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SEX, DRUGS, AND ROCK-LINED PRIVIES: AN ANALYSIS OF EMBOSSED GLASS
HEALTH PRODUCT BOTTLES FROM VICTORIAN-ERA BROTHEL AND NON-
BROTHEL ARCHAEOLOGICAL SITES BY SOCIOECONOMIC STATUS

ERIN LYNN RANDOLPH

249 Pages

This thesis examines consumption patterns of Victorian-Era health products once contained in embossed-glass bottles to elucidate trends among different socioeconomic groups during the mid-nineteenth century through the first decade of the twentieth century. The consumption patterns of 20 types of health products from nine different archaeological sites across the United States were analyzed among Victorian-Era brothel residents and the non-brothel population, by socioeconomic class, and then by both socioeconomic status and affiliation with the sex industry. This process was repeated using the ingredients contained within the health products examined above.

Analysis revealed that soda water was exceptionally popular as a health product during the Victorian Period, especially among the working class and prostitutes. Within the prostitute and non-prostitute comparison, the data revealed the most common products used by the prostitutes were grooming aids and Vaseline while products to treat general debility were more popular among the non-prostitutes. Consumption of products with a high alcohol content was much greater among the non-prostitutes than the prostitutes. Comparisons between socioeconomic class displayed trends indicating a preference for soda water by all three classes. Class analysis also indicated that the middle-class assemblage was more similar to that of the upper class than

the working class. Finally, in brothel class comparisons, the results of this study suggest the upper-class prostitutes consumed more products related to beauty and grooming regimens while the working-class prostitutes preferred products intended to relieve discomfort. The upper-class prostitutes were also more likely to demonstrate brand loyalty, possibly an expression of greater purchasing power.

The results of this study indicate that analysis of embossed-glass health products bottles from archaeological sites can be used in conjunction with documentary records and alternate assemblages to not only verify the presence of Victorian-Era brothel sites but determine the type of brothel as well. Furthermore, analysis of embossed glass bottles can provide insights into the lives, health, quality of life, well-being, cultural values, and consumption patterns of Americans during the Victorian Period.

KEYWORDS: patent medicines, gender studies, class studies, brothels, Victorian Period

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ERIN LYNN RANDOLPH

A Thesis Submitted in Partial
Fulfillment of the Requirements
for the Degree of

MASTER OF SCIENCE

Department of Sociology and Anthropology

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2019

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SEX, DRUGS, AND ROCK-LINED PRIVIES: AN ANALYSIS OF EMBOSSED
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ERIN LYNN RANDOLPH

COMMITTEE MEMBERS:

Kathryn Sampeck, Chair

Elizabeth Scott

Kyle Ciani

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CHAPTER I: INTRODUCTION

Today's society is extremely fascinated with sex and drugs, judging by the movies, television series, books, and other media available for public consumption today. Anyone with an inkling of historical knowledge knows that this is not a new trend, though. Even during the Victorian Period, characterized as one of the most prudish cultures in written history, prostitution ran rampant in most of the United States, and health products containing high alcohol content, cannabis, heroin, or morphine could be obtained at the nearest pharmacy or dry goods store. Patent medicines of the nineteenth and early twentieth centuries contained so many compounds detrimental to the human body that the passage of the Pure Food and Drug Act of 1906 initiated a chain of legislation for the protection of consumers that still continues today in the form of the Food and Drug Administration.

Consumption of patent medicines and other health products, as well as prostitution, socioeconomic class, and gender have each been studied in their own right, but never in conjunction with analysis of the ingredients of health products. The current study analyzes the consumption of health products in conjunction with not only prostitution and socioeconomic class but also the ingredients that comprise the health products. Analysis of the types of products consumed in association with the ingredients the products contained reveals much about the quality of life and experiences of various individuals from all walks of life as well as the cultural values of which these individuals ascribed. This study analyzes embossed glass patent medicine, health, and grooming products from brothel and non-brothel sites across the United States during the Victorian Period, the heyday of patent medicine consumption to reveal consumption patterns associated with the practice of prostitution and socioeconomic class.

Summary of Research Questions

The purpose of the current study is to analyze the consumption of different types of health and grooming products as well as their ingredient content via the frequency and presence of their associated embossed glass bottles to ascertain consumption patterns, experiences, health status, and quality of life of former inhabitants of nineteenth- and early twentieth-century archaeological contexts in several locations throughout the United States. Furthermore, this study analyzes the glass bottle data to detect differences in consumerism and spending power between differing socioeconomic classes both among brothel sites and non-brothel sites. Research questions posed to address these issues are as follows:

1. Are there observable differences in the health products consumed and ingredients these products contained between:
 - a. Brothel and non-brothel sites?
 - b. Working-class, middle-class, and upper-class sites?
 - c. Working-class and upper-class prostitutes?
2. What do these differences tell us about the health, purchasing power, and cultural values of the former inhabitants of each type of site?
3. What does the archaeological evidence of health products reveal about the quality of life and the experiences of women from different socioeconomic classes and lifestyles either associated or not associated with prostitution?

Data obtained from embossed glass bottles that contained either a patent medicine or health product from nine different archaeological sites across the United States from the mid-1800s

through the early 1900s were analyzed to answer these research questions. These sites vary in both socioeconomic status and the presence or absence of prostitution-related activities, providing ample data for comparison. Not only were the types of products and ailments being treated analyzed for this study, but the ingredients of the products as well. The analysis revealed consumption patterns for each of the socioeconomic groups coupled with association with prostitution.

Middle- and upper-class households demonstrated a preference for medications and health products containing alcohol, perhaps a result of societal norms restricting female alcohol consumption for pleasure during the Victorian Period. Working-class households preferred soda water as their health product of choice, likely due to a variety of reasons from the general popularity of soda water as a beverage to immigration status to availability of clean drinking water. Furthermore, the upper-class sites provided far more health product bottles for cough and consumption, weakness relievers and treatments for feminine issues, and ailments of the genitourinary system than would be expected for their lifestyle and living conditions in single-family homes. Working- and middle-class sites contained health products for relieving general discomfort and aches and pains. The inclusion of the middle-class data revealed fascinating consumption patterns such as an elevated usage of discomfort-relieving products similar to the working class, but an ingredient profile resembling the upper class, that is, preference for alcohol-containing products. These results suggest that while the middle class was emulating the upper class in cultural values and adherence to societal norms and strictures, the middle-class population still worked for a living, thus consuming more general aches/pains products, much like the working class.

The combined working- and upper-class prostitution ingredient profile more closely resembled that of the working-class non-prostitute. While the non-prostitutes generally preferred alcohol-containing products, the prostitutes preferred soda water. These results align with the general observations that upper-class brothels were still geographically located in working-class neighborhoods. When the prostitution data was analyzed in conjunction with socioeconomic class, the results revealed that the upper-class prostitutes preferred beauty and grooming products, while the working-class prostitutes demonstrated a preference for discomfort-relieving products. Upper-class parlor-house madams perhaps required their prostitutes to attend to their appearance more so than working-class madams, or the beauty and grooming products were simply a result of the upper-class prostitutes' greater spending power. Regardless, the results of this study demonstrate that Victorian-period women experienced a wide variety of societal and environmental pressures no matter where they stood on the socioeconomic spectrum. To provide context for this analysis, different types of prostitution as well as definitions of categories of health products and their ingredients follows.

Prostitution and Socioeconomic Class

Brothels and prostitutes do not represent their own class within society, but instead can be separated into their own different socioeconomic classes. Categories of brothels and prostitutes can vary across geographical and temporal space as well as within societies and cultures. The following categories of prostitutes and brothels are derived from Anne Seagraves' (1994) depiction of prostitution in the early West and a report on prostitution in New York City written by William Sanger, originally published in 1858. Under Sanger's supervision, New York

City Chief of Police, George W. Matsell, Esq., along with his police captains, administered 2,000 questionnaires to city prostitutes in 1855. These questionnaires inquired about “age, place of birth, marital status, number of children, number of years in profession and reasons for choosing it, previous occupations, incidence of venereal disease, and a variety of other topics” (Yamin 2005:8). Therefore, the information provided here refers to prostitution in the United States during the nineteenth and early twentieth centuries.

The Courtesan or Mistress

At the top of the socioeconomic ladder of prostitution is the women who formed a romantic relationship with a man of power or wealth, exchanging her favors for monetary gain. These women were usually sought for their beauty, grace, and/or intelligence, and some made a career of these liaisons. Because of their association with powerful men, courtesans and mistresses were begrudgingly accepted into proper society (Foster et al. 2005:353-353; Seagraves 1994:23-24). Substantial documentary evidence would need to be associated with an assemblage belonging to a courtesan of this caliber, as her assemblage may resemble that of other upper-class women. Also, mistresses were often set up in their own residence by their benefactor and sometimes took on an alias. Thus, not only would an archaeological assemblage associated with a courtesan/mistress be small and difficult to attribute to a particular person, but census data and other public documents would likely be inaccurate. No courtesan mistress assemblages were present in the current study, but the category merits mention in the hierarchy of brothels and prostitutions.

