.48 pounds [3.39 kilograms]) as well as burned and unburned mammal bone, clam and oyster shell, traces of pink plaster, and a brownware bowl/jar fragment that exhibited burning on the exterior.

Stratum III continued from 33 to 47 centimeters. Excavators encountered dark brown soil containing residual artifacts from Stratum II as well as cobbles and small boulders recovered at the top of Stratum III. Excavators observed fewer artifacts in this layer but recovered a burned glass trade bead, a thick brownware body sherd, and *teja* fragments along with mammal bone and shell.

Soils became increasingly compact in Stratum IV, which terminated at 63 centimeters with the exposure of a cobble wall. Less bone and shell were found in Stratum IV. *Tejas* were still present but had decreased to 2 pounds (0.91 kilogram).

5.6.4 TEU 12 Extension

TEU 12 was extended 50 centimeters to the west to explore the relationship between Cut 24 and the intersecting north-south wall (Cut 17). This unit was excavated in a single layer from below the oiled surface to contact with the stone wall representing Cut 24. A soil bore had disturbed much of the sediment within the TEU 12 Extension, resulting in some mixing of materials. Nonetheless, excavators observed a loose, clayey, dark brown sheet midden. They recovered three shell beads, a larger *Olivella* (*Callianax*) shell disk bead with a hole in the center (weathered), and three glass beads (two black and one white) (Figure 5-28) as well as two chert flakes. Ceramics and glass also were found and included a miniature whiteware dish, an ironstone hollow body fragment, and clear bottle glass fragments. None of this material was mission-related and likely was introduced during soil boring.

5.6.5 TEU 13 and TEU 13 Extension

Originally this unit measured 1 meter square and was laid out to investigate a very dense concentration of *teja* fragments and mammal bone revealed during mechanical stripping. Due to the high recovery of diagnostic artifacts, the unit was extended to include a wedged-shaped area left high during grading. The extension measured roughly 1 meter wide tapering to 50 centimeters wide and was 1.5 meters long. Excavators hand dug the two units separately, but they represented one continuous deposit. The oiled surface had been scraped away in the TEU 13 Extension, and the extension sloped slightly to the south toward TEU 10.

Beneath the oiled layer in the uppermost stratum of TEU 13 excavators found mostly nineteenth-century historic artifacts overlaying the mission-era deposit. Between 0 and 13 centimeters they recovered very fragmentary bone and bottle glass (i.e., clear, aqua, brown, and olive), chimney lamp glass fragments, and flat window glass. Ceramic sherds included white earthenware, ironstone, Chinese Canton ware, and one item with a partial maker's mark. The maker's mark was identified as Knowles, Taylor & Knowles, a company that produced ironstone tableware using this mark between 1910 and 1929. Another cup base fragment was decorated with a decal floral print (manufactured in the late nineteenth to early twentieth century). The Canton ware dates to the early mission period and shows that the deposit at this level represented the interface between the early twentieth-century kitchen midden and the mission-era midden. Ferrous cut



Figure 5-28 Projectile point and beads recovered from the mission-era midden.

nails and spikes also were collected. They probably relate to the nearby Mission Livery. Sediments generally were a medium gray-brown clayey silt.

Excavators described Stratum II (continuing between 13 and 51 centimeters) as a dark brown silty clay containing numerous mission-era artifacts and mammal bone, fish bone, and shell. Ceramic fragments of British manufacture included painted pearlware (see Figure 5-26) and flow blue transfer printed earthenware (too small to determine vessel function). Also recovered were mission brownware and a small blue-on-white Mexican majolica sherd (too small to identify the pattern). Other artifacts included ferrous cut nails, a chert core, a chert projectile point, and glass trade beads (see Figure 5-28). Very small fragments of bottle glass and flat glass were recovered. Based on the absence of earlier period artifacts, Stratum II appears to represent intact mission-era midden. Stratum III began as a hard-packed clay but still yielded terrestrial faunal and fish bone, clam shell, mission tile, a brownware vessel body fragment, and black bottle glass.

Diagnostic ceramics recovered from TEU 13 and TEU 13 Extension represent early British earthenwares, mission brownware, very fragmented majolica, and Chinese porcelain. All of the British earthenware appears to be pearlware of pre-1820s manufacture with the possible exception of a single cobalt blue transfer-printed sherd. This fragment may mark the transition from manufacturing painted blue-on-white British wares to the invention and introduction of transfer printing (1780s–1820s). The single Chinese porcelain fragment, painted with the Nanking/Canton pattern, would argue for manufacture and shipment predating 1810s. Two small fragmented majolica sherds were recovered as were two mission brownware sherds. Taken together, these artifacts provide a very early production date, suggesting the midden was deposited circa 1780s–1810s.

Six glass trade beads were recovered: three each from TEU 13 and TEU 13 extension. All were of seed bead size and they were of various colors—three blue, two green, and one red.

5.6.6 TEU 14

Unit 14 was placed above Cut 24, which the equipment operator exposed in a bank cut. The wall was visible in cross section and extended to the east before ending abruptly. It appeared to be two courses high and one course wide. It was built of locally available cobbles/boulders and small river rock filled the gaps. West of the wall, the *tejas* concentration began 20–30 centimeters inside TEU 13. Figure 5-25 provides a composite cross section of the stone wall and midden as revealed in TEUs 12, 13, 14, and the bank cut.

The excavation of TEU 14 began at the historic surface and continued down 65 centimeters where Cut 24 was encountered. Excavators identified Stratum I as medium gray-brown clay. As elsewhere, mission artifacts were mixed with later period debris in the first 20 centimeters. Below 20 centimeters, in addition to abundant *tejas*, there were displaced cobbles, oyster shell, and bovine bone in a darker brown soil matrix. Stratum II was similar in composition to the upper stratum and continued to 50 centimeters below the historic surface. Recovered artifacts included a British ceramic sherd, a Chinese porcelain fragment, one chert flake, one *Olivella* (*Callianax*) shell disk bead, one ferrous metal fragment, and small glass fragments (less than 1/4-inch in size). *Teja* fragments (8.6 pounds [3.9 kilograms]) abound in this stratum, which also contained mammal and fish bone and marine shell.

Diagnostic artifacts included a single Canton porcelain fragment (pre-1810s) and a blue-on-white transfer print identified as pearlware (1780s–1820s). These artifacts indicate a date of deposition similar to that of artifacts recovered from TEUs 10, 12, and 13. The frequency of debris, however, was much diminished in TEU 14, with the exception of *tejas* and bone. The concentration of midden was in the area of Cut 17, south of Cut 24, and artifact density faded toward the east away from the aqueduct channel.

5.6.7 Cuts 25, 26, and 27: Rock Platform and Post Holes

During manual exploration of the early twentieth-century concentration of artifacts (Cuts 21–23 described in greater detail below), a roughly circular dry-laid rock platform 3.5 feet (1 meter) in diameter was exposed below the kitchen midden of Cuts 21–23 (see Figure 5-3). This platform was formed of a single course of 6–8 inch (15–20 centimeter) diameter cobbles and appeared to be associated with two post holes, Cuts 26 and 27, situated at the northern and southern extremities of the platform. Cut 26 is a square 6 by 6 inch (15 by 15 centimeter) post hole. It continued 11 inches (27 centimeters) deep and contained a burned redwood post butt. Cut 27, located on the north side of the rock platform, was also a 6-inch-square post hole. It continued 11 inches (27 centimeters) deep and also contained a burned redwood post butt in addition to a 4-inch (10-centimeter) forged ferrous metal spike. The excavator found no other cultural material in association with this feature, and its function is unknown. However, because of the similarity in the rocks used to form the platform when compared with those used in nearby wall construction, it is assumed this feature is of mission-era construction. It lies north of Cut 24 and east of Cut 17. It was found below the kitchen midden (Cut 21–23) at the interface between the later historic surface and the midden-era surface.

5.7 HISTORIC CONCENTRATION: EARLY TWENTIETH-CENTURY KITCHEN MIDDEN

Cut 23 was assigned to an area of sheet refuse concentrated in the northeastern corner of TA-2 North. It is generally distributed east of Cut 17 (the eastern wall of the aqueduct channel) and covers Cut 24 (the east-west mission wall) and Cuts 25, 26, and 27 (mission-era rock platform and post holes). Initially identified as multiple artifact concentrations, further exploration revealed these concentrations represented a single dense artifact scatter distributed over a large area. Two cut numbers were assigned to these initial artifact concentrations (Cuts 21 and 22). As definition of the features revealed the larger artifact concentration, Cuts 21 and 22 were explored as control samples measuring roughly 50 by 50 centimeters square.

Excavators discovered that this sheet refuse covered a surface area of approximately 400 square feet (36 square meters) (see Figure 5-3) and ranged in depth from 6 to 12 inches (15 to 30 centimeters). It overlaid the oiled compacted surface found in TEUs 12, 13, and 14 and interfaced with the mission-era surface represented by Cuts 25, 26, and 27. This layer contained artifacts from the late nineteenth and early twentieth centuries suspended in mottled soil and redeposited native clay and a pinkish ashy silt. As the area was explored manually through troweling of the surface, a sample of artifacts was collected, generally recovered by pedestaling items in the area in which they were found while attempting to define the limits of the feature. An additional 1.0 by 0.5 meter unit (TEU 15) was laid out at the concentration edge in attempt to

define the deposits limits and relationship with the mission-era midden. The sample of artifacts included a mixture of material types from both the mission period and the later historic period.

Excavations yielded glass, mission tile, miscellaneous metal, Pismo clam shell, and mammal bone. Marked and datable ceramics include imported British whitewares and U.S. made ironstone, most of which dated to the 1890s and early 1900s (see Appendix B). Earlier mission-era artifacts included imported Chinese porcelain, British earthenware such as pearlware and transfer prints, Spanish tile, glass and shell trade beads, and ground stone tools (steatite bowl fragment and mano fragments).

The sheet refuse appears to have accumulated in and around the former location of the Fashion Feed and Livery stable, but given its content and age it does not appear to be associated with this operation. This long-time establishment operated in San Luis Obispo prior to 1874 and through the 1880s. The 1874 and 1888 Sanborn maps label the building as old and dilapidated. In 1891 it was labeled “old bldg” but was still standing. By 1903 the building was gone.

In 1891 the Salvation Army moved into the second story of the Lytton Theatre fronting Monterey Street and south of the livery stable. The first-floor stores were vacant at that time, with the possible exception of a saloon located at 44 Monterey Street. By 1903 a saloon is definitely operating on the first floor at this address and a kitchen has been added at the back. The Salvation Army still occupied the second story until at least 1909. The association between the kitchen and the Salvation Army, if any, is unsubstantiated. However, in December 1891, the *San Luis Obispo Tribune* announced the Salvation Army would hold a special meeting on New Year’s Eve at the “barracks” where for a nominal price of 15 cents one could join in an “oyster supper” and ring in the New Year.

The artifact scatter at the back of the lot appears to be kitchen refuse from an establishment feeding multiple patrons, not a single-family residence. While domestic refuse is present, represented by personal items such as toothbrushes, grooming articles, and medicine bottles, artifacts were predominately food serving items, such as plates, saucers, cups and mugs, stemware, tumblers, and service items (hollowware, teapot, salt shakers, pitcher, and fruit dishes) (Table 5-8).

Table 5-8
Artifacts by Category from the Historic Concentration

Category	MNI	Percent
Commerce	1	0.5
Communication	2	1.0
Firearms	1	0.5
Food Preparation/Consumption	130	64.0
Food Products/Packaging	14	7.0
Misc. Bottles, Jars, Cans	6	3.0
Social Drugs	27	13.0
Grooming	9	4.0
Toys	1	0.5
Clothing/Footwear	5	2.0
Health/Medicine	4	2.0
Household Furnishing	4	2.0
Total	204	99.5

In places the midden was burned, possibly to reduce organic refuse. In addition to ash and charcoal, excavators recovered fused glass and charred ceramics fragments. Food refuse was abundant and included mammal bone; abalone, clam, and oyster shell; fruit pits and seeds; and bottles that once contained a variety of beverages, including soft drinks, milk, sarsaparilla, and liquor (wine, beer, ale, bitters, and Bénédictine liqueur [1870–1920]). The sheer abundance of the food service items argues for commercial restaurant fare. Preserve jars, pickle jars, and other condiments and sauce bottles abounded, including the ever-popular Lea & Perrins Worcestershire Sauce (1877+). Vases and kerosene lamps may once have adorned tables, and smoking paraphernalia was found among the remains.

Datable items include patented medicine cures (Figure 5-29), such as Hood’s Sarsaparilla Bitters (1894–1905), Lash’s Kidney and Liver Bitters (1876+), Dr. Hostetter’s Bitters (1870s–1920s), Dr. Kilmers’ Swamp-Root Kidney Cure (1907–1917), and Carlsbad Sprudel Salts (1890s–1899+). Notable was the presence of a Liquozone bottle (1890–1910) manufactured only by the Liquid Ozone Company in Chicago. Makers of this medicine professed to kill “predaceous bacillus of the stomach” and offered it as a cure for 37 ailments (Adams 1905:20). It was subsequently declared a fake by Messrs. Dickman, Mackenzie, and Potter of Chicago as well as many other medical practitioners who followed their lead (Adams 1905). The concoction was said to include red wine and a weak solution of sulfuric and sulfurous acids. Traces of hydrochloric and hydrobromic acids were also present, but for the most part it contained water. It was introduced in the 1890s but had been debunked by 1907–1910.



Figure 5-29 Medicine bottles recovered from the historic concentration Area.

Among the manufacturers of ceramics that were represented by back marks were the companies listed in Table 5-9.

Table 5-9
Ceramic Makers' Marks from the Historic Concentration

Maker	Place Of Origin	Date of Production
John Maddock & Sons LTD	England	1880–1896
New Wharf Pottery	England	1890–1894
Thomas Furnival & Sons	England	1875–1890
Alfred Meakin	England	1891–1897+
Alfred Meakin LTD	England	1897+
J&G Meakin	Hanley, England	1890+
Greenwood China	Trenton, New Jersey	1886
Henry Kennedy & Sons	Glasgow, Scotland	1866–1929
Screenwood China	Trenton, New Jersey	n.d.

When compared with the patented medicine bottle production dates, the historic concentration appears to date to the late nineteenth–early twentieth centuries. The present of the Dr. Kilmers' Swamp-Root Kidney Cure (1907–1917) bottle provides a TPQ date for the deposit of 1907.

The kitchen associated with the saloon fronting Monterey Street first appears on the 1903 Sanborn map at 836 Monterey Street. While the structure housing the kitchen was there in 1886, it was home to a billiard parlor at that time. No tenant is identified on the 1888 or 1891 Sanborn maps. Following its establishment as a kitchen, it continued in operation through at least 1909 when the address is give as 862 Monterey Street. This building was demolished and replaced by 1926.

The only documented restaurant in the Sauer and Little building during this time period is Chiesa's French restaurant, Maison Doree. It appears on the 1903 Sanborn Map, located next door to the saloon/kitchen. An advertisement for Chiesa's Hotel and Restaurant was found in the 1908–1909 San Luis Obispo City and County Directory. It was located at 858 Monterey Street and offered "First-Class Rooms," "Hot and Cold Water including Baths," and served excellent meals at all hours, either "Regular or to Order" (Los Angeles City Directory Company 1908). The Bénédictine bottle found in the historic concentration may provide a link between the kitchen midden at the back and Chiesa's French restaurant.

6

FROM MISSION TO COMMERCIAL DOWNTOWN

6.1 SUMMARY OF INVESTIGATIONS

Archaeological deposits exposed in the Bello and Sauer/Little lots in 2015 included mission-era structural remains and domestic midden deposits, late 1800s privy pits, an early 1900s bottle concentration, and an extensive early 1900s kitchen midden. Æ archaeologists performed data recovery in the heart of what once was the mission pueblo. The pueblo evolved into the commercial district of San Luis Obispo during the mid-nineteenth and early twentieth centuries. Cuts 7 and 8, identified as privies, appear to have been abandoned and filled between 1880 and 1886. Their association is linked to a restaurant fronting Morro Street and its operators' residence. This establishment may have been an oyster bar offering expedient meals and libations as well as a full-service restaurant. Also found in the Bello Lot was a bottle concentration clearly associated with the Eagle Pharmacy, which was in operation from 1876 through 1922. The recovered bottles provide a unique seriation of patent medicines bottles spanning 46 years. Around the corner and down the street at the back lot of the Sauer/Little adobe and Lytton Theatre, excavators found a dense kitchen midden containing abundant food refuse, bottles, broken ceramics, and other artifacts. This deposit appears linked to a kitchen/saloon and/or popular French restaurant in operation on Monterey Street from before 1903 through the 1910s.

Buried below layers of historic fill and the evidence of countless rebuilding episodes were hidden remains of the pueblo which developed outside Mission San Luis Obispo de Tolosa between 1772 and 1835. Here lay stone walls terracing the steep slope between Palm and Monterey streets and two parallel stone walls forming an aqueduct channeling water from the Morro Street reservoir to the pueblo cistern found in the Sauer/Little Lot. An article from the *Monitor* (Weber 1985) described the discovery of a "smelter" near the entrance to E. M. Payne's plumbing shop (later the Blackstone Hotel), and there was also housing said to shelter married native workers along both sides of Chorro Street (Weber 1985:163). Æ's 2012 excavation revealed elements of the housing and midden in the Yung Lot. In 2012, excavations beneath the Blackstone and Muzio buildings revealed contemporary structural remains and an irrigation ditch running perpendicular to Monterey Street. The current report explores the relationship between the early structures found in Block 14/327 and those of the mission across the street. Among the structural remains exposed was a series of rock foundations at the former site of the Sauer/Little adobe extant from at least late mission times (1830s) through 1909. This stone foundation exposed beneath modern fill underwent multiple phases of rebuilding. Below its expanded floor plan was the deep well pit that once provided water to the Native American village. These discoveries are discussed in the context of previous knowledge gained through Æ's archaeological excavations and historic research beginning in 2006 and continuing through 2016.

6.2 SAN LUIS OBISPO CHINATOWN RESEARCH DESIGN

Energized by the 2006 excavations along Morro Street, research design authors for the Copeland Project (Nettles and Price 2007) challenged future researchers to seek a better understanding of early life in San Luis Obispo through archaeological investigations. The authors examined the potential to gather new data for comparison with data from various intrasite activity areas within CA-SLO-1419H. After investigation of the Palm/Morro midden, report authors commented:

This project, only the second of its magnitude in the city, has just begun to scratch the surface of life in nineteenth-century San Luis Obispo [Nettles 2006:270].

As a result of excavations in the Yung Lot (Hamilton and Abdo Hintzman 2014) and beneath the Muzio and Blackstone buildings (Hamilton et al. 2014), additional data were gathered about the area bounded by Monterey, Chorro, Palm, and Morro streets. These investigations enhance our understanding of life at the mission and the growth of the commercial district of San Luis Obispo as it expanded and masked from view the earlier mission remains.

The research design prepared in 2007 posed several questions related to the mission and earlier Native American occupation periods. It stressed that for a historical archaeological research design to be effective, it must link archaeological data with historically documented events, trends, or themes. Through this process, archaeologists can make their greatest contributions to history. Some of the questions posed by Nettles and Price (2007:56) and the Muzio/Blackstone data are applicable to assessing the Monterey Street remains in an attempt to understand the expansion outside the mission into Block 14/327.

- In what ways does the archaeological evidence of mission-era use of the study area support or refute the documentary record?
- What evidence of Chumash acculturation shows up in the archaeological record?
- How were native practices blended with the new skills acquired at the mission?
- How do Native American deposits in the current project area differ from those recovered in the Copelands midden (across Morro Street) or during the 1995 testing of the Kozak Lot in the northeast corner of the project area?

To these, new questions are posed:

- Was Block 14/327 exclusively utilized by Native Americans during mission times defined here as being from 1772 through the 1830s?
- Was it exclusively a habitation site?
- Was industry focused outside of the mission quadrangle? What did that industry include?
- How did use of the block and remaining buildings change after secularization and the sale of mission lands into private holdings in 1845?

- When did Native American occupation of the block fade and at what point did the area become commercialized?

A review of the analysts' data presented in Chapter 4 and specialized analysis reported in Appendix D provides partial answers to these questions; further conclusions are offered below.

6.3 FOUNDING OF THE MISSION

When the Chumash inhabitants of the valley traveled to observe the dedication of Mission San Luis Obispo de Tolosa in 1772, they were unaware of how drastically their lives were to change. They were greeted by the Franciscan fathers eager to share their visions of Christianity and Spanish global commerce. The missionaries brought metal tools, glass trade beads, new technology, and exotic foods (e.g., red sugar) to share. The event must have seemed familiar to the Chumash, who conducted trade fairs and festive gatherings of their own where exotic goods were exchanged and alliances were established and renewed.

The mission site selected in 1772 was on the summit of a low hill between two arroyos (Palóu 1926:361). An aqueduct was built to supply the mission orchards situated to the northwest, a mill at the reservoir to the north, another to the south along arroyo San Luis Obispo, and the vineyards beyond. With the passage of time, Chumash people came to live at or near the mission, learned Spanish, acquired farming skills, procured food from a communal kitchen, and attended religious services (Kocher 1972:15). The mission population peaked in 1805 when it briefly reached 961 (Weber 1985:19). The previous year the mission registers had recorded 2,074 baptisms and 1,091 deaths, 32 years after the founding of Mission San Luis Obispo (Weber 1985:3–4). While the Chumash experienced an unimaginable number of deaths from European diseases to which they had no immunity, the mission fathers proclaimed those years an “age of prosperity” and many construction projects ensued (Kocher 1972:27–31). At that time, the church, outbuildings, and adobe houses arose. The Native Americans were said to live outside the mission walls along Chorro Street within the limits of Block 14/327. As early as 1801, six adobe houses measuring 20 by 17 feet stood outside the mission walls. They were “tiled and windowed” and “marked the first solid housing for Indian families” (Kocher 1972:27–31).

