CHAPTER 2

FINDINGS

HISTORY

Methods

Historical research was conducted at the Sacramento History and Science Division Archives, the California State Library, Bancroft Library, Sonoma County Public Library, Sonoma State University and California State University, Sacramento. Numerous phone interviews were initiated in an attempt to locate potential documentary sources, comparative collections, and oral history informants. Persons contacted include:

Johanna Herring, Archivist, Wabash College Black Oral History Project, Crawfordsville, Indiana
Dr. Ray Pitts, Sacramento
Charlene Gilbert and Patty Gregory, Sacramento History and Science Division Archives
Earline Woods, President, Sacramento African American Historical and Cultural Society (SAAHCS)
James V. White, Sacramento
Ila Moore, Sacramento
Clarence Caesar, California State Office of Historic Preservation, SAAHCS
American Folklife Center, Washington, D.C.
Dr. John Vlach, George Washington University, Washington, D.C.
Betty Rivers, California Department of Parks and Recreation, Sacramento
M. Drake Patten, Monticello, Virginia
Dr. Elizabeth Reitz, University of Georgia, Athens
Dr. Theresa Singleton, Smithsonian Institution, Washington, D.C.
Dr. Anne Yentsch, Armstrong State College, Savannah, Georgia,
Dr. Marley Brown III, Colonial Williamsburg Foundation, Williamsburg, Virginia
Dr. Belinda Bloomberg, John Milner Associates, Philadelphia
Mark Walker, Engineering-Science/Chartered, Washington, D.C.
Lauren J. Cook, John Milner Associates, Greenwich, Connecticut

JK/14-15 Block

A few wooden structures were constructed on the block bounded by J, K, 14th, and 15th streets in the 1850s during the excitement that followed the Gold Rush. These structures were probably ephemeral and disappeared by 1860. In the 1860s, a junk dealer operated on the corner of J and 15th and a blacksmith occupied the parcel diagonally opposite at the corner of K and 14th. In the middle and late 1870s, working families moved into new residences on J and K streets; J Street, however, continued to be occupied primarily by businesses that required open space.

From the mid-1880s into the 1890s, owner-occupiers and landlords constructed additional rental housing along both sides of the alley that ran between J and K. Stables, hen houses, and other outbuildings also flanked the alley on both sides. In the middle 1890s, A. Coolot, a successful merchant, constructed brick commercial buildings on the corner of 14th and J and rental residences along his newly acquired J Street property (Map 3). The next
major phase of construction occurred in the early 1910s, when the Merrium Apartments replaced residences on 14th and K streets and a row of six shops on J Street and five rental cottages along the alley replaced the wood and coal yard near 15th (Map 4).

The J Street alley cottages were razed by the early 1950s; the area remained open space or parking. All but one of the remaining K Street residences had also been razed and replaced by a used car lot by 1954. Coolot’s brick commercial buildings, with some additions, and the Merrium Building remained standing into 1991.

1418 J Street

Feature 3 was located on the W1/2 of Lot 3 of the JK/14-15 Block (Parcel #4 [W1/2] on Map 5). Until 1906, when the east and west halves of Lot 3 were combined, the legal dimensions of the parcel remained 40 feet fronting J Street by 160 feet deep to the alley between J and K streets. Data collected for this site are presented in Table 1 and summarized below.

J. Smith constructed a wooden building on the W1/2 of Lot 3 in 1851. At this time J Street was the town’s main thoroughfare. Miners heading for Placer and Nevada counties took J Street to 12th and turned north along the Auburn Road; those heading for El Dorado and Amador counties continued out J Street, the "Plank Road," past Sutter’s Fort. The 14-15 block would not have seen the volume of traffic of the blocks below 12th Street, where settlement was intense. The use of the Gold Rush building constructed on this lot has not been identified; presumably its function was connected to servicing the continuous parade of miners who passed by. Within a few years the building had disappeared. In 1856 the Sacramento Valley Railroad was completed out R Street to Folsom. With the passing of the mining boom and the development of alternate transportation routes, the nature of J Street businesses changed.

Lot 3 remained undeveloped until after 1870. The 1870 bird’s-eye view shows only one building on J Street between 14th and 15th -- the residence and business of junk dealer John Dickens at the corner of J and 15th. Numerous residences are shown fronting K Street which, with the construction of a horse-drawn streetcar line from Front Street and out along K past 16th, had become a more desirable location.

Benjamin Estabrook, a Vermont native, purchased the W1/2 of Lot 3 in the early 1870s and had constructed improvements on the parcel by 1874. Estabrook, a Sacramento farmer in his 50s, may have remained in the grain business for a few years prior to retiring after moving to J Street. Estabrook owned other property in Sacramento and may have lived on his rental incomes. It is unknown if the alley residence at 1418-1/2 J was constructed at the same time as 1418 J, or if it was added at a later date. Benjamin and his English-born wife, Sophia, were married for more than 50 years, the last half of which they spent in their one-story, wood-frame residence with wrap-around porch at 1418 J. The small residence measured only 620 square feet, excluding the porch, with a 500-square-foot main unit and 120-square-foot kitchen unit at the rear. There were three small outbuildings in the Estabrooks’ back lot and a two-story stable for their horse and wagon fronting the alley. Also fronting the alley was a 720-square-foot, wood-frame rental dwelling of simple, one-story, rectangular plan. The residence had a small front porch, brick chimney, and small kitchen addition at the rear (Map 3).

It is not known who lived in the rental residence prior to 1901, when a Sacramento city directory listed barber Thomas Cook residing on the 1418 J alley between 14th and 15th. Thomas Cook was a 66-year-old African-American widower who had been born in Maryland. Thomas and his Virginia-born wife had spent the 1860s in Canada, where they may have
traveled on the Underground Railroad to escape slavery. With at least two young children, the Cook family moved to California in the early 1870s. In 1900 the Cook household included Thomas and his grown children: Thomas H., age 28, who also worked as a barber; Virginia, age 36, who was a dressmaker; Clarence, age 18, whose occupation was not listed; and Ernest, age 15, and who was still in school.

Benjamin Estabrook died at age 81 in 1902; Sophia lived alone at 1418 J Street until 1906, when she sold to the owner of the neighboring parcel, Rowena Coulter, and moved into a boarding house. The following year, Coulter sold her property, which now contained the Estabrook residences and a wood, coal, and coke yard next door, to William E. Briggs, a Sacramento ear, eye, nose, and throat doctor. In 1908-1909 Briggs demolished the Estabrook residence and all improvements on the parcel, expect perhaps for 1418-1/2 J, and constructed a row of six two-story shops/apartments with bay windows along J Street and a row of five dwellings facing the rear alley (Map 4).

The Cooks continued to rent the alley residence from Coulter and Briggs until 1908-1909, when major construction on the lot forced them to move elsewhere. In 1910 the Cook family are listed on the census at 2224 R Street. Thomas Cook, now 75 years old, still worked as a barber; Thomas Jr., Clarence, and Virginia no longer lived in the household; another son William, age 40, had moved in and listed his occupation as "own income"; Ernest worked as a laborer.

ARCHAEOLOGY

Methods

Before the present excavation could begin, the plastic cover and backfill that had been placed over the feature when it was discovered were removed to expose the feature, and the surface thoroughly scraped to remove intrusive artifacts. All excavation was done stratigraphically: that is, according to the natural shapes and dimensions of the layers, and in the reverse order to that in which they were deposited (Harris 1979:126). Arbitrary levels were not employed. Soil was loosened with trowels or a combination of trowel and shovel, placed into buckets, and dumped into screens.

All artifacts were retained except for non-diagnostic glass sherds of less than 1/2-inch diameter. To ensure consistent recovery of artifacts, all soil was passed through 1/4-inch or finer wire mesh. A sample of each layer was passed through 1/8-inch mesh to determine if fine screening was needed to extract small artifacts. Portions of Layer 34 and all of Layers 38 and 39 were bagged in the field and wet screened through 1/16-inch mesh in the lab. This was done because it was noted in the field that Layer 34 contained an appreciable quantity of fish bone, while Layers 38 and 39 were clay-rich and would not pass readily through the screen. Excavation continued until non-culturally deposited, native soil was encountered.

