

Chapter 6. Interpretations and Conclusions

The artifacts used by these 18 households reflect a variety of health and hygiene strategies. This section describes and characterizes the SFWBA and Cypress collections using health-specific classifications developed for this thesis. Most artifacts fall into the medicine, hair, scented, miscellaneous medicines, teeth, and uncertain classifications. Total MNI counts, excluding faunal, flora, industrial, clothing, and unidentified categories, ranged from 100 to 695 items per household. Most of the higher MNI counts came from the SFWBA collections. Terminus post quem dates (TPQ), referring to the earliest possible deposition date based on the latest marked artifact, range from 1869 to 1902. Deposition dates of individual collections range from the early 1870s to approximately 1906 (Table 2). The following section provides brief summaries of the grooming and health artifacts by their functional group as a health, hygiene and indefinite product. Research question findings and their interpretations will follow. The complete classified grooming and health artifact catalog can be found in Appendix B.

Health

A minimum of 338 health-related items are present in these 18 household collections. The MNI of individual collections range from 2 to 44. The most plentiful artifacts are pharmaceutical bottles, vials, pain relievers, ampules (sealed glass vials of medicine intended for injection), unknown treatments, and lung or consumptive cures. The most evenly distributed items throughout all the households are pharmaceutical bottles, vials, and pain relievers.

Table 2. Overview of Feature Dates and MNI.

Neighborhood	TPQ Date	Deposit Date	Feature	Total MNI*	GH	% GH of Total
Oakland						
	1902	ca. 1906	Well 1703 & Pits 1704, 1705, 1706	234	41	18%
	1896	ca. 1900	Pits 2870, 2880, & 2800	314	29	9%
	1889	early 1890s	Privies 4236 & 4237	226	51	23%
	1883	ca. 1884	Pit 1753	100	23	23%
	1880	early 1880s	Privies 933 & 1112	274	23	8%
	1880	ca. 1880	Privy 2822	316	50	16%
	1880	1880s	Privy 3185	173	27	16%
	1879	ca. 1882	Privy 156	255	20	8%
	1877	ca. 1885	Privy 900	517	48	9%
	1869	early 1870s	Privy 4714	238	47	20%
				2647	359	15%
San Francisco						
	1895	1896	Well 6	632	80	13%
	1880	1880	Privy 806	695	107	15%
	1879	mid-late 1880s	Well 8	277	31	11%
	1878	ca. 1880	Privy 1303	113	25	22%
	1877	ca. 1880	Privy 1318	394	52	13%
	1872	late 1860 early 1870	Well 853	639	67	10%
	1871	late 1870s	Privy 813	158	26	16%
	1871	early 1870s	Privy 507	555	98	18%
				3463	486	15%

* Does not include Faunal, Floral, Structural, Undefined or Clothing categories.

When comparing the two neighborhood collections, several discrepancies emerge. The Oakland collection has twice the medicine MNI and a slightly higher miscellaneous medicine MNI than the San Francisco neighborhood. Most of this is reflected in larger amounts of patent medicines directed toward widespread ailments, such as digestion &

stomach, female medication, lung/consumption, pain relievers, skin, and unknown medications. On the other hand, the amount of pharmaceutical medicine is an identical 48 MNI for both collections. Comparing the sheer numbers of medicines and other health treatments, it appears that people living in Oakland were more concerned with disease, especially lung diseases, such as consumption (Table 3).

Table 3. Medicinal Treatments by Neighborhood.

Artifact Type	San Francisco	% of Total	Oakland	% of Total
ague	1	1%	2	1%
anti-disease	0	0%	1	1%
blood purifier	1	1%	1	1%
complexion	1	1%	1	1%
cure all	6	7%	10	6%
digestion & stomach	1	1%	8	5%
eye	0	0%	1	1%
female med	0	0%	4	2%
head ache	2	2%	1	1%
headache & digestive	5	5%	7	4%
infant med	1	1%	0	0%
kidney & liver	2	2%	6	3%
laxative	3	3%	7	4%
lung & stomach	2	2%	1	1%
lung/consumption	2	2%	19	11%
pain relief	9	10%	23	13%
pharmaceutical	48	53%	48	28%
skin	2	2%	13	7%
unknown med	3	3%	18	10%
vitamin	1	1%	3	2%
worm	1	1%	0	0%
Total	91		174	

Another conflict of note is the presence of 29 ampules in one Oakland household. This is unusual because, while the assemblage includes the artifacts of 18 homes, every single ampule was found at 822 Linden. Here, a woman resided who eventually

succumbed to ovarian cancer. On the other hand, the San Francisco neighborhood had no ampules but twice as many syringes as the Oakland community.