The year 1802 saw the building of 28 more homes of the same sort, while succeeding years brought annual increments of 13, 4, 6, 4, 4, 4, 9 and 2 others. At the same time older buildings received continual repair [Weber 1985:21].

By 1810 some 80 adobe structures occupied the blocks bordering the mission.

The results of previous archaeological excavation in the Kozak, Yung, and Palm/Morro lots support this contention. Investigations in the Blackstone, Sauer/Little and Bello lots revealed other activities outside mission walls, illuminating what life must have been like during those early years prior to abandonment of the mission. Transition to a largely commercial district occurred by the end of the nineteenth century.

6.4 MISSION-ERA ARCHAEOLOGICAL DEPOSITS BLOCKS 327 AND 328

6.4.1 Kozak Lot and Palm/Morro Midden

In the summer of 1995, Heritage Discoveries, Inc. conducted test excavations on the Kozak Lot situated on the southeast corner of Palm and Morro streets (see Figure 3-2). Test excavations revealed well preserved archaeological remains including cobble (stone) floors, midden, elements of Chinatown, and structural remains from a later date. The Heritage Discoveries test excavations in the midden recovered numerous shell and glass beads, large amounts of faunal remains, Spanish roofing tile (*tejas*), and stone tools. These features and their contents were considered elements of the Palm Street historic site (CA-SLO-1419H). Investigators defined these deposits as a large habitation site bounded by Mill, Chorro, Monterey, and Osos streets. The 2003 Æ excavations extended the limits of the domestic midden to the east side of Morro Street (Nettles 2006).

In 2003, Æ undertook controlled excavations at that location in advance of construction of the Copeland Properties' Court Street Project. These excavations revealed an extensive mission-era midden distributed over the slope between Palm and Monterey streets northeast of the current project. Excavators exposed a very dark brown organic soil bearing abundant Spanish tile, adobe block, and daub. The Palm/Morro midden yielded domesticated fauna and nonnative botanical remains (wheat, maize, and peas) as well as glass and shell beads. Artifacts of native production included shell beads, pendant fragments, bead-making detritus, and flaked stone tools (projectile points and bifaces), ground stone tools (hammerstones, milling stones), and debitage. Mission-era ceramics included brownware, Mexican-made red-paste and soft-paste (Galera) earthenware, and majolica. These were highly fragmented and occurred in low frequencies.

Æ's 2006 report provided a comparison between the Palm/Morro midden and the Kozak Lot midden situated on opposite sides of the street. The absence of structural remains in the Palm/Morro Lot was notable since such features occurred across the street in the Kozak Lot. While investigators found Spanish tile, adobe block, and daub in the Palm/Morro midden, these building materials were not found in context and did not represent structural remnants. Nettles (2006) considered the Palm-Morro midden a continuation of the midden found in the Kozak Lot, but she noted slight temporal and functional variances. Shell beads from the Palm/Morro midden had small diameters that correspond with the period between 1776 and 1800. The diameters and colors of the glass beads also indicate a similar period of site utilization, and glass beads occurred in lower frequency than shell beads. In addition, despite the presence of nonindigenous cultigens, the absence of certain crops known to have been planted after 1804 (barley and beans in particular) were absent at Palm/Morro, perhaps supporting the assignment of this early depositional date. Where found, fragmented ceramics included brownware, Mexican earthenware, and majolica, but no British ceramics were recovered. Comparable data from the Kozak Lot suggest a longer depositional sequence, likely spanning from the 1770s to around 1815. The shell bead data seem to indicate both areas of the site were occupied shortly after the mission was established (Nettles 2006). However, occupation at the Palm/Morro portion of CA-SLO-1419H appears to have drastically fallen off by 1800, while occupation continued in the Kozak portion of the site for at least another 15 years (Nettles 2006). Data recovered from the Palm/Morro portion of CA-SLO-1419H suggested that this area functioned primarily as a refuse

disposal area, unlike the Kozak Lot where structural remains and cooking features were discovered.

6.4.2 Yung Lot

Monitoring in the Yung Lot began in 2012 with the demolition of the Yung Building. Grading revealed the presence of undisturbed archaeological deposits immediately below the surface (Hamilton and Abdo Hintzman 2014). Excavations exposed mission-era deposits covered by later Chinatown occupation remains. The presence of lithic debitage, shell, *tejas*, shell and glass beads, and butchered bone suggested Native American site usage. Deposits and structural remains found at the northern edge of the lot along Palm Street retained greater integrity than those found below the Muzio Building to the south, where excavations occurred early the same year. In the Yung Lot an in situ cobble floor and wall foundation were interpreted as mission-era structural remains, although excavations were limited by construction. Æ's archaeological team identified wall plaster, cobble floors, and mortar among the remains, similar to those described at Mission la Purísima Concepción near Lompoc, California, in the 1930s (Whitehead 1991). Following artifact analysis of the Yung Lot materials, the earliest deposits appeared to date to between 1788 and 1822. Features 1A and 1B, both structural, found along Palm Street were considered a possible continuation of the Native American habitation area associated with the mission that was identified in the Kozak Lot in 1995. Faunal remains represent the standard fare of beef, sheep, and chicken, supplemented with wild game such as deer, duck, and quail. A variety of fish also was represented, including nearshore species. Deeper excavations at the eastern margin of the project area in TEU 5 exposed stratified deposits down to 1 meter below the modern grade (Figure 6-1). Unit stratigraphy exhibited native soil, a post-contact zone containing Spanish tile, and a layer of concentrated building rubble representing the mission building phase from 1788 to 1811 (Hamilton and Abdo Hintzman 2014). This layer contained early mission artifacts, including mission brownware, early imported Chinese trade porcelain (predating 1810), majolica, and Mexican soft paste earthenware, although as in the Palm/Morro midden, mission-era ceramics were highly fragmented and single-color British transfer prints were absent. Layers above this zone showed occupation continued through the 1830s with the 1860s Chinatown deposit capping earlier remains.

The Yung Lot midden and structural remains were interpreted as a residential component inhabited by Native Americans and directly associated with the discoveries in the Kozak Lot and refuse deposits of the Palm/Morro midden. Beads, ceramic fragments, and floral and faunal remains recovered from the Yung Lot suggest that the site was occupied soon after the founding of the mission. Midden accumulation ceased sometime in the 1830s when structures were being abandoned.

6.4.3 Monterey Street: Blackstone and Muzio Buildings and Sauer/Little and Bello Lots

A review of the previous archaeological investigations in the northern end of Block 14/327 and in Block 328 provides the context for what was found in 2012 and 2015 along Monterey Street. This new information provides a much expanded picture of the village that grew between 1788 (rebuilding of the mission after two destructive fires) and the 1810s expansion outside the mission walls.

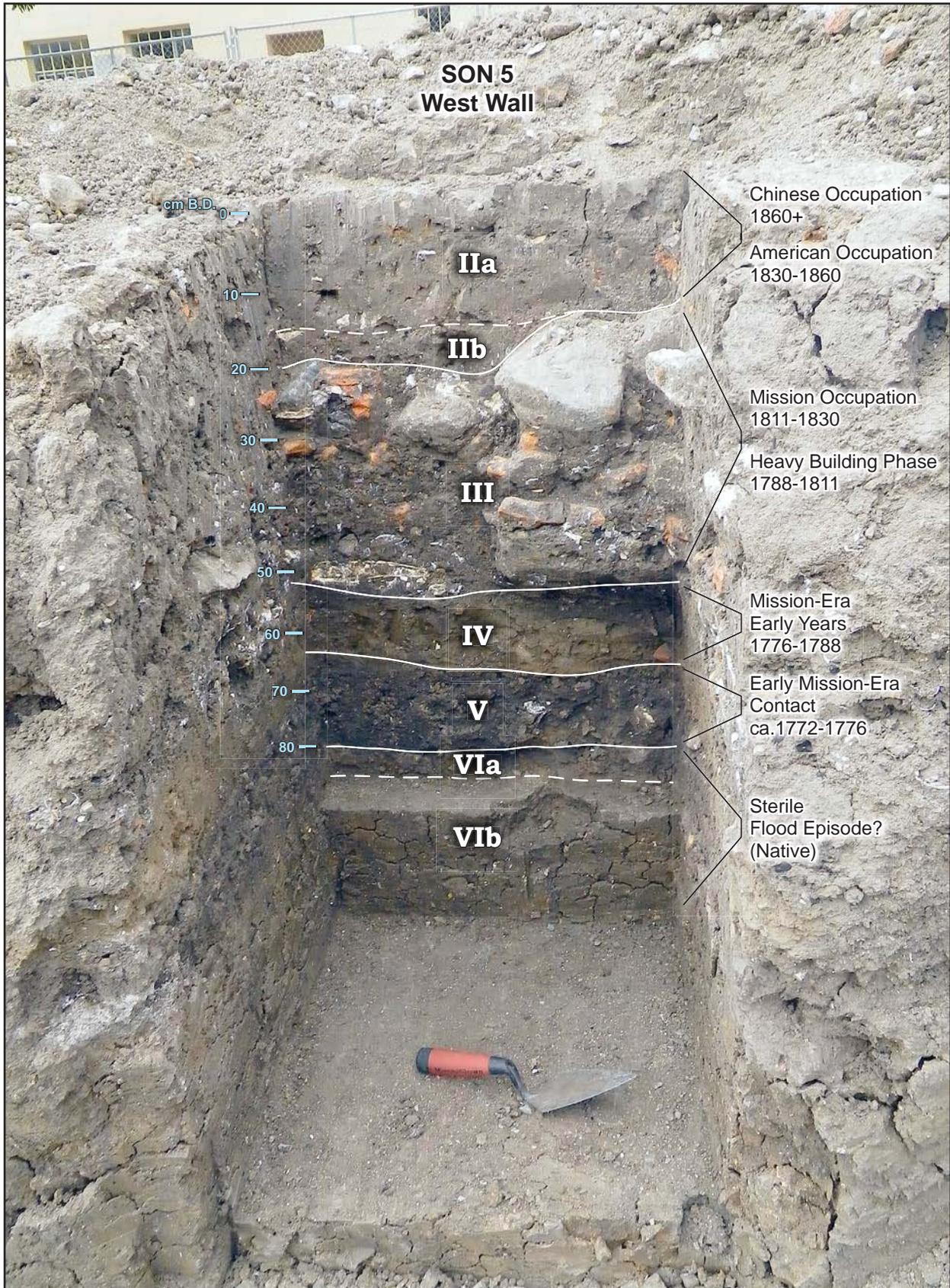


Figure 6-1 Enhanced photograph of TEU 5 west wall profile.

6.4.3.1 Muzio and Blackstone Buildings (Cuts 1 and 2)

Blackstone and Muzio deposits found below the floor of two historic structures built along Monterey Street by 1874 contributed new information about the expansion of the village beyond the mission quadrangle. But only a small portion of these deposits was exposed during the retrofit of the buildings prior to renovation. Significant unexplored deposits remain beneath the Blackstone Building floor and possibly under the Muzio Building as well.

Excavation in 2012 revealed that the deposit beneath the Muzio Building was disturbed by later construction, perhaps being mixed as a result of moving the building in 1912–1913 during widening of Monterey Street. While this deposit retained little integrity, what was learned from its excavation was that mission-era deposits once existed there. The presence of a bear phalanx, lithic debitage, shell, *tejas*, and butchered bone confirmed that the area was utilized during mission times. No saw-cut bone was found in Feature 1, and the bone that was recovered reflected the extraction of bone marrow, a common practice preceding modern butchering techniques. Excavations also provided further evidence of the persistence of flaked and ground stone tool production by the Native Americans living at the mission.

Deposits and structural remains found below the nearby Blackstone Building situated closer to the mission were much more revealing because they retained greater integrity than deposits beneath the Muzio Building. Here excavators discovered an in situ stone and mortar alignment (Cut 1). The alignment was oriented east-west parallel Monterey Street and measured 26 feet long. It may have extend east beyond the wall of the Blackstone Building below what once was the Sauer Bakery. To the west, the alignment ended within the footprint of the Blackstone Building. This alignment was constructed of large granite and serpentinite boulders bound by burned lime mortar tempered with coarse rounded gravel. Excavators digging in 2012 observed no traces of adobe block, adobe melt, or other building materials suggesting the prior existence of upright structural walls. The feature (Cut 1) appeared to have been a level surface formed of stone and *tejas* (Figure 6-2). Construction of the structure below the Blackstone Building appeared identical in composition to the rock alignments uncovered in the Sauer/Little Lot during the current project.

In 2012 archaeologists also uncovered a segment of a drainage ditch (Cut 2) extending beneath Cut 1 perpendicular to its alignment. During excavation researchers found that it contained mission-era artifacts. Analysis of these established a temporal association with other nearby mission deposits (dating between 1800 and 1828), including those found outside the Blackstone Building in the Sauer/Little Lot. Recovered artifacts include shell detritus; food refuse, faunal remains; shell and glass beads; worked bone; lithic debitage, a single projectile point (see Figure 5-28 above); and mission flooring and roofing tile. While this tile is structural in nature it was broken and used in the construction of Cut 1 similar to its use in the construction of the walls forming the aqueduct channel found in the Sauer/Little Lot (TA-2 North). In the area immediately adjacent to Cut 1, the ground was highly compacted and appeared to represent a compressed historical occupational surface.

There was a structure at the location of the Blackstone Building by 1870 when it was shown on the land petition map as an adobe house and store. The 1874 Sanborn fire insurance map shows that the building at the corner still had adobe walls but had been expanded with wood framing. In

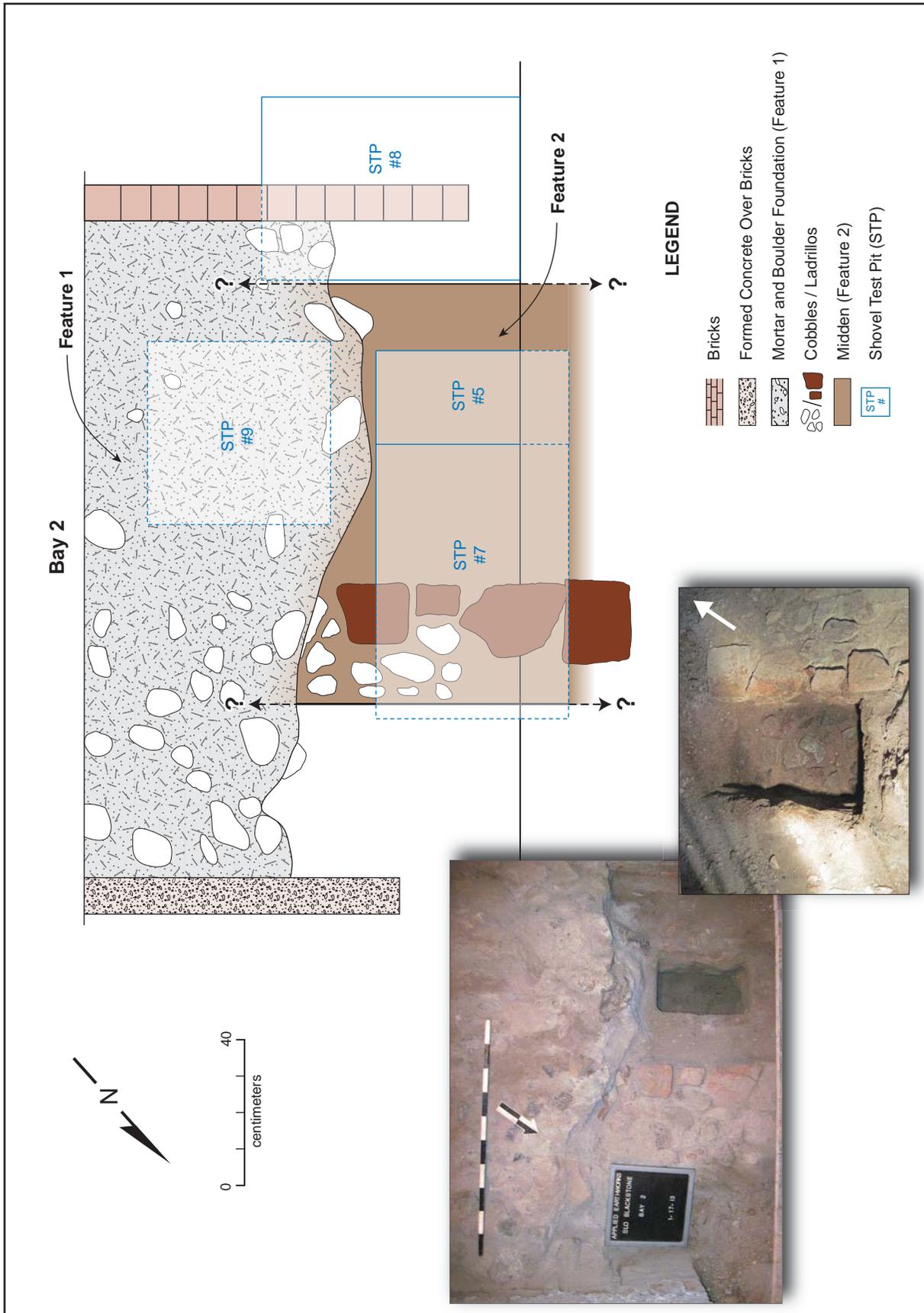


Figure 6-2 Features 1 and 2 (beneath the Blackstone Building), plan view and photographs.

1876, this structure was replaced with Quintana's new building (Penn Franks 2004:37). Reportedly, Native American housing in the area was there by 1801, predating the later buildings.

6.4.3.2 Aqueduct (Cuts 17 and 18)

Excavators found the aqueduct channel formed of two parallel linear rock alignments set 10 feet apart (3.0 meters). They were built of cobbles and boulders locally acquired and continued 40 feet (12 meters) and 45 feet (13.7 meters) north-south, respectively. Each wall was 3 feet (0.9 meter) wide and generally stood 3 feet (0.9 meter) high. The rock used to build the walls included regionally available basalt and serpentinite. These were dry-laid onto native clay sediments, and mission tile and splintered bovine bone were found embedded among the rocks. The northern portion of Cut 18 was more intact, consisting of cobbles placed atop larger boulders. The aqueduct builders then laid *teja* and *ladrillo* fragments above and between the cobbles, resulting in a very tightly constructed and level surface reminiscent of Cut 1. This segment of the wall represented the true height. The walls appeared to have undergone rebuilding at least once. They extend north beyond the Monterey In-Fill Project limits into the Yung Lot (Allen 2016), where they continued north toward the mission reservoir on Chorro Street. To the south, walls were disturbed by twentieth-century construction but continued in the direction of Cut 13—the mission era well/cistern. Mission-era midden was found along the walls, particularly in the area south and north of Cut 24, a perpendicular stone wall.

6.4.3.3 Terraces (Cuts 4/24 and 9)

Two east-west stone terrace walls were also identified during the 2015 excavations along Monterey Street. They were of construction similar to that of the aqueduct walls. One, Cut 24, extended east from the aqueduct (Cut 17 and 18) in the direction of the Muzio Building. A corresponding segment of stone wall was found in the Bello Lot farther east (Cut 4 in TA-1 North). Cut 4 extended up to and ended at a single north-south stone wall (also designated Cut 4).

Only isolated remnants of a second terrace wall were found in Sauer/Little Lot (TA-2 South). These remnants, designated Cuts 9 East and 9 West, consisted of a cluster of large boulders with smaller cobbles placed between the rocks to fill the gaps. *Tejas* were also used in the construction of Cut 9 East. The size of the boulders in the wall was similar to that used to build Cut 1 (below the Blackstone Building), Cut 10 (first phase of construction of the Sauer/Little adobe), and the aqueduct walls (Cut 17 and 18). No corresponding wall was found in the Bello Lot to the east. Archaeological excavations in the Yung Lot to the north in 2016 exposed similar east-west walls, also interpreted as terraces (Allen 2016).

6.4.3.4 Midden (TEUs 10, 12, 13, and 14) and Cut 25/26/27

The excavations in TEUs 10, 12, 13, and 14 revealed an intact mission-era midden continuing 2 feet (0.6 meter) in depth. It was deposited along the aqueduct channel wall and appeared to be domestic refuse accumulated during the building of the wall and/or from individuals working in area. The midden consisted of two layers: a mixed upper layer containing mission artifacts and later nineteenth-century ceramics and bottles. This stratum lay at the interface between the mission occupational zone and a later historic kitchen midden.

The second layer consisted of compacted dark grayish brown sediment containing native rock and gravel. This layer was dominated by mission-era artifacts, including ceramics, and also contained mammal bone, a small amount of fish bone and shell. Datable artifacts included Chinese Canton/Nanking wares (post 1780s–1810s) and contemporary British earthenware (1780–1820s), as well as mission brownware, and Mexican-produced majolica (1780–1830s). The British earthenware hallmarks the later use of the site. Other artifacts found included shell disk beads, flaked stone tools and debitage, European glass trade beads, and mission roofing tiles (*tejas*). This midden-era stratum overlay the historic surface dating to the time of mission development.