The Parlor House

This category of brothel is very prominent in the current study, represented by assemblages in New York, St. Paul, Los Angeles, and possibly Prescott. According to Sanger, in New York City, a parlor house is the highest class of brothel, furnished with a lavish display of wealth and luxury (Sanger 1858; Yamin 2005:8). As will be discussed throughout the analysis, this display could include rich foods served in fancy glass and ceramic vessels, wine and champagne in glass stemware, Victorian-style *bric-à-brac*, decorative ceramic pieces, architectural features, and more, all of which can be detected archaeologically.

A specific feature of parlor houses that set them apart from other classes of brothels is the meals, hors d'oeuvres, champagne, or wine served to patrons before retiring to private rooms in order to conduct business. At Mary Ann Hall's House in Washington, D.C., visitors were served high quality cuts of meat, fish, turtle, or wild fowl (Seifert and Balicki 2005:71). In the Five Points parlor house in New York City, veal, clams, and perhaps olive oil or capers, were served to clients (Yamin 2000b:332), while at the Aliso Street parlor house in Los Angeles, patrons dined on high-priced cuts of beef and an assortment of seafood (Mason 1999:129-130).

Archaeological sites that were once a parlor house often contain multiple bottles of wine and champagne and stemmed glassware for drinking these beverages.

The beds of the parlor houses were made up with silk sheets and the prostitutes dressed to the nines. Madams of parlor houses charged top price for their courtesans, so the prostitutes were instructed to look their best. Fine clothing and grooming products were necessities for parlor house prostitutes, and the madams took care of their employees by either providing these items or at least giving a generous allowance for purchasing the items. Parlor houses frequently hired

servants to take care of the customers, prostitutes, and establishment as well. Thus, archaeologically, parlor house brothel sites provide extremely rich assemblages, both in volume and quality. Although parlor houses were often in working-class neighborhoods or in red-light districts in proximity to working-class neighborhoods, parlor house prostitutes were well off, and thus categorized as “upper-class prostitute” in the current study.

Second-rate Brothels

Down one rung on the social ladder of prostitution is a class of establishment that attempted the standards of a parlor house but did not quite succeed in attaining parlor house status. Although *brothel* has been used in this study as a general term for a place of prostitution, second-rate brothels were simply called “brothels.” While Seagraves (1994) and Foster et al. (2005) suggest that parlor houses were called “female boarding houses” in the west; in other locations across the United States “female boarding house” simply referred to a brothel in general. Most of these were brothels that had not attained parlor house status, thus likely falling into this category. In the current study, these second-rate brothels were brothels without much documentary evidence regarding the owners and madams. Lower quality meat-cuts and ceramics in assemblages also suggested the presence of a second-rate brothel. Grooming and beauty products were not as prevalent in these type of brothel assemblages either. Thus, within the current study, these brothels and prostitutes were categorized as “working-class.”

Saloon and Dancehalls

This category of brothels is specific to mining towns of the American West and one step lower than the “female boarding houses” listed above. According to Seagraves (1994), prostitutes that lived above saloons or dancehalls were usually coerced into prostitution via emotional manipulation or by the use of drugs and alcohol. Furthermore, madams or pimps of these establishments kept most of prostitutes’ earnings, making it difficult for the prostitutes to escape to a better life. Saloon and dancehall brothels are archaeologically visible with some grooming products present, but the nice ceramics mentioned in the parlor houses and second-rate brothels are not present. Neither are high quality cuts of meat or other evidence of meals being served. These brothels are thus also categorized as “working class.”

Cribs

Below saloon and dancehall brothels on the social ladder of brothels are cribs, small cubicles about 6 feet by 10 feet that opened onto either a public street or a balcony (Meyer et al. 2005:113). Outfitted with only a bed, a washstand, and a chair, crib rooms were rented either by the shift or by the month (Meyer et al. 2005:109). The life of crib prostitutes was grim indeed: pimps collected money at the door, an oilskin cloth covered the bed for easy clean-up, and the men often did not even remove their boots. Interactions were brief, only minutes long, and some crib prostitutes serviced up to 80 men per night (Foster et al. 2005: 355; Seagraves 1994).

Features associated with cribs are usually quite stark, as the prostitutes only brought what they could carry with them to the cubicles. A privy associated with a line of cribs in the Los

Angeles red-light district contained some Chinese artifacts and a few alcoholic beverage bottles (Meyer et al. 2005:121). However, the features associated with cribs in the Ouray, Colorado, red-light district contained quite a few health and grooming bottles. Thus, due to starkness of the lives and rooms of most crib prostitutes, the assemblages from the features associated with the Colorado cribs are categorized “working-class prostitute” as well.

Streetwalkers

Streetwalkers were the lowest type of prostitutes, women past their prime who had lost their beauty and charms. Diseased and desperate, these women were not even accepted by pimps. Alone at the very edge of society, streetwalkers would sell themselves for any price, even just a drink of alcohol. Seagraves (1994) describes these women as the most soiled of the soiled doves. Archaeologically, streetwalkers do not leave an isolatable trace, and like the courtesan-mistresses are not represented in the current analysis.

Thus, archaeological assemblages from different types of brothels have different consumption patterns despite their geographic proximity in working-class and red-light neighborhoods. The current study investigates these patterns by analyzing the types and frequencies of products that occur in the various assemblages. Further analysis of the frequencies of ingredients in the health products illustrates possible reasons or motives behind the consumption of certain health products, such as adherence to cultural values, attempts to alleviate discomfort, and perceived health benefit.

This study's results and discussion next require an overview of the categories of health, beauty, and grooming products and their ingredients. The following summary discusses only those treatments and nostrums that occurred in the archaeological assemblages analyzed in this study; other medicines and ingredients existed in the nineteenth and early twentieth century, and possible reasons for their absence would be a fruitful subject for further study.

Patent Medicines, Health Products, Grooming Aids and their Ingredients

Patent medicines, or proprietary medicines, have been sold and consumed in America since colonial times. The first patent medicines in America traveled across the ocean from England, the origin of the patent medicine industry. As the population of the New World grew and industrialization provided avenues of American independence from British trade, druggists and doctors as well as entrepreneurial quacks began marketing their own American versions of the British patent medicines as well as inventing even more nostrums that claimed to treat and cure a plethora of illnesses and ailments. The height of the patent medicine industry occurred in the late nineteenth century, but as medicine became more of a science than a trade near the turn of the twentieth century, criticism emerged against the dangers of patent medicines. The chief danger of patent medicines was that these products promised cures that kept patients from visiting actual physicians, yet the poisonous and deleterious compounds as well as the dangerous amounts of alcohol, opioids, and other chemicals also proved harmful to consumers.

The patent medicine industry began to wane after the Pure Food and Drug Act was passed in 1906, which banned interstate commerce of adulterated or misbranded drugs and required that manufacturers list addictive substances on product labels. The Sherley Amendment

of 1912 further regulated the patent medicine industry by forbidding manufacturers to claim their products could “cure” certain ailments or illnesses. This legislation did not completely eliminate patent and proprietary medicines, as many are still on the market to this day.

In its heyday, the patent medicine industry produced thousands of nostrums that fall into several categories. Below, the main categories of health products analyzed in the current study will be introduced with brief explanations of the purpose and ingredients of each.

Bitters

Bitters, a health product containing a variety of herbs and minerals and a high alcohol content, were touted to aid digestion, although some were advertised as providing energizing properties as well (Figures 1 and 2) (Estes 1988:15; O’Bryan 2013; Schleif 1902:223; Torbenson et al. 2000:56). Some brands, such as Fernet Branca, are still used in cocktails today (O’Bryan 2013). Due to the high percentage of alcohol in these products, all of the bitters were combined into one category, even though some brands advertised uses other than aiding digestion.

Figure 1. Advertisement for Lackey's Iron Bitters (The Pantagraph, 2 March 1892:2).

Figure 2. Early Lash's Bitters Trade Card, ca. 1901-1903. (Torbenson and Erlan 2003:Figure 1A)

Jamaican Ginger

This popular patent medicine was advertised to treat stomach ailments such as nausea, flatulence, and diarrhea, as well as colds and menstrual cramps (State Museum of Pennsylvania

2015). Although the active ingredient was allegedly a type of ginger from Jamaica especially effective at treating digestive issues, the nostrum actually contained over 90% alcohol. Thus, Jamaican Ginger was usually consumed more for the alcohol content than the stomach ache-relieving ginger and was a popular product during Prohibition when the consumption of medicinal products containing alcohol was still lawful (Munsey 2005). Due to the especially high alcohol content of Jamaican Ginger patent medicines, this type of health product was separated from the other stomach medications in this analysis.