Feature Descriptions

Feature D

Feature D was a brick-lined pit, perhaps constructed as an outhouse, also located on Lot 3. The top 2 feet (60 centimeters) of the feature contained a variety of domestic artifacts: glass bottles (including fully automatic machine-made), tableware ceramics (white improved earthenware and porcelain), and ferrous metal. The feature contained a limited range and number of artifacts and a small number of faunal remains. The artifacts appear to represent a terminal deposit that built up after the feature went out of use. The technological
characteristics of the materials indicate that they were deposited in the second decade of the 20th century. Due to paucity of materials, Feature D was not considered to be legally important and was not archaeologically excavated.

Feature 3

The archaeological feature designated Feature 3 consisted of a filled pit, 4 feet square by 5 feet deep (1.21 by 1.52 meters) (Map 6). The sides were almost vertical, and the middle 3 feet were lined with redwood planks. At the surface, leading into the feature, was a narrow channel cut into the native soil. Feature 3 contained nine principal layers of soil, some of which were made up of multiple lenses (Figure 1).

Layer 31. This layer appeared intrusive and contained two strata recorded as one. The top stratum was a medium-brown sandy clay with charcoal, gravel, and demolition debris including concrete. The lower layer was a sandy unit with small gravel. Layer 31 artifacts were more fragmentary than artifacts in Layers 32 through 34, although many sherds from Layer 31 mended with vessels from these succeeding layers. Layer 31 measured over 2 feet deep (60 cm) and 1-1/4 feet wide. This layer is the fill of a post hole that was cut into Layer 32. The small pit was excavated into Feature 3 after the feature’s useful life was over; soil excavated from the feature appears to have been backfilled into it, accounting for the artifact crossings.

Layer 32. Layer 32 appears to be the top layer of pit fill and is a medium-brown sandy clay, up to 1 foot (30 cm) deep in the center of Feature 3, with charcoal flecks and lumps, lenses of ash, and decayed organic material (wood). Egg shell was present as well as in situ burned soil and charcoal lenses. Artifacts in Layers 32 through 36 are very similar in the variety and often crossmend or match. These layers, with their high charcoal and artifact content, indicate the active use of the feature for garbage disposal. Numerous individual disposal events, some of which involved in situ burning within the pit, are represented. Layer 32 contained some whole ceramics vessels and glass containers, a oil stove base, between 4 and 5 pounds of nails, and less than 4 ounces of sheet-metal fragments.

Layer 33. Beneath the in situ burned soil, Layer 33 was a yellow-brown sandy clay up to 1 foot (30 cm) deep in the center of the pit. Layer 33 contained whole artifacts, including a complete vertical wick lamp burner, and fragments that mended with items from adjoining layers. Approximately 7 pounds of nails and 1-1/2 pounds of sheet metal were among the items recovered.

Layer 34. Layer 34 was a yellow-brown sandy clay and dark brown sandy clay mix, up to 2 feet (60 cm) thick with much charcoal and egg shell. It occurred on the edges of Feature 3 above the wood lining. A distinct edge around the south side of the fill indicated that Layer 34 was cut into Layer 35. Layer 34 contained numerous artifacts that crossmended with layers above and below. Ceramics were broken into numerous pieces. Large quantities of faunal remains, 2 pounds of sheet-metal fragments, 7 pounds of nails, and some large fragments of window glass were among the items recovered.

Layer 35. Up to 2 feet (60 cm) thick, Layer 35 was a silty sand with charcoal, ash, and redwood plank fragments. Patches of ash occurred throughout the layer. A void space and corner nails appeared near the top of this layer, which contained fewer artifacts and artifacts of smaller size than those above it. The patchy occurrence of an older edge along the side of the feature indicates periodic clean out. Layer 35 contained the greatest number and range of clothing-related fasteners, 10 graphite arc lamp electrodes, door hardware, wall
plaster, large pieces of window glass, 1-1/2 pounds of sheet metal, 13 pounds of nails, and 28 spike fragments. Whole glass containers and small sherd of ceramics that crossmended with layers above were among the other items recovered.

**Layer 36.** Layer 36 was a lens of dark brown organic sandy clay up to 4 inches (10 cm) thick with burned artifacts and charcoal, located within Layer 35. Artifacts in Layer 36, although less abundant and more fragmentary than in the layers above, were of the same types. The layer contained approximately 1 pound of nails and less than 1 ounce of sheet metal.

**Layer 37.** Layer 37 was an up to 4-inch-thick (10-cm) layer of yellow-grey sand with lenses of medium-brown silty sand that lay up against the redwood planks and may have sloughed in from the pit’s sides. Layer 37 contained only a limited quantity of small, fragmentary artifacts and some 12d (3-1/4”) nails with wood adhering that had originated in the feature’s wood lining.

**Layer 38.** Layer 38 was a grey crumbly clay matrix over 1 foot (30 cm) in depth with many worm castings. This was the most clay-rich layer encountered in Feature 3. Layer 38 contained a few small, fragmentary artifacts. The soil matrix and hearth of materials in Layers 37 and 38 indicate the use of the pit for the disposal of organic wastes.

**Layer 39.** Layer 39 was a pale grey clay at the bottom of the feature up to 5 inches (12 cm) thick and containing only a few small fragmentary artifacts. Feature 3 may have functioned as either a privy pit or as a sump to drain the backlot. It probably was excavated to serve as the former and later adapted as the latter. In either case, Layer 39 appears to be alluvium that accumulated while a sump clean-out at the bottom of the feature contained standing water.

**Interpretation**

Feature D was in the location of an outbuilding at the rear of Estabrook’s backyard. Feature 3 was located on the other, south side of the line (Map 3), which may represent a fence separating the two yards. Both features were apparently backfilled when Dr. Briggs developed the property. Brick-lined Feature D in the Estabrooks’ backyard contained only a small quantity of discarded household items; wood-lined Feature 3 in the Cooks’ yard contained large quantities of household goods, faunal remains, and structural debris. In January 1908 the "watercloset" at 1418-1/2 passed final inspection. The wood-lined privy would have gone out of service at that time, if it had not already done so.

The 1418-1/2 J Street residence remained the same size and shape on both the 1895 and 1915 Sanborn maps, and appears not to have been replaced by Briggs, although improvements are indicated by the documentary and archaeological records. The Cooks appear to have remained in the house during at least some of the renovations, discarding refuse into the abandoned privy. When they moved, the family either discarded additional unwanted items into the pit or left them in the house for the contractors who continued to fill the pit. The lack of rodent bones in Feature 3 and of gnaw marks on the food bone remains indicate that surfaces were exposed for only short periods of time during the feature’s backfilling. There was not time for rodents or other scavengers to maul the remains.
ARTIFACTS

Archaeological materials were cleaned, sorted, and catalogued by staff of the Anthropological Studies Center. The artifact numbering system reflects the site recording system. Each numbered provenience was assigned a three-element lot number; the first two elements (91-34) are part of an in-house system and designate the 34th collection assigned a lot number at the Anthropological Studies Center in 1991. The third element of the accession number is the feature and layer in which the artifact was found. Thus, the number 37 indicates the seventh layer in Feature 3. The archaeological materials will be curated at the Anthropological Studies Center’s Collections Facility.

The purpose of this section is twofold: to present the recovered assemblage in sufficient detail so that it may be used by future researchers as a comparative collection; and to provide the raw data upon which the generalizations and conclusions detailed in the following sections are, in part, based.

The artifacts are presented by general functional category. These were derived from South (1977), as modified and expanded by other researchers for later periods and western contexts (e.g., Hardesty 1988; Tordoff 1987), and as further modified for this and other projects undertaken by the ASC.

Definitions

The following definitions cover the terms and organization of artifact descriptions presented on Tables 2 through 6. Crossmending was noted between Layers 31 through 36. As Layer 31 is believed to be intrusive, it is tabulated separately; while Layers 32 through 36 are grouped together with the notation of the number of items from each layer. Layers 37 through 39 are each tabulated separately.

Category (top line each entry)

The following categories were used to define functional types:

ACTIVITIES: Includes subcategories Commerce, Hunting, Sewing, Tools, Transportation, and Writing. This category serves mainly to bring together minimally represented functional types that might otherwise be lost in the table.

DOMESTIC: Food. Includes retail food containers (e.g., Worcestershire sauce bottles, pickle jars, mineral-water bottles).