Cuts 25/26/27, located north of Cut 24 (east-west terrace wall), appeared to represent a separate activity area. Located at the base of the 1900s kitchen midden, excavators encountered a roughly circular stone platform formed of small tightly packed cobbles. On each side of the platform (north and south) were two square post holes. Each contained the butt of a redwood post; one also contained a forged metal spike. No datable artifacts were found during the definition of these features, but their construction and discovery at the base of the 1900s kitchen midden suggest they were mission-related and served as a special-use area.

6.4.3.5 Cistern Cuts 13, 14, and 11

Cut 13, a well or cistern, was identified as a circular pit lined with large boulders. It measured 4 feet (1.2 meters) in diameter and was at least 8 feet (2.4 meters) deep. The pit floor was lined with redwood. Large rocks formed 75 percent of the circumference of the pit opening. The large boulders appear to be partially sunk into the once-plastic clays to stabilize the opening and walls of the pit. An arched rock and brick walkway skirted the northern edge of the pit, providing access to the well from the east and the west. Beyond the arched walkway to the north was Cut 14, a concentration of small densely packed rounded stones that form a level surface. Cut 11 was a liner rock alignment similar in construction to those already described. It may be a continuation of one of the aqueduct walls found to the north.

6.4.3.6 Summary of the 2012 and 2015 Archaeological Excavations

Unlike the excavations to the north, the mission-era deposits along Monterey Street were largely structural in nature and were not as clearly residential as those found in the Yung and Kozak lots. The only known residential structure on this portion of the site is the Sauer/Little adobe, shown on the 1870 land petition map and 1874 Sanborn fire insurance map, which likely was built during mission times.

Mission-era midden was present but was much more limited in nature and concentrated along the aqueduct stone walls, stone terraces, and in the drainage ditch beneath the Blackstone Building. Newspaper articles reporting mid-twentieth-century construction along Morro Street also reported exposure of mission-era “smelters” in the same general area of the Blackstone Building. At least that is what Luis Moreno’s father told him:

when Francisco Estevan Quintana built the brick store for the Schwarz [*sic*] Brothers some “smelters” were uncovered along that line. They were located at that spot where the entrance to E. M. Payne’s Plumbing Shop now is [Nettles and Price 2007:28].

The Schwartz brothers' store was located in the Quintana Building on the northeast corner of Monterey and Chorro, which opened toward Chorro Street. It later became the location of the Blackstone Hotel. Here is where Æ archaeologists found (Cuts 1 and 2) a stone foundation that required use of a jackhammer to remove, an earthen ditch filled with mission-era artifacts, and a compacted historic surface. Architectural similarities in construction of Cut 1 and the aqueduct stone laterals (Cuts 17 and 18), stone terraces (Cuts 4/24 and Cut 9) found in the Sauer/Little Lot and extending into the Bello Lot, and the stone well/cistern (Cuts 13 and 14) suggest they were all built at the same time and had interrelated functions.

The aqueduct channel passed through the Yung Lot and into the Sauer/Little Lot. It appears to have continued past Cut 13, the well/cistern, but Cut 14 may have been a jetty that channeled water into the cistern/well. It was similar in construction to the jetty exposed along Cut 18 to the north. Both were built of small tightly packed stone cobbles (see Figures 5-4 and 5-5). Midden was concentrated at the juncture of Cut 17, the eastern wall of the aqueduct, and Cut 24, the stone terrace wall that stretched east. This midden contained food refuse, shell and glass beads, and food production items such as pottery vessel fragments, but it was not as clearly a subsistence midden as found in the Kozak Lot or an isolated refuse area as seen in the Palm/Morro Lot. The midden in the Sauer/Little Lot more likely accumulated as a result of daily work activities.

Cut 1 (found below the Blackstone Building) was characterized as a long flat surface stretching at least 26 feet in length. Its width is not known, but it lay west of the well/cistern and may have been associated with this water retention feature. Speculatively, Cut 1 may represent a work surface. Similar such smooth work surfaces have been found associated with mission laundry areas (*lavanderias*) as seen at Santa Barbara pueblo. Here, on either side of the aqueduct channel smooth stone surfaces sloped away from the water source. Elsewhere, *lavanderias* were generally rectangular basin structures with an aqueduct channel leading up to them or through them as reported at La Purísima Concepción mission (Hamilton and Abdo-Hintzman 2004:24). At Mission Santa Inez, the narrow *lavanderia* basin is spanned by an arched walkway similar in construction to the arched walkway adjacent to Cut 13. This walkway positioned along the northern edge of the well/cistern would have provided sure footing and access to the water within the feature. Cut 2 (below the Blackstone Building) appears to have been a drainage ditch passing beneath Cut 1. It was paved along the edge with *ladrillos*. Also nearby were the "smelters" exposed during construction in the 1930s. Generally, they were located on Chorro Street along the western wall of the Blackstone Building. These structural remnants (the smelters, Cuts 1 and 2, Cuts 13 and 14, and the aqueduct lateral walls in Cuts 17 and 18) may have formed a work area located outside the mission quadrangle.

6.5 SUMMARY OF SAN LUIS OBISPO PUEBLO

With the passage of time, the Chumash came to live at or near the mission, were given work assignments, worked and ate at the communal kitchen, and generally resided outside the mission (Kocher 1972:15). The years from 1794 to 1809 were characterized as a building phase and the mission's period of greatest growth. In 1805 the mission had its greatest number of converts, a time when 961 Native Americans were said to be working and residing on site (Weber 1985:149). In 1807, the mission was also known "as one of six missions in which the California *padres* could make their annual retreats for spiritual exercises" (Weber 1985:149).

There is evidence at the Yung Lot, Palm/Morro Lot, and in the Sauer/Little Lot that the Chumash continued to practice their traditional cooking, eating, and procurement strategies. Steatite comal and bowl fragments were found, as was flaked stone debitage. A large ground stone bowl (see Figure 5-6) was recovered from Cut 7 excavated in the Bello Lot. Stone tools and debitage were recovered from below the Muzio Building, the Blackstone Building, and in the Sauer/Little Lot (Appendix D). Native American shell beads and detritus were abundant in all areas of the site, and shell beads outnumbered glass trade beads, showing adherence to traditional practices. Foods included native game (duck, other birds, fish, shellfish, mule deer, and bear), domestic animals (chicken, cattle, and sheep), nonindigenous cultigens (corn, wheat, peas, and beans), and native species (e.g., bluegrass, buttercup, plantain, *Madia* sp., and filaree). Signs of acculturation included the use of steel needles in the production of shell beads, adaptation to mission housing, and consumption of cultigens. Block 14/387 was largely occupied by Native Americans. Little in the way of European ceramic debris, generally found in abundance at mission sites, was recovered from any area of CA-SLO-1419H.

The mission population peaked in 1805. By this date the church, outbuildings, and adobe houses with tile roofs were built, as were 80 permanent Native American houses and a communal kitchen (Englehardt 1963; Kocher 1972). Stratum V, exposed in the Yung Lot, appears to represent the contact period. Stratum IV contains a burned horizon. The first mission structures burned in 1776, were rebuilt, and burned again in 1788. Stratum III, found in SONs 5, 6, and 8, represents a period of extensive building (reported by the missionaries as occurring from 1798 through 1810). The Native American village was in decline by 1834 (Weber 1985:164), secularization followed, and by 1845 mission lands had been sold.

The mission retrospective described these last years of mission occupation prior to secularization.

After 1818, the Mission's prosperity began to decline and by the 1840's there was little left of the thriving community of earlier times. The buildings were crumbling and there were not sufficient funds to rebuild. In an "*informe*" (report to the Government written in 1830) Fr. Gil stated, "The hospital and portions of neophyte villages are in ruins and the rest of the village threatens to fall into ruins" [Mission San Luis Obispo 2016].

By 1841, when Duflot de Mofras visited the mission, it was in ruins and only a few Native Americans remained in the "tumbled-down houses that surround the mission" (Weber 1985:36). The following year Mexican Governor Manuel Micheltoarena decreed that the Mission of San Luis Obispo "was raised to the rank of the *pueblo*" and that the remaining Native Americans were to be freed. The lands of the Native Americans were not to be sold until their owners and their heirs abandoned them in death or otherwise. They would then revert back to Mexico. The "emancipated Indians" and other settlers were to care for and keep in good conditions the church, the corral, and the other works such as water ditches, woodwork, dams, corrals, and *rodeos* (Weber 1985:39).

6.6 LATE NINETEENTH-CENTURY AND EARLY TWENTIETH-CENTURY ARCHAEOLOGICAL DEPOSITS

When Henry Miller, a prominent artist, toured Mission San Luis Obispo 15 years later in 1856, he observed that the mission had:

metamorphosed into a little town at present of about 150 houses, inhabited principally by natives and Mexicans; however, quite a number of Americans have settled here. . . . At breakfast I took a ramble about the mission buildings, some of which are in ruins, though once remarkably strong, constructed of rock joined by a very hard cement [Weber 1985:40].

Miller noted of the population that most of the “functionaries” were Californians and that the American population was “very scant.” At that time there were five or six stores owned by foreigners: Italians, Frenchmen, Germans, and old Spaniards (Weber 1985:40).

By 1870 the property fronting Monterey Street collectively was owned by Estevan Quintana (Californian), George F. Sauer (German), Henry William Little (American), the Greentree Brothers (German), and Silas B. Call (American). They each established commercial businesses along Monterey Street, elements of which were found archaeologically in the Sauer/Little and Bello lots as described below.

6.6.1 Sauer/Little Adobe

According to naturalization records, George Frederick Sauer was born in Bavaria in 1836. A later biographical sketch portrayed Sauer as a man of integrity and means. Sauer immigrated to New York City in 1856. After 2 years, he journeyed to California, arriving in San Luis Obispo in 1858, shortly after Miller’s tour. Here he met his wife, whom he married on April 23, 1862, and they made San Luis Obispo their home. Together they had four children; two survived into adulthood. George Sauer was engaged in the bakery and grocery business and was one of the earliest merchants in the city (Storke 1891:668).

The land petition map of 1870 shows Sauer and Little jointly owned an “adobe house” fronting Monterey Street with a frame structure to the rear (Bertrando 1996). Sauer also held the next lot to the west. Here, there was a frame structure (its function not shown). The census of the same year lists Saur [*sic*], age 36, as a retail grocer. It also lists two other Sauers—Andrew, 25, a baker, and Crestian [*sic*], 27, also a baker. The census also reports that Henry W. Little was 34 years of age in 1870 and was born in Ohio. He was a saloonkeeper. Sauer and Little continue to be listed in the city directories as baker and saloon/innkeeper through 1873. Sauer died on July 31 of that year. The Sauer estate confirmed ownership of lots on Monterey and Chorro streets.

Following Sauer’s death, Henry Little continued to operate a saloon and hall in the Monterey Street adobe, and Andrew Sauer was proprietor of a bakery on Chorro Street, where Trenida Sauer operated a lodging house. By 1874 the Sauer/Little adobe occupied 10 and 11 Monterey Street. The building footprint shown in this year stayed the same through the remaining life of the building. While a second story had been added, the first story was built of brick and adobe. In this year, the first floor was occupied by a billiard parlor and a store (see Figure 4-5) while the second story was identified as Little’s Hall.

The next available information on the building at the location of the Sauer/Little adobe came in 1884 in the form of an advertisement in the *Daily Alta California*, which touted a grand sparring match to be held at the Lytton Theatre on March 1. It appears that only the name of the building had changed.

In 1885, W. F. Sauer was proprietor of the Crystal Palace Saloon on Monterey Street near Chorro Street, presumably in the first floor of the Sauer/Little adobe. The 1886 Sanborn map shows this building as including 24, 25, 26 Monterey Street, which were occupied by a harness shop, drug store, and restaurant and saloon/billiards hall, respectively. On the second floor the Lytton Theatre occupied a hall, stage, and scenery. The first story still retained the adobe and brick walls, but a frame addition had been added to rear and was occupied as a workshop, sleeping rooms, liquor room, and warehouse. Sometime prior to 1886 another Sauer opened a bakery on the lot to the west, which replaced the earlier frame structure that sat there in 1870. This new structure covered Cut 13, the mission well. The bakery continued in operation through the early 1900s.

In 1886, businessmen in San Luis Obispo formed a Board of Trade to promote their town and induce the Southern Pacific Railroad to build there (Breschini et al. 1983). They occupied the Lytton Theatre between 1886 and 1888. During this time, no new additions were made to the building. By 1891, few changes had occurred, but the first story was vacant and the Salvation Army now occupied the second floor. In 1903 a saloon and restaurant occupied the first floor. At the rear was a kitchen, and the Salvation Army still occupied the second floor. The first story is still shown as having adobe and brick walls, but the rear is completely of brick construction. In 1926 the old adobe and brick walls remain but the rear structures have been replaced. By the late 1950s the old adobe building had been torn down and a new modern structure had taken its place.

This sequencing of construction was observed in the archaeological foundations exposed during excavation in 2015 in TA-2 South. The small adobe fronting Monterey Street (Cut 10) shown on the 1870 petition map appears to have been built at the same time as the aqueduct channel (Cuts 17 and 18), terrace walls (Cuts 4, 24, and 9), and well (Cut 13) prior to the 1830s. The smaller cobbled walls of Cut 10a, embedded with *tejas* and bone, were of similar construction to the other mission-era structures, revealing their association. This simple single-story building was transformed through the years into the two-story Little's Hall and the Lytton Theatre, well-known establishments along Monterey Street. The adobe walls, which were first dry-laid, were later reinforced with lime mortar, expanded with brick walls, and finally built on a stone foundation reinforced with Portland cement. Yet, the adobe core remained until the mid-nineteenth century.

6.6.2 Oyster House on the Call Lot (Cuts 7 and 8)

During the 1870s–1880s commercial businesses along Monterey and Morro streets diversified. The property from Monterey Street to Palm Street was owned by Silas B. Call. Call arrived in San Luis Obispo in 1861 and established a tack (saddle and harness) business in the lot. It was not until 1872 that he received deed to this property (Bertrando 1996:[II]2). From this small beginning, Call amassed a substantial landholding and permanent position in the community. His holdings included a number of commercial properties on Monterey Street (Guinn 1902:47). Silas Call died on May 26, 1880, at age 41, and his second wife, Nancy Emeline Call, inherited his property, including the large stores on Monterey Street.

Within the Call Lot, a roughly 40 by 20 foot “cloth-lined” structure at the back of the stores fronting Monterey Street existed by 1874 and was occupied as a dwelling. At that time there

were no structures facing Morro Street. By 1886, the “cloth-lined” building had been moved or replaced with a sturdier residential building. The address given for the residence was 8½ Morro Street. A separate restaurant now sat at 8 Morro Street. Based on the archaeological evidence recovered from two privies (Cuts 7 and 8), these buildings (the restaurant and residence) appeared closely linked. At this early date, specific addresses rarely occurred in local city directories or federal census records, so it was not possible to identify the operator of the restaurant or occupants of the residence, although two possible heads of households were found. The 1880 head of household census entries on “Morro” included Andus Galindo, restaurant keeper, and Francisco Herrera, restaurant keeper (U.S. Census 1880a).

Based on analysis of manufacturers’ marks on bottles and ceramic vessel fragments, Cuts 7 and 8 were in use before and filled between 1880 and 1886. Given these dates, a Morro Street restaurant advertised in the 1882 *San Luis Obispo Tribune* appears most likely to be associated with Cut 7 (see Figure 4-18). Notable were the contents of Cut 7, which included a large volume of oyster shell, the remains of other edible shellfish (abalone, mussel, and clam), beef, pork, mutton, chicken, duck, geese, wild game (deer, rabbit, and small birds), fish, and a substantial quantity of liquor and condiment bottles. An estimated 14,000 oyster shell fragments were recovered from Cut 7. All were Eastern oyster. If it is assumed oysters were sold by the dozen and that a restaurant, conservatively, sold 10 dozen oysters per day, 15,000 oyster shells would represent 125 days of purchase and consumption at the nearby restaurant. The dominance cuts of beef suggests the assemblage is associated with a restaurant of moderate to high social standing, enjoying a diverse faunal diet (see Appendix C). Individual serving portions (43 percent), included T-bone steaks, sirloin steaks, chuck steaks, as well as roasts and soup bones (21 percent), and ribs (36 percent). Also of note was the abundance and variety of liquor served, including wine, champagne, whiskey, beer, and ale. Condiment jars once contained pickles, olive oil, and Lea & Perrins Worcestershire sauce. Soda and mineral water also were represented. Most ceramics recovered from the feature were plain ironstone of sturdy construction.

The similarities in the contents of the two privies further link Cuts 7 and 8, although Cut 8 does appear to be associated with a residence. Products found in both privies included soda water from Dublin Belfast, Lea & Perrins Worcestershire sauce from England, and Milwaukee beer bottles from Wisconsin. Oyster, mussel, clam, and abalone shells were found in both privies. The faunal assemblages from both were similar, dominated by remains of cattle but including chicken, eggshell, deer, rabbit, duck, geese, and a variety of fish. The type of retail cuts present were very similar (Appendix C). These similarities could be due to proximity of the residence to the restaurant; however, there are other things shared, including dentures of the same construction.

In the mid-nineteenth century, oyster houses on the East Coast were a common type of restaurant, including large dine-in restaurants, lunch rooms, tap rooms, and mere oyster shacks. Such establishments touted their whereabouts by hanging an “oyster balloon” out front, which was “a ball-shaped structure covered with red cloth, which would have a candle in it after dark” (Perry 2001). With the California Gold Rush and the influx of Americans, West Coast oyster houses sprang up on every street corner in the larger cities and street-side shops catered to all economic classes.

CALIFORNIA OYSTER MARKETS AND PRODUCTION

The following brief history of oyster production and market demand is drawn from four principal sources: Brennan (2015), Barrett (1963), Conte (1996), and Townsend (1893). The story of historic oyster consumption and farming in California began during the second half of the nineteenth century and continued into the early twentieth century. It involved three separate species of oyster. The first, *Ostrea lurida*, was indigenous to the Pacific Coast of North America and found predominately in Washington. The other two species are not naturally occurring in California: *Crassostrea virginica*, also known as the eastern oyster, is native to the Atlantic and Gulf coasts of North America, while *Crassostrea gigas*, also known as the Pacific, Japanese, or giant Pacific oyster, is from Japan.

Prior to 1849, Native American tribes fished for oysters in western coastal waters, but the demand for oysters increased dramatically with the arrival of easterners drawn west by the prospect of gold. They brought with them an insatiable appetite for oysters, a taste that seems to have been prevalent throughout the United States at the time. John Stillwell Morgan was among the first to arrive in December of 1849. San Francisco was then no more than a conglomerate of shantytowns (Brennan 2015). With a past in oyster harvest and marketing, Morgan set out to find oysters in San Francisco Bay. He quickly discovered there were none (Brennan 2015). It did not, however, take him long to find an alternative source in Shoalwater Bay, Washington, to the north. Based on rumor that the Indians traded in oysters, Morgan headed to Shoalwater Bay. The Washington oyster is the same genus as the European oyster (*Ostrea edulis*) and like its European cousins, they were small and had an intense coppery flavor (Brennan 2015:19). Morgan, determined to bring the Shoalwater Bay mollusks to market in San Francisco, completed his first successful shipment to San Francisco in 1850s and promoted them as "Olympias" in comparison to the available European variety. The brand stuck, and for a time the Shoalwater Bay oyster dominated the Bay Area market.

Morgan's importation of Shoalwater Bay oysters required transporting live oysters and planting them in shallow beds in and around San Francisco Bay. Morgan quickly found the oysters would not reproduce in the bay, largely due to the cool summer water (Conte 1996:1), but they could be planted, fattened, and harvested in the bay. Morgan was not the only one to ship oysters to the Bay Area, but he was the most successful. It was not until 1869 after the completion of the transcontinental railroad that eastern oysters challenged the Shoalwater Bay trade of Olympia oysters.

Consumer demand in California for the larger half-shell oyster from eastern coastal waters prompted multiple attempts to establish Atlantic oysters in West Coast waters. Morgan was quick to try and had a shipment on the second train west (Brennan 2015:23). At first he shipped mature oysters packed in barrels of seawater or on ice and sawdust. It was not until 1875 that shipping of live eastern oysters shifted to the transport of oyster seed in larger quantities and eastern oysters were successfully farmed in San Francisco Bay. Although never fully successful as a commercial breeding area, San Francisco Bay was successful as a transplant location for raising oysters, like those transplanted from Washington. This success spelled the decline and eventual termination of the Shoalwater Bay trade. From 1872 until the early 1900s, the eastern oyster industry in San Francisco Bay dominated the West Coast market, reaching its peaked production of 2.5 million pounds of oyster meat in 1899. Morgan played a significant role in the development and operation of this trade (Brennan 2015).

With California's boom in population came industrial growth, which led to degradation of water quality in San Francisco Bay. By 1908, eastern oyster production fell by 50 percent and signaled a continuing slow decline. The year 1939 witnessed the last of the eastern oysters harvested from the bay.