Stomach Medications

Dyspepsia, or indigestion, was one of the “fashionable diseases” of the nineteenth century. Stomach ailments were thought to be the result of industrialization, modernization, and commercialization, “a physical reaction to the unnatural stresses imposed by the lawless marketplace, the separation of the husband and family during the workday, or by the influences of the city” (Ross 1993:43). While stress can affect the digestive system, the likely culprit of stomach ailments during the nineteenth-century was diet and sanitation. Early domestic guides suggested that “rice, flour, corn, potatoes, and the like, are the most nutritious, and most easily digested...Good bread contains one third more nourishment than butcher’s meat” (Beecher 1846:101). Catherine Beecher also warned her readers that medical men were of the opinion that the American diet contained too much meat (Beecher 1846:100). There was also a fear of raw produce during the 1800s, perhaps due to the tomato and its poisonous *solanum* cousins (Ross 1993:43) and both temporal and geographical factors affected various socioeconomic groups’ access to fresh produce (Ross 1993:50). Thus, the “meat and potatoes” diet with additional

starchy foods that can lead to gas and bloating and low in fiber-filled raw produce may have caused much of the dyspepsia and indigestion of the nineteenth century.

Corpulence was a sign of health or status during much of history (Ross 1993:43), and the Beecher sisters warned against large meals in their domestic books as well: “As a nation, the Americans are proverbial for the gross and luxurious diet with which they load their tables” (Beecher and Stowe 1869:132). The sisters instead suggested that smaller meals would reduce the occurrence of all types of health ailments: “To take meat but once a day, and this in small quantities, compared with the common practice... would probably greatly reduce the amount of fevers, eruptions, headaches, bilious attacks, and the many other ailments which are produced or aggravated by too gross a diet” (Beecher and Stowe 1869:132).

Too little food, poor quality, or incorrectly prepared foods also caused digestive distress during the 1800s. Nineteenth-century diners were poisoned by adulterated, contaminated, or spoiled foods, likely due to the lack of sanitation and refrigeration in factories, restaurants, markets, and homes (Ross 1993:50-51). Diarrhea and abdominal discomfort was caused by either food-borne or water-born bacterial, protozoal, or parasitic infections, thus anti-diarrheal and anti-helminthic (deworming) medications were quite common. As with other patent medicine products, stomach medications were alcoholic concoctions containing soothing peppermint, calcined magnesium, ginger, or opioids (Bonasera 2000:379, 381; Schleif 1902:70). The inclusion of opioids in anti-diarrheal medication was therapeutically relevant as narcotics often cause constipation by slowing the movement of the digestive tract (Chan 2008).

Laxatives

The typical Victorian diet of meats and other foods high in carbohydrates and low in fiber contributed to constipation as well as dyspepsia, indigestion, and other stomach ailments (Beecher 1846; Ross 1993). Thus, patent medications advertised to treat constipation were extremely popular in the 1800s. Nineteenth-century laxatives are generally similar to those still used today, containing senna compounds or magnesium citrate, although—as observed in the current study—aloe was a very popular ingredient in laxatives as well (Estes 1988:10).

Oral Pain Relievers

Pain medications taken by mouth usually consisted a high alcohol content and a pain-relieving compound such as an opioid, ether, or acetanilide, a relative of aspirin no longer used as its manufacturing process included the use of aniline, a possible carcinogenic chemical (Estes 1988:6-7).

Topical Pain Medications

These pain medications applied directly to the skin were similar to products such as BenGay™ and Icy Hot™ used today to soothe arthritis or sore muscles. Some of the topical patent medicine products contained camphor and capsicum, the heat-producing chemical from pepper plants, very similar to today's topical pain relievers. Yet other topical pain products consisted of soap, lard, kerosene, and petroleum jelly, occasionally with the addition of a

narcotic ingredients such as opium or morphine. These topical pain medications were sometimes advertised for both internal and/or external use and man and beast alike (Figures 3 and 4).

Cough and Consumption

Consumption, the nineteenth-century term for tuberculosis, and lung ailments were major causes of debility in the past; thus, many patent medicines were manufactured and advertised for the treatment of pulmonary complaints. One particular ingredient common to many of the cough and consumption medicines, also known as pectorals, was wild cherry bark, believed by nineteenth-century medical practitioners to improve appetite and digestion, allay cough, and soothe the nervous system (Estes 1988:13). Pectorals usually contained alcohol and an opioid, heroin being an especially popular component of cough and consumption medications of the early twentieth century. The opioid ingredient was actually pharmacologically relevant to include in the cough and consumption medications as not only would the opioid alleviate chest and other types of pain while enabling sleep, but also act as a cough suppressant (Estes 1988:13). Even today, prescription-strength cough syrups contain an opioid derivative such as codeine or hydrocodone to suppress the cough reflex in the brain (Takahama and Shirasaki 2007).

MEXICAN MUSTANG LINIMENT,

FOR MAN AND BEAST.

Probably few articles have ever had so extensive a sale, while none have been more universally beneficial than the celebrated MEXICAN MUSTANG LINIMENT. Children, Adults, Horses and Domestic Animals are always liable to accident, and it is safe to say, that no family can pass a single season without some kind of an emollient being necessary. It becomes a matter of importance then to secure the best.

The merits of the MEXICAN MUSTANG LINIMENT are well known throughout the habitable world. From the million upon million of bottles sold, no complaint has ever reached us. It is recommended for Cuts, Bruises, Sprains, Rheumatism, Swellings, Bites, Chilblains, &c., upon man, and for Spavins, Founders, Ring-bone, Poll Evil, Scratches, Wind-galls, Hoofale, &c., upon horses.

The Mustang Horses of Mexico, are known to be very fleet and hardy. Soon after the Mexican war, GEORGE W. WESTBROOK, of

St. Louis, Mo., appropriated the name, "*Mexican Mustang Liniment*," as a trade mark, for the Remedy which he was then putting up. It became the property of BARNES & PARK, in 1856, and of DEMAS BARNES, alone, in 1860. The use of the name by any other person is counterfeiting, and punishable by heavy fine and imprisonment.

Why we say the "MEXICAN MUSTANG LINIMENT" is the best:

LUZERNE TEXAS, August 20, 1865.

Doctor WESTBROOK:

During our terrible war, I had a valuable span of mules ring-boned, spavined and knocked to pieces. None of your Liniment could be found in our part of the State, but when the mules got wholly useless, I went clear to Galveston, and there paid \$6.00 for three 25 cent bottles of MEXICAN MUSTANG. I used it sparingly, but afterwards succeeded in getting more from a block runner from Matamoras. The mules got into the harness again and are this day good beasts.

Very respectfully yours,

JACOB LUTNER.

We Extract from a Letter from L. W. SMITH, Esq., Ridgefield, Conn.:

"And with reference to the general estimation of the Mustang Liniment, I can say without hesitation, and from personal knowledge of its effects, that it is considered the very best thing ever offered for either man or beast."

Rheumatism.

"As usual, I had tried every thing for my awful complaint, sometimes with partial, but never with permanent success. * * * I found relief from one bottle of the Mustang Liniment, and strange to say, was effectually cured by only four bottles.

FILLMAN WILLIAMS,

Coat's Creek, N. C.

N. B.—This case of Mr. Williams is a very remarkable one. He had been disabled by the worst kind of Rheumatism for TWENTY YEARS!

420 BROAD STREET, PHILADELPHIA, PA.

[*Extract.*] "In lifting the kettle from the fire, it became unmanageable, tipped over, and scalded my hands very severely, almost to a crisp. It was an awful sight. The Mustang Liniment appeared to extract the pain. It healed rapidly without soreness, and left no scar of account.

Truly yours, CHARLES FOSTER."

Mr. S. Litch, Hyde Park, Vt., writes: "The horse was considered worthless," (his case was

spavin,) "but since the free use of the Mustang Liniment, I have sold him for \$150 cash. Your Liniment is doing wonders up here."

Important to Owners of Horses.

"This is to certify, That the Mexican Mustang Liniment has been extensively used in our stables throughout the country (we have 2,500 horses) with the greatest benefit in all cases of galls, kicks, sprains, lameness, stiffness, etc. Many of our men have had occasion to use it in their families, and all speak of it in the highest terms. One of our men got kicked and badly cut and bruised; as usual, the Mustang Liniment was resorted to; the lameness was removed, and he was almost well in four days. We can cheerfully recommend it as a valuable preparation for man or beast.

Yours, respectfully, J. DUNNING,
Foreman of Adams & Co's Express Stables, N. Y."