Despite the differences between the two neighborhoods, health items are found at all 18 households, reflecting the consistent presence or concern for disease during the late 19th century.

Grooming/Hygiene

A minimum of 306 grooming and hygiene items are present in this assemblage. The MNI of individual collections range from 3 to 50. The most common are hair, sanitation, scented and tooth-related products. Hair and sanitation products are found in all collections, while scented and teeth related items are found in many, although not all, households.

While tooth products are equally present in the SFWBA and Cypress collections, the San Francisco neighborhood contains significantly more hair products, accounting to over three times the amount found in Oakland (Table 4). One possible reason for this discrepancy is the comparative lack of fresh water available in the San Francisco peninsula when compared to the mainland. As discussed in Chapter 3, water was scarce in San Francisco into the late 1800s, which would have made bathing a luxury. The higher numbers of combs, hair pins, and delousing medications may have been used to combat the consequences of rare bathing for this city. Other artifact types support this theory as well. The San Francisco neighborhood has a slightly higher percentage of perfume than Oakland. In sanitation, Oakland has almost double the amount of pitcher and basins as San Francisco, reflecting residents' higher use of water to wash and bathe.

On the other hand, the San Francisco neighborhood has more than three times the amount of chamber pots discarded, reflecting a later, or less reliable, connection to water and sewer systems.

Table 4. Differentiation in Bathing and Hair-Related Artifacts by Neighborhood.

Artifact Group	% of GH Oakland		% of GH San Fran	
	Total	Total	Total	Total
chamber pot	6	7%	22	10%
comb	10	12%	42	19%
delouse	0	0%	4	2%
hair pin	2	2%	20	9%
hair tonic	8	10%	14	6%
hairbrush	3	4%	5	2%
pitcher and/or basin	12	14%	7	3%
scented	22	26%	69	31%
soap-dish	1	1%	4	2%

Indefinite

A minimum of 201 items of indefinite function are present in the assemblage. The MNI of individual collections range from 2 to 45. The most common items are bottles with unknown contents and other products lacking positive identification, such as miscellaneous bottle stoppers and fragmentary items.

The San Francisco collection contains more than three times the unknown bottles as the Oakland collection, possibly making up for its relative lack of items in the medicine category (Table 5).

Table 5. Medicine and Unknown Bottle MNI by Neighborhood.

Neighborhood	Medicine	Unknown Bottle
Oakland	174	41
San Francisco	91	130

Research Question Findings

The following describes the findings and interpretations to the thesis research questions presented in Chapter 5. A discussion of project limitations and conclusions follows.

Household Type vs. Life Course Stage

****Question:** Are there significant differences between the health and hygiene consumer choices of nuclear, extended, and augmented households?

This study's 18 homes include 9 nuclear, 5 extended, 3 augmented and 1 extended/augmented household. Several patterns emerge by comparing the artifact groups' average MNI (Table 6). *Dental* products remain the most consistent and evenly distributed of the three categories of artifacts. Both nuclear and extended households have an average of 1.5 products per household, while this average jumps to 2.5 for augmented homes. Nevertheless, the average number of oral hygiene products per person is approximately 0.3 products, with augmented households maintaining the highest average (Table 7). This low percentage of dental products per person may reflect a certain amount of sharing, possibly of toothbrushes. Lodgers may have obtained their own tooth-related products, since the amount of these items rises slightly for augmented homes, but their presence is only marginally higher than that of nuclear and extended, suggesting sharing was still practiced.

Table 6. Average MNI of Artifact Groups According to Household Type.

Household Type	Hair	Teeth	Medicine
augmented	8.33	2.67	10.67
extended	3.60	1.60	15.00
nuclear	7.44	1.56	17.00

Table 7. Average MNI per Person According to Household Type.

Household Type	Hair	Teeth	Medicine
augmented	1.07	0.38	1.67
extended	0.65	0.23	2.57
nuclear	1.97	0.36	3.01

Conversely, the hair and medicine artifacts vary more between household types. In *medicine*, the number of products per person is 3 for nuclear homes and drops to 2.5 for extended and 1.5 for augmented homes. This may reflect nuclear households' relative insecurity, especially if the number of workers to dependents is low, which would increase the potential economic losses if one of the principle wage earner fell ill. Within this sample, most nuclear households have 50% or fewer of wage earners, making these individuals' earnings all the more important (Table 8).