California oyster growers never had much interest in growing Pacific (Japanese) oysters, likely because the eastern oyster operations in San Francisco Bay were so successful. In Washington state, the Pacific oyster was first introduced by Japanese growers who acquired an area of tidelands in Samish Bay in 1905 and again in 1916. Neither venture was successful. Most Pacific oysters were sold to Chinese and Japanese consumers or shipped to Japan. By the early 1900s the bay waters were too dirty from pollution for either type to flourish, resulting in the experimental planting of oysters elsewhere. In 1928 the Tomales Bay Oyster Company had some success planting Pacific oysters, an effort that was quickly followed by a planting of Pacific seed oysters in Elkhorn Slough in 1929. These efforts led to the Pacific oyster surpassing the native oyster harvest in Washington by the early 1930s. By 1932 and 1933, small quantities of oysters were planted in other locations, including Morro Bay, under the direction of the Division of Fish and Game. As Pacific oysters also did not reproduce successfully in the waters off the West Coast of the United States, Californian oyster operations were still dependent upon Japanese-grown Pacific oyster seed. Pacific oyster operations suffered at the beginning of World War II as wartime trade embargos between Japan and the United States interrupted the supply of oyster seed.

The foods and recipes of Gold Rush California were as diverse as the people who lived in that place and time. It was a convergence of cultures (Anglo-American, Spanish, Chinese, Mexican, etc.) and the economic status was from sparkling rich to dirt poor [Olver 2015].

Oysters were not indigenous to the coast of San Francisco Bay. They first were imported from Washington's Shoal Bay. With the arrival of the transcontinental railroad, this changed and farming of eastern oysters increased in cold water bays of the California coast. As eastern oysters became more locally available, they appeared as a common item on the menu. Diners could not get enough of the "saltwater flavor of these small bivalves that could be swallowed whole in a glass of whiskey mixed with ketchup, horseradish, vinegar, and Worcestershire sauce." This drink became heralded as the oyster cocktail (Poncelet 2015).

With availability, consumption of oysters quickly spread throughout central California. At least two restaurants serving oysters were opened in San Luis Obispo by the early 1880s. In 1882, the *Tribune* advertised J. O. Spinney's Confectionery and Restaurant at the Corner of Monterey and Morro streets which served "Fresh Oysters, Ice Cream and Iced Drinks" (see Figure 4-18).

Other restaurant advertisements suggest that Spinney had healthy competition. As early as 1874, the Union Restaurant, adjoining Little's Saloon, offered "Fresh Oysters received by Every Steamer" (*San Luis Obispo Tribune* 1874), and the Franco-Swiss Restaurant and Oyster Saloon also on Monterey Street offered "Meals for 25c. As good as for 50c in any other house on the coast. Eastern and California Oysters by Every Steamer" (*San Luis Obispo Tribune* 1881a).

The most likely source of the oyster shell deposited in Cut 7 and 8 was the Morro Street restaurant. Whether this was the establishment of Andus Galindo, Francisco Herrera, or J. O. Spinney is not known, but it most certainly had all the ingredients necessary for the popular oyster cocktail and libation of one's choice. Its location along Morro Street provided easy access to San Luis Obispo's red light district located one block north at the corner of Palm and Morro streets. It may in fact have provided an expedient dining experience as well as meals to be savored in an elegant setting.

6.6.3 Eagle Pharmacy—Cut 5

The evolution of the neighborhood drugstore began in the early 1800s with apothecary shops and grew to wholesale drugstores in the late 1800s throughout the United States. The first drugstore in San Luis Obispo was owned by Ernest Krebs. Of German origin, Krebs arrived in San Luis Obispo in 1869. In 1874, he was located in the Call Building at the corner of Monterey and Morro streets and advertised his ability to "compound drugs" in the *San Luis Obispo Tribune* (1873). Krebs remained in business 11 years before selling to Alfred Booth in 1878.

Booth came to San Luis Obispo but also operated a drugstore in nearby Paso Robles. He concocted his own compounds. One that gained note was a squirrel poison. It was said to be very effective as described in the testimonial published by *Pacific Rural Press* in 1882.

Volunteer Testimonials of Those Who Have Used Booth's Exterminator.

San Luis Obispo, Cal., Aug. 9th, 1880.

The undersigned Committee, appointed by San Luis Obispo Grange, P. of H., No 28, have used the Squirrel and Gopher Poison prepared by A. R. Booth, at the Eagle Drug

Store, San Luis Obispo, during the growing season, when there was plenty of green things for the squirrels and gophers to live upon, and we find that they take the Poison above described, at this season of the year, and that the effect is as destructive as could be wished; and it is the cheapest and best Squirrel and Gopher Poison with which we are acquainted, or ever experimented with [Mason 1882:12].

ROLE OF DRUG STORES IN THE UNITED STATES

Although the pharmacy had origins going back to medieval Europe, what became the American drug store arose in the early nineteenth century from four roots: the traditional apothecary's shop, doctor's shops—where physicians prescribed and dispensed concoctions of their own making, the general store, and the wholesale druggist.

There were few apothecary shops before 1800. Prior to the expansion of medical education that developed during the early nineteenth century, licensed physicians were few and far between and located mainly in larger cities and towns. These practitioners dispensed their own medicines, usually compounded by their apprentices. Apothecary shops and wholesale druggists provided drugs and medicines to these dispensing physicians as well as the general public. Women in the household usually handled most domestic medical treatment, including administering simple teas or laxatives prepared from purchases made at apothecaries or general stores. To operate successfully, apothecaries needed to understand rule-of-thumb chemistry to manufacture common preparations and popular compounds. They also handled other chemicals lumped with drugs, such as dyes, oils, and paints.

Doctors' shops were probably just as prevalent in the early 1800s as the apothecary shops. Self-styled physicians—as there were no effective laws regulating medical or pharmaceutical practice—diagnosed and dispensed medicines in an environment that was not much different from that of the apothecary's shop. In fact, men often went back and forth between the two occupations, depending on their expertise and reputation. Without regulations to restrict administering medicine, general stores were free to sell products of all sorts, including opiates frequently found in patent medicines. These stores usually restricted their medicine departments to packaged herbs and patent medicines (Higby 2003).

Drugstores became common in the United States between 1870 and 1920, as an increasing focus on pharmaceutical education led to a formalization of medical practice. During this period, the pharmacy's part in healthcare solidified as the dispensing of medicines by physicians declined. However, the rise of the cut-rate drug store and, more importantly, the chain drug store, also occurred during this 50-year period, further increasing economic pressure on the dispensing of medicines. Still, most pharmacists worked in their own corner drug store, which became a fixture in American life with its shelves of patent medicines for all ills and a soda fountain for delightful beverages. The proprietor, often called "Doc," attended to the minor aches and pains of customers or made chocolate sodas with equal skill as medicinal concoctions (Allen 2013:22–23).

Local druggists during the nineteenth and early twentieth centuries typically concocted their own medicinal compounds to sell from their stores, utilizing proprietary druggist or prescription bottles embossed with the store name, address, city/state, and other information as well as a monogram (Lindsey 2017). In addition to advertising on bottles, they placed newspaper ads to promote their products.

Booth took on a partner, Benjamin G. Latimer, in 1878, to whom he ultimately sold his interest in the store (Morrison and Haydon 1917:668). Sometime between 1874 and 1886 the store moved from the Call Building two doors down to 15/16 Monterey Street. The move appears to have occurred before Latimer became sole proprietor of the drugstore in 1888 (Morrison and Haydon 1917:668). He remained in business at this location until 1922.

Archaeologists recovered numerous medicine bottles from behind the drugstore during data recovery. The majority of the bottles were collected during monitoring following removal of overburden and from a concentration at the east edge of the lot where sheet refuse had

accumulated up against the rock retaining wall behind the Bello Building (Cut 6). These medicine bottles provide a manufacturing date range from the 1870s to the 1910s and similar bottles also were recovered from Cuts 7 and 8 in the same lot and from the historic kitchen midden in TA-2 North.

The bottles exhibit a variety of Eagle Pharmacy embossments, including “Booth’s,” “Booth and Latimer,” and “Latimer’s Drug Store.” All of these bottles display the Eagle monogram (standing eagle with wings spread). They were manufactured by Whitall Tatum Company (Table 6-1). During the late nineteenth century, the Whitall Tatum Company specialized in glassware for druggists, chemists, and perfumers. After 1867, Whitall Tatum became the leading manufacturer of affordable letter plate bottles allowing for individualized product monograms (Griffenhagen and Bogard 1999). Another later bottle variation on the Eagle Pharmacy bottle was one embossed “Eagle Pharmacy B.G. Latimer” with the base marked “BLUE RIBBON.” This base mark was used by Standard Glass Company after 1906. Finally, all the bottle variants were embossed with San Luis Obispo, and the later Eagle Pharmacy bottles were marked with the volume of the bottle in both cubic centimeters and ounces. The base mark, Eagle moniker, and liquid measurement standards provided a firm dating sequence for pharmaceutical bottles recovered from the Monterey In-Fill Project (Figure 6-3).

Table 6-1
Eagle Pharmacy Patent Medicine Bottle Embossing Variations

Bottle Body Embossing	Base Mark	Manufacturer	Possible Date Range
BOOTH’S / (Eagle monogram) / DRUG STORE / (arched) SAN LUIS OBISPO/ CAL (inside a shield)	W.T. & CO. (Letter) PAT JAN * 22 78	Whitall Tatum Co.	1880–1895
BOOTH’S / (Eagle monogram) / DRUG STORE / (arched) SAN LUIS OBISPO / CAL (inside a shield)	W.T. & CO. PAT JAN 22 78 E	Whitall Tatum Co.	1880–1895
BOOTH & LATIMERS / (Eagle monogram) / DRUG STORE/ (arched) SAN LUIS OBISPO / CAL (inside a shield)	W.T. & CO. PAT & JAN 22 78 U.S.A J	Whitall Tatum Co.	ca. 1890–1901/1903
LATIMER’S (Eagle monogram) DRUG STORE / (arched) SAN LUIS OBISPO / CAL (inside a shield)	WT & CO PAT JAN 22 78 E U.S.A	Whitall Tatum Co.	ca. 1890–1901/1903
Unknown (only bottle base present)	WT & CO PAT JAN 22 78 E	Whitall Tatum Co.	ca. 1880–1895
Eagle Pharmacy (in cursive) / B.G. LATIMERS / SAN LUIS OBISPO.CAL	BLUE RIBBON	Standard Glass Co.	1907–1933
3Vi (sides marked with volume in both CC and Oz) Eagle Pharmacy (in cursive) / B.G. LATIMERS / SAN LUIS OBISPO.CAL	BLUE RIBBON	Standard Glass Co.	1907–1933
3i (sides marked with volume in both CC and Oz) Eagle Pharmacy (in cursive) / B.G. LATIMERS / SAN LUIS OBISPO.CAL	BLUE RIBBON	Standard Glass Co.	1907–1933



Figure 6-3 Eagle Pharmacy bottles.

A total of 20 Eagle Pharmacy bottles were found along Monterey Street. Cut 5 contained seven bottles, and this deposit was directly associated with the operation of the pharmacy. Cuts 7 and 8 were associated with the restaurant on Morro Street. They contained four and nine bottles, respectively. Cut 7 was the restaurant privy, and Cut 8 was the residential privy.

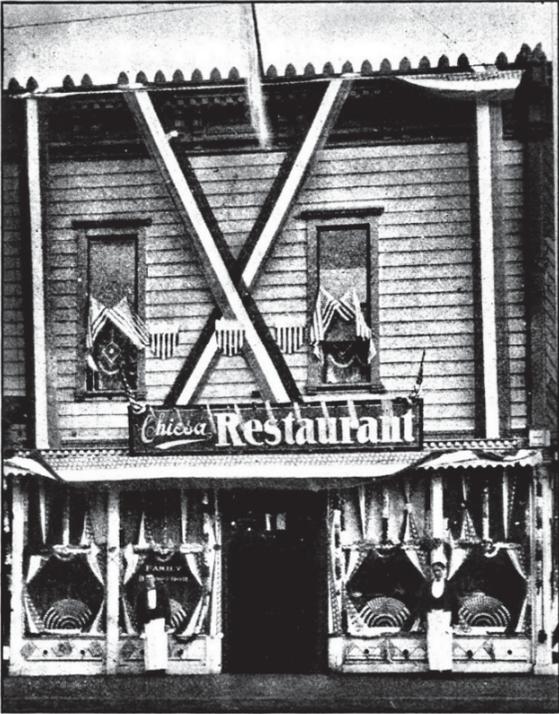
6.6.4 Historic Concentration—Cut 23

Down the street from Latimer's pharmacy at 24, 25, and 26 Monterey Street was Little's Hall and later the Lytton Theatre. Since 1874 the first floor of this building (once the Sauer/Little adobe) contained a billiard parlor, saloon, and restaurant. These businesses shifted location and proprietors over time, and from 1891 until sometime before 1903 the space was vacant. By 1903 there again was a restaurant and saloon occupying this space and a second restaurant two doors down. Following the establishment of the saloon's kitchen and a separate restaurant, these businesses continued in operation through at least 1909 when the address is given as 862 Monterey Street.

In 2015 an extensive kitchen midden was found in the back lot behind the former Little Hall/Lytton Theatre. This midden contained abundant animal bone, shell refuse (abalone, clam and oyster), fruit pits and seeds, and countless bottles (pharmaceutical and liquor). Preserve and pickle jars as well as sauce bottles including Lea & Perrins Worcestershire were among the refuse. Beverage bottles included soda, sarsaparilla, milk, wine, beer, ale, and bitters. Ironstone dominated the ceramics and included service items such as plates, saucers, cups, mugs, and teapots as well as glass items such as saltshakers, pitchers, and fruit dishes. Some personal items also were recovered. An analysis of datable liquor and patent medicine bottles dated the deposit to the late nineteenth and early twentieth centuries. The presence of a Dr. Kilmer's Swamp Root Kidney Cure bottle provided a TPQ of 1907.

There were two possible documented sources of the refuse in the Sauer and Little building during this time, including a kitchen off the saloon and Chiesa's French restaurant, Maison Doree. Little is known about the saloon and kitchen, but an advertisement for Chiesa's Hotel and Restaurant was found in the 1908–1909 *San Luis Obispo City and County Directory* (Figure 6-4). Located at 858 Monterey Street, this establishment offered "First-Class Rooms," "Hot and Cold Water including Baths," and served meals at all hours, either "Regular or to Order" (Los Angeles City Directory Company 1908). Among the artifacts collected in 2015 was a Bénédictine liqueur bottle, a popular French brandy, perhaps linking the deposits to Chiesa's Restaurant.

GHIESA'S HOTEL AND RESTAURANT
F. CHIESA, Proprietor
Excellent Meals Served at all Hours, Regular or to Order
PROMPT SERVICE RATES MODERATE



FIRST-CLASS ROOMS HOT AND COLD WATER
INCLUDING BATHS
858 MONTEREY ST., SAN LUIS OBISPO, CAL.

Figure 6-4 Chiesa's Hotel and Restaurant advertisement (Los Angeles City Directory Company 1908).

Among items served at Chiesa's were oysters in every style, both Eastern and Californian. They were served fresh and delivered daily. They could be presented frozen, in the half shell, pan

roasted, or fried, and Chiesa touted his excellent oyster stews available at all hours (Los Angeles City Directory Company 1908:16). In 1912, Muzio and Fernando Chiesa formed a partnership to construct a new building, which still stands at 868-870 Monterey Street. His restaurant moved to the location but a few years later was replaced by Lawrence Austin confectionary shop.

6.7 SUMMARY

The late 1890s through 1920s arguably were the heyday of Monterey's commercial district, at least until recent times. Between 1926 and the 1950s, the neighborhood took on a new character that catered to the automobile. The last of the old Chinese stores was demolished to make room for county and state office buildings. This trend of demolition and replacement continued until 1957 with the closing of many old businesses. The Maino buildings on Monterey and Palm Streets had been demolished to make room for a city parking lot. Austin's Restaurant closed, and a paint and wallpaper shop took over the space. This was also the era during which many businesses were established that were well known by San Luis Obispo residents in the second half of the twentieth century, including Bello's, the Sno-White Creamery and Coffee Shop, the Pacific Gas and Electric Company office in the Call Building, and Bell's at the corner of Palm and Morro. In the late 1960s, the old building between Muzio's grocery and Sauer's bakery was demolished to provide additional parking spaces.

During the years from 1985 to 2016, archaeological excavation between Court Street and Palm Street, from Morro to Chorro streets, revealed much about occupation outside the mission quadrangle. We now know the Native American village at the mission expanded along both sides of Chorro Street, filling much of Block 14/327 and extending to the east side of Morro and north side of Palm. We know that the village existed before 1800. Father Luís Antonio Martinez, who arrived in June 1798, would build additional housing for the Native Americans starting early in the 1800s (Weber 1985:21), and they resided there through the 1840s (Weber 1985:40). The Native Americans continued to collect and harvest natural resources and hunt wild game; they continued to use their traditional tool technology and made basketry much admired by the Spanish (Weber 1985:12), while still acquiring new skills such as cultivating fields, building, and loom weaving. By the 1830s, Mexico won its independence from Spain and the power of the missionaries in California diminished. The Native Americans were emancipated in 1835, although some remained near the mission into the 1840s. At least in Mexican law, they were supposed to retain possession of their lands until death.

By the 1840s, the village began to change character and more Americans came to town and settled. A commercial district emerged along Monterey Street and north along Morro and Chorro streets. By the 1860s Chinatown grew along Palm Street and occupied or rebuilt structures once providing shelter to Native Americans. A red light district emerged on both side of Morro Street at its juncture with Palm Street. Many of these details can be found in historical records, but the archaeological remains authenticate the daily experiences of the residents of Block 14/327—both the Native Americans and the early nonnative settlers. Much bias can be found in historical narratives of San Luis Obispo, but the archaeological evidence reveals choices made by the earliest residents and later patrons of local restaurants, the Eagle Pharmacy, and occupants of second-story residences. The archaeological remains of CA-SLO-1491H have revealed much about life in San Luis Obispo from 1772 through the early 1900s, enhancing, correcting, and clarifying written records.

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REDACTED CONFIDENTIAL INFORMATION

APPENDIX A

Previous Site Records

APPENDIX B

Date and Origin of Glass and Ceramics

Cut 5
Date and Origin of Marked/Datable Ceramic Items

Cat No	Date Range	Object	Manufacturer Mark	Manufacturer	Mfg. Origin	Reference	MNI
55	C.1897+	plate	ROYAL IRONSTONE CHINA (arched) royal coat of arms / ALFERD MEAKIN ENGLANDS ROYAL IRONSTONE CHINA (arched) royal coat of arms / ALFERD MEAKIN ENGLANDS	Alfred Meakin (LTD.), Royal Albert, Victoria and Highgate Potteries, Tunstall. Staffordshire Potteries. 1875-	Staffordshire Potteries. 1875-	Godden 1991: 425	1
56	c.1840s-1890s	plate base	... Royal coat of arm/...OYAL/ IRONSTONE...GODDARD	other/Importer	Longton, Staffordshire, England	Kowalsky & Kowalsky 1999. P:133	1
57	1883-1913	hollow base	...JOHNSON BI... / ENGLAND...(possibly ROYAL IRONSTONE CHINA (Royal coat of arms) JOHNSON BROS / ENGLAND	Johnson Bros. (HANLEY) LTD., Hanley Pottery (and other Hanley Potteries)	Staffordshire Potteries	Godden 1991: 355	1
119	1867-1878	hollow base	IRONST...CHI...POWELL.../ ENG... (IRONSTONE CHINA (in a crown and circle) / POWELL & BISHOP)	Powell & Bishop	Stafford, England	Kowalsky & Kowalsky 1999: 311	1

Cut 5
Date and Origin of Marked/Datable Glass Items

Cat. No.	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
10700	1907-1933	medicinal bottle finish	...ITY... [Quality / PURITY]	Standard Glass Co.	Marion, Indiana	Whitten 2016	1
10719	1910-1930	Sanford's ink bottle base	SANFOR.../ # [SANFORD IN]	Sanford Manufacturing Co	Chicago & New York	Whitten 2016	1
10721	c. 1890-1901/1903	medicinal bottle base	(WT&) CO/... (PAT)...JAN/#? 78. (U.S.)...A.	Whitall Tatum	Millville, NJ	Lockhart et al. 2006	1
10723	1915-1929	bottle base	Letter I in a diamond/...LYRI... (Diamond- I logo/ LYRIC oval)	Illinois Glass Co.	various	Lockhart et al	1
10738	Pat.1868	Rumford Bottle body	...W / Rum.../CHIMI.../ [W/RUMFORD / CHIMICAL WORKS]	Rumford Chemical Works	Providence, RI	Fike 1987: 48	1
10741	1881-	WOOD's Cough & cold cure bottle body	WOOD'S ... [WOOD'S GREAT PEPPERMENT CURE FOR COUGH & COLD]	W. E. Woods, LTD	Wellington, N.Z	Fike1987:43	1
10745	c.1915	medicinal bottle base	...ER'S / ... (P) ETROLEUM / EMULSION [ANGIER'S PETROLEUM EMULISON].	Angier Chemical Company	Boston	Fike 1987:182	1
10748	1891/1920	Bromo Seltzer bottle	BROMO SELTZER / EMERSON/ DRUG CO/ BALTIMORE MO...	Emerson Drug Co	Baltimore.MD	Fike 1987:111	1
10749	1877-?	medicinal bottle body	...ORK / CIATION [THE NEW YORK / PHARMACAL ASSOCIATION] Lactopeptine product?	New York Pharmacial Association	Yonkers, N.Y	Fike 1987:71	1
10757	1889-1906	medicinal bottle base	# 59... the letter F,	F Fairmount Glass Works/Company	Fairmount, IN (1889-1906) & Indianapolis IN (c.1906-1968).	Whitten 2016	1
10768	c. 1905-1914	beer bottle base	A B Co/ the # 2	American Bottle CO		Whitten 2016	1
1	c. 1890-1901	medicinal bottle	LATIMER'S (eagle logo) DRUG STORE SAN/ (arched) SAN LUIS OBISPO / CAL/// WT& CO /PATENT 22 78 / (the) letter E /U.S.A	Whitall Tatum	Millville, New Jersey	Lockhart et.al 2006	1
2	c. 1880-1895	medicinal bottle base	WT & CO/ PAT JAN 22 78/ E	Whitall Tatum	Millville, New Jersey	Lockhart et al. 2006	1
3	c. 1890-1901	medicinal bottle	BOOT.. & LATIMERS / (eagle logo) / DRUG STORE/ (arched) SAN LUIS OBISPO/ CAL/// W.T. & CO. PAT & JAN 22 78/ U.S.A / J	Whitall Tatum	Millville, New Jersey	Lockhart et al. 2006	1
4	1907-1933	medicinal bottle	Eagle Pharmacy (in cursive) / B.G. LATIMERS/ SAN LUIS OBISPO.CAL/// BLUE RIBBON	Standard Glass Co.	Marion, Indiana	Whitten 2016	3