DOMESTIC: Food Preparation and Consumption. Includes kitchen, serving (e.g., tureen, teapot), tableware (e.g., plates, stemware, tumblers), flatware (e.g., knives, forks).

DOMESTIC: Food Storage. Includes canning jars, crocks, jugs.

DOMESTIC: Furnishings. Includes furniture, decorative objects, cuspidors, flower pots.

DOMESTIC: Heating and Lighting. Includes lanterns, lamps, fuel containers, candles, light bulbs.

INDEFINITE USE: Identified items with more than one potential original use and containers with indefinite contents.
PERSONAL: Accoutrement. Includes purses, musical instruments.

PERSONAL: Adornment. Includes jewelry, hair pins.

PERSONAL: Clothing. Includes buttons, buckles, fasteners.

PERSONAL: Grooming and Health. Includes medicine bottles (e.g., patent/proprietary, pharmacy, bitters), toiletry items (e.g., combs, brushes, perfume, chamber pot).

PERSONAL: Indulgences - Alcohol. Includes retail alcoholic beverage bottles (e.g., beer, wine, ale, and distilled beverages).

PERSONAL: Indulgences - Tobacco. Includes pipes, tobacco tins.

PERSONAL: Toys. Includes dolls, marbles, tea-sets.

STRUCTURAL: Hardware. Includes nails, door knobs, hinges.

STRUCTURAL: Material. Includes window glass, tile.

UNIDENTIFIED USE. Includes items for which no specific use could be identified (e.g., amorphous metal, wire, rivets).

Modifiers (2nd line)

The second line of each record provides more specific identification. The first field is often a covering term, such as tableware, container, buttons, or closure, but is sometimes quite specific, as for example, hammer. The second entry provides further identifications, as in plate, bitters, shirt, or cork. The last entry gives material, including color for glass and fabric for ceramics.

Quantity

Quantity contains three fields. The first is for whole items; the second is for fragments; and the third is the minimum number of vessels/items (MNV) represented by the combined whole and fragment values for the entry. Very small fragments or sherds are not counted in the minimum number when their presence does not seem to represent a whole vessel, but rather site-formation processes (secondarily deposited sheet refuse).

Methods and Terms

The following section presents the methods and terms used on the artifact tables.

Buttons

C. Lynn Rogers (1992) analyzed the buttons and clothing fasteners and supplied the following text.

Analysis of the buttons consisted of a careful visual inspection of each specimen. Size (in British lines and in inches), form, construction, and material type were the emphasized attributes. Design elements and makers’ marks were always noted where present. Such attributes are the building blocks for additional information. For instance, makers’ marks and known patents based on these basic elements shed light on time spans and place of manufacture
for many fasteners. Material type, form, and size are good indicators of probable button type. They are clues to garment types and styles, sometimes age- and gender-specific. Design elements are datable when specific to a known club, society, military or service organization, or when they depict a well-known character or scene from a play or story. Such clues were researched as part of this analysis.

Once all basic data about a button were recorded, its place of origin, probable use, and date range was inferred. All buttons from a provenience were organized by type. All fasteners of one type, but of varying size, are listed together within the type description. A type is determined by material, form, and construction technique.

Measurements are given in British "lines," the traditional trade and consumer standard applied to buttons in Britain and in the United States. There are 40 lines to an inch. French lines or "lignes," which are figured differently, are not used here.

Material Types

All of the following types are represented in the collection:

Porcelain. As used here, porcelain buttons can be of white or colored body composed of a vitreous ceramic with sugary texture when broken, with colorless, exterior glaze, and a translucent to opaque quality when held up to strong sunlight. Most have been compression-molded from powdered or moistened clays and then fired at least once. Button collectors refer to this fabric as "china." Archaeologists often mistake it for "milk glass." Porcelain buttons can be found in white, cream, black, teal, green, light blue, dark blue, brown, and orange. Further decoration includes molded relief, transfer-printed designs, handpainted overglaze bands, and solid painted surfaces.

Ocean Shell (Mother-of-Pearl). During the past three centuries, the nacre from seashells have been fashioned into buttons. Marine shells from the South Pacific, northern Pacific, the Middle East, Indian Ocean, and from Asian waters were and still are exploited. No attempt was made in the current analysis to differentiate buttons by shell type, unless obvious cortex or shape attributes identify the shell. In general, ocean shells are lustrous (iridescent) and stable, providing high-quality buttons. Certain species are sometimes dyed black, blue, pink, red, green, orange, purple, or yellow. Most, however, are simply shaped and polished to bring out their natural beauty.

Freshwater Shell. Buttons also have been made from freshwater mussels in the United States and in Europe. Europeans produced them for at least two centuries before the United States began production in 1891; the European buttons were not exported to this country. Freshwater shell is derived from only a few varieties of the Unionidae family of mollusks. It has a pale luster and cannot be split into layers, unlike ocean shells. The rough outer cortex must be ground off. Freshwater shell is sometimes dyed pastel colors. When found in archaeological contexts, freshwater shell buttons often appear chalky white, brittle and flaky, and lackluster.

Bone. In theory, only cow long bone was used for the making of buttons. There are accounts of late 19th-century "bone collectors" scouring the countryside in northeastern Nevada for cow bone to be used in the manufacture of buttons, bonemeal, and other products. This was after a particularly bitter winter when most of the range cattle had frozen to death. Bone buttons are often mistaken for wood ones, since their grain and color are very similar. Bone buttons are rarely fancy, but even the plain, useful types are usually polished and may be dyed various shades of brown and mahogany. Elaborately carved, lathe-turned fasteners are occasionally found.
Vegetable Ivory. The meat of the tagua palm nut is called vegetable ivory. It is a creamy white material, tough and breakable, resembling real ivory in appearance. During the late 1800s and early 1900s, vegetable ivory was used extensively for buttons. Numerous decorative treatments were applied, including inlay, carving, dying, texturing and color stenciling to resemble cloth, and combining with metal and cloth parts for additional effects.

Glass. Most recovered glass buttons are of black glass. Some are truly black glass, that is, opaque when held up to strong light. Others are translucent and in strong light can be seen as very dark green, red, purple, or magenta. Still, these are classified as black glass, since they appear black under ordinary use and circumstances. Glass buttons are almost always molded in one- or two-piece molds, with occasional grinding off of seams, polishing, or facet enhancing. Ornamental treatments include inlay, incising, embossing, coating with metallic paints to imitate metal buttons, molding into facets to imitate jet beadwork, piercing, and acid-etching.

Iron. All ferrous-based metals (i.e., all metal buttons showing rust) are called "iron" in this analysis, including tin, steel, japanned iron, or otherwise plated iron. Most iron parts for buttons are stamped from sheet metal, fashioned into faceted studs, or are drawn into wire, for shanks.

Cuprous Metal. Brass and copper are included here. These usually exhibit yellowish to orangish color and greenish corrosion. Cuprous metal parts on buttons can be stamped from sheet metal or cast in molds.

Methods of Attachment

Sew-through Holes. Most buttons are pierced by two, three, or four holes, of 1/32-inch to 1/16-inch diameter, through which thread is sewn to attach the button to a garment. The holes commonly occur at the button center, within a thinned "hole panel." Some varieties of bone buttons have five holes or only one hole. The fifth hole is not for sewing thread, but is actually a result of the lathe on which the button was formed. The hole in single-hole bone button forms may be used to sew a covering fabric onto the form or may also be the result of manufacture using a lathe indexing tool.

Shanked. Shanked buttons most often have wire loop shanks, regardless of the button material type. Wire loop shanks are round- to oval-shaped loops composed of thin wire, the parallel ends of which are embedded in moldable materials and welded onto or crimped into metal button backs. Other metal shank types include birdcage and four-way shanks. Usually, thread is sewn directly through the shanks for attachment to a garment; expensive, non-launderable buttons were often attached at the shank to a smaller kitter pin, at the back side of a garment. In this way, each button could be easily removed prior to laundering and then quickly put back in place for wearing.

Self-Shank. Cast metal and molded rubber, glass, composition, horn, and others often have self-shanks. Their shanks are merely extensions of the button back: loop, cone, or wedge-shaped protrusions fitted with a hole for sewing and of one piece with the whole button.