Nuclear households also differ from other household types in the number of *hair* products consumed. They have almost double that of the other home types, suggesting that nuclear homes made a greater investment in their household members' personal appearance, or simply had better incomes to support such decisions. Indeed, a survey of occupational status, based on Ethington's scale (1994:421-423), which classifies status by occupation ranging from 1 to 5 with 1 as the highest (Table III of Appendix A), shows that the nuclear households in this sample have a slightly higher average status than the other household types (Table 9).

Statistical analysis of the household types revealed patterns contrary to the previously stated expectations. The most widely varied artifact collections are between nuclear households, rather than between the augmented homes (Table 10). Augmented homes were, in fact, the closest to a normal range of variance. This unexpected outcome

Table 8. Percent of Wage Earners by Household.

Feature	Household Type	% Wage Earners
Well 6	augmented	89%
Privy 156	augmented	40%
Privies 933 & 1112	augmented	33%
Privy 3185	extended	33%
Well 8	extended	14%
Pits 2870, 2880, & 2800	extended	30%
Privy 900	extended	43%
Pit 1753	extended	25%
Privy 813	extended & augmented	77%
Privy 806	nuclear	38%
Well 853	nuclear	20%
Privy 1318	nuclear	29%
Privies 4236 & 4237	nuclear	67%
Privy 1303	nuclear	75%
Privy 4714	nuclear	20%
Privy 2822	nuclear	50%
Privy 507	nuclear	50%
Well 1703 & Pits 1704, 1705, 1706	nuclear	63%

Table 9. Household Status*, Averaged by Household Type.

Household Type	Occupational
nuclear	2.87
augmented	3.08
extended	3.2

*Source: Ethington 1994:421-423 and Table III.

Table 10. Standard Deviation of Health and Hygiene Artifact Groups.

Household Type	Hair	Teeth	Medicine
augmented	0.90	0.16	0.65
extended	0.51	0.26	1.72
nuclear	3.43	0.47	1.63

may reflect different strategies of individual families. While these differences are striking in nuclear households, they appear less notable in extended and augmented homes because multiple consumer strategies, such as money conserving or specific product focuses, simultaneously occur under one roof to create a more homogenous collection.

****Question:** Are there significant differences between consumer choices of expanding, fission and replacement households?

Of the households studied, 13 are expansion, 2 are fission, and 3 are replacement. Unlike the artifact distribution among household types, there is a pattern to the household life course's artifact averages (Table 11). Generally, as families get older, the number of products used per person increases, possibly reflecting increasing concerns with health and appearance. The most dramatic increase is found in hair products, while oral hygiene products double in the replacement phase. These numbers may reflect residents' increasing concern with hair loss and deteriorating oral health due to the onset of age. Medicine also consistently increases, rising from 2 to 2.8 to 3.5 products per person. Like oral hygiene, this category seems to reflect individuals' increasing vulnerability to disease and death that comes with age, especially in relation to diseases such as cancer, which caused two deaths in this sample's 18 households.

Table 11. Average MNI per Person According to Household Phase.

Household Phase	Hair	Teeth	Medicine
expansion	0.65	0.28	2.23
fission	1.33	0.22	2.89
replacement	4.44	0.50	3.53

The statistical differences based on standard deviation of the household life course reveal more expected figures than those of household type. Homes in the expansion phase adhere more strictly to a normal range of variability than those in the later phases (Table 12). Once again, artifacts within the medicine category vary between households, but hair products differ so wildly from home to home that they have a standard deviation of almost 6. This is well above the norm of 1 and the highest found in this thesis. All other products remain within the normal range of variability, including oral hygiene, which remains remarkably consistent, possibly reflecting an acceptance of oral hygiene as a necessity by this time.

Table 12. Standard Deviation of Health and Hygiene Artifact Groups.

