# AFTER THE SILVER DUST SETTLED: A SYNCHRONIC VIEW OF SOCIOECONOMIC STATUS IN LATE-NINETEENTH-CENTURY SOUTH OF MARKET, SAN FRANCISCO

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*This paper examines how consumer choices are represented in household artifact assemblages deposited in downtown San Francisco between the late 1860s and the early 1870s. Data from William Self Associates' current Transbay Transit Center excavations are compared and contrasted with contemporary features recovered during the Anthropological Studies Center's San Francisco-Oakland Bay Bridge West Approach Project. Multiple social scales (occupation, wealth, and neighborhood ranks) are employed in conjunction with analytical techniques (ceramic economic-scaling indices, ceramic ware distributions, and relative quantities of butchered mammalian remains) in order to elucidate patterns of socioeconomic stratification in late-nineteenth-century South of Market.*

The current study utilizes methodical techniques proposed by previous studies to investigate the relationship between consumer choice and socioeconomic status within a narrow historic timeframe in downtown San Francisco (Praetzellis 2007a, 2007b, 2007c; Praetzellis and Praetzellis 1992, 2009; William Self Associates 2011, 2013). Socioeconomic status is defined as an individual's or household's standing within the populace, which is expressed through profession, wealth, and location of residency. Three scales derived from the U.S. Census and San Francisco City Directory—occupation, total household wealth, and neighborhood—are employed to investigate these patterns within the archaeological assemblages under study. In order to disentangle the factors that constructed socioeconomic status in late-nineteenth-century South of Market, the artifact collections are submitted to three analytical techniques, which include ceramic scaling values, average percentages of ceramic wares, and proportions of butchered mammal meat by species.

## HISTORICAL BACKGROUND

After the discovery of gold near Sacramento in 1848, the initial flood of miners set up a tent camp in the valley nestled between the sand dunes in what is now downtown San Francisco. The area developed with celerity during the following decades, first with a series of pre-built houses that were succeeded by more permanent Victorian homes (Praetzellis and Praetzellis 1992:2-30). Although the Gold Rush ushered California into statehood, the unearthing of the silver-rich Comstock Lode in 1859 produced 10 times more wealth than that recovered during the Gold Rush. This rich strike spurred an unparalleled period of economic growth and investment in transportation, infrastructure, and technical innovation that Ashbury Harpending, a California financier of the 1860s, aptly characterized as an "intense booming, hopeful decade, a period of great events and great men, when everyone at last realized that gold was the smallest part of the state's resources" (Wilkins 1913:10).During this time, the South of Market region thrived as an epicenter of trade and commerce because of its proximity to the waterfront.

This study utilizes data recovered from three different building developments that impacted historic deposits in the South of Market area. In 2010, William Self Associates Inc. (WSA) conducted extensive testing and data recovery as part of the Transbay Transit Center Project in downtown San Francisco. Archaeologists excavated five features deposited around 1870 that included three privies at 57 Natoma Street, 65 Natoma Street, and 63 Minna Street, and a single wood-lined bin at 34/44 Minna Street within the footprint of the groundbreaking transportation center bounded by First, Beale, Howard, and Mission streets (William Self Associates 2013). During the winter of 2011-2012, WSA staff conducted archaeological testing prior to the construction of a low-income housing complex located at the southeast

corner of the intersection of Folsom and Essex streets. This parcel contained a single wood-lined privy from the historic residence of 525 Folsom Street (William Self Associates 2011).

In addition to the new data discussed above, this study utilizes information from 12 contemporary features excavated and recorded by Sonoma State University's Anthropological Studies Center (ASC) as part of the San Francisco-Oakland Bay Bridge West Approach Project (Praetzellis and Praetzellis 2009). This study selects 11 privies at 7 Baldwin Court, 9 Baldwin Court, 13 Baldwin Court, 240 Fremont Street, 412 Folsom Street, 414 Folsom Street, 540 Folsom Street, 16 Perry Street, 115 Perry Street, 123 Perry Street, and 131 Perry Street, and a single well from 108 Silver Street for analysis within the ASC's sample.

## THEORETICAL BACKGROUND

A basic feature of complex industrial societies is stratification within a social hierarchy, wherein, according to Susan L. Henry (1987:361), strata have "differential access to the resources, goods, and skills available to the society at whole." Divisions between social strata are manifested in the consumer practices of households (Deetz 1982:717). According to Henry (1987:360), the household functions as a cultural unit that "consist[s] of the inhabitants of a dwelling...who appear as a discrete group in the documents" (Laslett and Wall 1972:86; Spencer-Wood 1987a:2-7).

The excavated remnants of a household inform on the decisions made by the most basic functional unit where societal attitudes and values are taught and enforced. Therefore, household patterns of acquisition and discard provide insight into how a household expressed its identity on a socioeconomic ladder (Cook et al. 1996:520; Henry 1987:362). A large sample of households allows for comparison between assemblages that may ultimately reflect significant behaviors associated with broad socioeconomic groups.

## METHODS

This study relies on two independent data sets—primary documents and artifacts—in its exploration of the relationship between consumer practices and socioeconomic status. Employed in conjunction, these information sources permit researchers to assess the degree of correspondence between historical narratives and the material record (Spencer-Wood 1987a:7).The juxtaposition of these sources is essential in teasing out the complex variables involved in human behavior.

Documents are rich sources of information that breathe life into static artifacts. Each discrete archaeological feature must be associated with an individual or household before any inferences about consumer decisions can be made. This study references the Crocker-Langley San Francisco Directory, Sanborn Fire Insurance maps, 1870 U.S. Federal Census, Ward 7 voter registration records, and plat maps of South of Market to discover the names, occupations, and wealth of the inhabitants of the households under study. Historic maps enable excavated features to be associated with historic properties, while diagnostic artifacts establish a temporal range of occupation. The convergence of these data types ultimately indicates the individuals who are associated with the deposit.

Occupational ranking is an analytical technique that provides insight into consumer behavior within South of Market households. Occupation is not a surrogate for socioeconomic status; however, the two are closely related, because profession determines income and social community, and thus affects the consumer's ability to purchase certain commodities (Spencer-Wood 1987b:324-325). This hierarchical ranking is derived from the occupation held by the head of the household as listed in voter registration forms and the U.S. Census. Households were divided into an occupational index with five categories: wealthy professional, professional, skilled, semiskilled, and unskilled (Praetzellis and Praetzellis 1992:B1). Wealthy professionals consisted of merchants and financiers who occupied the upper echelons of San Francisco's polite society. Professionals were the skilled white-collar workers, such as bookkeepers, salesmen, shipping clerks, postal clerks, and wharfingers. Skilled laborers performed blue-

collar jobs that required some ability and expertise. This group included barbers, blacksmiths, boilermakers, dressmakers, furniture makers, miners, and shipwrights. Semiskilled laborers were employed as bartenders, longshoremen, seamen, and stevedores, while unskilled individuals were box markers, apprentices, and laborers. Within each occupational category, different vocations may have been associated with varying prestige and pay; nonetheless, households' occupation rank teases out patterns associated with the artifact assemblage.