Flexible Shank. Sometimes two-part metal or cloth-covered metal buttons have canvas shanks, also known as "flexible" shanks. The buttons have typical Sanders' construction: a metal face disc, forced over and crimped to a back disc of metal, with fiber-filler sandwiched between the discs. The back disc has a wide center hole (ca. 1/4") through which a wad of canvas protrudes. Sewing thread is passed through the canvas and onto the garment. The
canvas shank has the advantage over wire loops or metal sewing holes of being soft, and thereby less likely to cut attaching threads during wear. Sanders’ buttons commonly have either a wire loop shank or a flexible one.

Ceramic

Ceramics were sorted by functional type, fabric, form, and decorative treatment. Vessels were reconstructed to determine minimum number. Place of origin is generally not attributed unless the vessel is marked or bears other characteristics firmly associated with a region (e.g., Chinese porcelain).

The ceramic terminology used here was adapted from the Golden Eagle report (Praetzelis 1980); brief descriptions of the fabric types are provided below.

Earthenware. This term covers a wide range of ceramics which, because of the low temperature at which they are fired, are neither porcelain nor stoneware. Earthenware may be contrasted with porcelain, in that it is opaque, not translucent, and with stoneware, in that it is porous, not vitreous. Because earthenware is porous it requires glazing before it can be used for food preparation, serving, or storage.

White Improved Earthenware (WIE). This term was created by Praetzelis and Praetzelis (1979) to avoid the confusion generated by the use of such emic ware names as "Ironstone." Such names, created by the potters to enhance the marketability of their wares, were used indiscriminately to describe a variety of body types. In the past, white improved earthenware was known under many names, including "White Granite," "Ironstone China," "Semi Porcelain," "Feldspar Opaque China," "Pearl China," "French China," and so on. White improved earthenware is simply an improvement of pearlware in the direction of durability. Whereas pearlware is light and relatively porous, white improved earthenware, because of its higher firing temperature and/or greater proportion of feldspar, is dense and low in porosity. The popularity of white improved earthenware is attributed to its unusual durability and brilliant clear glaze, together with its relatively low cost.

Opaque Porcelain (OP). The term "opaque porcelain" was created to designate an opaque ceramic body having more characteristics in common with improved earthenware than true porcelain (Praetzelis 1980:7). The fabric, which is often gray, has a crystalline body when viewed in cross section. The porcelain-like characteristics of this material may have resulted from a variation on Turner’s "Stone China" formula, which used a high proportion of kaolin, an ingredient of porcelain. Opaque porcelain was used for tableware ranging from plain, heavy-bodied vessels to the thin-walled, delicately molded pieces often produced by Davenport of Staffordshire.

Rockingham. Pale yellow or cream-colored earthenware covered with a variegated purple-brown, brown, or yellow-brown glaze; often with molded decoration.

Redware. Common pottery generally made from local, unrefined clay. When fired, impurities in the clay usually result in a colored (red, buff, or brown), rather than a white, ceramic. On mid-19th century sites, this ware commonly occurs as flower pots and crocks.

Stoneware. The high proportion of fluxes contained in stoneware clay causes it to vitrify when fired to a sufficiently high temperature. The dense, extremely hard fabric varies from buff to brown-black, depending on the amount of iron or other impurities within the clay. Being non-porous, the body does not require glazing before use. For cosmetic
purposes, however, Euroamerican potters commonly used a salt glaze on the exterior and a slip on the interior. Euroamerican stoneware was used for large and small shipping and storage vessels.

**Porcelain.** Porcelain is a hard, dense, white, translucent ceramic material which appears granular in cross section. This high-fired ceramic type evolved out of the stoneware tradition in China. The dividing line between porcelain and stoneware is a matter of degree; both are hard, dense, and vitreous and can be grayish in color. Whiteness and translucence are the clearest indicators of porcelain. Euroamerican and Chinese porcelains are generally easily differentiated by fabric and glaze color, and by decorative elements.

**Glass**

Glass was sorted by functional category, color, and type. The first modifier (2nd line on tables) is derived from "Function" terms developed by Parks Canada (Jones and Sullivan 1985); the second term refers to specific commercial product (e.g., pickles, bitters, sarsaparilla, beer) or to form (e.g., bowl, tumbler). The third term refers to glass color. The text for each entry describes the item(s) in terms of vessel part; formal elements (e.g., rectangular or circular body form); possible multiple functions or contents; size, if unique or necessary to identification; decorative detailing, including embossing, using conventions specified in Fike (1987:7,11); and additional provenience information if matches are present. Where possible, illustrations are cited for individual items.

**Metal**

Artifacts were sorted by function and material. Mail order catalogues (e.g., Russell & Erwin 1865; Sears, Roebuck & Co. 1897, 1902; Weinstock, Lubin & Co. 1891) were consulted to aid identification and provide terms for hardware. Amorphous metal and nails were weighed.

**Ferrous.** All ferrous-based metals (i.e., all metal showing rust), including tin, steel, japanned iron, or otherwise plated iron are covered by the term "ferrous."

**Copper alloy.** Brass and copper are included here. These usually exhibit yellowish to orangish color and greenish corrosion.

**Data Presentation**

The Artifact Description Tables (2 through 6) present data on the materials recovered from the wood-lined pit behind the Cooks' residence. Layers 31, 37, 38, and 39 cannot be firmly associated with the Cook household; they will not be discussed further in this report. A total of 8277 items representing a minimum of 474 individual artifacts (excluding nails and window glass) was recovered from Layers 32 through 36. Numerous items were discarded whole into the pit, and many ceramic vessels mend from small sherds. Feature 3 has a terminus post quem of 1908 based upon the presence of 29 Vaseline jars (Table 7); the significance of this date is discussed below.

**Activities**

Numerous activities are represented in the collection, including farming, hunting, sewing, writing, tool use, and transportation. The use of some items remains problematic. The copper alloy tag is very similar to stock markers advertised in the Sears, Roebuck catalogue (1897:45). Such tags were used primarily on hogs, whose raising or slaughter would have been illegal within Sacramento city limits (Uhorn 1873:102). Alternatively, the
tag could have been attached to a numbered door key. The soft earthenware mortar could have been used to grind food in the kitchen or in the preparation of herbs and other ingredients for medicines and potions. Likewise, the apothecary scale could have weighed ingredients for medicines or gun powder for shells. Nine cartridge cases were also found in Feature 3.

Food Preparation and Consumption

Glass and ceramic tableware, representing both eating and serving vessels, comprise 10 percent of the collection. The Cook collection contains a variety of vessel forms and decorative treatments. The range of decoration on the ceramics is typical of that found in other circa 1900 collections (Table 8). From the 1850s, shape reigned as the most favored decorative element in The Potteries district of England, which continued to supply most Americans with their tableware well into the 20th century. The shape of everyday classes of ceramics achieved expression in the genres of the time: sided and angular wares inspired by the Gothic Revival; ceramic bodies graced with molded leaves, grain, and fruit inspired by naturalism; and scalloped, wavy rim patterns heralding back to the white salt-glazed stoneware designs of the preceding century. The arrival of shapes had been made possible by the development of whiter, denser earthenwares that did not need to be concealed by printed patterns and that could be formed in intricately patterned molds.

Although shapes continued to be marketed by British, and increasingly by American, potters (Wetherbee 1980), printed and painted dinner settings enjoyed a revival in the late 19th century. Some of the patterns, of both American and British manufacturers, covered inferior bodies that were neither white nor vitreous. Although distributors often guaranteed that their sets would not craze, this was probably not the case. The Cooks' ceramic tableware collection includes plain white pieces, molded patterns, and printed patterns; many decorated pieces are graced with a combination of molded and printed designs. The molded vessels range from the extremely popular "Corn and Oats" registered in the 1860s by the well-known Staffordshire pottery, Davenport & Co., to a matching cup and saucer with a faint molded bead and vine rim made by Knowles, Taylor, & Knowles of Ohio after 1900. These vessels provide the ceramic tableware terminus post quem for the feature.

The collection contains four pieces of what may have been a much larger dinner set decorated with wavy beaded rim on flat pieces and slightly molded body on hollow pieces, all with overglaze transfer prints of gold vines, pink flowers, and green leaves. This pattern is very similar to the "Glenmore Rose" dinner set advertised by Sears, Roebuck in 1902:

The decorations on our Glenmore set are not the usual printed or colored decorations shown by other dealers, but are put on by the decalcomanie process, being a much truer and finer reproduction of the flowers than the ordinary print. The colors are beautiful rose and green floral designs, and all handles, knobs and covers are beautifully traced with gold, which together with the floral decorations give this set a very beautiful appearance [1902:789, 2R314].