Household Phase	Hair	Teeth	Medicine
expansion	0.53	0.20	1.46
fission	0.94	0.31	2.04
replacement	5.68	0.87	2.08

****Question:** Which is a more accurate predictor of health and hygiene consumption, the household type or life course?

This assemblage indicates that the household type is a more accurate indicator of health and hygiene artifact consumption because it has less artifact variance. This is particularly true for medicine products within the life course which has a standard deviation of almost double that of the household type. Higher variance reflects greater differences in the numbers of artifacts between households. In this case, higher variance means that predicting the household life course from the number of artifacts present would be more difficult than that of household type, which has more consistent artifact numbers from house to house.

However, this difference may be exaggerated because the sample is biased towards one household life course, the expansion phase, while household types are more evenly distributed and fall within the historical distribution of the late 19th century. Once more, the collections may be biased between individual households. For example, specific household strategies, such as focusing on one type of product, may skew the variance of household categories dramatically. This may explain why medicine is the most consistently unpredictable artifact group since some families in this sample faced tragic chronic illness of their members, while others seem relatively healthy. Medicine expenditures also seem to directly affect other groups of health and hygiene products, simply through the different allocation of resources (Table 13).

Table 13. Artifact Group Percentages of Total Grooming and Health MNI.

Feature	Hair	Teeth	Medicine
Privy 1318	17%	4%	2%
Privy 507	22%	3%	8%
Well 6	23%	5%	16%
Privy 813	15%	8%	19%
Well 853	13%	3%	19%
Privy 1303	16%	0%	20%
Privies 4236 & 4237	4%	0%	25%
Well 8	23%	13%	26%
Privies 933 & 1112	15%	2%	36%
Privy 900	8%	6%	46%
Privy 4714	6%	4%	51%
Pits 2870, 2880, & 2800	3%	0%	52%
Well 1703 & Pits 1704, 1705, 1706	0%	0%	54%
Privy 2822	4%	6%	58%
Privy 3185	15%	0%	59%
Privy 156	5%	5%	60%
Pit 1753	9%	4%	61%

Household Sickness-Allocation

****Question:** Do households containing documented disease deaths spend more on medicine than households with no known sick individuals?

Five homes fit into the *disease* category, 8 had no known illness-caused deaths placing them in the *none* category, and 5 qualified for the *potential* category. While these are relatively equal figures, their distribution between the two neighborhoods is markedly different. All 5 homes within the *disease* category are from Oakland. Conversely, San Francisco has a larger proportion of deaths due to unknown causes, almost equaling that of known deaths in the Oakland sample. Thus, Oakland may simply have had a different means of recording cause of death.

For the *disease* and *none* category, standard deviation produced consistently low scores when compared to previous variances (Table 14). The *medicine* category was still the highest, with an almost identical score of 1.5 for both categories. Both oral hygiene and hair products, on the other hand, are within the normal range. Even the average number of artifacts per person is not significantly different between the *diseased* and *none* categories. *Disease* households average about 3 medicine products per person; and the *none* category follows with a comparatively similar 2.5.

Table 14. Standard Deviation by Cause of Death.

Cause of Death	Hair	Teeth	Medicine
disease	0.34	0.26	1.64
none	0.76	0.18	1.87
potential	4.57	0.62	1.17

There are several possible explanations for these similarities. The high percentage of expansion homes may be responsible for the similar medicinal purchases

because they sought to optimally maintain their fewer working members. On the other hand, this similarity also seems to reflect the success of patent medicines in creating an ever-accepting market for their product. As discussed in Chapter 2, medicine companies created a range of products so to provide something for everyone, in sickness and health. Through their advertisements, these companies presented medicines to make people happy, beautiful, and energetic, along with the standard disease cures, preventatives, and pain relievers. Presented with such glamorous, technically written, and frequent advertisements, it seems that late 19th century Californians did not hesitate to believe and use medicinal cures.

Household Sickness-Identifying Unknown Death Causes

****Question:** Can deaths caused by disease be identified in households where members died of undocumented causes?

This question could not be addressed because the standard deviation calculations for the *disease* and *none* categories, as shown above, were so close that they were statistically indistinguishable from each other. Thus, attempts to identify the *potential* category's calculations with that of either the *disease* or *none* category would prove inconclusive.

Limitations

Unfortunately, not every question could be addressed in this study. Consequently, there are several limitations to these findings. As discussed in Chapter 1, there are many catalysts of change in the household. Only one factor, family life course, was addressed.