Analysis of the ceramic vessels recovered from an archaeological context allows archaeologist to investigate the socioeconomic status of a household through quantitative and replicable measurements. George Miller created an economic scaling technique that determined the relative cost of plates, bowls, and teacups based on ware type, decoration, and vessel form (Miller 1980:1-3, 1991:1). He conducted extensive research with primary documents, including probate inventories, Staffordshire potters' price fixing agreements, and commercial advertisements, to determine the cost of such commodities from the late eighteenth century to the late nineteenth century. A relative cost list was established that placed undecorated white improved earthenware, cream color (CC) ware, at the base because it was the cheapest ware on the market. These vessels were assigned a value of 1.0, while undecorated porcelain plates were given an index value of 4.0 because, at the time, these cost four times more than the CC ware. Once each plate, cup, and bowl had been assigned values, the mean value for the total assemblage was calculated, which is beneficial for inter-household and neighborhood comparisons.

Implementation of Miller's technique is most successful when specific data requirements have been fulfilled, because this facilitates researchers' ability to draw comparisons between sites (Adams and Boling 1989; Baugher and Venables 1987; Bloomfield 1995; LeeDecker et al. 1987**)**. First, CC index values are applied to the minimum number of individual vessels (MNI) rather than the number of sherds, because the latter results in overrepresentation that inflates the total mean index value (Spencer-Wood 1987a:18). Second, selected collections represent a short period of time, within a roughly 15-year range, because the prices of commodities changed dramatically over longer timeframes. For example, a painted teacup from 1800 will be much more expensive than its identical counterpart produced in 1870. Thus, synchronic comparisons are favored because they produce the most accurate results (Miller 1991:3).

Butchered mammalian remains represent a second category of artifacts that are commonly utilized in studies that link consumption and socioeconomic status (Branstner and Martin 1987; Garrow 1987; Lyman 1987; Schultz and Gust 1983). Marketed units of meat are frequently purchased, nondurable goods that act as day-to-day indicators of status, as opposed to infrequently bought ceramic vessels. Although meat cuts and meat weight are the best archaeological units to illustrate differential consumption of food resources between socioeconomic strata in urban environments, this article employs number of identifiable specimens (NISP) due to limitations of the faunal database. Relative frequencies of three major meat types—beef, mutton, and pork—provide fundamental insight into the nature of diet within South of Market households.

## DATA

The 17 features examined in this study are refuse pits within domestic lots, such as privies that were filled in once the facility was no longer in use (Figure 1). Although sewers were installed in the second half of the nineteenth century in South of Market, municipal garbage collection and management services were not installed until after 1906 (William Self Associates 2013:64). Therefore, these deposits capture patterns of consumption, use, and discard practiced by their respective households.

Three privies filled ca. 1870 were excavated from households situated at the base of Rincon Hill. The neighborhood of Happy Valley contained three privies and one wood-lined bin from residences on Natoma and Minna streets. Three privies from Perry Street and a single well situated on Silver Street provide a glimpse of life in the Mission Bay neighborhood. The Tar Flats neighborhood contains six privies that were clustered tightly together near the intersection of Folsom and First Street.

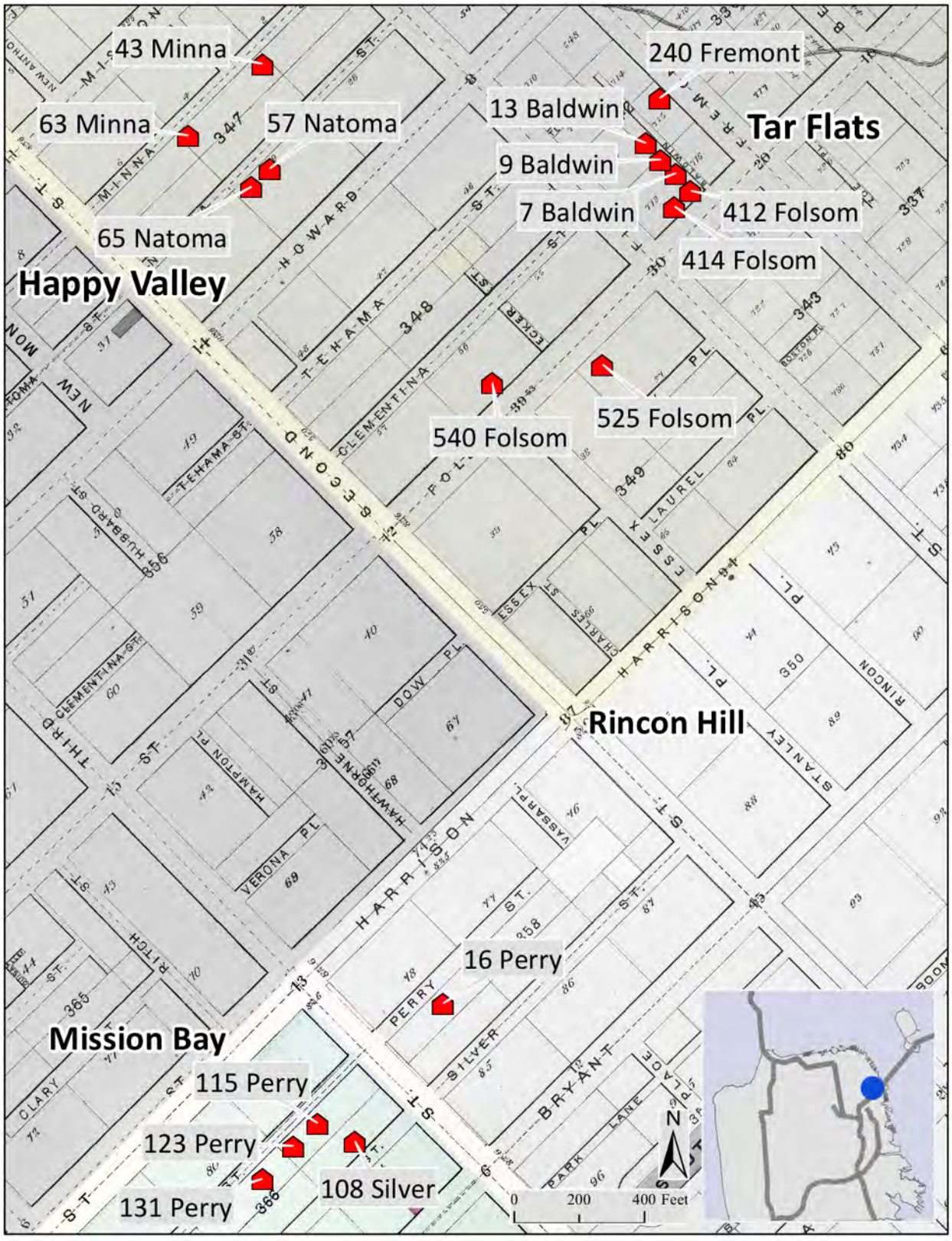


*Figure 1: Map of South of Market households as derived from the 1870 U.S. Census and the 1876 Atlas of the City and County of San Francisco (Humphreys et al. 1876).*

## RESULTS

### Occupation Index

In previous studies, Praetzellis and Praetzellis (2009:318) identified a positive relationship between occupational rank and the expense of consumed items within the assemblages of South of Market households. Wealthy professionals bought and discarded the most porcelain vessels, almost three times as many as compared to unskilled workers. The trend should be evident in the present analysis, because porcelain was the one of the most costly ware types during the late 1860s and early 1870s; therefore, features deposited by wealthy professionals should have the highest mean ceramic index value.