Although this set was guaranteed not to craze, it had done so, probably prior to its discard.

Sears, Roebuck & Co. tablessettings were sold only in 100-piece dinner sets, ranging in price from $4.98 for a plain American-made set, to $8.45 for the Glenmore Rose American-made set similar to items recovered here, to $19.95 for a Haviland French China set (Sears, Roebuck & Co. 1902:788-798). The presence of sherds from two plates, a cup, and a teapot suggest that the Cook family may have purchased their tablewares as a set. The numerous Knowles, Taylor, & Knowles vessels may also have been purchased as a set. Sears, Roebuck does not identify the American potter of Glenmore Rose other than by their shipping point in western Pennsylvania. English and French companies, on the other hand, are always
identified, although there is some evidence that the advertisers were not too careful in matching captions to illustrations. Sears, Roebuck & Co. distributed the wares of J. & G. Meakin, who specialized in inexpensive mass-produced "white graniteware" for export to the United States. According to the 1897 catalogue, "American made crockery is well known to be inferior to the English and French manufacture. Our orders have been placed in Europe for the best and most select patterns, with manufacturers whose goods are known the world over as the finest it is possible to produce" (1897:678). The catalogue touted the wares of J. & H. [sic] Meakin as the "finest and most durable earthen ware made in the world" and pictured a plain white set. One set of these "will out-wear three sets of domestic goods, and will cost but a trifle more" (Sears, Roebuck & Co. 1897:678). Five years later the same illustration was used to advertise "Stoneware White China" for hotels, restaurants, and boarding houses made by a pottery in eastern Ohio and sold at a considerable reduction in price (Sears, Roebuck & Co. 1902:797).

The presence of four overseas Chinese vessels, three bowls and one spoon, is not unusual for sites of this date. Chinese merchants sold these wares a few blocks away.

The three blue transfer-printed porcelain handles appear to have been from condiment servers that would have had metal spoons attached. Alternatively, they may have been handles to a sewing or manicure kit.

Canning jars, stoneware crocks, a yellow-ware mixing bowl, and a can opener were recovered. Only one glass commercial food container was identified (probably pickles); except for a few possible baking power lids, the contents of tinned cans could not be identified from the badly corroded fragments found within Feature 3.

Furnishings

Numerous items of household furnishings were recovered, including at least two flower pots; fragments of a glaze-decorated jug and a jardiniere; a "tinkler" from lamp or chandelier; handles, hasps, and latches from dressers, cupboards, and/or chests; and a "nest egg" for display. The nest egg, made of opaque white glass, was hollow and egg sized, and sold at three for five cents in a 1913 mail-order catalogue (Kresge 1913:111). Similar knickknacks are available today, but usually in more durable material, such as polished stone.

Artifacts related to heating and lighting are also common in the collection. Twelve graphite electrodes for arc lamps were recovered. An arc lamp requires two graphite electrodes of different sizes to operate. When the lamp is not lit the ends of the two electrodes are in contact, when they are pulled apart a spark jumps between them generating a current of approximately 100 volts. Arc lamps give off more light than the best contemporary incandescent lamps and, from the 1880s, were most popular for lighting streets and public areas. Around 1900 small arc lamps, mounted on a foot, were used for domestic lighting, but due to their bright and harsh light, heat, smoke, odor, noise, and twinkling, the incandescent lamp was preferred for indoor use (Woodhead et al. 1984:75-76). The base of an incandescent light bulb and numerous fragments from kerosene lamps, including a complete vertical wick lamp burner with an 1880 patent date, were also recovered. Coal and scavenged wood appear to have been burned in the fireplace to heat the house. In the summer, an oil stove, similar to one advertised for summer use by a Sacramento merchant, may have been used for cooking (Weinstock, Lubin & Co. 1891:108).
Clothing Fasteners

The following section was prepared by C. Lynn Rogers (1992).

One hundred and thirty fasteners were recovered from Feature 3. Of the fasteners, 58 specimens (45%) are buttons and rivet buttons, 64 (49%) are non-button metal clothing and shoe fasteners, 6 (5%) are collar studs, and 2 artifacts (1%) are broken pieces of jewelry. The composition of the collection is very different from collections, most of which date from the 1840-1900 period, previously analyzed by the author. In those collections, buttons accounted for the vast majority of fasteners, with a very few collar studs, eyelets, and clasps in attendance (Marmor et al. 1991; Praetzellis and Praetzellis 1990a, 1990b, 1990c, 1990d; Rogers 1991; Tordoff 1987; Zeier 1985). Possible reasons for this variation are discussed subsequently.

The button and clothing fastener terminus post quem for Feature 3 is 1896 based upon the presence of a patent date. The greatest number of datable fasteners fell within the 1880s-to-present period, but many items with very broad ranges are also present.

Most of the buttons from Feature 3 are non-diagnostic and can only be described as general-purpose fasteners, worn by all ages, both sexes, and on a variety of everyday garments. The collection, however, includes many items that are very specialized as to garment type and to gender; a few are indicative of age. One porcelain "pantywaist" style button was recovered indicating the presence of children. Pantywaist buttons were attached to children's suits of underwear by means of tape, rather than thread. The style is characterized by two very large holes and a plain biconvex shape. Pantywaist buttons of porcelain and bone are common artifacts in circa 1900 deposits. Senior citizens remember wearing pantywaists in the 1920s. Gender-specific fasteners were also recovered and are listed on Table 9. It is interesting that both sexes are well represented, considering that males apparently outnumbered females by four to one at the site.

Two ornate, stamped metal garter buckles are very similar to several advertised in Sears, Roebuck catalogues (1897, 1902). The buckles were attached to ladies' leg garters and allowed for loosening or tightening of the garter bands (Figure 2c). Cloth belts, worn by women as part of waists and dresses, are represented by three metal slides, accounting for at least two belts (Figure 2d). The ornate metal buckles, slides, and other accessories could be purchased in sets, to be attached to a belt, presumably sewn together at the time the outfit was assembled. The belt usually was made of matching fabric or a coordinating fabric, to go with a particular outer garment. The small brass eyelets may have been attached to clothing, very likely female garments such as corsets or petticoats.

Specifically male garments are represented in the collection by a number of fasteners. Suspenders were identified from a very corroded, iron buckle. Collar studs from high collar shirts were recovered, as were rivet buttons from heavy work clothes, such as the denim trousers made by Levi Strauss.

Other specific items of clothing that cannot be directly related to gender were also recovered. Feature 3 contained seven parts of hose suspender clips, representing a minimum of four complete clips. Such clips were attached to the ends of elasticized straps, on shoulder-, waist-, and leg-supported hose suspenders. The clips held up the tops of stockings. Hose supporters were worn by men, women, and children at the turn of the 19th century. Brass eyelets and iron hook eyelets were recovered that were probably parts of high-topped shoes or boots; no gender-use is assignable.

24
Thirty-seven fasteners of the total 130 were broken (28%). Many of the metal items are very corroded, making it difficult to determine if they were broken or complete when discarded. All of the shanked porcelain, shell, and glass buttons are broken. All of the rivet buttons, whether complete or incomplete when recovered, would have been discarded once the garment they were attached to wore out, since such buttons were not reusable. Shell buttons are more fragile than other types. Eight (30%) of the shell buttons were broken; thus the majority of shell buttons were usable when discarded. A matched set of vegetable ivory or composition buttons, with impressed line pattern on their faces, consists of all usable buttons. Presumably they were discarded while attached to a garment. The brass eyelets all appeared used, and were probably discarded while still attached to shoes or corsets. The presence of so many usable fasteners indicates that unwanted or worn-out items of clothing were discarded into the feature.