Cut 5
Date and Origin of Marked/Datable Glass Items

Cat. No.	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
5	1907-1933	medicinal bottle	3Vi (sides marked with volume in both CC and Oz) Eagle Pharmacy (in cursive) / B.G. LATIMERS/ SAN LUIS OBISPO.CAL/// BLUE RIBBON	Standard Glass Co.	Marion, Indiana	Whitten 2016	1
6	1870s-1906, 1906-1957	medicinal bottle	HENRY K. WAMPOLE & CO. / MANF'C PHARMACISTS/ PHILADELPHIA & TORONTO (in cursive)	Henry K. Wampole & Co.	Philadelphia & Toronto	Fike 1987:80	1
7	1907-1933	medicinal bottle	WHITE CROSS DRUG CO / COR PARK & ENCINAL/ ALAMEDA. CAL/// W.T...	Whitall Tatum Co.	Marion, Indiana	Whitten 2016	1
8	1915-1929	medicinal bottle	1 or l in a circle/// the letter l inside a diamond logo / Lyric	Illinois Glass Co.	Alton, Illinois.	Lockhart 2016	3
9	c.1916-1931	medicinal bottle	S in a diamond / the # 2	Southern Glass Company, Vernon, California	Vernon, California	Whitten 2016	1
10	1897-ca. 1916	medicinal bottle	LGCO in a diamond	Illinois Glass Co.	Various	Lockhart 2016	1
11	1907-1933	medicinal bottle	QUALITY / PURITY/// BLUE RIBBON	Standard Glass Co	Marion, Indiana	Whitten 2016	1
13	1929-ca.1969	whisky flask	number 2 or 7 O over diamond number 4	Owens-Illinois	Various	Lockhart 2016	1
14	c.1889-	extract bottle	Rawleigh's (in cursive) / TRADE MARK // W.T.RAWLEICH CO/// FREEPORT ILL	W.T. Rawleigh Co.	Freeport, IL	Whitten 2016	1
15	1902-1964	Horlick malted milk bottle	HORLICK'S / THE ORIGINAL/ HORLICK'S MALTED MILK (arched in outer circle) Trade mark (in a circle) /LUNCH TABLETS (arched) / RACINE-WIS-US	Hazel-Atlas Glass Co	Wheeling, West Virginia	Whitten 2016	1
16	Fairmount, IN (1889-1906) & Indianapolis, IN (c.1906-1968).	medicinal bottle	l or number 1/ # 178/ F	Fairmount Glass Works/Company	Fairmount, IN (1889-1906) & Indianapolis, IN (c.1906-1968).	Whitten 2016	1
18	Established 1860	medicinal bottle	SHARP & DOHME/ BALTIMORE	Sharp & Dohme	Baltimore, MD	Fike 1987:180	1
19	1875-1930	medicinal bottle	P.D. & CO	Parke Davis & Company	Detroit, Michigan	Whitten 2016	1
20	1900s	Poison bottle	POISON/ POISON /// mold # and the letter F	Fairmount Glass Works/Company,	Fairmount, IN (1889-1906) & Indianapolis, IN (c.1906-1968)	Whitten 2016	1
21	1901-1924	medicinal/grooming bottle	W.T. & CO/ 2	Whitall Tatum	Millville, New Jersey	Lockhart et al. 2006	1
23	1877-1922	miniature Whisky bottle	PAUL JONES LOUISVILLE KY (arched) around WHISKEY (in the center)	Paul Jones Whiskey	Louisville, KY	http://www.pre-pro.com/midacore/view_vendor.php?vid=SDF11484	0

Cut 5
Date and Origin of Marked/Datable Glass Items

Cat. No.	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
24	Mary's, PA (1905-1912); Port Allegany, PA (1917-c.1980s)	medicine bottle	P in a circle	Pierce Glass Company	St. Mary's, Pennsylvania, Port Allegany, Pennsylvania (1917-c.1980s)	Whitten 2016	1
25	1901-1924	medicine bottle	Wt & Co ...	Whitall Tatum	Louisville, New Jersey	Lockhart etal. 2006	1
26	1891-1920	medicine bottle	BROMO- SELTZER/ EMERSON/ DRUG CO /BALTIMORE, MD	Emerson Drug Co	Baltimore, MD	Fike 1987:111	2
27	since 1907, 1907-1970s	medicine bottle	FOR / EXTERNAL / USE ONLY/PRESCRIPTION/REESE CHEM CO. /EXTERNAL USE 4 TIMES DAILY / MFG.BY/REESE CHEM.CO/ CLEVELAND O./// M (in a circle)	Maryland glass Co	Baltimore, Maryland	Whitten 2016	1
28	1886-1908	Dose measure	DESSERT/ TEA/ W.R.WARNER 7 CO /PHILADLPHIA, PA /// DOSE MEASURE	WM. Warner & CO	Philadelphia, PA	Whitten 2016	1
36	1869-P,	-	Welch's (on base)	Fairmount Glass Works/Company	Fairmount, IN (1889-1906) & Indianapolis, IN (c.1906-1968)	Whitten 2016	1
37	1877-1920/21, sold in 1930	Lea & Perrins Worcestershire sauce bottle	WORCESTERSHIRE SAUCE/ LEA & PERRINS	John Duncan's Sons	New York City, NY	Zumwalt 1980: 269	1

Cut 7
Date and Origin of Marked/Datable Ceramic Items

Cat #	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
1409	c. 1880-c.1890	bowl base	[IRON STONE CHINA] (the eagle trademark: an eagle inside a circle)/ KNOWLES TAYLOR AND KNOWLES	Knowles, Taylor and Knowles Co.	East Liverpool, OH (1872-1929)	Debolt 1994: P70-71	1
1466	c. 1880-c.1890	bowl base	...KNO/...KN	Knowles, Taylor and Knowles Co.	East Liverpool, OH (1872-1929)	Debolt 1994: P70-71	
1410	1876-1889	sugar bowl base	WARRANTED (upper arch)/ ROYAL IRONSTONE CHINA (upper arch) / (standing royal coat of arms) ...CH [CHARLES MEAKIN /ENGLAND]	Charles Meakin	Trent Pottery, Burslem and Hanley, Staffordshire	Gibson 2011 p: 107-109	1
1465	1876-1889	sugar bowl base and rim	CH...	Charles Meakin	Trent Pottery, Burslem and Hanley, Staffordshire	Gibson 2011 p: 107-109	1
1626	1846-1891	Clay pipe	...DOUGALL	Duncan McDougall	Glasgow, Scotland	Colman1999	
1515	1870-1898	Ale bottle	W.F. MURRAY / GLASGOW/ POTTERY CO	W.F. MURRAY & CO. (LTD)	Glasgow, Scotland	Godden 1991:455	1
1515	1870-1898	Ale bottle	MURRAY / 2 / GLASGOW,	W.F. MURRAY & CO. (LTD)	Glasgow, Scotland	Godden 1991: 455	1
1515	1870-1898	Ale bottle	MURRAY CO/5/GLASGOW...	W.F. MURRAY & CO. (LTD)	Glasgow, Scotland	Godden 1991: 455	1
1515	1878-1883	Ale bottle	PORT DUNDAS / GLASGOW/ POTTERY CO	Port Dundas Pottery Co. LTD	Port Dundas, Glasgow, Scotland	Godden 1991: 504	1
1624	1870-1898	Ale bottle	MURRAY / #/ GLASGOW...	W.F. MURRAY & CO. (LTD)	Glasgow, Scotland	Godden 1991: 455	1
1624	1878-1898	Ale bottle	PORT DUNDAS / GLASGOW/ POTTERY CO	Port Dundas Pottery Co. LTD	Port Dundas, Glasgow, Scotland	Godden 1991:504	1
1624	1866-1929	Ale bottle	H. KENNEDY / BARROWFIELD / 14/ POTTERY (impressed in oval asterisk symbol on each side)/ GLASGOW	Henry Kennedy & sons LTD	Glasgow, Scotland	Godden 1991:369	1

Cut 7
Date and Origin of Marked/Datable Glass Items

Cat #	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
1423	1880-1895	bottle	BOOTH'S (arched)/ (standing eagle) / DRUG / STORE / SAN / LUIS OBISPO (arched) /CAL (in shield w/outer lines) // W.T. & CO. JAN (star symbol) / PAT JAN/ 22 78	Whitall Tatum & CO	Millville, NJ,	Lockhart et al. 2006	1
1551	1880-1895	bottle	...LUIS OBIS...(arched)/ CAL (in shield w/outer lines) // W.T. & CO. JAN (star symbol) / PAT JAN / 22 78	Whitall Tatum & CO	Millville, NJ	Lockhart et al. 2006	1
1553	1880-1895	bottle	BOOTH'S (arched) / (standing eagle) / DRUG / STORE / SAN / LUIS OBISPO (arched) / CAL (in shield w/outer lines) // W.T. & CO. JAN (star) / PAT JAN / 22 78	Whitall Tatum & CO	Millville, NJ	Lockhart et al. 2006	1
1552	1907-1933	bottle	3i / EAGLE PHARMACY (in cursive) / B.G. LATIMER/SAN LUIS OBISPO CAL./// CC scale /// ounce scale/// BLUE RIBBON	Standard Glass Co.	Marion, Indiana	www.glassbottlemarks.com/bottlemarks/	1
Mechanical Trench	1853-P	bottle	MCKESSON & ROBBINS CO	McKesson & Robbins Manufacturing Chemists	New York City, NY	http://www.mckesson.com/about-mckesson/our-history/	1
1482	1874-1892	bottle	L G C O / D	Lindell Glass Company	St. Louis, Missouri	Lockhart et al. (no year?)	
1566	Established 1868 1880-1900s	Soda/Water bottle	...SEE THAT EACH CORK IS BRANDED / CANTRELL & COCHRANE// DUBLIN, BELFAST	Cantrell and Cochrane	Dublin & Belfast, Ireland	https://www.kovels.com/collections-concerns/cantrell-a-cochrane-bottle.html	1
1567, 1568	1877 to Present (1880-1920/21 for JDS)	bottle	WORCESTERSHIRE SAUCE / LEA & PERRINS // J 4 D / S	John Duncan's Sons	New York City, NY	Zumwalt 1980: 269 from Copelands report	5
1578, 1579	1877 to Present (1880-1920/21 for JDS)	stopper	LEA 7 (arched) PERRINS	Various	Various	Zumwalt 1980: 269	1
1488	1880-1881	Bottle	C.V. NO. 2 MILW / 8 (in the center)	Wisconsin /Chase Valley Glass Factory 2	Milwaukee, WI	http://www.mrbottles.com/Category/WisconsinGlass	2
1589	ca. 1878-1891; ca. 1907	bottle	C & CO	Cunninghams & Co	Pittsburgh, PA	Lockhart et al 2004	1
1607	1866-1878	bottle	C & I	Cunningham & Ihmsen	Pittsburgh, PA	Lockhart et al 2004	1
1610	1860-ca.1884	Beer bottles	(horizontal) A&D. H .C, or (arched) A& D. H. C / 3	Alexander & David H. Chamber	Pittsburgh, PA	Lockhart et al https://sha.org/bottle/pdf/files/A&DHChambers.pdf	2
1590	ca.1867	Bottle	AYER'S HAIR VIGOR	Dr. J. C. Ayer & Company	Lowell, Massachusetts,	http://americanhistory.si.edu/collections/search/object/nmah_715094	1

Cut 8
Date and Origin of Marked/Datable Ceramic Items

Cat. No.	Date Range	Object	Manufacturer Mark	Manufacturer	Origin	Reference	MNI
825	c.1840s-1890s	dish base & body	(royal coat of arms)...ATENT./...STONE./...& GODDARD [ROYAL PATENT IRONSTONE][BURGESS&GODDARD]	Burgess & Goddard Importers in (USA)	Longton, Staffordshire, England	Kowalsky & Kowalsky 1999: 133	1
826	1856-1920	hollow base	royal coat of arms / WARRANTED STONECHINA / R.COCHRAN7C:GLASGOW	Robert Cochran	Glasgow, Scotland	Kowalsky & Kowalsky 1999:155	1
872	1856-1920	saucer	...GOW [ROBERT COCHRAN&CO.GLASGOW] (royal coat of arms)/ IMPERIAL IRONSTONE CHINA	Robert Cochran	Glasgow, Scotland	Kowalsky & Kowalsky 1999:155	1
936	1856-1920	saucer base	ROBE...HAN & CO GLASGOW (royal coat of arms)/IMPERIAL IRONSTONE CHINA	Robert Cochran	Glasgow, Scotland	Kowalsky & Kowalsky 1999:155	1
980	1867-1878	Plate	IRONSTONE CHINA in a crown and circle/ POWELL & BISHOP	Powell & Bishop	Stafford, England	Kowalsky & Kowalsky 1999: 311	1

Cut 8
Date and Origin of Marked/Datable Glass Items

Cat	Date Range	Object	Manufacturer Mark	Manufacturer	Mfg. Origin	Reference	MNI
831	C.1880-1910	bottle body	...WYETH.../ PHILAD'A... (JOHN WYETH & BRO/ PHILAD'A)	Wyeth and Brothers	Philadelphia, PA	Toulouse 1972: 548	1
886	1880-1881	beer bottle base	"C.V. NO. 1 MILW." with an "8" in the center.	Chase Valley Glass Factory No. 1	Milwaukee, WI	http://www.mrbottles.com/Category/WisconsinGlass	1
937	1880-1895	bottle	BOOTH'S / DRUG STORE/ SAN LUIS OBISPO CAL // W.T. & CO. / PAT. JAN./ 22 78	Whitall Tatum & co	Millville, NJ,	Lockhart et al. 2006	1
943	1880-1895	bottle base & body	...LUI SOP (arched) /...CAL (in shield with outer lines) // W.T. & CO. / PAT.78... N / 22 78	Whitall Tatum & co	Millville, NJ,	Lockhart et al. 2006	1
946	1876-1885	Whiskey bottle body	...FRAN (arched) / & / LOUISV... (arched) (TRADE MARK (within antlers) / JESSE MOORE & CO. LOUISVILLE,KY.G.H (arched) / MOORE OLD BOURBON & RYE JESSE MOORE HUNT CO. SAN FRANCISCO	Jesse Moore & co	San Francisco, CA	www.glassmaster.com	1
994	1877–present (1880– 1920/21 for JDS)	stopper	LEA 7 (arched) PERRINS	Various	Various	Zumwalt 1980: 269	1
1003	Unknown	medicine bottle base	...PATD FEB 6 1886	Unknown	Unknown	-	1
1005	Established 1868 1880-1900s	Soda /Water bottle	SEE THAT EACH CORK IS BRANDED / CANTRELL & COCHRANE // DUBLIN, BELFAST	Cantrell and Cochrane	Dublin, Belfast, Ireland	https://www.kovels.com/collectors-concerns/cantrell-a-cochrane-bottle.html	1
1013	1870-1920s	Dr. J. Hostetter's Stomach bitters					1
1077	Established 1868 1880-1900s	Soda/Water bottle	SEE THAT EACH CORK IS BRANDED / CANTRELL & COCHRANE// DUBLIN, BELFAST	Cantrell and Cochrane	Dublin, Belfast, Ireland	https://www.kovels.com/collectors-concerns/cantrell-a-cochrane-bottle.html	1
1125	Since 1808 1842-1858	Florida water bottle body	...FLORIDA WATE.../...RAY & LA... (FLORIDA WATER/ MURRAY & LANMAN / DRUGGISTS/ NEW -YORK	Murray and Lanman	New York City, NY	Fike 1987:244	1
1129	Founded 1863	Vermouth Bottle	VERMOUTH SUPRAFINO / MARTINI SOLA & CIA / TORINO / PROVIDIS MILLAR DE ITALIA	Alessandro Rossi & Luigi Rossi	Turin , Italy	http://www.martini.com/Heritage.aspx?SID=13&PID=17	1
1188	1880-1895	medicine bottle base	W.T. & CO. / PAT. 78 N / 22. 78	Whitall Tatum & co	Millville, NJ,	Lockhart et al. 2006	1
1196	1880-1895	medicine bottle	BOOTH'S (Eagle monogram) / DRUG STORE (arched) / SAN LUIS OBISPO CAL (inside a shield) // W.T. & CO. / PAT. JAN./ 22 78	Whitall Tatum & co	Millville, NJ,	Lockhart et al. 2006	1

Cut 8
Date and Origin of Marked/Datable Glass Items

Cat	Date Range	Object	Manufacturer Mark	Manufacturer	Mfg. Origin	Reference	MNI
1206	ca.1873	bottle finish & body	... SHILOHS /...SYSTEM /...TALIZER... (DR SHILOHS/SYSTEM / VITALIZER//S.C. WELLS. & CO // LEROY.N.Y)	S.C. Wells & Co.	Leroy. NY	Fike 1978: 105	1
1211	1877 to Present (1880-1920/21 for JDS)	Lea & Perrins Worcestershire sauce bottle	WORCESTERSHIRE SAUCE / LEA & PERRINS	John Duncan's Sons	New York City, NY	Zumwalt 1980: 269	1
1212	1870S-1920	Dr. J. Hostetter's Stomach bitters	DR. J / STOMA...[DR J HOSTETTER'S STOMACH BITTERS]	David Hostetter	Pittsburg, PA	Fike 1987: 36	0
1214	1880-1881	bottle base & finish	This bottle embossed on the bottom ...MILW...	Chase Valley Glass Factory No. 1	Milwaukee, WI	http://www.mrbottles.com/Category/WisconsinGlass	1
1287	1880-1895	bottle base & finish	...OOTH'S [BOOTH'S] /... UG [DRUG] STORE / [SAN] ...IS [LUIS] OBISPO CAL // W.T.&CO./PAT. JAN./ 22 78	Whitall Tatum & co	Millville, NJ,	Lockhart et al. 2006	6
1288	1870- C.1918	Hoyt's German Cologne bottle	...E.W HOYT & CO/... T'S GERMAN COLOGNE/... LOWELL MASS	Hoyt & Co	Lowell, Mass.	http://www.cliffhoyt.com/index.htm	1
1289	ca.1877	medicinal bottle	H.P WAKELEE DRUGGIST / SAN FRANCISCO CAL. (in a wreath)	Henry Peck Wakelee	San Francisco, CA	Fike 1978:21	1
1312	1876-1878	beer bottle	CC & CO monogram-sans serif style	Carl Conrad & Co., St. Louis, Missouri (1876-1883)	St. Louis, Missouri	https://sha.org/bottle/pdf/CarlConradCo.pdf	2

Historical Concentration
Date and Origin of Marked/Datable Ceramic Items

Cat. No.	Date Range	Object	Manufacturer Mark	Maker	Origin	Reference
1803-1	1896+	base	Crown over circle /...DDOCK & Sons.	John Maddock & Sons LTD	England	Godden 1991: 406
1860	1896+	base	Bottom of circle (arched) ...OYAL VITREOUS LT...	John Maddock & Sons LTD	England	Godden 1991: 406
1794	1890-1894	base	(rope) / NEW...[Crown over knotted rope / (in box) New Wharf Pottery / England]	New Wharf Pottery	England	Kowalsky & Kowalsky 1999:295
1846	1875-1890	base	(arched) (banner) ...OMAS FURNIVAL & SONS / (seated Royal Coat of Arms) crown over oval, Lion (left) Unicorn (right) / ...DE. Full mark: (arched) (banner) THOMAS FURNIVAL & SONS / (seated Royal Coat of Arms) crown over oval Lion (left) Unicorn (right) / (horizontal) TRADE (seal) / (arched) ENGLAND	Thomas Furnival & Sons	England	Kowalsky & Kowalsky 1999: 201
1851	1891-1897+	base	(arched) RO... / (standing Royal Coat of Arms) Lions tail visible / (horizontal) ALFRE... / (horizontal) EN...[(arched) ROYAL IRONSTONE CHINA / (standing Royal Coat of Arms) Crown over circle Lionj (left) Unicorn (right) / (horizontal) ALFRED MEAKIN / (horizontal) ENGLAND]	Alfred Meakin	England	Kowalsky & Kowalsky 1999: 277
1858-1	1890+	base	(arched) IRON... / (standing Royal Coat of Arms) Lion (visible) / (horizontal) J. &. ...	J & G Meakin	Hanley, England	Godden 1991: 427
1858-2	1890+	base	(arched) [ONST]).(arched) IRONSTONE CHINA / (standing Royal Coat of Arms) crown over oval, Lion (left) Unicorn (right) / (horizontal) J. & G. MEAKIN / HANLEY / ENGLAND	J & G Meakin	Hanley, England	Kowalsky & Kowalsky 1999: 275
1858-3	1890+	base	(arched) I... / (standing Royal Coat of Arms) Lion's tail and portion of body visible. / (horizontal) J. & G... / HA... / ENG... Full mark: (arched) IRONSTONE CHINA / (standing Royal Coat of Arms) crown over oval, Lion (left) Unicorn (right) / (horizontal) J. & G. MEAKIN / HANLEY / ENGLAND	J & G Meakin	Hanley, England	Kowalsky & Kowalsky 1999: 275
1852	1890+	base	(arched) [I]...RONSTONE CHINA / (standing Royal Coat of Arms)	J & G Meakin	Hanley, England	Kowalsky & Kowalsky 1999:275
1856	1880-1896	base	(arched) John Maddock & Sons / (horizontal) England / (arched) Royal Vitreous	John Maddock & Sons	England	Godden 1991: 406
1857	1897+	base	(arched) ... E CHINA / (standing Royal Coat of Arms) crown over oval Unicorn visible / (arched) ...TD (underlined).	Alfred Meakin	England	Kowalsky & Kowalsky 1999: 277
1800	1866-1929	base	... KENNEDY / ...	Henery Kennedy & Sons	Glasgow, Scotland	Godden 1991: 369

APPENDIX C

Vertebrate Faunal Remains

VERTEBRATE FAUNAL REMAINS FROM MONTEREY IN-FILL PROJECT DATA RECOVERY AT CA-SLO-1419H

Ryan E. Wendel

Excavation of Cuts 7 and 8 at CA-SLO-1419H yielded 2,087 vertebrate faunal remains with a total weight of 15,559.8 grams. These cuts were identified as privies dating to the early to mid-1880s. These features are close to historic-period dwellings, restaurants, and commercial establishments. The recovered faunal material, except for one piece of bone, is from the abandonment and fill layers of these privies. This report analyzes the composition of these faunal materials to provide a greater understanding of the dietary choices and practices of the residents of San Luis Obispo associated with these deposits.