Ceramic index values were calculated for plates, teacups and saucers, and bowls from the 17 features from South of Market neighborhoods included in this study (Table 1). A total mean ceramic value for an entire feature was obtained by averaging the indices for each vessel from a category. The relative values indicated the total wealth invested in the discarded tableware elements, which were then grouped and averaged again by occupational index in order to make socioeconomic comparisons within South of Market. Although bowl index values were included in the computation of mean index values, bowls will not be discussed in depth due to the paucity of samples.

The distribution of mean CC index values by occupation index conforms to Praetzellis and Praetzellis's model. The wealthy professional class generally discarded ceramics with a value 150 percent greater than the unskilled laborer group (Figure 2). Thus, the current data ostensibly confirm that there is a correspondence between high occupation ranking and the expense of the ceramics owned by late-nineteenth-century South of Market households.

Prior studies indicate that teacups are the most reliable indicators of social status, because these items were purchased based on decoration type, since they were most frequently exhibited during social occasions (Spencer-Wood 1987b:325). The assay of data in Figure 2 confirms that teacups are the most accurate gauges of socioeconomic status as defined by occupational rank as derived from historical documents. The relative worth of plates correlates the least well with socioeconomic status prescribed by occupation. Teacup and total CC index values may only be appropriate prognosticators for the extreme ends of the socioeconomic spectrum, because the index values for the midrange professions are inconsistent with historical sources that ascribe higher status to professionals than semiskilled workers.

The Praetzellises observed three consumptive patterns associated with vessel ware. First, households with high socioeconomic status possessed a higher percentage of porcelain than low-status households. Second, households representative of lower socioeconomic status had a collection with a higher proportion of white improved earthenware, while the converse is true for high-status homes. Third, documents from the Victorian era portray Chinese and Japanese porcelain, as the Praetzellises (2009:320-321) state, as a "sophisticated addition to the parlors of the aspiring and upper middle class." However, the archaeological data from the Bay Bridge West Approach Project did not indicate a regular relationship between occupation status and possession of porcelain produced in Asia.

The distribution of ceramic food preparation and consumption vessels, as defined by Praetzellis and Praetzellis, by ware type and occupation index illuminates more inclusive patterns of ceramic consumption (Table 2). Wealthy professional households owned and disposed of a higher percentage of porcelain (53.7 percent) and the smallest percentage of inexpensive white improved earthenware (35.4 percent). There is a general positive correlation between the relative quantity of porcelain and occupation index that is apparent in the extremities of the occupational rank. Semiskilled workers (18.1 percent) and unskilled laborers (18.1 percent) actually disposed of more porcelain that skilled craftsmen (7 percent); therefore, the positive pattern may not be entirely credible for households with middle-status occupations. Skilled and semiskilled households were the only occupation ranks with more than 20 percent opaque porcelain, which may indicate that the additional income garnered by the skilled craftsmen fueled consumption of a high proportion of opaque porcelain, a ware more expensive than most decorated white

*Table 1: Summary of feature data organized by neighborhood (1870 U.S. Census).*

| Neighborhood | Household | Address | Deposition Date | Occupation Index | Wealth (Personal Property & Real Estate) | Mean Ceramic Index Values | | | | Meat Groups by Percent | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Total | Plates | Teacups & Saucers | Bowls | Beef | Mutton | Pork |
| Rincon Hill | Peel | 540 Folsom | ca. 1872 | Wealthy professional | $50,000 | 2.49 | 2.60 | 2.42 | 1.90 | 35.0 | 54.0 | 12.0 |
| | Shaw | 16 Perry | ca. 1873 | Professional | $55,000 | 1.18 | 1.21 | 1.23 | -- | 81.0 | 8.0 | 12.0 |
| | Madden | 525 Folsom | 1871-1873 | Professional | $12,000 | 2.77 | 3.34 | 2.21 | -- | 39.0 | 46.0 | 15.0 |
| | Mean | | | | | 2.15 | 2.38 | 1.95 | 1.90 | 51.7 | 36.0 | 13.0 |
| Happy Valley | Gilman | 65 Natoma | Early 1870s | Skilled Laborer | $3,430 | 1.50 | 1.50 | 1.47 | 1.71 | 23.0 | 59.0 | 18.0 |
| | Robison | 34/43 Minna | 1860s-1870s | Skilled Laborer | -- | 1.58 | 1.33 | 1.75 | 2.54 | 25.0 | 65.0 | 10.0 |
| | Powers | 57 Natoma | Early 1870s | Semiskilled Laborer | $300 | 2.02 | 2.22 | 1.82 | 1.79 | 16.4 | 67.3 | 16.2 |
| | Murphy | 63 Minna | 1870s | Unskilled Laborer | $6,500 | 1.77 | 2.67 | 1.23 | -- | 25.0 | 42.0 | 33.0 |
| | Mean | | | | | 1.72 | 1.93 | 1.57 | 2.17 | 22.4 | 58.3 | 19.2 |
| Mission Bay | Gee | 123 Perry | ca. 1868 | Professional | $7,000 | 1.41 | 1.21 | 1.70 | 1.17 | 50.0 | 43.0 | 7.0 |
| | Baker | 108 Silver | ca. 1872 | Professional | $7,000 | 1.14 | 1.16 | 1.13 | 1.16 | 40.0 | 51.0 | 9.0 |
| | Aaron | 131 Perry | ca. 1875 | Skilled Laborer | $8,500 | 1.47 | 1.87 | 1.26 | -- | -- | -- | -- |
| | Strauss | 115 Perry | ca. 1872 | Skilled Laborer | $600 | 1.25 | 1.10 | 1.33 | -- | 57.0 | 36.0 | 7.0 |
| | Mean | | | | | 1.32 | 1.34 | 1.36 | 1.17 | 49.0 | 43.3 | 7.7 |
| Tar Flats | Scales | 240 Fremont | ca. 1874 | Professional | $2,700 | 1.66 | 1.83 | 1.40 | -- | 32.0 | 47.0 | 20.0 |
| | McEvoy | 414 Folsom | ca. 1868 | Skilled Laborer | $1,000 | 1.23 | 1.37 | 1.09 | -- | 43.0 | 33.0 | 23.0 |
| | Clark | 7 Baldwin | ca. 1868 | Skilled Laborer | -- | 1.31 | 1.02 | 1.38 | 1.91 | 59.0 | 32.0 | 9.0 |
| | Taylor | 412 Folsom | ca. 1868 | Semiskilled Laborer | $4,100 | 1.51 | 1.52 | 1.49 | 1.72 | 21.0 | 37.0 | 42.0 |
| | Brown | 13 Baldwin | ca. 1870 | Unskilled Laborer | -- | 1.56 | 1.84 | 1.43 | 1.10 | 15.0 | 50.0 | 35.0 |
| | McSheffrey | 9 Baldwin | Early 1870s | Unskilled Laborer | -- | 1.40 | 1.48 | 1.26 | -- | 22.0 | 23.0 | 55.0 |
| | Mean | | | | | 1.45 | 1.51 | 1.34 | 1.58 | 32.0 | 37.0 | 30.7 |