As mentioned previously, the Feature 3 clothing fastener assemblage is very different in composition from collections analyzed by the author from other sites in Nevada and California. The difference may relate to date. Many of the recovered artifacts are found on 19th-century sites---Prosser porcelain sew-through and shanked buttons, faceted black glass, ocean shell, brass eyelets, suspender buckles, bone buttons, vest/pants adjusting buckles, rivet buttons, and collar studs. These, however, are usually found in very different proportions on 19th-century sites. Porcelain buttons often account for 50 to 70 percent of the collection; in the Cook collection, they make up 9 percent (n=12) of the total. Shell buttons usually account for 20 to 35 percent; in Feature 3 they comprise 21 percent (n=27). In this case, the shell buttons are the most numerous button group, reflecting the great popularity that shell buttons enjoyed once freshwater shell production in American exploded after 1891. In short, while most collections are dominated by a single button type---porcelain---the Cook assemblage is very diverse. This indicates that a relatively wide variety of clothing types were disposed of in Feature 3.

Fashion trends should be considered in relation to the differences observed in the Cook collection. Could modes of dress account for this shift of clothing fasteners from mostly buttons (ca. 98% of an assemblage) to half buttons and half clips, clasps, buckles, and pins? Certainly, fashions did change from 1850 to 1910. But men and boys continued to wear buttoned shirts, buttoned suit vests and coats, buttoned trousers, belts, suspenders, and long johns. Women continued to wear corsets and petticoats, waists, skirts, bodices, and stockings. Outer garments for everyday or for formal wear seem to have had similar numbers of buttons before and after the turn of the century. A few items probably did become more numerous in the 1900s, such as hooks and eyes on feminine dresses and collar buttons on men's shirts. Other items were quite new in the early 1900s. Safety pins, for example, probably date from the 1880s or 1890s. Button-type hose suspender clips may have been patented about this same time. Cloth belts for women were important fashion accessories in the early 1900s, but were not worn at all on outer garments through most of the 1800s. All of these newer items were present in the Feature 3 assemblage. Fashion changes may be responsible for some of the assemblage composition, when compared to other button assemblages. But were there really more buckles, clips, and clasps in 1908 than in 1875? Time probably does not explain all of the differences.

Could the collection reflect the occupations of the site's inhabitants, two barbers and a dressmaker? Discussion of gender, age, and garment types have shown that males and females, children and adults are represented by the clothing fasteners. Nothing has been observed that is specific to barbershop attire. The identification of dressmaking accoutrements is more problematic. One would expect scissors, straight pins, sewing needles, thimbles, and so forth in the deposit. Among the fasteners one would expect concentrations of certain types of articles that a dressmaker might use in quantity. Hooks and eyes are a good example. There are three brass hooks, but no eyes in the assemblage. Covered (cloth) metal buttons
discarded as failures by the dressmaker are another example. Only three buttons in the collection may have been cloth-covered. The collection does include metal slides for cloth belts. Certainly, a dressmaker would have made cloth belts to match the skirts, bodices, and dresses of her clients. Still, we have only a few, perhaps parts from two belts at most. The majority of the buttons in the collection are ordinary, more likely to be sewn to work clothing than to formal dress, sewn by a dressmaker.

The assortment of fasteners appears to be the personal accoutrements of the Cook family itself, rather than the occupational debris of the dressmaker. The high percentage of buckles and clasps over buttons may have resulted from the family's rapid discard of several garments and accessories.

Personal

Other items of personal adornment include a shell-handled pocket knife, a pocket watch, teardrop necklace with cut-glass stones (Figure 2a), beads, and a women's brooch or men's vest chain slide. Games are represented by a rubber ball, poker or game chip, and nine marbles -- four clay and five glass. In the 1890s, glass marbles cost two-and-one-half-times the price of clay marbles (Weinstock, Lubin & Co. 1891:103). Two toy wash tubs and three pieces of a toy tea set indicate that a young girl may have lived on the site in addition to the boys indicated on the census. Other toys include wheels from what may have been a train or wagon and a molded hollow lead piece that may have been part of a toy animal.

A minimum of seven china (glazed) and bisque (unglazed) porcelain dolls, including two whole examples, of two general types and five sizes are present in the collection. Heads and legs from dolls with cloth or kid bodies comprise five dolls and pieces from jointed bisque dolls with arms and legs wired to the torso comprise the other two. A complete head from "Alice" made in the 1890s by the Rauenstein porcelain factory in Germany had movable, "sleeping eyes" inserted through a hole in the top of the head, teeth, and a wig (Figure 3b). This doll had a cloth or kid body; the head was often sold separately to be dressed and sold by other companies. Similar dolls' heads could also be individually purchased through the mail for $.25. Clothing added significantly to the price; a dressed doll of the same type cost $1.00 (Weinstock, Lubin & Co. 1891:83). Armand Marseille's "390"-type doll was also recovered. This popular doll had sleeping eyes, dimples, teeth, and a head that swiveled on its cloth or kid body. Feature 3 also contained two sizes of legs from china porcelain dolls with cloth bodies. In the 1890s, china dolls were cheaper that bisque porcelain dolls of the same size and type.

Two sizes of bisque porcelain jointed dolls were recovered from Feature 3. The complete example stands 4 inches tall, has blue eyes, black shoes with heels, white ribbed socks, belt button, and wig (Figure 3a). This doll is very similar to one advertised for $.10 in 1913 (Kresge 1913:90 FX116). The doll came with "long natural hair in blonde, brunette and Tuscan shades," and was dressed by the purchaser.

A minimum of 39 petroleum jelly jars, 38 of which had contained Chesebrough's Vaseline, were recovered from Feature 3. Robert Chesebrough worked in the illuminating oil business until, intrigued by oil workers' stories about a miraculous substance -- a residue of petroleum, that formed on the rods of pumps in the oil field -- he set about to duplicate this healing agent in the laboratory. Years later he succeeded and named his product Vaseline Petroleum Jelly, which he manufactured in a small New York refinery from 1870. The jelly was very successful, and in 1873, Chesebrough arranged for Colgate & Company to distribute his products in America (Chesebrough-Ponds n.d.:4). In 1878 Chesebrough Manufacturing
registered the term "Vaseline" as a trademark (Herskovitz 1978:14). Blue Seal Vaseline Jelly was available nationwide by 1879, and the company quickly developed and promoted numerous other Vaseline products in the 19th century (Fike 1987:56).

The Feature 3 collection of Vaseline jars contains 9 examples with finishes for cork stoppers (Figure 4c), 29 threaded finish jars (Figure 4b), and 22 threaded lids. According to Fike, the threaded cap replaced the cork stoppers in 1908 (1987:57). It is likely, however, that this replacement was gradual and began years earlier, with both types of jars being sold during the early years of the 20th century. The 1891 Weinstock, Lubin & Co. (1891:94) catalogue pictures a stoppered finish Vaseline jar from the Chesbrough Manufacturing Company. Six "Vaseline Preparations" were listed: Pure Vaseline Jelly, $.05 a bottle; Perfumed White Vaseline, $.20; Pomade Vaseline for the hair, $.12-1/2; Vaseline Cold Cream for the skin, small size, $.13, large size, $.38; Vaseline Camphor Ice, $.15. The catalogue listed Perfumed Vaseline Hair Oil for $.25 under "Hair Oils, Pomades, Dyes, Tonics, etc."; presumably this product was packaged in a different type of container. In 1893 commercial production of wide-mouthed containers, including the screw-top Vaseline jars, began in the United States. The 1897 Sears, Roebuck & Co. (n.p.) catalogue pictures their own brand of Petroleum Jelly in a 2-ounce jar with screw top "for your convenience," at a price of $.06. The company also manufactured and marketed a perfumed Petroleum Jelly for $.15 that "makes an excellent dressing for the hair, superior to pomades containing animal fats, which become rancid and spoil and injure the hair" (Sears, Roebuck & Co. 1897:n.p.). Sears Petroleum Jelly declined in price from $.06 in 1897 to $.05 in 1900 and $.04 in 1902 (1900:26, 1902:453). If customers perceived screw-top jars as more convenient than stoppered jars, it is likely that Chesbrough Manufacturing Company would have switched at least partially to such jars prior to 1908, which may be the end date for stoppered jars rather than the beginning date for screw lids.

One petroleum jelly jar containing "Petrolio" made by the Napier Chemical Company was also recovered along with two other opaque glass jars that probably also contained cremes or pomades. A jar marked "Armour & Co." contained an animal-product based creme or pomade. By 1900 Philip Armour's Chicago meat canning business had reached huge proportions, leaving tremendous quantities of inedible wastes to be disposed. The company developed numerous other branches to utilize the non-food elements: making strings for tennis rackets and musical instruments from intestines, brushes from hog bristles, glycerine and chemicals from fats, and pharmaceuticals from animal glands and tissues (Zumwalt 1980:29-30).