Also, when the artifact collections were chosen, the criteria of 20 MNI or more and requiring a strong association ruled out many lower class individuals who moved too often to be tracked by census data or consumed and deposited too few health and hygiene products. As a result, most of the collections examined for this study consist of middle class households, with a handful of homes falling just slightly above or slightly below, based on the Ethington scale (Table 15). Due to the complexity and large geographical range of the assemblage, the local market conditions affecting the distribution and availability of products could also not be addressed. It is possible that there are differences in the availability of goods between blocks or, more likely, between cities. However, given that these neighborhoods are located in well-established urban areas suggests a highly diverse, if not equal, access to at least the same kinds of goods.

Table 15. Average Occupation by Feature.

Neighborhood	Feature	Average
San Francisco	Privy 507	1
Oakland	Privy 4714	2
San Francisco	Privy 806	2.5
San Francisco	Well 853	2.5
Oakland	Privy 156	2.5
San Francisco	Well 6	2.75
Oakland	Well 1703 & Pits 1704, 1705, 1706	2.8
Oakland	Privy 900	3
Oakland	Pit 1753	3
Oakland	Privies 4236 & 4237	3
Oakland	Pits 2870, 2880, & 2800	3
San Francisco	Well 8	3
San Francisco	Privy 813	3.33
Oakland	Privy 2822	3.67
San Francisco	Privy 1318	4
Oakland	Privies 933 & 1112	4
Oakland	Privy 3185	4
San Francisco	Privy 1303	4.33
Total Average		3.03

It is acknowledged that not all deposits are created equal. Thus, it is possible that inherent differences in the nature of each deposit may skew the data. These differences could include, but are not limited to, the manner in which the materials were deposited, the length of deposition, the length of residency, the local timeframe for conversion to sewer, the gender of the consumer, and the age of the consumer.

Conclusions

This study has examined the grooming and health consumer behavior of households in late 19th century San Francisco and Oakland. Medicine, both patent and pharmaceutical, represented a significant portion of these residents' grooming and health consumption. The sick and healthy both readily consumed these goods attesting to the success of advertising and marketing of medications during this time period. Although present in every home, medicinal quantities varied widely from house to house, making them by far the most difficult product to predict the household type or life course from. There was an inverse relationship between medicine and other grooming and health products. Meanwhile, oral hygiene was one of the most consistent health and grooming products, averaging 0.3 tooth-related products per person across different family structures and life courses. This product group, while not as flashy and plentiful as medicine bottle cure-alls, appeared to be considered a basic necessity. Hair products, whose numbers varied more between houses than either the medicine or oral hygiene choices, were present in 17 out of 18 homes, attesting to the growing desire for something less vital to health and in many cases, cosmetic. In San Francisco, there were significantly more hair, scented and bathing products than in the Oakland neighborhood

as a result of residents' efforts to compensate for a general lack of water on the peninsula that prevented regular bathing. In general, this study found household types were a better predictor of hygiene and health products than household life course.

In late 19th century America, many significant changes converged and almost overnight created much of the society we live in today. At the beginning of the century, people believed that diseases were caused by bad smells; but by the end, unseen germs were the culprits. This, combined with urbanizing cities experiencing deadly epidemics, brought health and hygiene to the forefront of community concern. What was once a characteristic of the rich became a publicly demanded necessity for all.

Few archaeological studies have addressed the topic of health and hygiene. In many cases, historical documentation is sparse, the number of relevant artifacts is too low, or simply there are other research interests addressed. However, studies in health and hygiene should not be ignored, because they reflect the individual, personal choices of specific people in the past. Individual voices, especially for everyday activities such as health and hygiene, are often silent to history, and yet by knowing how individuals acted under the cultural influences of their time, we can better understand the structure of society in the past, turn a critical eye to the present, and anticipate the impacts of cultural change in the future. Archaeological collections should be referenced, comparative samples sought, and health and hygiene studies included as a fundamental research focus. In the late 19th century, advances in health and hygiene overcame people's greatest fear: unexplained, sudden death. Understanding how people have reacted historically to such a major shifts in everyday life will help us to better understand the impacts of fundamental changes within homes, the rearrangement of daily structures, and the origins of today's

consumer society.

While this study made preliminary conclusions about health and hygiene studies of late 19th century Californians, many avenues of interest remain untested and unexplored. For instance, is consumption more predictable when several variables are put together, such as household type, life course, occupational status, and history of sickness? Do the collections of female-headed households differ from those of male-headed households? Is there a notable change in health and hygiene consumption over time? Further study of these collections and others should address these questions.