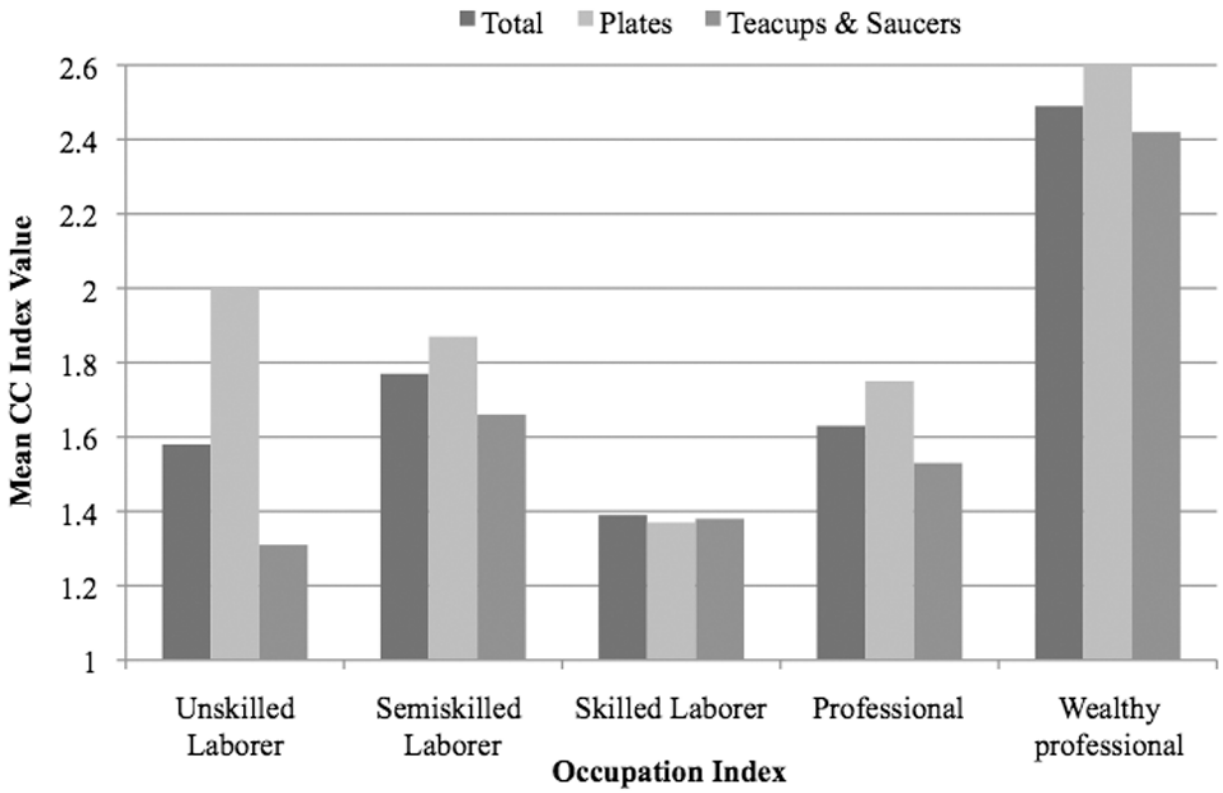


*Figure 2: Mean CC index values, by occupation index.*

*Table 2: Distribution of ware type for food preparation and consumption vessels, by occupation index.*

| Ware Type | Unskilled Laborer | Semiskilled Laborer | Skilled Laborer | Professional | Wealthy professional |
|---|---|---|---|---|---|
| Porcelain | 18.1 | 18.1 | 7.0 | 36.3 | 53.7 |
| Chinese/Japanese Porcelain | 1.8 | 1.7 | 0.8 | 3.4 | 2.2 |
| Opaque Porcelain | 13.1 | 38.2 | 23.8 | 6.9 | 5.4 |
| White Improved Earthenware | 63.5 | 39.6 | 62.9 | 46.1 | 35.4 |
| Earthenware | 1.4 | 0.7 | 1.6 | 1.2 | 1.1 |
| Yellowware | 2.1 | 1.7 | 3.9 | 6.2 | 2.2 |

improved earthenware; however, these households probably did not earn enough to buy large quantities of porcelain.

Finally, all occupation classes purchased Chinese porcelain, though wealthy professionals (2.2 percent) and professionals (3.4 percent) owned higher proportions of exotic porcelains than skilled (0.8 percent), semiskilled (1.7 percent), and unskilled workers (1.8 percent). Although Chinese wares were exotic curiosities, the prevalence of these vessels indicates that they were not expensive. Unfortunately, Miller does not provide any data on the cost of late-nineteenth-century ceramics imported from Asia.

Studies of the faunal material from the San Francisco-Oakland Bay Bridge West Approach Project found that occupation rank corresponds to the quality of meat consumed by a household as defined by the relative value of meat cuts (Praetzellis and Praetzellis 2009:318). Unfortunately, meat cut

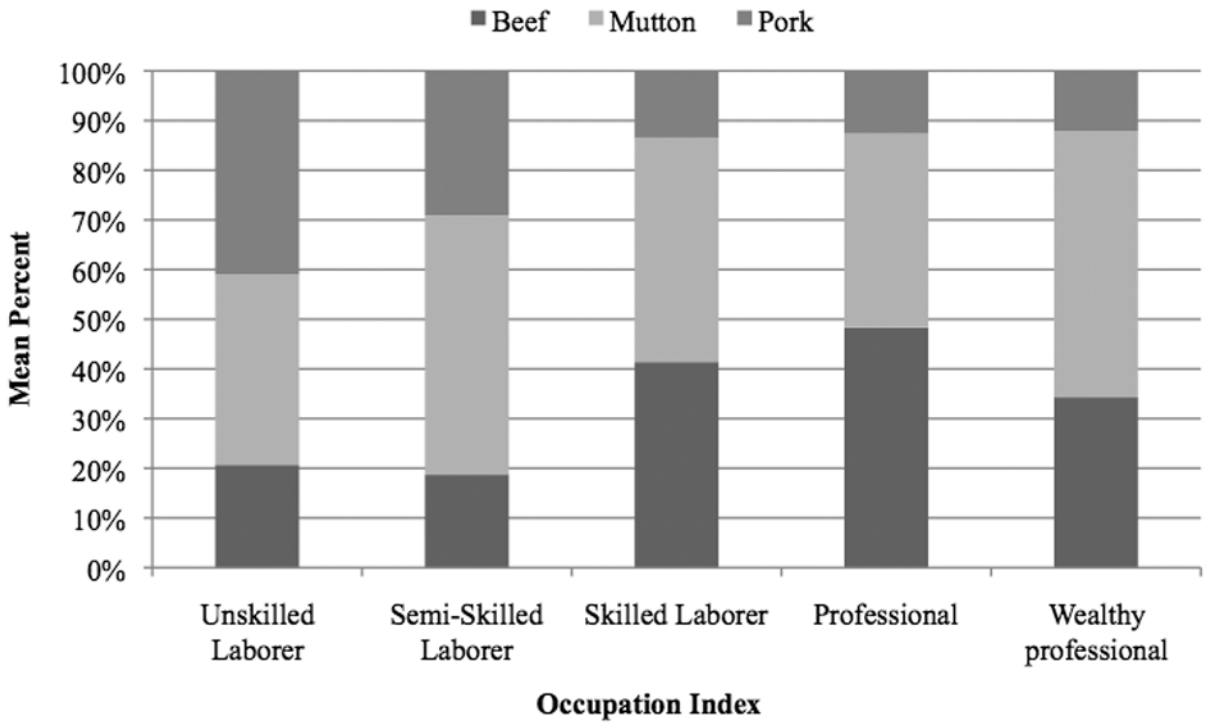


*Figure 3: Mean percent of major butchered mammal bone (NISP), by occupation index.*

data were unavailable for the assemblages from 525 Folsom and the Happy Valley privies; nevertheless, the Praetzellises' previous studies demonstrate that the number of identifiable specimens (NISP) provides a general impression of a household's diet, which contributes to a coarse understanding of the socioeconomic status of a household (Branstner and Martin 1987:302; Garrow 1987:223; Mudar 1978). This study employs percentages of three major meat mammals—beef, mutton, and pork—in order to draw comparisons between the assemblages analyzed by the ASC and WSA.