"We take great pleasure in recommending the Mexican Mustang Liniment as an indispensable and valuable article, and the best we have ever used for Sprains, Sores or Galls on horses. Some of our men have also used it for severe burns and sores, as well as rheumatic pains, and all say it acts like magic. We use no other Liniment.

J. W. HEWITT, Foreman,

For American Express, 10 Wall Street; Harden's Express Co., 74 Broadway; Fuller, Virgil & Co., Express Co., 14 Wall Street; Wells, Fargo & Co., 14 Wall Street."

Figure 3. Advertisement for Mexican Mustang Liniment, "For Man or Beast," circa 1890-1900 (Ohio History Connection 2016).

Radway's Ready Relief,

The Great External and Internal Remedy stops the most excruciating pain in a few minutes, and rapidly cures the Patient.

Radway's Ready Relief,

PROVES ITS SUPERIORITY TO all other medicines at once.

Its First Indication

Is to relieve the sufferer of PAIN, no matter from what cause it may originate, or where it may be seated.

If in the head, face, or throat ;
If in the back, Spine, or shoulder ;
If in the arms, breast, or side ;
If in the joints, limbs, or muscles ;
If in the nerves, teeth, or ears ;

Or any other part of the body, its application to the part or parts where the pain exists will afford immediate relief.

If seized with Pain

In the Stomach, Bowels, or Kidneys ;
In the Bladder, Spleen, or Liver ;
In the Teeth, Ears, or Throat ;
In the Brain or Nervous System ;

One tea-spoonful of RADWAY'S READY RELIEF to a wineglass of water will, in a few minutes, restore the patient to ease and comfort.

If Lame, Crippled, or Bed-Ridden ;
If Palsied, Scalded, or Burned ;
If Bruised, Wounded, or Cut ;
If Strained, Injured, or Disabled ;
If Sun Stroke, or seized with Fits ;
If weak in the Spine, or Back ;

Radway's Ready relief,

Should be applied to the part or parts afflicted. It instantly relieves the patient from pain, and quickly heals, soothes, and strengthens the disabled parts. In all cases of bites of rabid dogs, reptiles, stings of poisonous insects, the application of RADWAY'S READY RELIEF to the wound will prevent inflammation and mortification.

Figure 4. Advertisement for Radway's Ready Relief, "The Great External and Internal Remedy" (Marysville Daily Appeal, 24 February 1864:4).

Catarrh Remedies

Catarrh is a nineteenth-century medical term for excessive production of mucous; in the current study, catarrh refers to nasal catarrh or the excessive production of mucous specifically in the nasal cavity. While many effective therapies exist today to treat nasal or sinus congestion—the modern term for nasal catarrh— nineteenth-century remedies included powders or vaporized solutions containing menthol, camphor, eucalyptol, opioids, and many more compounds (Robinson 1885:36-83). Cocaine was found to possess local anesthetic properties in 1884 (Estes 1988:12) and was thus added to the list of common ingredients in which to treat nasal catarrh. Dr. Robinson, author of a treatise on the treatment of nasal catarrh claimed:

“[V]ery soon after the original experiments of Bosworth (New York Medical Record, November 15, 1884), in making local application of solutions of cocaine to the nasal mucous membrane, I have made use of a four-per-cent solution of this drug, with great success, in diminishing the obstruction of the nasal passages in acute coryza. Although the sneezing and irritation accompanying this affection were not completely arrested, they were much diminished; and I have little doubt, at present, if the applications of cocaine had been repeated three or more times, at intervals of one or a few hours, that the attack of acute coryza [nasal catarrh] would have been aborted [Robinson 1885:84].

Thus, patent medicines to treat catarrh often contained cocaine with other variations composed of aromatic compounds and tobacco/nicotine. These products were powders snorted through the nose and essentially used as snuff. Unfortunately, the addictive potential of the cocaine-laced

catarrh medications was realized too late, and the number of addicts in some areas was so great that the local government was forced to outlaw the sale of these patent medicine powders (Foster et al. 2004).

Eye Medications

Patent medicines for the eyes were intended to treat eye discomfort such as the many eye drops available on the market today. The ingredients in eye medications of the past versus today, however, are quite different. While today's eye drops contain sodium chloride in a sterile bottle with either a lubricating agent, antihistamine, or astringent redness reliever, the patent medicines of the past contained ingredients few consumers would place in the eye today. For instance, the traditional recipe for Dr. Thompson's Celebrated Eye Water found in this study consisted of rose water (an alcoholic solution scented with rose petals), saffron, zinc, copper, and camphor (Covey 1903:254); instructions on the bottle did caution the user to dilute the solution before application to the eye, but sterile water was not readily available during the nineteenth century. However, once the Pure Food and Drug Act of 1906 required patent medicine manufacturers to list potentially addictive ingredients on the label, Dr. Thompson's Eye Water packaging listed rose water, zinc, opium, and 10% alcohol as the active ingredients (Figure 5) (Helfand 1997:80). While the opium most likely did relieve eye discomfort, this patent medicine possibly became a covert way of obtaining opium-laced products.

Figure 5. Post-1906 bottle of Dr. Thompson's Celebrated Eye Water with actual ingredients listed on label (American Academy of Ophthalmology 2019).

Weakness Relievers and Treatment of Female Complaints

Weakness-relieving products were intended to alleviate the debilitation and wasting associated with consumption or tuberculosis; cod liver oil was particularly popular during the nineteenth century in both America and Europe (Grad 2004). Although no longer used today to treat tuberculosis, cod liver oil may have resulted in actual therapeutic effects among its consumers. The main component of cod liver oil, omega-3 fatty acids, demonstrates anti-inflammatory properties, and thus may have alleviated swelling in the consumptive's lungs thereby improving the patient's comfort level. Also, cod liver oil may have been an easily absorbed nutrient and even facilitated the repair and maintenance of the intestinal mucosa, facilitating the absorption of additional nutrients and aiding the consumptive patient in regaining lost weight from wasting (Grad 2004:115).

Phosphates were found to be necessary to human life and maintenance of bodily functions and products like Horsford's Acid Phosphates were advertised as a nerve stimulant to treat tired bodies and tired minds. Malt extracts such as Maltine and beef tonics were also touted to treat debilitation and weakness, especially in women (Estes 1988:12). Long before cocaine's anesthetic properties were discovered, the medical community knew of its stimulant properties; thus, cocaine was a common ingredient in many weakness relievers (Estes 1988:12-13). Strychnine, today used to eliminate rodents and other animal pests, was likened to the "Victorian version of Adderall." Fellows' Compound Syrup of Phosphites, advertised to treat consumption, wasting, and exhaustion, contained life-giving phosphates and energizing strychnine. Consuming too much strychnine, though, could lead to life-threatening convulsions (Kang and Pederson 2017:72-82).

Many of the weakness relievers' advertisements were aimed toward women due to their particular nervous disposition and general debility, thus remedies to treat female complaints were included within this grouping of health products. Lydia Pinkham's Vegetable Compound was one of the most popular patent medicines among female consumers, as a product touted to be specifically for women. As with cod liver oil, some of the herbal components of Lydia Pinkham's tonic exhibited pharmacologically relevant properties to treat ailments particular to women, such as Black Cohosh (Estes 1988:14-15). During the nineteenth century, alcohol was viewed as a stimulant, leading to its inclusion in many of the products discussed in this section (Estes 1988:15).

Of note, some of the patent medicines to treat female complaints were actually abortifacients; emmenagogues were compounds or medications intended to restore otherwise interrupted menstruation, which included that resulting from a pregnancy (Brodie 2001:39). Lydia Pinkham's Vegetable Compound—advertised as an emmenagogue—was thus the only product within this analysis identified as a potential abortifacient (Brodie 2001:42). Therefore, abortifacients were not analyzed within their own category in this study.

Kidney, Liver, and Bladder Medications

These patent medicines were purported to treat ailments of the urinary tract system and usually contained a high alcohol content and herbal ingredients with diuretic properties. The principle theory for kidney, liver, and bladder medications revolved around the proper elimination of toxins and waste from the body. Both the manufacturers of Warner's Safe Cure and Dr. Kilmer's Swamp Root claimed enhancing kidney function improved the functioning of

other organs in the body (Figure 6) (Estes 1988:11). As urinary symptoms are the most common symptoms of venereal disease, kidney and bladder medications were frequently used to treat venereal disease. Santal de Midy is an example of one particular medication that was advertised for kidney and bladder symptoms, but often used instead to treat symptoms of venereal disease, as was discovered during the archaeological investigation of Fort Calgary and its accompanying research (McKinnon 1992).

Figure 6. Section of Advertisement for Dr. Kilmer's Swamp Root (Los Angeles Herald, 10 April 1904:7).