METHODS

The nonfish bone sample was sorted by mesh size, and all vertebrate specimens were passed through 1/2-, 1/4-, and 1/8-inch nested screens. Each specimen was identified to the lowest taxonomic level possible. Identifications were made by comparison to skeletons in the author's collection and published reference books (Adams and Crabtree 2012; Cohen and Serjeantson 1996; France 2009; Gilbert 1980; Hillson 2005; Olsen 1964, 1979; Wolniewicz 2004). Side and portion were recorded for each identifiable element. Age was determined using states of epiphyseal fusion following Hudson (1984).

The analyst noted natural and cultural modifications such as burning, gnawing, weathering, cut marks, and polish. Cut marks were further evaluated to determine the type of tool and method used during butchery (e.g., stone, metal, saw, etc.). The color, location, and percentage of burning were noted for each burned specimen. The color classifications follow McCutcheon (1992) and are based upon experiments conducted on modern bone. The burn color classifications are black (burned), gray (heat-altered), cooking brown, and white (calcined).

For those specimens unidentifiable to species, a generalized size category was applied based upon the thickness and curvature of the shaft fragment or size of the element if it lacked sufficient diagnostic criteria. For large terrestrial mammal bones, large ungulate is used to refer to bones similar in size to those of cow, horse, or elk and medium ungulate refers to bones similar in size those of to sheep, goat, or deer.

MNI, NISP, and Distribution of Elements

In order to determine the dietary significance of the collection, several analytical methods were employed, including number of identified specimens (NISP) present, minimum number of individuals (MNI), and distribution of elements. These counts and analysis techniques do not represent an absolute count or measure but do reflect the relative dietary importance of various animals and the cuts of meat present. NISP is used to measure the abundance of elements per taxon. Generating an NISP shows potential abundance or importance of certain taxa. However, the NISP analysis does not take into account the effects of human butchering and natural processes on the bone assemblage. Furthermore, since the NISP only shows raw counts of fragments, species with numerous bones, such as fish, can be greatly inflated (Grayson 1973,

1978, 1979). The count does not factor in butchery practices, which can fragment bones, and it considers every bone independent from any other bone, even if they may come from the same animal. Thus, the NISP represents the maximum possible count of individual animals.

The MNI count is a very conservative estimate and serves as a good counterbalance to the problems of NISP counts (Marshall and Pilgram 1993). MNI counts reveal the smallest number of individual animals represented in an assemblage by counting bone elements and taking into consideration attributes such as side and age (Crabtree 1985). In order to gain the most accurate and conservative picture of the analyzed sample, MNI analysis is conducted site-wide and does not take into account separate features.

Analysis of the distribution of animal elements with butchering marks provides a more fine-grained approach to understanding the cultural use of fauna (Ogbourne 2013). The frequency of anatomical elements can indicate the types of dishes that may have been prepared by those depositing refuse into the two outhouse features. For this analysis only the main subsistence species (cow, sheep, chicken, etc.) are included. This excludes the domestic cat, rodent, and small birds, although they may have been consumed during periods of hardship.

Analysis of the economic value of animal elements and the variability between them can shed light on cultural and socioeconomic factors that help guide faunal preference in a given assemblage. Several archaeologists have addressed the issues of economic scaling of meat cuts. Schulz and Gust (1983) and Ogbourne (2013) provide historical evidence of the cost for different cuts of beef and pork. Evidence of butchering methods may signal cultural differences. By analyzing the types of meat cuts within the assemblage, questions regarding dietary preference, animal utilization, and aspects of social standing can be addressed. This report looks at the distribution of these elements at the individual cut level to look for any potential differences or similarities between the two features.

ASSEMBLAGE COMPOSITION

All units within Cuts 7 and 8 excavated at CA-SLO-1419H for the Monterey In-Fill Project yielded a total of 2,087 vertebrate faunal remains (15,559.8 grams; Table C-1). The faunal assemblage is dominated by domestic livestock remains consisting primarily of cattle (*Bos taurus*), chicken (*Gallus gallus*), pig (*Sus scrofa*), sheep (*Ovis aries*), and sheep/goats undifferentiated (Caprinae). Together, these species comprise approximately 26.6 percent of the total assemblage by count (n = 554) and 76.1 percent of the total assemblage by weight (11,849.9 grams). Of these, cow is the most abundant species making up 17.5 percent of the assemblage by count (n = 365) and 76.1 percent of the assemblage by weight (11,849.9 grams). Wild game species, including deer, ducks, geese, and rabbits (lagomorphs), comprise a small portion of the assemblage, representing 2.1 percent of the assemblage by count (n = 40) and weight (329.3 grams).

Overall both Cuts 7 and 8 have very similar faunal assemblage compositions; both are dominated by domestic livestock, especially cattle, with smaller percentages of other domestic livestock and sparse wild game. However, some differences between the assemblages are present. Cut 7 has a higher percentage of small bird and chicken bones than does Cut 8, while Cut 8 has a higher percentage of identifiable domestic and wild game species. This higher rate of species identification is likely the result of a larger assemblage that has more potentially identifiable

**Table C-1
Nonfish Vertebrate Faunal Remains (NISF) from the Monterey In-Fill Assemblages within CA-SLO-1419H**

Taxon	Common Name	Cut 7				Cut 8				Total Assemblage			
		Count		Weight		Count		Weight		Count		Weight	
		n	%	G	%	N	%	g	%	n	%	g	%
Aves	Birds	15	5.4	0.5	0.0	23	1.3	4.3	0.0	38	1.8	4.8	0.0
Aves	Birds, undiff.	7	2.5	0.8	0.0	1	0.1	0.1	0.0	8	0.4	0.9	0.0
Aves, Size Class 1	Bird, songbird size	2	0.7	0.5	0.0	13	0.7	4.0	0.0	15	0.7	4.5	0.0
Aves, Size Class 2	Bird, duck size	9	3.2	4.7	0.2	70	3.9	33.0	0.3	79	3.8	37.7	0.2
Aves, Size Class 3	Bird, chicken or larger	1	0.4	0.1	0.0	8	0.4	5.7	0.0	9	0.4	5.8	0.0
Anatinae	Ducks	0	0	0	0	3	0.2	4.5	0.0	3	0.1	4.5	0.0
Anserini	Geese	0	0	0	0	8	0.4	2.5	0.0	8	0.4	2.5	0.0
Columbidae	Pigeon	0	0	0	0	10	0.6	6.3	0.1	10	0.5	6.3	0.0
Galliformes	Turkey, grouse, chicken, quail	24	8.6	30.6	1.3	89	4.9	111.9	0.9	113	5.4	142.5	0.9
<i>Gallus gallus</i>	Domestic chicken	0	0	0	0	1	0.1	0.9	0.0	1	0.1	0.9	0.0
Laridae	Gulls	0	0	0	0	4	0.2	9.3	0.1	4	0.2	9.3	0.1
<i>Melegris gallopavo</i>	Turkey	3	1.1	0.5	0.0	2	0.1	0.4	0.0	5	0.2	0.9	0.0
Scolopacidae	Sand piper	5	1.8	0.6	0.0	342	18.9	148.0	1.1	352	16.9	149.7	1.0
Mammalia		1	0.4	0.8	0.0	14	0.8	5.8	0.0	15	0.7	6.6	0.0
Mammalia	Mammals, undiff.	45	16.2	46.7	1.9	36	2.0	45.8	0.3	81	3.9	92.5	0.6
Lagomorpha	Rabbits and hares	0	—	0	—	4	0.2	120.5	1.0	4	0.2	120.5	0.8
<i>Felis domesticus</i>	Domestic cat	4	1.4	69.4	2.9	53	2.9	833.7	6.3	57	2.7	903.1	5.8
Bovidae	Bison, cow, sheep	3	1.1	76.7	3.2	15	0.8	235.7	1.8	18	0.9	312.4	2.0
<i>Sus scrofa</i>	Pig	1	0.4	4.4	0.2	12	0.7	219.9	1.7	13	0.6	224.3	1.4
<i>Odocoileus</i> sp.	Deer	2	0.7	38.2	1.6	4	0.2	49.7	0.4	6	0.3	87.9	0.6
Caprinae	Sheep/goat	63	22.7	1,854.0	76.8	302	16.7	8638.1	65.7	365	17.5	10,492.1	67.4
<i>Ovis aries</i>	Sheep												
<i>Bos taurus</i>	Cattle												
Size Category													
Medium Rodent	Wood rat/pocket gopher size	0	—	0	—	1	0.1	4	0.0	4	0.2	0.7	0.0
Large Rodent/Lagomorph	Rabbit/squirrel size	1	0.4	0.1	0.0	4	0.2	0.7	0.0	43	2.1	12	0.0
Small/Medium Fauna	Small/medium size (all classes)	0	—	0	—	42	2.3	11.9	0.1	1	0.1	4	0.0
Small/Medium Mammal	Rabbit to coyote size	2	0.7	0.9	0.0	50	2.8	6.7	0.1	52	2.5	7.6	0.0
Medium Mammal	Skunk to coyote size	22	7.9	10.9	0.5	35	1.9	36.7	0.3	57	2.7	47.6	0.3
Medium/Large Mammal	Coyote to elk size	17	6.1	20.1	0.8	212	11.7	401.4	3.0	229	11.0	421.5	2.7
Large Terrestrial Mammal	Sheep to elk size	5	1.8	1.1	0.1	51	2.8	145.3	1.1	51	2.4	145.3	0.9
Medium Ungulate	Deer/sheep/goat size	5	1.8	30.5	1.3	176	9.7	811.0	6.2	181	8.7	841.5	5.4
Large Ungulate	Cow/horse/elk size	22	7.9	222.0	9.2	182	10.1	1244.6	9.5	204	9.8	1,466.6	9.4
Unclassified													
Bone		19	6.8	0.6	0.0	42	2.3	2.7	0.0	61	2.8	3.3	0.0
Total		278	100.0	2414.7	100.0	1,809	100.0	13,145.1	100.0	2087	100.0	15,559.8	100.0

fragments. Given the proximity of Cuts 7 and 8, both temporally and spatially, it is highly likely that both areas were utilized by the same or similar groups or individuals. Therefore, the following discussion analyzes the combined assemblages to provide a better understanding of the overall faunal and cultural patterns from these deposits.

The MNI and NISP counts show similar preference in animal types. Domestic cattle and chicken are the most abundant of the species commonly consumed, both representing 16.7 percent of the MNI with six individuals present (Table C-2). Domestic cat also comprises 16.7 percent of the sample in which six individual cats were identified. Large and medium ungulates make up the next largest group by MNI, including deer (8.3 percent), sheep/goats (8.3 percent), and pig (5.5 percent). The high MNI count of domestic animals relative to wild game provides additional evidence for a preference of domestic livestock over wild game.

Table C-2
Nonfish Vertebrate Faunal Remains from CA-SLO-1419H

Taxon	Common Name	MNI	%
Anatinae	Ducks	1	2.8
Anserini	Geese	1	2.8
Columbidae	Pigeon	1	2.8
<i>Gallus gallus</i>	Domestic chicken	6	16.7
Laridae	Gulls	1	2.8
<i>Melegris gallopavo</i>	Turkey	1	2.8
Scolopacidae	Sand piper	3	8.3
Lagomorpha	Rabbits and Hares	2	5.5
<i>Felis domesticus</i>	Domestic cat	6	16.7
<i>Sus scrofa</i>	Pig	2	5.5
<i>Odocoileus sp</i>	Deer	3	8.3
Caprinae	Sheep/goat	3	8.3
<i>Bos taurus</i>	Cattle	6	16.7
Total		36	100.0

The MNI count provides a concise minimum number of species. However, given the large percentage of bones unidentifiable to species and the conservative nature of the MNI count, NISP counts are used to augment the MNI data. As previously shown, domestic livestock dominate the NISP in the assemblage, comprising 26.6 percent of the total assemblage by count and 76.1 percent by weight. Identified species include cattle (17.5 percent by count and 67.4 percent by weight), pig (2.7 percent by count and 5.8 percent by weight), and sheep/goat (0.9 percent by count and 2.0 percent by weight). Domestic fowl is also present in the assemblage—domestic chicken makes up 5.4 percent of the total assemblage by count and 0.9 percent by weight.

Several categories of bone identifiable to size category are present in the assemblage and likely represent domestic livestock remains. The large ungulate and large mammal (domestic cattle size) groups make up 12.2 percent of the assemblage by count and 10.3 percent by weight. The medium/large mammal and medium ungulate groups account for 18.7 percent by count and 8.1 percent by weight. This group consists of coyote- to elk-sized mammals including deer, sheep, pig, and other animals of that size class, both domestic and wild.

Cattle and large mammals combined comprise the majority of the total assemblage (29.7 percent by count and 77.7 percent by weight). A high proportion of cattle bone is common at historical sites throughout the West. Cattle were introduced to western North America by the Spaniards, who established missions in the area and brought livestock, including cattle, horse, sheep and goats (Chartkoff and Chartkoff 1984; Gamble 2008; Skaggs 1986). The high proportion of cattle bones in this later historic-period assemblage provides evidence of a cattle industry that continued to flourish on the Central Coast during the late 1800s.

Remains of wild game are also present in the assemblage, but in significantly smaller quantities. Deer is the most abundant of the wild game species, comprising 0.9 percent of the assemblage by count and 2.0 percent by weight. Lesser game species make up a very small percentage of the assemblage and include rabbits, which make up only 0.7 percent of the assemblage by count ($n = 15$). The paucity of wild game is also highlighted in the MNI counts, which show a minimum of three deer and two rabbits present in the assemblage. Deer and rabbit occupy several vegetative regimes along California's Central Coast, but the most attractive habitats are coastal sagebrush and chaparral areas (Coulombe and Cooper 1976). The region around San Luis Obispo would have provided wild game from suitable habitat. However, given the low percentage of deer and rabbit bones in the assemblage, they likely made up only a small portion of the diet of those depositing refuse in the privy features.

Bones of wild fowl and small birds are also present in the assemblage, although in very small numbers. Ducks and geese comprise only 0.5 percent of the assemblage by count ($n = 12$) and less than 0.01 percent by weight. However, unidentified chicken- and duck-sized birds (Aves Classes 2 and 3) are abundant in the assemblage. These fragments make up 4.4 percent of the assemblage by count but only 0.2 percent by weight. These size class fragments may either represent chicken, duck, turkey, or any other bird that may have been used for food.

Three local small bird species identified in the assemblage include pigeon, gulls, and sandpipers. Together they comprise a small portion of the assemblage, representing only 0.7 percent by count ($n = 14$). These birds are common to the region, especially in proximity to the Pacific Coast. Other unidentified small bird fragments make up 0.4 percent of the assemblage by count ($n = 8$). No burning or processing marks were observed on the fragments, and so the bones likely represent a natural inclusion and not consumption.

Unidentified small/medium mammal, large rodent/lagomorph, and medium mammal bones make up a combined 7.3 percent of the assemblage by count ($n = 152$) but only 0.4 percent by weight (67.2 grams). These bones were all highly fragmentary but may possibly represent small wild game such as rabbits and large rodents. They also may possibly represent animals not traditionally part of the diet, such as domestic cat. Domestic cat was present in the assemblage in significant numbers. A total of 81 domestic cat bones are present in the assemblage, representing 3.9 percent of the assemblage by count. These bones represent a minimum of six individual cats. This high number of cats may reflect their common presence in urban San Luis Obispo. Cats are common in many contexts, as they were commonly kept for rodent control and as pets.

The large number of cats in the assemblage may be related to the small amount of rodent remains recovered. No rodent species were identified; however, the small/medium fauna and medium rodent categories represent only 0.3 percent of the assemblage by count ($n = 5$). The small

amount of rodent bone may be related to the use of the privy feature as a refuse dump that would contain numerous bone fragments, elevating the assemblage count and diminishing the relative number of rodent and nonfood species. However, the presence of cats and rodents suggests other animal species were present in the assemblage, possibly utilizing the refuse deposit as a food source. The lack of rodents present may also suggest that the deposit was relatively undisturbed by rodent burrows.

CULTURAL MODIFICATIONS

Butchering

The Monterey Street assemblage at CA-SLO-1419H produced 609 bones (29.2 percent) with cut marks, altogether weighing 10,659.9 grams (68.5 percent). The distribution of cut marks by species and element is shown in Table C-3. The observed cut marks were made primarily with metal saws, with only a small fraction having evidence of knife (2.8 percent by count and 1.7 percent by weight) or cleaver cuts (0.7 percent by count and 0.8 percent by weight). The distribution of cut marks by taxon indicates that the majority of the cut marks are on domestic cattle bones (44.5 percent by count and 74.5 percent by weight). When combined with large ungulate and large mammal (cow size) bones, they comprise 68.5 percent by count and 83.1 percent by weight. These bones are from cattle-sized animals but are missing any identifying factors to allow for species-level identification. The dominance of both butchered cattle and large ungulate bones provides additional supporting evidence for the preferred use of cattle in the diet.

Along with cattle, other domestic livestock fauna make up a significant portion of the butchered assemblage. These groups consist of pig (6.6 percent by count and 7.1 percent by weight), sheep and goat (0.9 percent of count and 1.0 percent by weight), and chicken (0.3 percent by count and less than 0.1 percent by weight). Wild game is also present, and butchered deer bone makes up 2.7 of the assemblage by count and 3.9 percent by weight.

A large portion of the butchered bone was only identifiable to size group or family. These elements comprise 51.2 percent of the butchered assemblage by count but only 14.7 percent by weight, including the large ungulate and mammal groups mentioned above. This is due to the large number of small fragments of butchered bone in the assemblage, specifically long bones and ribs. Aside from the large mammal and ungulate groups, the size groups identified in the butchering assemblage may either represent domestic or wild species. These include medium/large mammal (3.7 percent by count and 0.5 percent by weight), medium ungulate (15.1 percent by count and 4.5 percent by weight), and Bovidae family (0.2 percent by count and 0.3 percent by weight). These groups include mammal such as deer, pig, and sheep, and possibly smaller or juvenile cattle.

The distribution of cut marks by element can shed light on butchering practices and element preferences. The distribution of cattle and cattle-sized bones by element shows a significant portion of the butchering occurred on long bones (42.5 percent by count and 61.5 percent by weight) and ribs (23.3 percent by count and 13.5 percent by weight). Vertebrae, pelvis, and scapula cuts are also present in smaller percentages. These elements represent areas of an animal used for food consumption. The high number of ribs and long bone fragments suggest larger serving portions such as roasts and racks of ribs were being consumed.