The Praetzellises' paradigm states that persons with high occupation class tend to consume more beef and mutton, and less pork. The inverse applies at the lower castes of the occupation index, which tend to consume more pork and less beef and mutton. Within the collections recovered by WSA, the percentage of major butchered mammal remains according to occupation index should conform to this model (Figure 3). The recent assemblages support this assertion, because wealthy professionals, professionals, and skilled laborers possessed and discarded higher quantities of beef (35-50 percent) and the smallest amounts of pork (12-14 percent). The converse is also apparent, because unskilled and semiskilled workers consumed the least beef (18-21 percent) and the most pork (30-41 percent) of any occupation class.

The mutton data did not fit the prediction, because, while wealthy professionals had the highest percentage of specimens (53.6 percent), semiskilled workers discarded an equivalent amount (52.2 percent) of sheep. Unskilled laborers and professionals also had unexpectedly comparable percentages of sheep (38-39 percent). Consumption profiles of percentages of meat do not entirely conform to expectations; the percentages of beef and pork are reliable factors in predicting relative social class, while the connection between high status occupation and increased mutton consumption was not validated.

**Wealth**

In general, an individual's occupation controls income, which ultimately affects the purchasing power of a household. Thus, wealthy families are expected to have owned and discarded the most

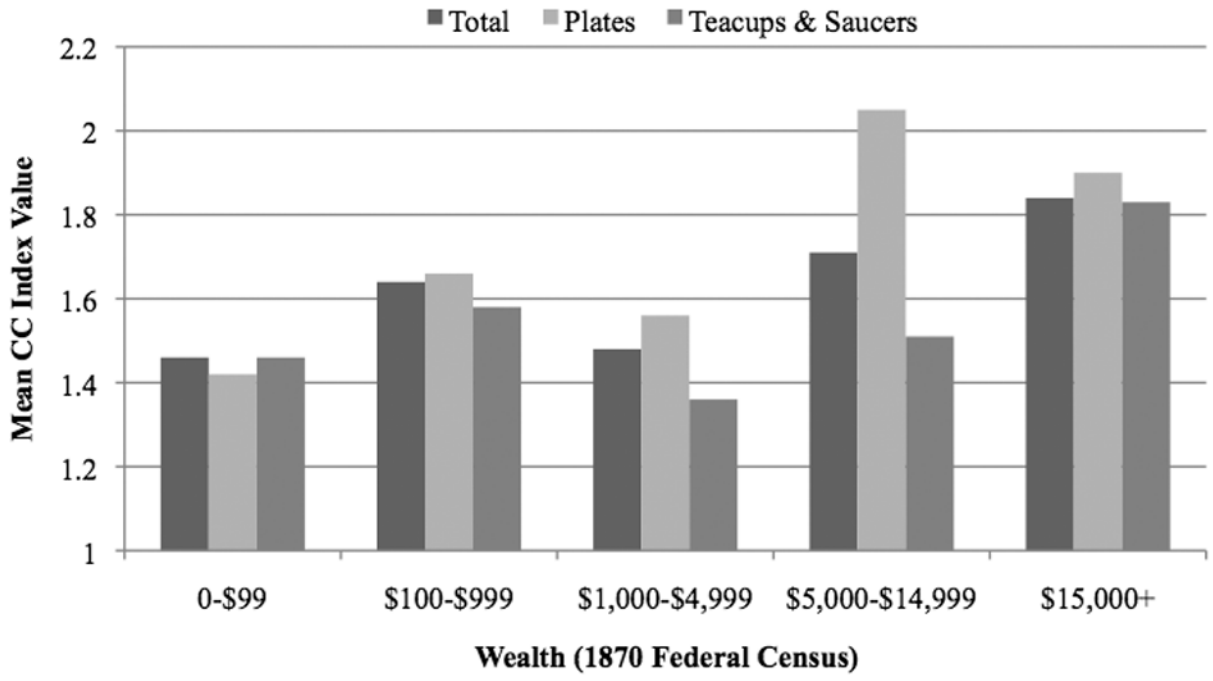


*Figure 4: Mean CC index value, by wealth in dollars.*

expensive vessels, and poorer households should have deposited lower priced vessels. Wealth was estimated based on the amount of real estate and personal property owned by all the residents of a household as recorded in the 1870 Federal Census. Households were divided into five capital brackets that captured the diversity of wealth represented in the South of Market neighborhoods.

Ceramic index values were calculated based on wealth categories to test the assumption stated above. Figure 4 displays a positive relationship between the total mean CC index value and the amount of wealth possessed by affluence class, with the exception of the $100-$999 group. The households on the upper end of the spectrum owned and discarded ceramic vessels that cost approximately 75 percent more than those of households with less than $100 to their name. The posited positive distribution of teacup indices is confounded, which may be interpreted as the two classes between $1,000 and $14,999 in wealth having consumed less-costly teacups than would be expected and/or those with less than $1,000 in property having purchased ceramics that outstripped the households' actual assets. The former may be a more accurate interpretation, because the $100-$999 group's teacup value is incongruous with their plate value, whereas the lower-income groups display a more consistent pattern of consumption. The devaluation of teacups consumed by households with middle to upper amounts of property may be due to the fact that these classes could have invested more wealth into other forms of status display, such as living in a tonier neighborhood; consideration of additional factors is beyond the scope of this article.

Another perplexing trait of the data in Figure 4 is the extremely high CC index value of plates owned by the $5,000-$14,999 group. This abnormality is explicated when the income class is broken down on the household level. James Madden was employed as a postal clerk, a career of low status within the professional occupation index, and owned a modest $12,000 in property. James Madden was employed as a postal clerk, a career of low status within the professional occupation index, and owned a modest $12,000 in property. However, the ceramic assemblage from his family's privy had the highest total mean CC index value of any household. The Madden family discarded very costly painted porcelain and opaque porcelain plates that resulted in an index value of 3.34, which is 75 percent higher than the second most expensive plate value (2.6) of the Peel family.

*Table 3: Ware type distribution for all food consumption and preparation vessels, by household wealth.*

| | HOUSEHOLD WEALTH | | | | |
|---|---|---|---|---|---|
| **WARE TYPE** | **0-$99** | **$100-$999** | **$1,000-$4,999** | **$5,000-$14,999** | **$15,000+** |
| Porcelain | 12.0 | 10.4 | 17.5 | 37.4 | 45.9 |
| Chinese/Japanese Porcelain | 0.8 | 2.7 | 0.6 | 3.7 | 1.8 |
| Opaque Porcelain | 13.6 | 57.5 | 16.9 | 8.1 | 5.5 |
| White Improved Earthenware | 70.0 | 27.8 | 60.6 | 43.2 | 43.1 |
| Earthenware | 2.0 | -- | 1.1 | 1.4 | 0.9 |
| Yellowware | 1.6 | 1.6 | 3.3 | 6.2 | 2.8 |

The contradiction between James Madden's occupation class and ceramics is illuminated by his familial history. In Sacramento, Jerome and John Madden were important public figures that were well-off. The 1860 Federal Census list Jerome as the Country Clerk with $5,000 in real estate and $1,000 of personal property to his name, while John worked as his brother's deputy (Cutter 1859:75, 96). Although James had held distinguished municipal positions, such as a Deputy City Assessor, in the past, by 1860 he was working as a grocer and owned no property (Cutter 1859:75, 96; Sacramento Daily Union, 23 December 1857). In 1862, John died, and Jerome and James split his estate, and in 1864 James moved to San Francisco to work for the post office (Langley 1864). Thus, the extremely high CC index value of the Maddens' discarded ceramics indicates that household was purchasing and displaying, as Paul Farnsworth asserts, "a level of wealth and social status associated more with James' inheritance, as well as his family and political connections, than his occupation" (William Self Associates 2013:127). If the Madden family is removed from the $5,000-$14,999 wealth bracket, then the mean plate index would be 1.73, which is consistent with the expected relative worth of the group.