Patent medicine containers in the collection include Bromo-seltzer used for headaches and stomach aches, Lydia Pinkham's Vegetable Compound used for menstrual complaints, and Dr. Kilmer's Swamp-Root Kidney Cure for kidney, liver, and bladder problems. Seven other containers, five of which were whole, probably also contained medicine. Bottles from two pharmacists, Charles Tuttle in Pacific Grove, California, and Thomas McAuliffe on J Street four blocks away, were recovered.

Five lightening stoppers from beer bottled by George A. Ticoulet were recovered from Feature 3 (Figure 4a). George Ticoulet bottled Rainier Beer at 1420 J Street from 1906 through 1908. Ticoulet's office was next door to the Cooks, facing J Street. He vacated the premises when Dr. Briggs redeveloped the parcel around 1909. Rainier Beer was brewed in Seattle with selected grains and "absolutely pure water." Ticoulet advertised it as "a rich creamy beverage that gives health and strength. The best all around home beverage for home use" (Sacramento Bee 6 January 1906:2). Following his move from 1420 J Street, Ticoulet became foreman and later superintendent of the Sacramento Brewing Company.
Other alcoholic beverages are represented by sherds from three whiskey bottles, including one from a Sacramento distiller, and one whole beer bottle made by the Pacific Coast Glass Works in San Francisco. No tobacco-related artifacts were recovered from Feature 3.

**Structural**

Structural remains include numerous pieces of door hardware: hinge, hasp, keyhole escutcheon, striker plate, spring, and key; brick, decorated tile, redware pipe, painted plaster, and window glass. Hardware includes screws, hooks, spikes, staples, brackets, and nearly 5,000 nails and nail fragments (over 30 pounds). The nails are heavily corroded and are believed to represent the burning and discard of wooden structural remains.

**MAMMALIAN FAUNAL REMAINS**

Jean Hudson and Phillip L. Walker, Department of Anthropology, University of California, Santa Barbara, analyzed the vertebrate remains and supplied the following text (Hudson and Walker 1992).

The vertebrate remains from Feature 3 are of special interest owing to the large size of the collection, the stratigraphic integrity of the deposit, and the documented association of the material with an African-American family. Feature 3 is a wood-lined backyard pit that was filled with refuse around 1908.

Analysis of the collection provides evidence concerning the dietary habits and changing socio-economic status of this household. Comparisons between this assemblage and roughly contemporaneous collections associated with Euro-American and Asian-American households (Gust 1982, 1984, 1990a, 1990b) raise questions about the kinds of data on economic status and ethnicity that can be obtained through the study of faunal remains.

Our research focused on obtaining estimates of the following dietary variables: (1) the relative contribution of beef, pork, and mutton to the diet; (2) the relative frequency of expensive, moderately priced, and inexpensive cuts of meat; (3) the relative importance of commercial versus domestic butchering; and (4) the relative contribution of steaks versus larger cuts of meat.

The collection consisted of 2727 bone fragments with a total weight 12,151.7 grams. Forty-four percent of the fragments in the collection were identified to taxonomic category or to size class (Table 10). Although most of the assemblage is well preserved, the bones from the lowest levels are discolored and pitted. By weight, about 8 percent of the bones showed evidence of burning (934.7 grams). Less than 1 percent (n=23) of the fragments showed evidence of carnivore activity. This along with the intact epiphyses of many long bones indicates that the effect dogs had on the assemblage was slight. Rodent gnaw marks are present on a few bones, but these are rare.

**Methods**

Bones were identified to taxon or size class, element, and part, using comparative materials available at the Department of Anthropology at the University of California at Santa Barbara. Coded fragments were then grouped according to standard butchering unit, following Gust and Schulz (1980), and ranked according to the relative economic values typical of early 20th-century America (Schulz 1979b). Although the published data are for beef, we have applied this ranking to pork and mutton as well. Elements and parts of elements were assigned to cuts, and cuts were then designated as high, medium, or low in value as described below.
High-value cuts include the shortloin, the sirloin, and the rib. In faunal collections, these cuts are represented by the lumbar vertebrae, the sacrum, the ilia, the lower thoracic vertebrae, and the dorsal portions of the lower ribs. Moderate-value cuts include the round, the rump, the chuck, the arm, the crossrib, and the shortrib. The skeletal elements associated with these cuts include the ischia and pubic bones, the caudal vertebrae, the femora, the upper thoracic vertebrae, the dorsal portions of the upper ribs, the scapulae, the proximal end and shaft of the humeri, and midshaft sections of the ribs. Low-value cuts include the neck, the brisket, the shortplate, the foreshank, and the hindshank. These are represented by the cervical vertebrae, the ventral ends of the ribs, the distal humeri, the ulnae, the radii, the tibiae, and the tarsals. The carpals, metapodials, and phalanges are sometimes associated with the shank cuts, particularly with smaller carcasses, where the entire lower limb may be sold as a unit (Gust 1990b).

Butchering marks were recorded according to the type of tool that produced them. One of the goals of this analysis was to distinguish between commercial and domestic butchering. Saw marks were examined with special attention to differentiating between band saw and hand saw marks. These determinations were made using Gust’s (1983) criteria of cut surface smoothness and regularity in the distribution of striations. Cuts with smooth, flat surfaces and parallel striations or parallel-sided linear indentations can be attributed to commercial butchering with a band saw. Although hand-saw butchering sometimes occurs at the domestic level, it more often occurs in a commercial setting. All of the saw cuts in this collection showed the smooth even surfaces and regular, parallel striations characteristic of band saw butchering.

Hack marks and chop marks, characterized by broad V-shaped cross-sections or broad, shallow, concentric flaking or splintering, are produced by a tool with a heavy blade, such as a cleaver. Although this type of tool mark is characteristic of commercial butchering, domestic use of cleavers (as in Chinese cooking) is also a possibility. Cuts with narrow V-shaped cross-sections are produced by thin-bladed tools, such as knives (Walker and Long 1977). Tool marks of this type are likely to be made at the time of food preparation and consumption rather than during commercial butchering.

Butchering-mark orientation was also studied to evaluate the interaction of commercial and domestic processing. The location and orientation of certain cuts indicates commercial butchering (Schulz 1979b). For example, the vertebral column is split sagittally in slaughter houses during the siding of carcasses. To identify this type of butchering, the orientation of butchering marks on the bone was classified as either parallel to the long axis of the bone (axis cut in the case of limb elements and ribs, sagittal cut in the case of vertebrae) or perpendicular to the long axis of the bone (transverse cut).

The frequency, location, and orientation of tool marks was used to differentiate between steak cuts, shank cuts, and larger roasts. We defined a steak cut as a bone with two parallel cuts oriented transversely to its long axis and less than 3 inches apart. Shank cuts were defined as cuts of similar orientation, but located 3 inches or more apart on the shaft of a long bone. Roast cuts were defined by the presence of most of the shaft of a limb bone or blade of a girdle bone (os coxae or scapula) and the lack of saw cuts. The purpose of this categorization was to differentiate between (1) single-serving high-value cuts, represented by steaks, (2) multiple-serving low-value cuts suitable for soups and stews, represented by shanks, and (3) multiple-serving cuts of high-value meat, represented by roasts.
Temporal variation was examined by comparing the constituents of the nine stratigraphic layers of the feature, 31 through 39. Layer 31 is uppermost and the most recent. It is an intrusive refuse-filled pit within the original deposit. Level 39 is the lowermost and oldest stratum.

Species Represented

The faunal remains recovered include a large quantity of cow, pig, and sheep (or possibly goat) bone (Table 10). Many of these bones showed band-saw marks indicative of commercial butchering (Table 11). The collection also contained small quantities of bird bone. Except for one bill fragment from a duck or goose, all of the identified bird bone was from domestic chickens. Small amounts of rabbit and rodent bone are also present in the collection.