Table C-3
Cut Mark Distribution within CA-SLO-1419H

Taxon	Retail Cut	Cut 7			Cut 8			Total Assemblage		
		Count	Weight	%	Count	Weight	%	Count	Weight	%
		N	g	%	n	g	%	n	g	%
Mammal Unidentified	Saw Cut	0	0.0	0.0	14	1.5	0.0	14	1.5	0.0
Medium/Large Mammal	Saw Cut	2	3.5	0.1	19	49.5	0.5	21	51.0	0.5
Large Mammal	Cleaver Cut	0	0.0	0.0	1	2.4	0.0	1	2.4	0.0
	Saw Cut	0	0.0	0.0	13	33.4	0.4	13	33.4	0.3
Medium Ungulate	Knife Cut	0	0.0	0.0	2	3.3	0.0	2	3.3	0.0
	Saw Cut	1	1.7	1.8	89	443.6	4.7	90	465.4	4.5
Large Ungulate	Cleaver Cut	0	0.0	0.0	1	0.8	0.0	1	0.8	0.0
	Knife Cut	0	0.0	0.0	1	1.4	0.0	1	1.4	0.0
Chicken	Saw Cut	9	15.5	5.7	117	794.6	8.4	126	862.2	8.3
	Knife Cut	0	0.0	0.0	5	16.3	0.2	5	16.3	0.2
Pig	Knife Cut	0	0.0	0.0	2	4.1	0.0	2	4.1	0.0
	Saw Cut	1	1.7	0.5	39	754.6	8.1	40	760.4	7.1
Deer	Saw Cut	5	8.6	18.5	10	155.6	1.6	15	377.6	3.6
	Saw Cut	0	0.0	0.0	1	30.0	0.3	1	30.0	0.3
Cow	Saw Cut	40	69	73.4	222	6,822.7	72.2	262	7,701.6	72.3
	Saw and Knife Cut	0	0.0	0.0	3	19.5	0.2	3	19.5	0.2
Sheep/Goat	Knife Cut	0	0.0	0.0	4	135.9	1.4	4	135.9	0.9
	Cleaver Cut	0	0.0	0.0	2	85.4	0.9	2	85.4	0.8
	Saw Cut	0	0.0	0.0	6	107.7	1.1	6	107.7	1.0
Total		58	100.0	100.0	551	9,426.3	100.0	609	10,659.9	100.0

A small number of cranial and foot elements of livestock and large game is present, representing 5.7 percent of the assemblage by count and 8.8 percent by weight, and only a small percentage of phalanges show evidence of butchering. A majority of these are foot elements; cranial elements represent only 2.4 percent by count and 0.9 percent by weight. The small number of cranial and foot elements indicates that slaughter and initial processing of animals was conducted elsewhere. Landon (1996) has suggested that as communities become more urban, specialization in work areas will increase. This specialization would result in butchering and slaughter separate from consumption areas as residents purchase more meat that is at least partially butchered.

Half (50.7 percent) of the butchered bones within the assemblage are retail cuts (Table C-4). These provide evidence of both serving size and the economic value of the cut (Ogbourne 2013; Schulz and Gust 1983). The Monterey Street assemblage consists of primarily medium- to high-value retail cuts with a rank five or higher (59.9 percent). The abundance of higher value cuts suggests that those depositing food refuse into Cuts 7 and 8 enjoyed at least moderate social and economic standing.

The breakdown of the retail meat cuts by serving size shows a preference for single-serving portions. Individual steak-sized portions comprise 43.4 percent (n = 134) of the Monterey Street assemblage; steaks ranged between 0.5 to 2.0 inches thick. Roast- and group-sized cuts comprise 20.7 percent (n = 64) of the Monterey Street assemblage. Rib segments, which may indicate either group or single-serving portions, comprise 35.9 percent (n = 111) of the assemblage.

Table C-4
Retail Cuts within CA-SLO-1419H

Taxon/Cut	Rank ^a	Cut 7		Cut 8		Total Assemblage	
		Ct.	%	Ct.	%	Ct.	%
Cow							
T-bone Steak	1	2	6.1	17	6.2	19	6.1
Short Loin Steak	1	0	0.0	3	1.1	3	1.0
Unidentified Vertebrae Steak	1–5	0	0.0	4	1.4	4	1.3
Sirloin Steak	2	4	12.1	8	2.9	12	3.9
Sirloin Roast	2	0	0.0	5	1.8	5	1.6
Round Steak	3	5	15.2	7	2.5	12	3.9
Round Roast	3	0	0.0	13	4.7	13	4.2
Chuck Roast	5	0	0.0	2	0.7	2	0.7
Scapula/7-bone Steak	5	3	9.1	6	2.2	9	2.9
Humerus/Arm Steak	5	1	3.0	0	0.0	1	0.3
Humerus/Arm Roast	6	0	0.0	9	3.3	9	2.9
Rib Steak	2	4	12.1	4	1.4	8	2.6
Rib	2	0	0.0	21	7.6	21	6.8
Short Rib	6	7	21.2	29	10.5	36	11.6
Short Plate Rib	7	1	3.0	8	2.9	9	2.9
Fore Shank Steak	9	0	0.0	2	0.7	2	0.7
Hind Shank Roast	9	1	3.0	3	1.1	4	1.3
Fore Shank Roast	9	0	0.0	9	3.3	9	2.9
Unidentified Long Bone Steak	3–9	1	3.0	2	0.7	3	1.0
Unidentified Long Bone Roast	3–9	0	0.0	4	1.4	4	1.3
Soup Bone	9	0	0.0	1	0.4	1	0.3

Table C-4
Retail Cuts within CA-SLO-1419H

Taxon/Cut	Rank ^a	Cut 7		Cut 8		Total Assemblage	
		Ct.	%	Ct.	%	Ct.	%
Pig							
Loin Roast	3	0	0.0	6	2.2	6	1.9
Rib	3	1	3.0	17	6.1	18	5.8
Picnic Shoulder Roast	2	0	0.0	3	1.1	3	1.0
Picnic Shoulder Steak	2	0	0.0	2	0.7	2	0.7
Blade Roast	3	0	0.0	4	1.4	4	1.3
Blade Steak	3	0	0.0	8	2.9	8	2.6
Ham Steak	6	0	0.0	2	0.7	2	0.7
Ham Roast	6	0	0.0	2	0.7	2	0.7
Sheep							
Femur Steak	—	0	0.0	1	0.4	1	0.3
Humerus Roast	—	0	0.0	1	0.4	1	0.3
Unidentified Long Bone Steak	—	0	0.0	1	0.4	1	0.3
Large Ungulate (Cow Size)							
T-bone Steak	1	0	0.0	3	1.1	3	1.0
Unidentified Vertebrae Steak	1–5	0	0.0	6	2.2	6	1.9
Round Steak	3	0	0.0	3	1.1	3	1.0
Rib	2	1	3.0	2	0.7	3	1.0
Short Rib	6	0	0.0	1	0.4	1	0.3
Scapula/7-bone Steak	5	0	0.0	3	1.1	3	1.0
Unidentified Long Bone Steak	3–9	1	3.0	16	5.8	17	5.5
Medium Ungulate (Sheep/Deer Size)							
T-bone Steak	1	0	0.0	3	1.1	3	1.0
Sirloin Steak	2	0	0.0	6	2.2	6	1.9
Unidentified Vertebrae Steak	1–2	0	0.0	5	1.8	5	1.6
Unidentified Long Bone Steak	3–9	1	3.0	5	1.8	6	1.9
Unidentified Long Bone Roast	3–9	0	0.0	1	0.4	1	0.3
Shoulder Steak	5	0	0.0	3	1.1	3	1.0
Rib	6	0	0.0	15	5.4	15	4.8
Total		33	99.8	276	100.0	309	100.0

a - Ogbourne (2013), Schulz and Gust (1983).

The ratio of the retail cuts by species or group provides additional evidence for the preference of cattle and other domestic livestock in the diet. Domestic species, including cattle (60.2 percent), pig (14.7 percent), and sheep (0.9 percent), dominate the assemblage. Size groups including large ungulate (11.7 percent) and medium ungulate (12.5 percent) are also present. These groups may represent either domestic species or larger wild game such as deer.

Burning

Within the CA-SLO-1419H assemblage, there was evidence of burning on 42 specimens (2.0 percent) weighing a total of 500.6 grams (3.2 percent). Most of the bones are cooking brown burned (n = 36; 419.8 grams), representing 85.7 percent of the burned assemblage by count and 83.9 percent by weight. A smaller number are calcined (n = 3; 13.1 grams), making up 7.1 percent of the assemblage by count and 2.6 percent by weight. Two fragments are also

burned black (8.6 grams), making up 4.8 percent of the assemblage by count and 1.7 percent by weight. One fragment (26.1 grams) is heat-altered, representing 2.4 percent of the burned bone assemblage by count and 5.2 percent by weight.

In general, color has been found to be a good proxy for the degree of burning (Bennett 1999; McCutcheon 1992). The greater the heat, the lighter in color the bone becomes. Calcination occurs only at high temperatures (>500°F), over long heating times, or both (Lyman 1994:389). Natural wildfires tend to produce much higher proportions of blackened relative to calcined bones. In addition, a natural fire should cause indiscriminate burning among artifact classes (Buenger 2003). Buried bones may become blackened but never calcined (Stiner et al. 1995). Bones exhibiting cooking brown burning have been exposed to lower heating temperatures, in the range of 100–400°F, for shorter periods of time.

The high percentage of cooking brown bone seems to suggest that the bones from the assemblage were burned during food preparation. The burning is present only on size categories and species common in the late 1800s diet. They include cow, pig, large and medium ungulates, and medium/large mammals. Furthermore, 59 percent (n = 23) of the burned bones are retail cuts such as steak, roasts, and ribs. The cooking brown coloration identified on these cuts provides additional evidence of consumption of these cuts.

INTERPRETATIONS

A total of 2,087 vertebrate faunal remains, with a total weight of 15,559.8 grams, was recovered from the excavation of Cuts 7 and 8. These cuts are identified as privies dating from the early- to mid-1880s. The privies are associated with a single dwelling and nearby restaurant, as illustrated on the 1886 Sanborn fire insurance map. Cut 8 with 1,809 bone fragments (86.7 percent) weighing 13,145.1 grams (84.5 percent) represents the majority of the assemblage; Cut 7 contains only 278 fragments (13.3 percent) weighing 2,414.7 grams (15.5 percent).

Diet in the Nineteenth Century

Most of the assemblage from both cuts is dominated by cattle (17.5 percent by count and 67.4 percent by weight). Cattle-sized groups such as large mammal and large ungulate also make up a large portion of the assemblage (12.2 percent by count and 10.3 percent by weight). The dominance of cattle bones at late nineteenth century historical sites in both rural and urban contexts highlights the pervasiveness of cattle in the American diet. The livestock industry in San Luis Obispo was well established by the late 1800s. The agricultural census of 1880 show the abundance of livestock in San Luis Obispo County, which had a population of more than 207,000 cattle, sheep, horses, pigs, and mules (U.S. Department of the Interior [USDI] 1883). However, domestic fowl is not included in the livestock survey, potentially altering the significance of the other animals present.

Other domestic livestock is also represented by the assemblage. Domestic pig remains represent 2.7 percent of the assemblage by count and 5.8 percent by weight. Sheep and goats make up 0.9 percent by count and 2 percent by weight. Both of these groups represent only small portions of the assemblage even though they are abundant within the county. Approximately 143,000 sheep and 17,900 pigs were present within the county in 1880 (USDI 1883). The high numbers of sheep compared with the low percentage observed in the Monterey Street assemblage may

reflect several cultural preferences for meat and the utilization of livestock. Sheep represent 68.9 percent of all domestic livestock within San Luis Obispo county in 1880 (USDI 1883). The abundance of sheep within the county compared to the relative lack of remains in the assemblage may represent the use of sheep for purposes not related to food, such as wool production. However, the lack of sheep also may reflect the dietary preference of those depositing refuse into Cut 7 and 8. The groups depositing food remains may have had a strong preference for meat other than lamb.

Comparison Study of Euro-American versus Chinese

The Monterey Street faunal assemblage was recovered from two privies during Æ’s data recovery excavations in 2015. Excavations for the Project occurred in the block bounded by Chorro, Morro, Monterey streets and the back lots of those fronting Monterey Street in downtown San Luis Obispo. Previous excavations were conducted by Æ in 2012 one-half block northwest of the Monterey Street deposits at 861 Palm Street (Hamilton and Abdo Hintzman 2014). These excavations uncovered stratified deposits containing both mission-era and late nineteenth-century components. The latter deposit contained 2,342 faunal specimens weighing 1,671.79 grams associated with the Chinatown area located one block northwest of the Monterey Street deposits.

The two assemblages show similar preferences in their relative counts of non-fish vertebrate animals. The data shown in Table C-5 represent a selection of those species and groups that represent animals frequently used for consumption as well as domestic cat, as it was present in both assemblages. Size category groups are composed of aggregate counts of like groups to standardize the data between the two assemblages.

**Table C-5
Comparison of Monterey Street and Yung Lot Vertebræ Assemblages from CA-SLO-1419H**

Faunal Class	Monterey Street Outhouses A.D. 1880–1886				Yung Lot AU 1 (Chinese Period) ^a A.D. 1870–1920			
	Count		Weight		Count		Weight	
	n	%	G	%	n	%	g	%
Domestic Fowl	202	13	186.5	1.2	7	0.1	2.4	0.1
Wild Fowl	27	1.7	14.8	0.1	355	4.2	29.6	1.3
Rabbit	58	3.7	18.6	0.1	193	2.3	11.9	0.5
Domestic Cat	81	5.2	92.5	0.6	1	0	0.3	0
Pig	57	3.7	903.1	5.9	5	0.1	6.7	0.3
Deer	18	1.2	312.4	2.1	2	0	5.9	0.3
Cow	365	23.6	10,492.1	68.8	18	0.2	277	12.2
Sheep/Goat	19	1.2	312.2	2.1	3	0	6.7	0.3
Medium and Medium/Large Mammal	286	18.5	469.1	3.1	1,844	21.9	125.5	5.5
Large Mammal	51	3.3	145.3	0.9	5,173	61.5	1,287.2	56.8
Medium Ungulate	181	11.7	841.5	5.5	13	0.2	13.5	0.6
Large Ungulate	204	13.2	1,466.6	9.6	802	9.5	2,265.7	22
Totals	1,519	100.0	15,254.7	100.0	8,416	100.0	2,265.7	100.0

a - All Yung Lot figures in this table were extrapolated from a sample to reflect the total population; see Hamilton and Abdo Hintzman (2014) for the original and extrapolated data sets.

Both assemblages are dominated by cow, large mammal, and large ungulate. These groups make up 40.1 percent of the Monterey Street assemblage by count and 79.3 percent by weight. Cattle groups make up 71.2 percent of the Yung Lot assemblage by count and 91 percent by weight. The dominance of cattle in both assemblages highlights the widespread use of cattle in the diet of San Luis Obispo residents in both the Chinatown district (Yung Lot) and more Euro-American areas (Monterey Street). The abundance of cattle in the diet correlates with census evidence and suggests that a flourishing livestock industry existed in late nineteenth century San Luis Obispo. The similarities between the assemblages may also suggest that resource availability was a strong determining factor in the dietary choices of those contributing to both the Yung Lot and Monterey Street deposits.

Aside from cattle, many other species and size groups correlate between the two assemblages. However, differences between the two assemblages exist, especially in the use of both wild and domestic fowl. The domestic fowl category includes all elements identified as *Gallus* sp. as well as large bird. The Monterey Street assemblage consists of 13 percent domestic fowl remains by count and 1.2 percent by weight, while the Yung Lot domestic fowl remains represent only 0.1 percent by both weight and count. The overall abundance of domestic fowl in the Monterey Street assemblage indicates that chicken was more of a dietary staple for the Euro-American residents than for the Chinese population of San Luis Obispo. Differences in wild fowl consumption, including duck and larger game birds, is also evident. Significantly more wild fowl bone is present in the Chinatown assemblage, which contained 355 fragments (4.2 percent) weighing 29.6 grams (1.3 percent). This contrasts with the Monterey Street assemblage, which contains only 27 fragments (1.7 percent) weighing 14.8 grams (0.1 percent).

Domestic pig also was consumed in relatively greater proportions within the Monterey Street assemblage. Pig represents 3.7 percent of the Monterey Street assemblage by count and 5.9 percent by weight, while it makes up only 0.1 percent by count and 0.3 percent by weight of the Yung Lot assemblage. Sheep and goat are also relatively more abundant in the Monterey Street assemblage, comprising 1.2 percent by count and 2.1 percent by weight. Sheep bones are nearly absent from the Yung Lot assemblage, making up less than 0.1 percent by count and only 0.3 percent by weight.

Livestock Processing and Consumption Patterns

An analysis of elements and butchering cuts sheds light on several aspects of livestock processing and consumption patterns. Evidence of on-site slaughter and butchering of animals is very minimal within the Monterey Street assemblage. Cranial and foot elements of all terrestrial mammals commonly consumed only make up 5.7 percent of the assemblage by count and 8.8 percent by weight. A majority of these are foot elements; cranial elements represent only 2.4 percent by count and 0.9 percent by weight. The lack of cranial and foot elements suggests slaughter and initial processing of animals was conducted elsewhere. The relative lack of butchering evidence in the Monterey Street assemblage also suggests that butchering was occurring off site.

Although animal processing refuse was deposited elsewhere, the analysis of butchering cuts provides evidence of species preference and availability. Butchering marks are present on 29.3 percent of the total assemblage by count and 68.3 percent by weight. Cattle dominate the

butchered assemblage, although pig, sheep, deer, chicken, and unidentified groups also are present in smaller numbers. This pattern is also reflected in the NISP counts and highlights the preference for cattle in the diet. Saw cuts were the most common cut mark present; knife and cleaver cuts were present on only a few fragments. The lack of cleaver cuts is possibly representative of a Euro-American butchering pattern. The dominance of saw cuts contrasts with the Yung Lot assemblage, which was dominated by knife cuts, with smaller numbers of saw and cleaver cuts (Hamilton and Abdo Hintzman 2014).

Analysis of retail cuts by both rank and serving size sheds light on consumption patterns. The large retail cut assemblage (n = 309) shows high variability in serving size: steak cuts (46 percent), ribs (33.3 percent), and roasts/soup cuts (20.7 percent) were present in great numbers. This suggests that those depositing refuse in Cuts 7 and 8 consumed both large group and individual meals. This high degree of variability in retail cuts is common in urban environments where the frequency of meal preparation is greater (Landon 1969). This variability may also reflect a large family group or restaurant. Both dwellings and restaurants were in close proximity to these features in 1886.

The historic economic value of meat cuts can indicate similarities and differences in social class (Schmidt and Zeier 1993; Schulz and Gust 1983). Ranking of beef cuts from historic Sacramento (Schulz and Gust 1983) provides a useful template for assessing the relative social class of the individuals eating these retail cuts. The Monterey Street beef assemblage is dominated by both high value (54.7 percent) and medium value (36.8 percent) cuts, including the loin, rump, arm and femur areas as well as ribs. Retail cuts in these groups include T-bone steaks, sirloin steaks, chuck steaks, ribs, rump roasts, arm roasts, and chuck roasts. The dominance of these high-value cuts suggests that the assemblage is associated with a restaurant or family group of moderate to high social standing that enjoyed a high quality and diverse faunal diet.

CONCLUSIONS

The vertebrate faunal assemblages from the Monterey Street excavations provide insights into the dietary patterns and preferences of San Luis Obispo residents in the late nineteenth century. Both the Cut 7 and Cut 8 assemblages have high counts of subsistence refuse. This faunal refuse presents a pattern of a varied diet dominated by cattle but including lesser amounts of other domestic livestock such as pigs, sheep, and chicken. Wild game, including deer, rabbit, and wild fowl, is present in low quantities, suggesting the diet was occasionally augmented with these animals.

The overall abundance and variety of faunal remains and retail cuts suggests the deposit was generated by a restaurant or large family group, especially given the short duration of the deposit. The retail cuts also show that those depositing the faunal materials had a diet abundant in moderate- to high-value steaks, ribs, and roasts. This suggests that these groups or individuals had a moderate to high economic standing.

Furthermore, comparing the remains of the Monterey Street faunal assemblage to one from the nearby Yung Lot in the Chinatown area reveals numerous similarities. Both assemblages show a strong preference for beef products over all others and a similar use of all other wild and domestic game species, although duck is more abundant in the Chinese assemblage. The similarities between the two assemblages and the historic agricultural census data (USDI 1883)

suggest resource availability was a strong determining factor in faunal choice in late nineteenth-century San Luis Obispo.

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APPENDIX D

Cultural Material from the Mission-Era Midden

CULTURAL MATERIAL FROM THE MISSION-ERA MONTEREY STREET MIDDEN WITHIN CA-SLO-1491H

Kholood Abdo

A small sample of temporally and functionally diagnostic artifacts was recovered from the midden during data recovery excavations by Applied EarthWorks, Inc. (Æ) for the Monterey In-Fill Project (the Project) in downtown San Luis Obispo, California. Artifacts were recovered mainly from Excavation Units (EXUs) 12 and 13, although some artifacts were found in EXUs 10, 11, 14, and 15. These artifacts consisted of mission-era ceramics, shell and glass beads, flaked and ground stone artifacts, and mission roofing tile. While the artifact assemblage from this site is small, it contains items similar to the artifacts discovered elsewhere within the surrounding blocks, including from below the Blackstone and Muzio buildings, the Kozak Lot, Yung Lot, and the Palm/Morro midden (Figure D-1), all of which represent elements of historical archaeological site CA-SLO-1419H.