The consumer choices of low and moderate-income households were limited by the affordability of certain ware types and decorations. Households with less than $1,000 in property are expected to have lower CC index values than the $1,000-$4,999 group; however, the data from analyzed collections displays the opposite pattern. Either the average CC index values of the wealthier group are unexpectedly low or those households with minor assets consumed ceramics above their means, or both.

The distribution of ware type of all food preparation and consumption vessels by wealth rankings reveals a strong correlation between large proportions of porcelain and family affluence (Table 3). There are two modes of general porcelain consumption wherein households worth $5,000 or more consumed approximately 40 percent porcelain, while households with less property owned between 12 and 17 percent porcelain. Opaque porcelain has an inverse relationship wherein those with less than $5,000 discarded about 13 percent and the wealthier classes only deposited between 5 and 8.1 percent. With the exception of the $100-$999 household rank that is skewed by the extremely high proportion of opaque porcelain (57.5 percent), white improved earthenware is most common in the privies of the poor. This pattern is especially apparent at opposite ends of the wealth spectrum, because 0-$99 households discarded 70 percent white improved earthenware and houses with $15,000 or more only discarded 43.1 percent white improved earthenware. Again, Chinese and Japanese ware types are irregularly distributed throughout all households.

The distribution of beef, mutton, and pork roughly corresponds with the Praetzellises' predictions for the most and least wealthy brackets (Figure 5). Households with $15,000 or more in property ate the largest proportion of beef (58 percent) and a small amount of pork (12 percent), while the 0-$99 class ate the most pork (27.3 percent) and a lower proportion of beef (30.3 percent). Unexpectedly, the wealthiest

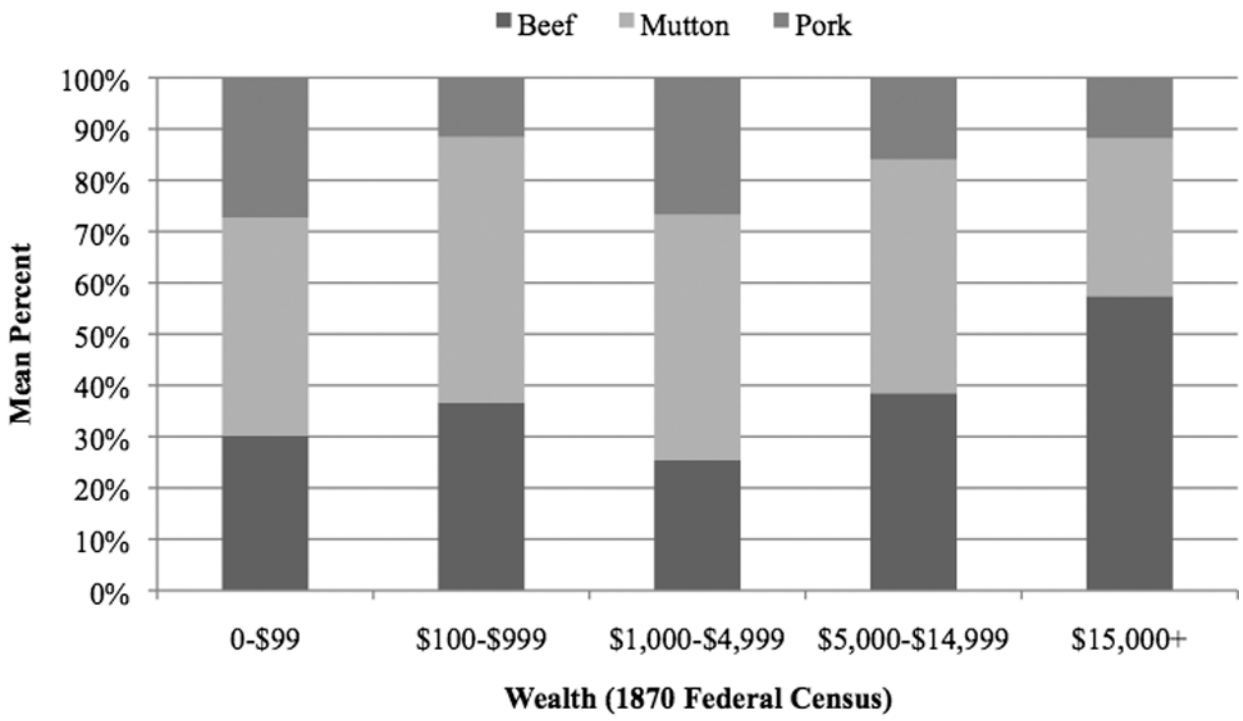


*Figure 5: Mean percent of major butchered mammal bone, by wealth in dollars.*

group consumed the least amount of mutton, though this may be skewed because of the overwhelming quantity of beef. Again, the relative quantities of beef and pork correlate to predicted consumption profiles associated with the poor and the very wealthy. However, the Praetzellis model was not verified for households that possessed middle-range wealth.

**Neighborhoods**

Household consumption patterns are greatly influenced by the surrounding neighborhood, because not only do the occupants tend to be of the same social stratum, but individuals also have the same selection of goods from which to choose at local markets (Branstner and Martin 1987:301; Henry 1987:360). The spatial distribution of socioeconomic status between households in South of Market can be examined through the analysis of ceramic indices, vessel wares, and relative proportions of beef, mutton, and pork. Neighborhood CC index values were calculated by averaging the indices from households associated with Rincon Hill, Happy Valley, Mission Bay, and the Tar Flats. The residents of Rincon Hill have the highest mean value of ceramics (2.15), followed by Happy Valley (1.72); however what was unexpected was that the Tar Flats residents have more valuable ceramics (1.45) than the Mission Bay households (1.32).