Venereal Disease Treatments

"Injection brews," part of the arsenal used by prostitutes in combatting venereal disease, were patent medicine or other concoctions that were literally injected into the vagina or urethra via glass syringes or tubing attached to rubber balls. These "brews" often contained disinfectants or compounds known to treat venereal disease, such as mercury or lead. Some antiseptics, such

as Darby's Prophylactic fluid, were advertised to treat all types of infections, but were most commonly used in the brothel setting, judging by the nine bottles found at a parlor house in Los Angeles along with the remains of six rubber syringes and injector bulbs (Mason 1999:139, Figure 87; Meyer et al. 2005:120).

Antiseptics

As Germ Theory advanced within the medical and scientific communities during the late nineteenth and early twentieth centuries, manufacturers increased both the production and advertisement of antiseptic products. Like Darby's, these products were intended to treat or prevent general infections but were often used for more nefarious reasons. Listerine™, today an antiseptic mouthwash, was once used as a treatment for gonorrhea (Figure 7), while Lysol™, today used as a caustic cleaning agent, was advertised as a household antiseptic and as a douche or solution for feminine hygiene (Figure 8). Although this Lysol advertisement from 1915 is fairly innocuous, advertising of Lysol as a feminine hygiene product became progressively more aggressive during the early to mid-1900s, suggesting use of the product could save marriages. . These disinfectant products did contain caustic products such as ammonia or acidic solutions and were, on occasion, used to treat venereal disease.

Listerine in Genito-Urinary Diseases.—In the treatment of urethritis, an injection of Listerine diluted with five to ten parts of water is an excellent mode of treatment after the acute stage is passed. In the management of vaginitis, Listerine and glycerine, in the proportion of two ounces each to the gallon of hot water, injected three times daily, will produce very good results, which may be enhanced by the use of a tampon saturated with equal parts Listerine and glycerine. Applications of Listerine in full strength or diluted one half with water make an admirable dressing for venereal sores; bathe the parts twice a day with the Listerine; dry without friction, then dust the surface with calomel and bismuth, half and half.

Figure 7. Instructions for using Listerine to treat venereal disease symptoms (Daniel 1897:314).

**Only the Genuine
is in Bottles
Like
These**

Let *Lysol*

Protect Your Family

from germs and disease. You *need* Lysol in your home. Never be without it. At the very moment you are thinking "all is well," disease germs may be beginning their deadly work. Since it is better to *ward off* disease than to fight it afterwards, get a bottle of Lysol today and use it.

Antiseptic, Disinfectant, Germicide

In Sickrooms — Disinfects walls, floor, bedding, bed pans, vessels, bandages, clothing, dressings. Destroys sickroom odors and disease germs. Trained nurses prefer it.

For Personal Hygiene — A teaspoonful to quart of water makes a reliable antiseptic and successful germicide for personal douche, for cuts, wounds and sores.

In Bathrooms — Used in water to disinfect bathtub, basin, toilet, walls, floor, drains. Never corrodes pipes.

Three Sizes: 25c, 50c, \$1.00. Lysol is concentrated. It is used diluted with water.

Helpful Booklet, "Home Hygiene," Mailed Free

Manufacturing
Chemists

Lehn & Fink
New York

85
William St.
New York

Canadian Office, 1 and 3 St. Helen St., Montreal

Figure 8. Advertisement for Lysol (Saturday Evening Post, 6 November 1915:38). Note recommended use as a personal douche.

Toothpastes and Powders

While toothpastes are the preferred product for cleaning teeth today, tooth powders were widely used during the nineteenth century. Often packaged in either porcelain or glass containers, nineteenth-century toothpastes and powders contained an abrading agent (e.g. chalk/calcium carbonate), soap or other cleansing agents, and a flavoring such as mint, cinnamon, or clove. As observed within the current study and other brothel studies, toothpaste/powder use by prostitutes was quite prolific (Mason 1999:137-138).

Petroleum Jelly, or Vaseline™

In the past, Vaseline™, made of petroleum jelly, was used to soothe skin irritations, much as it is today. However, Vaseline™ was also used as a personal lubricant and, in brothels, a contraceptive when mixed with boric acid and applied vaginally or used to “glue” a copper penny to the cervix (Mason 1999:139; Meyer et al. 2005). As early as 1878, medical professionals expounded on the virtues of using Vaseline during gynecological examinations or in the field of obstetrics. A Dr. Dubois even suggested that Vaseline mixed with salicyclic acid would be effective at destroying spermatozoa without damage to the vaginal cavity or uterus (Dubois 1878:52-54). Perhaps, the use of Vaseline as a personal lubricant and mixed with spermicidal compounds was adapted to home and brothel use modeled after usage by medical professionals in the maternity ward. Only one brand of Vaseline™, Chesebrough, was found within the assemblages throughout the entire time span and across the country despite generic brands of petroleum jelly being available on the market.

Skin Creams

Cosmetics for the skin were intended to clear skin eruptions, acne, and pimples, make the complexion appear lighter or fade freckles and dark spots, or simply to make the user appear younger by smoothing wrinkles or softening the skin (Mason 1999:136). Some skin creams contained antiseptic compounds, which would have treated acne-related breakouts, while the products intended to lighten the skin contained calomel, also known as mercurial chloride. Calomel-containing products were toxic and most likely caused more harm than benefit (Copan et al. 2015). Skin creams containing glycerin or petroleum jelly softened and moisturized the skin.

Hair Remedies

The main function of hair remedies was to encourage the growth of hair. These products contained compounds like capsicum or other skin irritants, theoretically increasing blood flow to the scalp and stimulating the hair follicles. Others contained antiseptics, sulfur to treat dandruff, glycerin for moisturizing, or scents (Estes 1988:14).

Florida Water

The name Florida Water is somewhat of a misnomer as it neither contains water nor originates from the state of Florida. Instead, the word “Florida” was derived from *flor*, the Spanish word for flower, and this alcohol-based solution was used as a perfume or cologne.

Florida water was composed of various scented oils, usually lavender, bergamot, lemon oil, cloves, and sometimes cinnamon. Although scented spirits are applied topically today only as perfumes and colognes, throughout the nineteenth century, these same scented spirits, such as Florida water, were thought to possess healing properties and even the ability to cure infections. As the word spirits suggest, Florida Waters contained a high alcohol content and were often imbibed by consumers (Sullivan 1994).

Soda Water and Mineral Water

Bottled soda and mineral water, sometimes carbonated and/or containing a variety of minerals, were viewed as “cure-alls” and touted by physicians and druggists alike to cure or treat a wide range of ailments and diseases from tuberculosis to venereal disease (Back et al. 1995; Linn 2008, 2010). As the general concept of soda and mineral waters is essentially the same—a mineral-laden healthful alternative to alcoholic beverages—and soda water was much more abundant than mineral water, this analysis will subsequently refer to the entire group as “soda waters.”

Sarsaparillas

The precursor to modern-day root beer, sarsaparillas were originally alcoholic beverages advertised as cure-alls, or “blood purifiers.” Although sarsaparillas contained a variety of herbal ingredients with supposed health-giving benefits, the most important ingredient was actually the potassium iodide. Why did the cowboys of the Old West always order a sarsaparilla after visiting

the dancehall or brothel? Prior to the twentieth century, potassium iodide was believed to be a valid treatment of syphilis. Medical journals from the mid-1800s through the early 1900s frequently published articles on the benefits of treating syphilis with sarsaparilla (Wilson 1843; Allbutt 1870; Cullingworth 1906).

While these definitions provide the foundation for the analysis of the data presented in this thesis, the study of gender, socioeconomic class, consumerism, domesticity, and Victorian culture form the basis for the interpretation of the results and therefore the conclusions and implications of this work. The following section demonstrates the ways in which viewing archaeological data through alternative lenses allows anthropologists and archaeologists to overcome stereotypes and to challenge established norms.

CHAPTER II: THEORETICAL BACKGROUND AND PREVIOUS WORKS

Several themes are present throughout this study that aid in the analysis of the consumption of health products by different socioeconomic classes and within brothel settings. These themes, such as consumerism, domesticity, class studies and emulation, often intertwine throughout the various works presented in this section, but the underlying basis for the majority of these works is gender studies. The feminist movement during the 1970s led to new ways of thinking about anthropological methodology, including archaeology. Margaret W. Conkey and Janet D. Spector (1984), in their critical analysis of the history of gender studies, led a Reformation of archaeological theory and methodology that not only created new modes of analysis of anthropological data through archaeological research, but illuminated the sheer quantity of information gained when this data is viewed through an alternate lens.