In most layers, the majority of the identifiable bone came from cuts of beef (Table 15). Pork and mutton made a smaller, but consistent, contribution to the diet. The remains of domestic fowl are present in small quantities in most of the strata. Fish bones are present in three of the nine layers, as are rabbit and similarly sized small mammal remains. The relative importance of beef, pork, and mutton provides evidence of the household’s economic status, as well as insights into dietary preferences that may be linked to ethnicity. Previous researchers have noted exceptionally high pork consumption (85%) in Asian-American households around the turn of the century (Gust 1982, 1984). Middle-income Euro-American households, in comparison, show an emphasis (45-63%) on beef (Gust 1990a, 1990b). The African-American household documented here shows a preference for beef (77%) greater than that noted for middle-class Euro-American households in the late 1800s (Table 12). A greater emphasis on beef also appears correlated with domestic consumption patterns, in contrast to those typical of commercial establishments, such as hotels, saloons, and restaurants (Gust and Schulz 1980: Figure 3.1).

Cuts of Meat Represented

Commercial cuts of meat can be ranked according to cost (Schulz 1979b; Schulz and Gust 1983). The relative frequency of cuts of different values provides evidence for the economic status of the household represented. The remains from Feature 3 show that cuts of medium-value were those most frequently purchased (Table 13, Figure 5). A similar emphasis on moderately priced cuts has been noted for middle-class Euro-American households (Gust 1990a, 1990b). The African-American family resident at 1418-1/2 J Street appears to have enjoyed an essentially middle-class diet in terms of the cost of their cuts of meat.

Temporal Change

This assemblage shows a consistent trend toward greater use of inexpensive cuts of beef through time (Figure 6). In Layer 37, the lowest layer with sufficient bone for quantitative analysis, low- and high-value cuts are almost equally well represented at nearly 20 percent. Moving upwards through the layers, the percent contributed by low-value cuts increases steadily until, in Layer 32, it reaches roughly 35 percent. The frequency of beef steak also decreases over time (Figure 7). This is another indication that there was a consistent trend toward decrease in the use of more expensive cuts of beef through time. Layer 31 is inconsistent with this general pattern; 50 percent of the beef bones in this level are from high-value cuts. Layer 31 is a pit that intrudes into the rest of the stratigraphic sequence. It represents a final depositional event that may not be associated with the household responsible for the rest of the bone.
The overall pattern suggests an increasing dependence upon cheaper cuts of beef over much of the depositional history of this feature. This is perhaps an indication of a gradual decline in the economic status of the household. The deposit is capped by an intrusive pit containing many expensive cuts of beef. This may indicate a change in economic conditions of the household or the occupation of the house by a different family.

Commercial Butchering and Household Consumption Patterns

Most of the tool marks (74.4%) are attributable to commercial butchering with a band saw (Table 11). Some use of a heavy blade, such as that of a cleaver, is indicated by blunt chop and hack marks (11.6%). Knife marks, most likely attributable to household butchering and consumption, are also comparatively rare (14%). Vertebrae were commonly split along the sagittal plane. This is an indication of the commercial butchering practice of siding carcasses.

The number of saw-cut bones of steak thickness suggests that meat was often bought in single-serving cuts (Table 14). Roasts were also purchased, as were less meaty cuts, such as the neck and shank of cow. Lower limbs of pig and sheep were represented by metapodials and phalanges in association with upper limb elements. This suggests the occasional purchase of whole legs of lamb and pigs feet.

Summary

The faunal assemblage from Feature 3 is associated with an African-American household and dated to the first decade of the 20th century. The household's greater emphasis on beef relative to pork or mutton, and its reliance on moderately priced cuts of beef, is typical of urban middle-class Euro-American consumption patterns of the period. An analysis of temporal variation in the cost of meat cuts suggests that the economic status of the household declined through time. This research supports the observation made by Schulz and Gust (1983:51) that economic status may sometimes have a greater effect on the dietary patterns reflected in faunal remains than does ethnicity.

FISH REMAINS

The fish remains were identified by Peter D. Schulz (1992), who provided the following text.

A total of 253 bones were identified. Only three fishes appear to be represented by the remains: brown or yellow bullhead (Ictalurus nebulosus or Ictalurus natalis), rockfish (Sebastes sp.) and Pacific mackerel (Scomber japonicus) (Table 16).

Bullhead

Bullhead remains totalled 243 bones from a minimum of 37 individuals. The elements present are sufficient to demonstrate that they represent either brown or yellow bullheads, but sufficient comparative materials were not available at the time of study to differentiate between these closely related species. Both were introduced to the lower Central Valley from the eastern United States in 1874 and quickly became established in local lakes and sloughs (Moyle 1976). White catfish and black bullhead were introduced in the same year, and these four species of catfish were common in the market by the end of the decade (Dibble, Buckingham and Redding 1884:8-9; Redding, Throckmorton and Farwell 1881:9-10). By the turn of the century, catfish dominated the commercial freshwater fish landings of the lower Sacramento, bringing about 2.5 cents per pound to the fishermen (Wilcox 1902:555).
It may be suspected, however, that the present remains represent individual fishing by the site's occupants, rather than the product of a commercial fishery. First, the fish were relatively small: all individuals appear to have been between 100 and 200 grams live weight. Secondly, accounts of the commercial fishery note that catfish -- except for the small portion of the catch delivered live for the Chinese market -- were invariably delivered to the markets dressed, that is, with the heads, skins and viscera removed (Croker 1934:378; Fay 1906:66). The procedure employed was sufficiently standardized to attract attention:

The method of cleaning catfish is ingenious. The cleaner makes a shallow cut between the top of the head and the dorsal fin, impales the head on a hook which is fastened to the wall, seizes the skin at the cut with a pair of pliers, and pulls the skin off in one piece. Then he grasps the body and pulls it away from the head. The viscera stay with the head and the flesh is free from everything except the bones [Croker 1934:382].

It should be noted the recovered remains are precisely those that might be expected at a fishing camp. The great majority of the bones are from the head. The only exceptions are complex vertebrae and pectoral girdles, both located immediately behind the head. No abdominal or caudal vertebrae were recovered. This discrepancy is puzzling if the fish were cleaned and consumed on site. Two plausible interpretations are that: (1) table scraps (including vertebrae) were discarded elsewhere than was cleaning waste; or (2) the fish were caught and cleaned by the occupants, but were consumed elsewhere.

Rockfish

Only eight bones of rockfish (Sebastes sp.) were recovered, and they are insufficient for species identification. Some 50 species of this genus are present off the California coast, and several of them are sufficiently abundant to have featured prominently in the San Francisco market since the 1850s. These fish were also brought to Sacramento for sale, and have been repeatedly encountered in 19th-century deposits (Schulz n.d.; 1980; 1982). Rockfish were generally well-regarded by consumers, although different species were rated from "fairly coarse" to "esteemed as one of the best of food fishes" (Jordan and Gilbert 1882:55-59).

Mackerel

Only two mackerel bones were recovered, but these are sufficiently diagnostic for confident identification as Pacific (Scomber japonicus) as opposed to Atlantic (S. scombrus) mackerel. The result is unexpected. The mackerel populations of the North Atlantic supported one of the most important fisheries in the world in the 19th and early 20th centuries, its landings providing salt fish for markets throughout North America. Salt mackerel from the east was a common staple in California by 1850 and possibly even earlier. By all accounts, it was much more common in the California market than the Pacific species until the 1920s. Canned Atlantic mackerel were available here by the 1880s as well (Felkner 1879:150-153; Sacramento Record-Union April 21, 1882:3; Sacramento Transcript April 8, 1850:3).

The fishery for Pacific mackerel developed in the 1850s, but remained a minor element of the state's fishing industry. The grounds extended from Monterey Bay to San Diego. The first successful attempt at salt fish production was undertaken in 1858, and this continued on a small scale thereafter, the salt fish being generally rated inferior to the Atlantic product. Fresh fish from Monterey Bay also found its way to the San Francisco market but seems to have been of very irregular occurrence prior to the 1880s. Pacific mackerel was first canned in
1893, but this too remained a minor industry until the commencement of large-scale canning operations in Los Angeles in 1928 (Croker 1933; Scofield 1919; "Retail Family Market" price lists, San Francisco Bulletin and San Francisco Call, 1865-1883).

Both of the present specimens are cranial elements. Since most mackerel were salted with the heads on, the archaeological remains could be from either salt or fresh fish. Canning utilizes mess mackerel, that is fish with the heads removed (Felkner 1879:151-152; Sacramento Record-Union April 21, 1882:3).