The discovery of the Comstock Lode in 1859 led to real estate investment that resulted in Rincon Hill becoming one the most fashionable and prestigious neighborhoods in San Francisco. Thus, an index value almost 50 percent higher than that for Happy Valley is not unexpected. However, the high cost of Rincon Hill ceramics is derived less from expensive decoration type and more from prices based on ware type. For example, in 1870, a plain porcelain teacup was more expensive than a painted white improved earthenware teacup of the same form (Miller 1991:5). The contents of the excavated features captured a unique period of transition in the character of the neighborhood. In 1869, the Second Street Cut put a 100-ft.-deep gash in the prominence that significantly dropped property values and prompted the elite

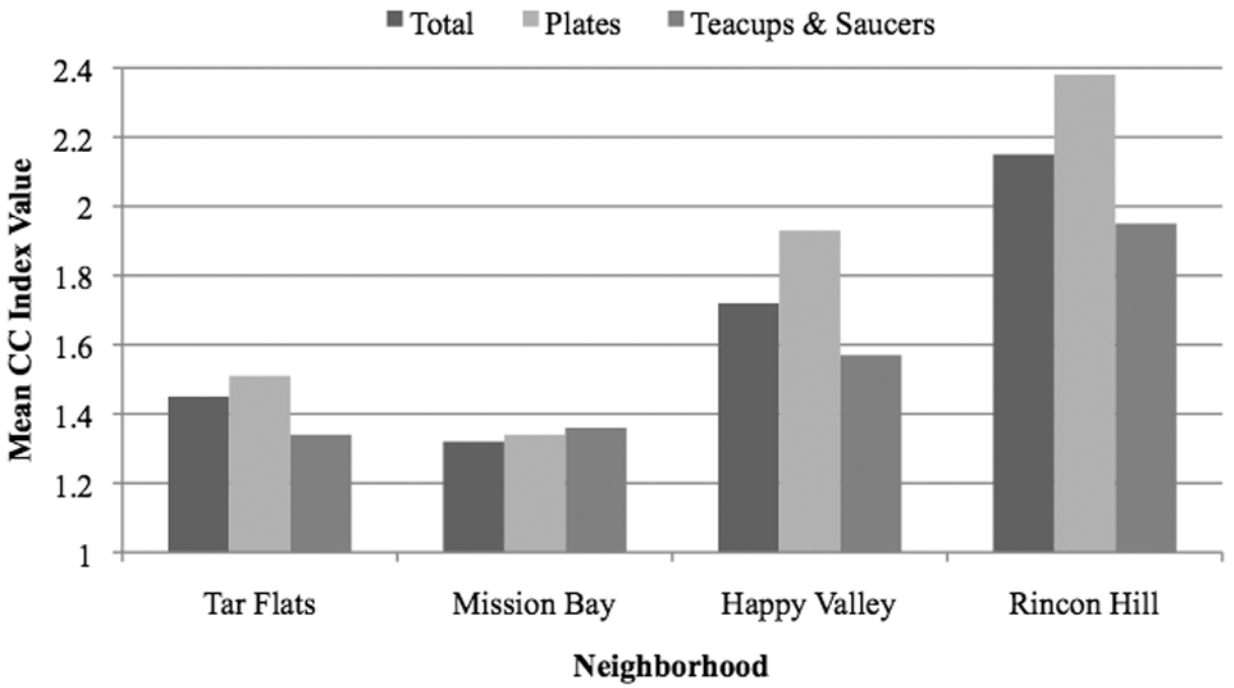


*Figure 6: Mean CC index values, by neighborhood.*

residents to move to Nob Hill, a neighborhood recently made accessible by the installation of cable cars in 1873 (Praetzellis and Praetzellis 1992:2-32).

After the Gold Rush, Happy Valley developed into a residential neighborhood that housed a wide range of individuals and families. Plat maps indicate that houses in Happy Valley were more modest and less spacious than those around the base of Rincon Hill (Humphreys et al. 1876). During the 1860s, judges, merchants, machinists, financial investors, and business owners occupied the simple two-story houses south of Mission Street. The diversity of the neighborhood is illustrated by the fact that skilled craftsmen who worked in the nearby Tar Flats metal industries lived next door to the owners of those companies (Praetzellis 2007b:36). CC index values of 1.93 for the plates and 1.57 for teacups and saucers indicate that residents of Happy Valley consumed and discarded relatively costly goods. Thus, the archaeological evidence indicates the neighborhood's moderate level of affluence and prosperity.

The marshland around Mission Bay was quickly developed during the 1860s, and by the end of the decade, Silver and Perry streets were filled with small two-story houses and shops. A mixture of moderately affluent skilled workers and professionals occupied homes adjacent to Third Street, where the ground was above sea level (Praetzellis and Praetzellis 1992:3-155, 2009:100). The Mission Bay households discarded ceramics yielding a surprisingly low total mean CC index value of 1.32, which is 40 percent less than the Happy Valley average index (Figure 6). Mission Bay residents' occupations were distinctly nautical in nature, which may provide an explanation for the anomaly between high occupation index and low ceramic index. Perhaps individuals like master mariner Fredrick Gee at 123 Perry Street were often absent from home and thus invested little interest or income in expensive display goods. However this rationalization does not necessarily explain why the Mission Bay neighborhood has a slightly lower overall index value than the Tar Flats. The current data conflict with the Praetzellises' (2009:386) status ranking of neighborhoods by ceramic variables that placed Mission Bay below Rincon Hill but well above the Tar Flats.

The Tar Flats neighborhood was not only the epicenter of industrial activity in San Francisco, but was crowded with the residences of craftsmen and laborers who worked in the adjacent foundries.

*Table 4: Ware type distribution for all food preparation and consumption vessels, by neighborhood.*

| WARE TYPE | TAR FLATS | MISSION BAY | HAPPY VALLEY | RINCON HILL |
|---|---|---|---|---|
| Porcelain | 16.9 | 9.1 | 15 | 52.7 |
| Chinese/Japanese Porcelain | 0.8 | 1.6 | 2.2 | 3.6 |
| Opaque Porcelain | 9.2 | 6.7 | 40.8 | 6.7 |
| White Improved Earthenware | 69.7 | 79.0 | 37.7 | 29.9 |
| Earthenware | 1.7 | 1.2 | 0.7 | 0.9 |
| Yellowware | 1.7 | 2.4 | 3.6 | 6.2 |

Although the most skilled workers lived in the adjoining Happy Valley neighborhood, professionals occupied portions of Folsom and Fremont streets. Baldwin Court, nestled behind the Miner's Foundry, was home to skilled, semiskilled, and unskilled laborers (Praetzellis and Praetzellis 2009:54-55). Although the neighborhood would have been noisy and polluted, families like the McEvoys, Browns, and McSheffreys resided in Baldwin Court for more than a decade.

The six Tar Flats privies yielded a total mean CC index value of 1.45, which was unexpectedly higher than that of Mission Bay. This incongruity may be elucidated by the fact that populace of the neighborhood were paid quite well in comparison to national standards because of the high demand for skilled workers to supply the rapidly growing, isolated metal-working commerce. Salaries remained high until the completion of the transcontinental railroad in 1869, which prompted a flood of cheap labor and goods from the East Coast (Praetzellis and Praetzellis 1992:2-37, 2009:50). In addition, Tar Flats residents may have paid less in mortgage or rent because of the small square footage of their homes in comparison to houses in the other neighborhoods considered in this paper. Hence, these households could have dedicated more purchasing power to the consumption of goods like ceramics.

An examination of food preparation and consumption vessel wares by neighborhood provides fine-grained data on the spatial division of socioeconomic status in South of Market (Table 4). Rincon Hill households consumed and discarded three times the proportion of porcelain as in any other neighborhood. White improved earthenware is most represented in Tar Flats (69.7 percent) and Mission Bay (79 percent) households, with relatively less in Happy Valley (37.7 percent) and Rincon Hill (29.9 percent). The proportion of opaque porcelain is comparable, around 7-10 percent for all neighborhoods except Happy Valley (40.8 percent), which is abnormally high because of the anomalous Powers household that discarded 62 percent opaque porcelain. Although the consumption and discard profile of Rincon Hill households is very distinct from the other neighborhoods, Happy Valley, Mission Bay, and the Tar Flats do not boast discrete consumption and discard profiles. Thus, it may be possible to predict relative social status of households based on percentages of ware, but only within general terms.