Gender Studies and New Archaeological Methods

Prior to the 1980s, archaeological studies were inherently androcentric, an observation conveyed by Conkey and Spector (1984) in their critique of archaeological theory and methodologies. Earlier archaeologists, mostly white males, had projected the current beliefs, trends, and gender roles onto the sites being excavated, leading to generalizations such as sites related to hunting and activity being associated with males, while gathering and passivity were associated with females. Conkey and Spector (1984) stressed the importance of regarding these past studies with a critical eye and suggested new ways of approaching an archaeology of gender. One specific method they suggested was to ask questions about the sites and artifacts

instead of simply making *a priori* assumptions. By posing research questions and goals, patterns could emerge independently of expectations, creating completely new and different modes of analyzing gender within archaeological studies.

Shannon Lee Dawdy and Richard Weyhing (2008) demonstrated how projecting assumptions, or “desires,” onto an archaeological site can blind researchers to alternative hypotheses. For instance, an exceptionally high number of faience rouge pots were found at the archaeological excavation of the site of the historic House of the Rising Sun Hotel in New Orleans, Louisiana. Contemporary newspaper advertisements, as well as the lyrics of the folk song “House of the Rising Sun,” suggested that the “hotel” was actually a brothel. New Orleans’ humble beginnings as a settlement of New France and the association of the French with heavy cosmetic use coupled with French sexuality and cosmetic use by prostitutes, encouraged the seemingly obvious explanation that the large number of rouge pots was due to the presence of French prostitutes at the House of the Rising Sun Hotel.

Projecting French stereotypes and assumptions regarding the gendered use of rouge pots onto the House of the Rising Sun hotel site could have caused the researchers to overlook the possibility that the 1820s, when the hotel/brothel burned down, was the height of dandyism in the United States. The “dandy,” a trend that started in England in the 1790s and continued through the 1840s in France, was a lower- or middle-class man, carefully manicured, dressed, and made up in an attempt to elevate his status. Cosmetic use by nineteenth-century American men was therefore not uncommon and thus, the large number of faience rouge pots found at the archaeological excavation of the House of the Rising Sun Hotel site could be explained by the presence of dandies congregating at the House of the Rising Sun hotel in the early 1800s. This hypothesis was further supported by an artistic rendition of two dandies facing off in a New

Orleans billiard hall in the 1820s (Dawdy and Weyhing 2008:385). If the chief archaeologists had not posed research questions and instead assumed the rouge pots had belonged to French prostitutes, then the alternative hypothesis connecting the rouge pots with dandies may have never been developed.

Another inherent bias that affected archaeology before the 1980s was the belief that gender and sex were synonymous. Further anthropological studies demonstrated that while sex was biologically determined and, for the most part, universal, gender was actually a social and cultural construct. When using the method of posing research questions about gender at archaeological sites, archaeologists began to discover that gender-related tasks and activities, gendered artifacts and sites, and even gender itself varied across time and throughout cultures.

Mary K. Whelan (1991), for example, discovered while excavating nineteenth-century Dakota burial sites, that artifacts associated with certain gender-related tasks could not be reliably associated with sex in the burial context. Furthermore, while Euro-American beliefs centered on the binary concept of gender, other cultures, like the Dakota, constructed three, if not more, gender categories based on ability to reproduce. The concept of gender fluidity in other cultures relating to tasks, activities, adornment, identification, and more has become the focus of many archaeological studies.

Gender construct and sexuality in an environment dominated by one particular sex was analyzed by Eleanor Conlin Casella (2000) in her study on nineteenth-century Australian convict prisons. Documentary evidence from the prisons, all-female facilities, revealed that the female prisoners were engaging in same-sex relationships, the reports even going so far as to call some of the women engaging in the illicit behavior “pseudo-males.” Not only does this study demonstrate the mode of construction of an alternate gender in an environment dominated by one

particular sex, but the ways in which the male administrators and superintendents of the prison perceived and explained these behaviors within a binary gender belief system. Alternative currencies were also constructed in the prison environment in the absence of legitimate federal currency. Archaeological evidence suggested that buttons were used as a currency in the “illicit” economy of the prison, traded for sex or small luxuries like extra food rations, alcohol, or tobacco. Again, the posing of research questions allowed Casella (2000) to form alternative hypotheses regarding the large number and spatial location of buttons in portions of the prison where sewing and piecework were not being completed.

Gender studies in archaeology paved the way for future archaeologists to think more critically about archaeological sites, form research questions, and search for alternative explanations instead of projecting stereotypes or assumptions onto excavations. Approaching archaeological excavations and interpretation differently not only provided new ways of thinking about gender but led to novel methods of study of socioeconomic class, consumerism, domesticity, and more. For example, the utilization of a more critical analysis of site data enabled the archaeologists excavating the Five Points Neighborhood in New York City to challenge prevailing stereotypes and views of urban slums (Yamin 1998, 2000a, 2000b, 2005; Yamin et al. 1997).

Merging Consumerism, Gender Studies, Class Studies, and Domesticity

Of importance to the current study is Dianna diZerega Wall’s (1991, 1994, 1999) works on the separate spheres of men and women in the nineteenth century, based, in part, on the concept of the “Cult of Domesticity.” With the development of the middle class during the early

1800s, a pattern emerged in which households of the middling classes moved to suburbs on the outskirts of cities. Male wage earners would commute via omnibuses into the city, while women remained at home in the suburbs to raise the children, safely ensconced from the evils of the city. The basis of the emergence of this pattern was “The Cult of the True Womanhood” which stipulated the fairer sex focus on piety, purity, submissiveness, and domesticity (Welter 1966:152). Separate gendered spheres allowed women to remain in the home, be the moral compass of the household, teach their children how to be proper, genteel citizens, and engage in healthy domestic pursuits.

The Cult of the True Womanhood evolved into the Cult of Domesticity, which pervaded the homes of middle-class Americans. Wall (1991, 1994, 1999) discovered that the Cult of Domesticity/True Womanhood could be viewed archaeologically in the type of ceramics used by women. The Gothic Revival style of architecture, associated with the churches and cathedrals of the Old World, became popular across the cityscape of New York City during the 1840s. Household architecture, furnishings, decorations, and ceramic and glass vessels also adopted the Gothic Revival style, and with a focus on piety, purity, morality, and religion, became important to middle-class women to emphasize their roles as the keeper and teacher of morality in their households. For instance, Gothic-style paneled ironstone vessels found in middle-class archaeological sites represented women adhering to the Cult of Domesticity via their choice in domestic goods.

Further archaeological studies of ceramic assemblages compared upper-middle class and lower-middle class households. Wall (1991) found that both middle-class families were using the Gothic-style paneled ironstone vessels, but the upper-middle-class households were using more ornate porcelain teaware as well. A similar trend was revealed in a study comparing middle-class

ceramic assemblages to working-class households. Gothic-style paneled ironstone vessels were observed throughout all of the assemblages, but the middle-class's ceramic assemblage contained more matched sets and more porcelain, while the working class preferred a variety of molded ceramic vessels but not as much porcelain (Fitts 1999; Wall 1999). The ceramic preferences of the middle- and working-classes are used at archaeological excavations across the country to identify or support documentary evidence regarding the socioeconomic status of the previous inhabitants of the site in question.

During the nineteenth century, writings by moral reformers supposedly attempting to tame the Five Points neighborhood in New York City painted the area as wild, crime-ridden, and morally degraded in an attempt to inspire members of the middle class to donate to the cause (Fitts 1999). Unfortunately, the stereotypes in these writings survived to the present day and have colored the modern viewpoint of the slums of New York. Analysis of the Five Points assemblage would have been horribly biased based on the reformers' accounts alone, but by posing research questions and searching for alternate explanations, archaeologists discovered that the nineteenth-century accounts by reformers were grossly exaggerated. Matching sets of the Gothic-style paneled ceramics suggested that the working-class immigrants of Five Points were adhering to the Cult of Domesticity (Fitts 2001:123), while porcelain tea sets and a variety of transfer-print and other decorated ceramics demonstrated that the people of Five Points were not living in the squalor depicted by the reformists' literature (Fitts 2001; Yamin et al. 1997). The archaeological assemblage of the Five Points excavation viewed through the unbiased lens of a more critical archaeological method revealed a vibrant community in place of dismal slums.