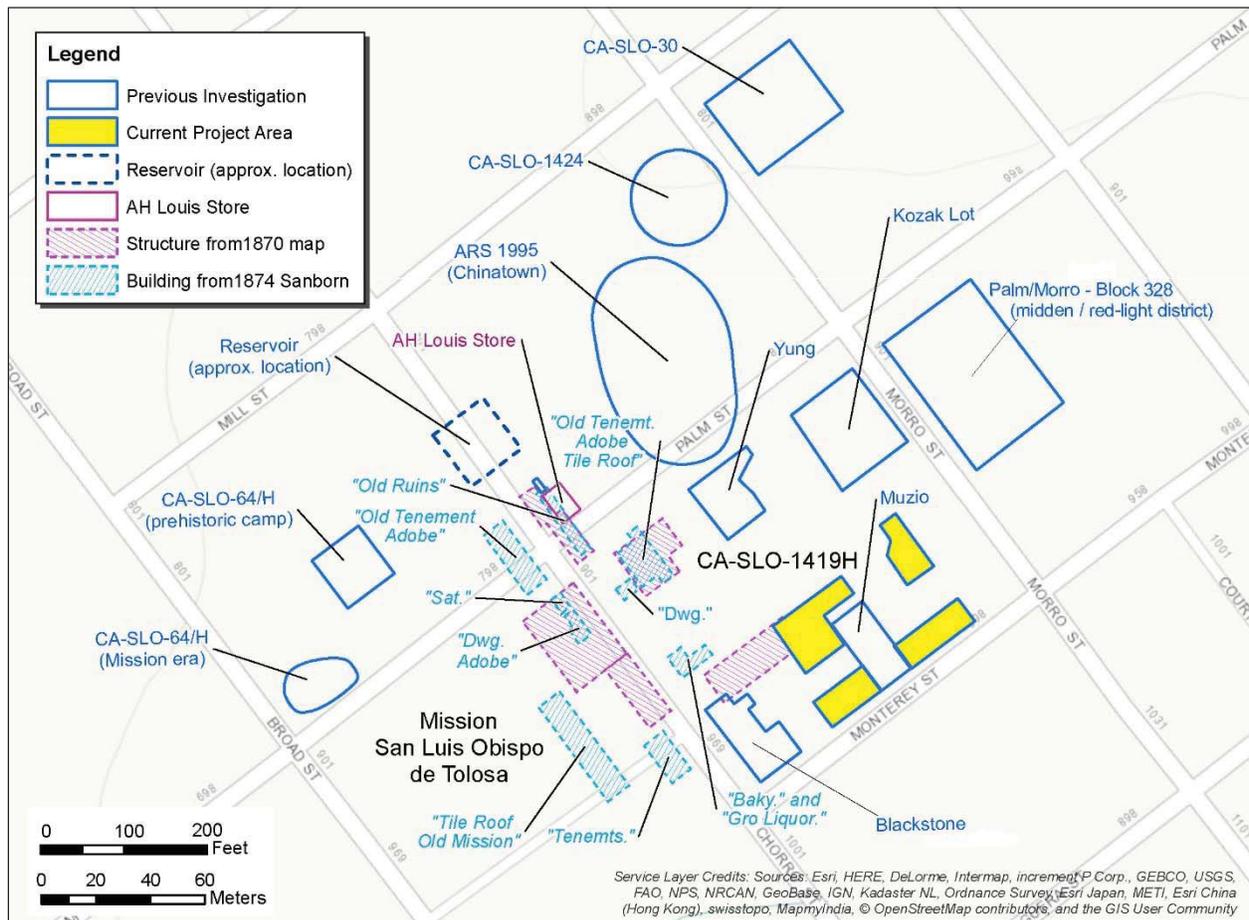


Figure D-1 Known sites and discoveries in relation to CA-SLO-1419H.

LITHIC ARTIFACTS

Ten flaked stone artifacts were recovered from excavation units in TA-2 North, including TEUs 10, 12, 13, and 14, and from "cleanup" of the stone walls forming the aqueduct channel

(Cuts 17 and 18). A single piece of debitage was also recovered during exposure of Cut 4 (a terrace wall) found in TA-1 North, situated between the Blackstone and Muzio buildings.

One possible strike-a-light made from a reworked chert flake core or chunk of shatter was found in TEU 10 Stratum II (20–30 centimeters). This artifact (Catalog No. 21) displays crushing and polishing along four margins as would be expected. Strike-a-lights are used to produce sparks as the stone margin is scraped along a metal object. This results in a distinctive wear pattern. The wear is only visible on the margin from what would have been the interior of the cobble.

One unpatterned flake tool (Catalog No. 20) also was recovered from TEU 10 Stratum II (20–30 centimeters). It is manufactured from a secondary chert flake and displays unifacial modification along one margin. Tool use resulted in smoothing and polishing of this surface.

A single nearly complete chert projectile point (Catalog No. 71) was recovered from TEU 13, Stratum III (30–44 centimeters). It is similar in form, shape, and size to the Delta Side-notched subtype of the Desert Side-notched series (Justice 2002:Figure 35). It is bifacially reduced via pressure flaking and lenticular cross section (Figure D-2). The proximal tip of the biface and one of the shoulders have been broken, possibly through use.

Stratum III (30–44 centimeters) also yielded a small complete chalcedony flake core (Catalog No. 70). The core is 24.58 millimeters long, 26.78 millimeters wide, and 18.98 millimeters thick. It displays multiple platforms where flakes had been removed from various directions. The flaking was generally successful with only a couple of failed flake removal attempts that ended in step and/or hinge terminations. The core was exhausted during reduction. Attempts at further reduction likely resulted in too much movement during impact with the hammerstone, making initiation of additional flakes impractical. The core showed no evidence of bipolar reduction, a common technique to further reduce exhausted free-hand percussion cores.



Figure D-2 Projectile point (Cat. No. 20) from the Monterey Street midden.

Flaked stone debitage consisted of three flakes: two 1/4-inch chert flakes recovered from EXU 2 and one small (less than 1/4-inch) chert flake found in TEU 14. All the flakes lack a bulb of percussion and platform and do not retain attributes that allow for further technological classification. A few pieces of Franciscan chert debitage also were recovered during cleanup of the stone lateral walls and terrace walls. These artifacts include a single flake from Cut 17, a distal flake fragment from Cut 18, and a flake fragment from Cut 4 in TA-1 North.

The sample is relatively small, and debitage frequency in this portion of the site suggests that less stone-knapping activity occurred here than in other parts of CA-SLO-1419H (Hamilton and Abdo Hintzman 2014; Heritage Discoveries, Inc. 1995; Nettles 2006). While only small numbers of flaked and ground stone artifacts were recovery anywhere on the site, their presence does demonstrated that mission-era Chumash were still engaged in at least some flaked stone tool production within the mission setting.

MISSION-ERA CERAMICS

Thirteen ceramic sherds were recovered during the Project from the mission-era midden at CA-SLO-1419H. These included two fragments of imported majolica and 11 sherds of mission brownware.

Unglazed and Undecorated Mission Brownware

Locally or regionally produced soft-paste brownware of native production has been found at many mission sites throughout California, including in San Luis Obispo within the Monterey Street midden. This so-called “mission ware” generally is unglazed and undecorated.

The assemblage from the Monterey Street midden consisted of jar base and body fragments recovered from TEUs 10, 12, and 13 (n = 11). Three of the basal sherds represent large-sized jars with thick walls (Figure D-3). The medium-sized body sherds represent a medium-sized jar and exhibit black soot on the exterior. All of these jars were wheel-thrown utilitarian vessels that were probably used for food storage and cooking.



Figure D-3 Unglazed mission brownware ceramics recovered from the midden deposits.

Majolica

Majolica earthenware is considered a hallmark of Spanish colonial tradition and characteristic of Spanish-era archaeological assemblages found in Alta California. It is a class of earthenware best described as a porous soft-paste pottery with an opaque tin enamel glaze. Many documents provide detailed discussions of New World majolica, its production history, chronologies, and ware characteristics (Barnes and May 1972; Benté et al. 1990; Deagan 2003; Fairbanks 1972;

Goggin 1968; Lister and Lister 1974, 1976, 1982; Williams and Williams 2004). While it is not necessary to repeat these details here, what is important to this discussion is that majolica derives from a long tradition of pottery-making introduced to the New World via Majorca, Spain. This earthenware was first produced in La Puebla de Los Angeles, Mexico, in the sixteenth century. To the eighteenth-century potter, this ware type was known as *loza blanca* (Benté et al. 1990:4A-1). By 1600, Mexican ceramicists had perfected the production of majolica, and most of this ware type arriving in Alta California in the 1700s derived from Mexico, not Spain (Deagan 2003:6).

Painted designs found on ceramics from Spanish colonial sites generally are believed to be eighteenth-century renditions of Chinese porcelain patterns exhibiting European influence (Benté et al. 1982:77–78). Designs developed in the New World evolved from the Puebla blue-on-white tradition. Stylistically, these vessels were decorated with blue rim bands, parallel rows of dots, or stylized flowers and a centrally placed motif commonly composed of a floral or animal depiction. Benté et al. (1982:77) refer to these as medallions. Changes to this decorative tradition have been shown to be temporally sensitive, often expressed in the re-emphasis of traditional elements with the addition of subtle changes in color palette or highlighting of key attributes. Variants of the Puebla blue-on-white tradition include polychrome designs composed of brown, green, yellow, and orange pigment (Hamilton and Abdo Hintzman 2013).

Only two very small majolica sherds were retrieved from the Monterey Street midden excavations (Figure D-4). Both body sherds were from a blue-on-white variant but were too small to allow further identification of decoration or vessel type.

Chinese Imported Ceramics

Chinese imported porcelain at the site was represented by two examples of Canton decorated wares recovered from TEU 13 and TEU 14 (Figure D-4). Both exhibited underglazed blue-on-white patterns characteristic of early Chinese imported porcelain. Similar examples were recovered from the nearby Yung Lot and Palm/Morro midden elements of CA-SLO-1419H and from other California mission-era sites. The presence of Chinese imported Canton ware in the midden suggests a site occupation predating 1810 (Hamilton and Abdo Hintzman 2013).

Early British Refined Earthenware

Refined earthenware from Monterey Street included fragments of British and American ceramic vessels. Where present British ceramic sherds were extremely fragmented. These include cobalt blue painted pearlware fragments, single-color cobalt blue transfer prints, and flow blue transfer prints (Figure D-4). A very small sherd exhibiting a multicolor pattern of green and pink decoration was a possible decal printed sherd ($n = 18$, MNI = 5). The majority of American transition period ceramics were late- nineteenth- to early-twentieth-century mass-produced, undecorated white earthenware and ironware recovered primarily from the twentieth-century kitchen midden ($n = 23$, MNI = 11).



Figure D-4 Chinese porcelain, Mexican soft-paste earthenware, and British refined earthenware from the mission-era midden.

Tejas and Ladrillos

Similar to findings in the other areas of CA-SLO-1419H, the amount of mission-era roofing tile (*tejas*) recovered at the Monterey Street midden was greater than the amount of floor tile (*ladrillos*) found. *Tejas* are said to have first been produced at Mission San Luis Obispo (Weber 1985) and then the technology was replicated elsewhere in California. They are made by molding a clay slab over a half-round form that was then fired in a kiln. Generally the tiles are unglazed, reddish or orange in color, and often have a deep gray or black center, indicating they were fired in a reducing atmosphere. Although *tejas* are most often associated with roofing, they were also used in construction of drains and water conveyance features. *Ladrillos*, in comparison, are flat tiles. They were made of the same clay and similarly fired but generally are thicker (2 inches) and hence more durable. Each tile was roughly 10.5 inches square and laid with close but irregular joints. At Mission La Purísima Concepción, *ladrillos* were used for walkways and corridors and were seldom found in rooms (Whitehead 1991:87). At Monterey Street they were found in Cut 1 (below the Blackstone Building) and in Cut 10 in the area of the Sauer/Little adobe. They were also found in the Yung Lot associated with other structural remnants.

BEADS

A total of 22 beads was recovered from the Monterey Street midden. The bead assemblage consists of 8 shell beads and 14 glass beads as detailed in the following sections.

Shell Beads

Most of the shell beads from this assemblage were produced from purple olive (*Olivella biplicata* or *Callianax*) shell, but there was one bead made from red abalone (*Haliotis rufescens*) shell, and a single large heavily weathered shell bead that was possibly made from mother of pearl (Figure D-5).

Six *Olivella* rough disk beads were recovered from the Monterey Street midden. The majority of these were found in TEUs 12 and 14. *Olivella* rough disk beads were the most common type of bead made by the Chumash during the mission era (King 1988:8). The disks, made from the shell wall, were usually more than 4.0 millimeters in diameter and had relatively parallel-sided holes approximately 1.0 millimeter in diameter. The perforations were made with bone drills tipped with iron needles. Bead margin treatment or grinding varied from chipped to ground.



Figure D-5 Representative shell and glass beads from the Monterey Street midden.

Olivella (*Callianax*) bead diameters from this assemblage ranged from 4.0 to 6.3 millimeters, and thickness ranged from 0.8 to 1.1 millimeters (Table D-1). Most of the beads had small perforations, most of which were less than 1 millimeter in diameter. Straight-sided perforations were produced using iron needles. Iron needles were being imported to Santa Barbara Presidio as early as 1779 and were used extensively in trade with the Chumash (Perissinotto 1998:52).

Table D-1
Shell Beads Recovered from the Monterey Street Midden

Unit	Level	Cat. No.	Material Type	Diameter (mm)	Thickness (mm)	Hole (mm)	Hole Shape	Edge Treatment
TEU 12	Strat. II ext.	38/3	<i>Olivella biplicata</i>	4.55	1.1	0.30	Straight	Weathered
TEU 12	Strat. II ext.	38/4	<i>Olivella biplicata</i>	5.00	1.2	0.78	Straight	Weathered
TEU 12	Strat. II ext.	38/1	<i>Olivella biplicata</i>	5.70	1.1	0.90	Straight	Weathered
TEU 12	Strat. II ext.	38/2	<i>Olivella biplicata</i>	6.00	1.2	0.97	Straight	Weathered
TEU 14	Strat. II	12/1	<i>Olivella biplicata</i>	6.20	0.9	0.80	Straight	Weathered
TEU 14	Strat. II	12/2	<i>Olivella biplicata</i>	6.30	0.8	1.00	Straight	Weathered
TEU 12	Strat. II ext.	38	<i>Haliotis rufescens</i>	15.00	1.3	2.30	Conical	Ground
TEU 15	Strat. II ext.	5	Mother of pearl (<i>Haliotis</i>)	7.19	1.9	1.00	Straight	Ground

Olivella (*Callianax*) rough disk beads first appeared around 1780 and continued to be made throughout the Spanish and Mexican periods (King 1988:7–11). The manufacture of *Olivella* (*Callianax*) rough disk beads witnessed a rapid change between 1780 and 1840. Beads generally

increased in diameter and were manufactured with less smooth margins. These changes have been used to date historic Chumash beads (King 1988:8).

When plotted on King and Gibson's bead diameter schematic (Gibson 1992:24), the deposition date of the Monterey Street midden beads with diameters between 4.0 and 7.0 millimeters fall between 1772 and 1822.

A single *Haliotis rufescens* epidermis disk beads was recovered from TEU 15. This bead was 7.19 millimeters in diameter and 1.9 millimeters thick with a straight-drilled perforation of 1.0 millimeter. The bead was smooth ground on both faces. The large shell bead recovered from TEU 12 measures 15 millimeters in diameter and has a conical perforation with a 2.3 millimeter diameter.

Glass Trade Beads

The Monterey Street midden yielded 11 drawn-cane glass beads and two wire-wound glass beads (Figure D-5; Table D-2).

Table D-2
Glass Beads Recovered from Yung Lot

Unit	Level	Cat. No.	Type	Shape	Color	Length (mm)	Diam (mm)	Comments
TEU 10	0–10 cm	3	Cane	Tube	Teal gray	2.54	5.60	Opaque
TEU 10	20–30 cm	18	Cane	Tube	Aqua blue	2.6	3.00	Opaque
TEU 12	Strat. II	32	Cane	Tube	Navy blue	1.28	3.27	Translucent
TEU 12	Strat. II	39/1	Cane	Tube	Pearl white	3.70	3.50	Opaque
TEU 12	Strat. II	39/2	Cane	Faceted	Black/cobalt	3.60	3.90	Opaque
TEU 12	Strat. II	39/3	Wire	Donut	—	3.50	1.75	Opaque, fire affected
TEU 12	Strat. III	24	Cane	Round	Emerald green?	1.62	3.00	Opaque, burned?
TEU 13	Strat. III	81/1	Cane	Round	Emerald green	2.59	3.65	Opaque
TEU 13	Strat. III	81/2	Cane	Tube	Aqua blue	3.15	3.83	Opaque
TEU 13	Strat. II	69/1	Cane	Tube	Teal gray	2.48	2.65	Opaque
TEU 13	Strat. II	69/2	Cane	Round	Emerald green	3.65	3.00	Translucent
TEU 13	Strat. II	69/3	Multilayered cane	Round	Redwood, cinnamon	2.24	3.21	Layered; opaque redwood outside, translucent cinnamon core
TEU 13	Strat. II ext.	75	Wire	Round	Gray	1.6	2.58	Opaque

Drawn-cane beads were first introduced by Spanish explorers for use in Native American trade. In California, this introduction came after 1769, and their importation continued until the 1870s (Gibson 1976:121–123). These beads were made by gathering a mass of molten glass on the end of a blowing rod; after a bubble of glass was blown in the center, the glass was drawn into a hollow tube or cane. When the cane cooled, it was then broken into segments of the desired bead size. Most of the beads manufactured in this fashion were finished into rounded shapes. This was done by rolling the cut segments in a drum containing hot sand and ash (Kidd and Kidd 1970).

Simple drawn-cane beads were made with one layer of color. Compound glass beads had two or more layers of colored glass applied at separate stages of production.

The Monterey Street assemblage consisted of 10 single-color simple construction glass beads recovered from TEU 10 (n = 2), TEU 12 (n = 4) and TEU 13 (n = 4). A single multilayered bead was also recovered from TEU 13. This is a rounded, opaque red drawn-cane bead with a translucent cinnamon core. Finally a single faceted bead was recovered. At least two beads were fire affected and their color was not identified.

Two wire-wound beads were recovered from TEU 12 and TEU 13. Wire-wound beads were made by winding threads of molten glass around a chalk-covered wire. The threads, which may be of any color, were wound around the wire until a bead of the desired shape and size was formed.

SUMMARY AND INTERPRETATIONS

The overall number of artifacts associated with the mission-era midden recovered during data recovery excavations for the Monterey Street In-Fill Project is fairly small. The lithic assemblage contained a single projectile point and one core but very little debitage. The few flakes recovered were nondiagnostic and provided little evidence of tool production in this part of CA-SLO-1419H.

Ceramics represented in this assemblage are those commonly found on mission sites and included wheel-thrown examples of utilitarian brownware vessels, two majolica blue-on-white variant vessel fragments, and two pieces of blue underglaze Canton ware. The assemblage lacked Mexican soft-paste earthenware. Single-color hand-painted pearlware, cobalt blue transfer print, and flow blue prints present in Stratum II of the Monterey Street midden represent early British ceramics, although all sherds were extremely fragmented as seen elsewhere at CA-SLO-1419H. A single example of decal decoration ware was recovered from the upper layer of the midden, which was mixed with twentieth-century kitchen midden. Decals were popular during the late nineteenth century and continued to be produced into the twentieth century. Present also were American transitional ceramics such as undecorated whiteware, ironstone, and porcelain.

Only a small quantity of shell beads and glass trade beads was found in the Monterey Street midden, especially when compared to the Yung Lot midden and Palm/Morro assemblages. The Monterey Street assemblage contained bead types similar to those found on other portions of CA-SLO-1419; similar cane beads are dominated by simple construction/single-color variants, multilayered redwood beads, and faceted varieties. King (1990:8-45) found that the diameter of rounded glass cane beads tends to increase through time. The diameters of rounded glass beads from CA-SLO-1419 are smaller than 5.0 millimeters—a characteristic of beads produced before 1803 (King 1990:8-45).

King conjectures that, although not as definitive as changes in diameter of shell beads, there is some indication that the frequency of occurrence of drawn-cane bead color may reflect temporal sensitivity. In general, green beads tend to appear in low frequencies prior to the use of needles in the production of *Olivella* rough disk beads. Blue beads tend to be dominant in earlier deposits, while clear beads occurred more frequently in later deposits. Cobalt blue glass beads

appear in greatest frequencies soon after the founding of the Santa Barbara Presidio in 1782, with a subsequent decrease in occurrence through the Mission Period (King 1990).

The majority of beads recovered from the Yung Lot were of cobalt blue and blue color (n = 86, or 46 percent of the total sample). Blue beads were also prevalent in the Palm/Morro midden, on the Kozak Lot, and in the Blackstone sample. Clear beads were not found in the Monterey, Palm/Morro, Kozak, and Blackstone areas but present in the Yung Lot. Gibson (1976:122) dated production of this bead color between 1785 and 1816.

Finally, building materials included a large quantity of mission roofing tile (*tejas*), but no evidence of intact residential structures. Roofing and flooring tiles were also recovered from both the Yung Lot and Palm/Morro middens; however, no intact structural remains were identified within the Palm/Morro Lot (Nettles 2006). The lack of such features on the Palm/Morro portion of CA-SLO-1419H may indicate that native housing did not extend east of Morro Street. Excavations at the Kozak Lot, situated in the same block as the Yung Lot, yielded a layer of adobe melt along the south side of Palm Street, suggesting the presence of structures. The Palm Street Parking Garage investigations on the north side of Palm Street uncovered foundations and adobe structural remains (Heritage Discoveries, Inc. 1995:154–155). Similar remains were found in the Yung Lot. These features may represent native housing reported to have been situated east of the mission and on both sides of Chorro Street.

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