The surprisingly high total mean index value and proportion of porcelain recovered from Tar Flats residences may be attributed to second-hand consumption. Rincon Hill households may have sold their out-of-fashion or slightly worn porcelain vessels to second-hand stores, where the vessels could have been purchased by the inhabitants of nearby Happy Valley and the Tar Flats (Praetzellis and Praetzellis 2009:385). Although Mission Bay residents had higher occupation ranks and more property on average than the latter neighborhoods, they possessed less costly ceramics and less porcelain. Perhaps these better-off households chose to purchase larger quantities of new white improved earthenware than could be afforded by households with less means (Praetzellis and Praetzellis 2009:396-397).

The inhabitants of Rincon Hill and Mission Bay had similar consumption and discard profiles for beef, mutton, and pork (Figure 7). Rincon Hill and Mission Bay households ate and disposed of the highest percentage of beef (51 and 49 percent, respectively) and the lowest amounts of pork (13 and 7.7 percent, respectively). Happy Valley and the Tar Flats have similar consumption and discard profiles, which are converse to Rincon Hill and Mission Bay. The relationship between high socioeconomic status

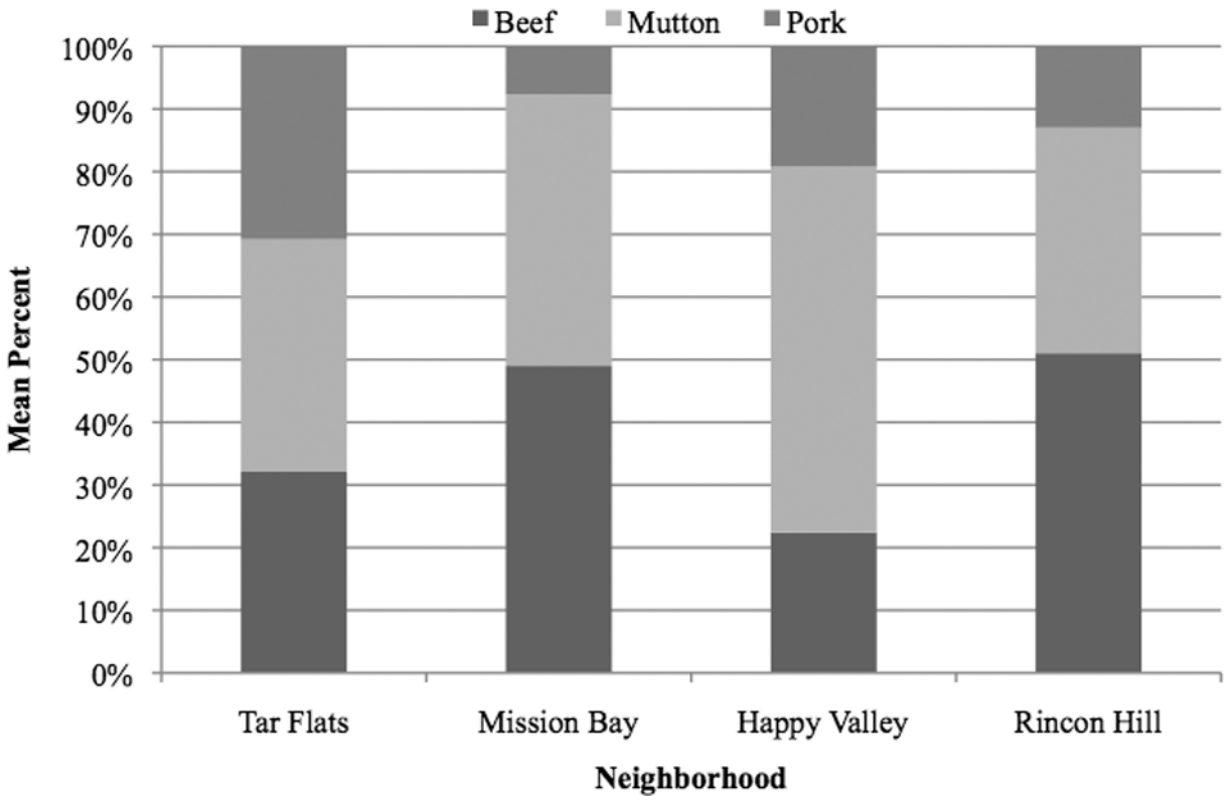


*Figure 7: Mean percent of major butchered mammal bone (NISP), by neighborhood.*

and higher beef and less pork consumption and vice versa may apply to the extremes of the socioeconomic gamut.

## CONCLUSION

The results of this study were concordant with the findings from the San Francisco-Oakland Bay Bridge West Approach Project. Analysis of ceramic ware types by occupation index, wealth ranks, and neighborhood indicates that households with the highest socioeconomic status (wealthy professionals, $15,000 or more in wealth, and Rincon Hill residents) had a higher proportion of porcelain than any other group. Analysis of ceramic ware types by occupation, wealth, and neighborhood indicates that households with the highest socioeconomic status (wealthy professionals, $15,000 or more in property, and Rincon Hill residents) had the greatest proportion of porcelain of any group. All three analytical models suggest significant differences between households on opposite ends of the socioeconomic spectrum (wealthy professional vs. unskilled laborers, less than $100 in property vs. $15,000 or more in wealth, and Rincon Hill vs. Tar Flats); however the relationships between middle class households are less straightforward.

The distribution of beef, mutton, and pork remains within the household artifact assemblages was also in concordance with the ASC's conclusions. Households at the apex of the neighborhood, profession, and wealth socioeconomic hierarchies ate higher proportions of beef than lower- ranked households. The households on the bottom of all three of the socioeconomic measurements, such as the Tar Flats, unskilled laborers, and property less than $100, consistently consumed higher percentages of pork than any other group. No patterns of mutton consumption were apparent between households of differing locations, means, or professions.

Analysis of household ceramic CC index values confirms a general positive correlation between greater economic investment in tableware and high wealth, occupation, and neighborhood rankings. Across the board, households with the most expensive plates, teacups, saucers, and bowls had similar patterns of consumption, which drastically differed from the lowest-ranking households. The unexpectedly high value of ceramic vessels discarded by households located in the Tar Flats, inhabited by unskilled or semiskilled workers, or in possession of less than $1,000 in property, may indicate that these individuals engaged in second-hand consumption of piecemeal goods. The low index values of the ceramic collections from Mission Bay residents, skill laborers, and households with $1,000-$4,999 in possessions could suggest that these individuals spurned recycled vessels, instead choosing to purchase greater amounts or sets of new white improved earthenware and opaque porcelain.

Overall, converging lines of evidence unequivocally demonstrate that no single variable serves as an accurate proxy for socioeconomic status. Nevertheless, of the three social scales examined in this paper, the level of household wealth reported in historical documents corresponds strongly with archaeologically verified patterns indicative of high socioeconomic status, such as increased consumption of beef and expensive porcelain tableware.

Future researchers should pursue multiple lines of evidence in order to disentangle the complex variables involved in socioeconomic status. Additional studies from different periods within South of Market, such as the post-Gold Rush period, the late nineteenth to the early twentieth century, and the post-1906 earthquake period would provide important insights into the dynamic nature of socioeconomic status in a rapidly changing urban landscape.

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