Applying Consumerism and Class Analysis to Brothel Studies

As a subset of gender studies, brothel and prostitution studies have investigated the ways in which prostitution-related artifacts and data presents within archaeological assemblages, compared brothel assemblages with other archaeological assemblage subsets, analyzed the types of artifacts associated with brothel sites, inferred the quality of life of prostitutes, and much more. Combining brothel studies and consumerism is the basis for much of Donna J. Seifert's works. Seifert and Balicki (2005) analyzed Washington, D.C. assemblages from sites with various socioeconomic statuses, as well as known brothel sites. The study compared the assemblage from madam Mary Ann Hall's parlor house, popular in 1860s Washington, D.C. to other archaeological assemblages from nineteenth-century Washington, D.C. to analyze consumerism via purchasing power between the prostitutes and both working- and middle-class households. The study revealed that the percentage of kitchen artifacts was highest in Mary Ann Hall's parlor house assemblage and a middle-class assemblage (Seifert and Balicki 2005:63), suggesting that these households maintained the resources for purchasing greater amounts of consumer goods. Another hypothesis, though, suggests that the 18 prostitutes and several servants that lived at Mary Ann Hall's parlor house, nearly twice the size of most of the working-class households, required twice the amount of kitchen artifacts to properly feed the inhabitants of the parlor house. The meals or hors d'oeuvres served to the patrons of parlor houses also required a more extensive kitchen and expanded array of serving and cooking vessels.

However, clothing artifacts accounted for over 1% of the assemblage only in the brothel assemblages (Seifert and Balicki 2005:63), evidence of either the increased purchasing power of the prostitutes or perhaps the stringent requirements of the madams. Mary Ann Hall's parlor

house assemblage was also compared to other Washington, D.C. brothels from either 1870-1890 or 1890-1913, 1913 being the year prostitution was banned in Washington, D.C. In the later assemblage, clothing artifacts actually approached 2%, indicating even more purchasing power for the later prostitutes than the prostitutes at Mary Ann Hall's parlor house (Seifert and Balicki 2005:63).

Rebecca Yamin (2000a, 2000b, 2005) observed a similar trend of increased purchasing power in New York City parlor houses, whose assemblages contained much nicer ceramics than that of the working class, and evidence of small luxuries such as pet birds in birdcages, as indicated by the presence of a bird feeder (2000a:Figure 69). This trend of increased purchasing power as evidenced by nicer ceramics and small luxuries was not isolated simply to the eastern United States either; the presence of a decorative majolica pitcher and a Staffordshire covered dish in a Prescott brothel assemblage suggests prostitutes out West possessed an increased purchasing power that enabled them to buy nicer decorations than perhaps the other inhabitants of the Western mining town (Foster et al. 2005:364-365).

Other archaeological studies have analyzed the public versus the private spheres as demonstrated by artifacts and features from the brothel sites (Ketz et al. 2005). The site of Nina Clifford's bordello in St. Paul offered a unique series of features that represented the public and private side of the lives of Clifford's prostitutes. A feature near the front entrance of the Bordello represented public side of brothel life and contained porcelain and decorated ceramics, while the backyard feature contained only one porcelain sherd and less decorated pieces (Ketz et al. 2005:81-81). Thus, the patrons of the brothel, in the "public" sphere, used much nicer and higher quality ceramics, while the prostitutes themselves, in the "private" sphere, used plainer and cheaper ceramics.

Other brothel assemblages, such as the double boardinghouse/brothel down the street from Nina Clifford's bordello, the Five Points brothels in New York City, and the Aliso Street parlor house in Los Angeles, contained a mix of nicer and more mundane ceramics, representing both the public and private sides of prostitution deposited in one location (Ketz et al. 1999; Meyer et al. 2005; Yamin 2000a, 2005). Faunal studies also found the remains of expensive meat cuts combined with cheaper cuts in the parlor house assemblage, contributing to the dual nature of prostitutes' public and private lives (Costello et al. 1999; Foster et al. 2005; Ketz et al. 2005; Milne and Crabtree 2000; Seifert 1991; Yamin 2000a).

Rebecca Yamin suggests that the duality in the quality of ceramics is a result of the parlor house madams' desire to portray a middle-class signature to their clients while simultaneously cutting costs behind the scenes (Yamin 2005:11). Thus, the presence of higher quality decorated and porcelain servingware and teaware may not be a result of simply greater purchasing power, but instead a strategy for attracting middle- to upper-class patrons. Around the turn of the twentieth century, the Aliso Street parlor house madam in Los Angeles took the strategy one step farther by utilizing a classic Victorian Era Queen Anne-style house as a brothel, complete with all the gaudy decorations, fancy ceramics, and oil lamps reminiscent of the bygone morally-cognizant Victorian culture (Costello et al. 1998:123-124). Perhaps the portrayal of an old-fashioned home was intended to soothe the consciences of the wealthy patrons or simply to attract clients with substantial financial resources.

Regardless, the presence at brothel archaeological sites of glass bottles that once contained patent medicines or other health products either intended to treat venereal disease or

with a high alcohol or narcotic contents to numb the pain testifies that the nice clothing, better food, abundance of grooming and beauty products, and the other accoutrements of brothel life came with a price. This study analyzes those glass bottles that once contained health products in conjunction with different socioeconomic classes of both households and brothels in the context of consumerism and purchasing power. Analysis of health products and the ingredients they contained reveal aspects of not only the quality of life of various groups during the Victorian Period, but the cultural values important to the nineteenth- and early twentieth-century consumers of these products.

CHAPTER III: METHODOLOGY, STUDY LIMITATIONS AND ARCHAEOLOGICAL SITE

SUMMARIES

Prostitution studies, analyses of glass bottles, Victorian-era culture studies, and socioeconomic comparisons are all commonly employed themes in archaeological papers. The current study differs from others by incorporating all four methodological strategies into one analysis via cross-site comparisons from multiple geographical areas, differing socioeconomic statuses, and both brothel and non-brothel households. In addition, ingredient analyses have been employed to elucidate consumption patterns of various substances. Thus, the results of this analysis represent interpretations of health data by socioeconomic class, lifestyle/profession, health product consumption patterns, adherence to Victorian cultural values, emulation of higher social classes, assimilation into a host culture, and increased purchasing power, while simultaneously providing new insights into archaeological studies of prostitution.

Methodology

The current study is a combined analysis of data from multiple sites with a specific focus on prostitution. Archaeological data from brothel sites discussed in the articles of the 2005 special thematic edition of *Historical Archaeology*, titled *Sin City*, were used as a starting point for this analysis. Online searches via tDAR (the Digital Archaeological Record database), Google Scholar, and JSTOR with the search terms “archaeology” and “patent medicine” provided data from additional archaeological sites, such as the Prescott, Arizona, red-light district, San Luis Obispo mission school in California, and the Vanoli Complex in Ouray,

Colorado. Fortunately, the entire Vanoli Complex archaeological dataset was available on tDAR, as well. The New York City Five Points site report and accompanying data were supplied by Dr. Elizabeth Scott while the David Davis and St. Louis assemblage data were derived from Carl Zachmann's thesis on brand loyalty. Other site reports were generously shared by either the principal investigators or the cultural resource management firms associated with the sites. Once the data was obtained, the health products were entered into a spreadsheet with the associated feature, socioeconomic status, brothel affiliation, and ingredients when known.

Socioeconomic status was determined via the original archaeologists' or researchers' assessments for each site and feature. Although corroborating evidence for the sites' associated socioeconomic status will be provided later in the analysis, this study sought to use the original classifications to accurately group the sites and features and thus did not re-assess socioeconomic class determinations. Any deviation from the original determinations, as well as the rationale for the categorization of ambiguous data, will be thoroughly examined and explained throughout this study.

Determining the ingredients contained in each health product was challenging and, for some products, nearly impossible. The 1906 Pure Food and Drug Act was passed to ensure proper labeling of certain ingredients such as alcohol, cannabis and opioid derivatives in pharmaceutical products. Thus, products were tested to ensure compliance to the Act and the results compiled into a volume: *The Composition of Certain Patent and Proprietary Medicines* (Street 1917). Ingredients for products not listed in this resource were found in published formularies and medical supply publications such as *The Secrets of Specialists* (Covey 1903) and *The Standard Formulary* (Ebert and Hiss 1904). Patent infringement, misbranding, and adulteration cases from *Notices of Judgement Under the Food and Drugs Act* also provided

ingredient data for certain products (e.g. for the adulteration and misbranding of Fernet Branca, see United States Department of Agriculture 1919:358). Occasionally, websites were used for specific ingredients, especially for the bitters (e.g. Fernet Branca).

Products whose ingredients could not be found were still utilized in the product analysis if the primary use or category could be discerned but were not included in the ingredient analysis. The product data analysis facilitated the determination of the types of health products consumed and the ailments treated in addition to detecting brand or product loyalty. Analysis of the ingredient data revealed the actual frequencies in which certain ingredients were consumed and allowed for the discovery of consumption patterns undetectable by the product data alone.

The minimum number of vessels (MNV) for each product in specific features was obtained from the site reports and entered into a spreadsheet corresponding with specific groupings: prostitute or non-prostitute; working, middle, or upper class; working-class prostitute or working-class non-prostitute; and upper-class prostitute or upper-class non-prostitute. The percentages of each product were calculated using the MNV divided by the total number of vessels represented in the specific grouping and the results were used to create bar graphs. The products were grouped by type and both the number of brands and the summation of the percentages of each brand in each product type were listed in a table in conjunction with the groupings listed above. In lieu of a legend for the bar graphs, each row of the product tables representing a product type was color coded to correspond with the products in the bar graphs providing a visual representation of the distribution of the product data. Within the current study, the groupings listed above were compared in specific combinations in which to best analyze the data and the corresponding tables and graphs are dispersed throughout the product results.

The data from the product spreadsheet were combined with the ingredient data into a second spreadsheet and again sorted into the groupings listed in the above paragraph. The ingredients were grouped by pharmaceutical class, such as soda water, alcohol, opioid pain-killers, non-opioid pain killers, stimulants, laxatives, stomach-soothing ingredients, aromatic compounds, flavorings, topical compounds, poisons, herbal, and so on, to demonstrate the consumption patterns of each of the socioeconomic and/or brothel-related groups. Percentages for each product in conjunction with each grouping were calculated and a corresponding graph created for visual representation. To facilitate interpretation of the results, data tables and bar graphs were constructed for the product data, while only bar graphs were used for the ingredient data due to the sheer number of ingredients.

Limitations of the Study

Archaeological sites with adequate embossed-glass bottle data for analysis were difficult to find, especially for bottles once containing health and grooming products. Thus, to be able to include upper-class data to compare to the upper-class prostitutes, data from two slightly problematic sites were utilized in this analysis. The David Davis Mansion archaeological excavation provided a plethora of medicine and grooming bottles, but the Davises were technically upper-middle class as David Davis was a lawyer before he became a judge and politician (DDMSHS 1993; Zachmann 2010). However, the Davises' estate represents the highest socioeconomic class of the entire non-prostitute assemblage. Also, the other middle-class households in the study still lived in working-class neighborhoods, whereas the Davises resided

on a substantial estate. Thus, the David Davis Mansion assemblage was categorized as “upper-class non-prostitute.”

To supplement the upper-class non-prostitute data from the David Davis Mansion, data from the excavation of a mission school for wealthy young ladies, the Academy of the Immaculate Heart, at San Luis Obispo in California were utilized due to plethora of embossed glass bottles and health products found at this site. The majority of inhabitants of the mission school would have been upper-class students whose families could afford to send them to a boarding school, while the teachers and staff of the mission school would have been considered middle-class. The Mission also offered a free clinic to service the poor, and unfortunately, the site of the clinic was spatially oriented not far from the privy feature excavated in the study (Parker 2006). However, as the data are most likely from the large number of upper-class students there and the assemblage contained a significant amount of health and grooming products, the data was included with the David Davis Mansion assemblage in the upper-class non-prostitute grouping. The possibility that the glass bottles once belonged to either the middle-class staff and/or were utilized in the free clinic is, therefore, a limitation to this study. In addition, the San Luis Obispo site contained a large number of bottles of both California Fig Syrup, to treat constipation, and Dr. Marshall’s Snuff, a nasal product to treat catarrh (Parker 2006), likely skewing the upper-class and upper-class non-prostitute results in favor of laxatives and catarrh medications.

Skewing of the prostitute, working-class, and working-class prostitute data was also caused by a plethora of Fernet Branca bottles found at a brothel-associated feature in Ouray, Colorado (Sherman 2013). The brothel was attached to a saloon/dancehall, thus the bottles may have been come from either the saloon or the brothel. Regardless, the combined effect of the

multitude of bottles coupled with the number of ingredients in Fernet Branca lowered the percentages of other ingredients in the groupings mentioned above, as well as enhanced the alcohol percentage.

The sheer number of products, categories, and ingredients rendered statistical analysis difficult. As the first of this type of combined product and ingredient analysis, this writing should still establish the feasibility of such an analysis to guide future studies. This study includes only descriptive statistics of relative frequencies, but future analyses could include more rigorous statistical tests for significance and variability. Despite this ground-level assessment of data, the results still revealed distinct patterns in each of the assemblage groupings that facilitate the development of future guidelines for using embossed glass health product bottles as supporting evidence of brothel sites, especially where and when documentary evidence may not be available. Also, clear consumption patterns were elucidated from this study that allowed for analysis of gendered experiences during the Victoria Period for various groups with differing socioeconomic statuses and lifestyle choices.

Discernment of the exact ingredients of the health products proved difficult and the published nineteenth-century formularies were likely not completely accurate as the “recipes” were often approximations by medical practitioners or pharmacists of the ingredients pharmaceutical manufacturers included in their products. A corresponding limitation to this study is that the ingredients are not represented as actual percentages within each product, but rather as the percentage of times the ingredient is mentioned as a component of a particular product. For instance, a product containing three ingredients did not contain equal percentages (33.33%) of each ingredient, yet each of the ingredients are ascribed the same value. The overall alcohol content for many of the products was very high, sometimes 40-90%, but this presence-

absence analysis counted alcohol equal to the other ingredients in the product. Therefore, the amount of alcohol consumed by a group is actually grossly underestimated in this study.

As will be mentioned in later in this analysis, some ingredients have multiple functions in pharmaceutical products, slightly confusing the results. For instance, glycerin is a commonly-used laxative, but the emulsive properties that cause the laxative effect also aid in the suspension of ingredients in a product or can act as a skin-soothing agent. Although glycerin was categorized as a laxative ingredient, its enhanced peaks, representing an oft used ingredient, were likely a result of the manufacturers' use of its emulsive properties. Similarly, peppermint is categorized as a stomach-soothing compound, but was also used as a flavoring and scent. Thus, this analysis of ingredient data could be refined in future studies to better account for these multiple functions and effects. The results effectively demonstrate, though, consumption patterns that provide new insights into gender, domesticity, sex work, and quality of life during the Victorian Period.

Site Summaries

Archaeological data from multiple features of excavations in nine different geographic locations across the United States were used in this study. In-depth descriptions of each project's methodologies are available in the technical site reports and associated articles for each locale. For the purposes of this thesis, basic information about each site will be provided below with important details provided throughout the rest of this writing.

The David Davis Mansion in Bloomington, Illinois

David Davis became acquainted with Abraham Lincoln in the late 1840s when Davis was a judge of the Illinois' 8th Circuit Court and Lincoln was a young lawyer riding that particular circuit. Over time, Davis and Lincoln became close friends, and Judge Davis played a role in gaining the 1860 Republican presidential nomination that led to Lincoln's presidency. In 1862, President Lincoln appointed Judge Davis to the U.S. Supreme Court and in 1876, Davis was elected to the U.S. Senate after his resignation from the Supreme Court (DDMSHS 1993; Zachmann 2010).

Davis's Mansion was constructed during a period from 1869 to 1872 with a combination woodhouse and privy added to the property in 1871. Although the Mansion itself had indoor plumbing, the privy, traditionally divided with the women's side on the west and the men's on the east, would have been used by the house staff while working outside or by farmhands working on the property. Artifacts were discovered in the privy vaults when the structure underwent a stabilization project in the 1980s. Each privy vault was emptied via a pump and a collection screen was placed over the intake hose to collect the artifacts. Although stratigraphy was lost in the process, the artifacts from both the east and west vaults were kept separate and thus their associated assemblages were termed "East Privy" and "West Privy" (Mansberger and Warren 1990:12; Zachmann 2010:31). Although exact dates for the addition of a servants' bathroom and the closure of the privy is unknown, Davis's son George Perrin Davis performed the majority of the upgrades to the Mansion during his tenure from 1886 to 1917 (DDMSHS 1993; Zachmann 2010:31). Thus, the artifacts could have been discarded any time between construction of the privy building in 1871 and closure sometime in the late nineteenth or early

twentieth centuries. As mentioned in the “Limitations” section above, Davis’s political success and his substantial estate warranted categorization of the associated East Privy and West Privy assemblages as upper class. Although some of the artifacts may have been disposed of by the servants, they most likely came from the wealthy inhabitants of the Mansion.

Aliso Street Parlor House, Los Angeles, California

The site of the new Headquarters facility building of The Metropolitan Water District of Southern California (Metropolitan) in downtown Los Angeles was excavated in the fall of 1996, by Foothill Resources, Ltd., Applied Earthworks, Inc., and the Anthropological Studies Center of Sonoma State University (Costello et al. 1999). The vicinity of the study area was known from previous excavations to contain both prehistoric and historic data, and this cultural resource management (CRM) project was undertaken to reveal important information regarding the development of the original town site (Costello et al 1999:2). Upon removal of the Metropolitan parking lot, portions of the nineteenth-century ground surface were found to be intact, complete with multiple features associated with architectural remains, privy pits, wells, and trash middens. Overall, 40 features were excavated and over 40,000 artifacts representing some 7,500 objects were collected for analysis (Costello et al. 1999:4).

The Aliso Street brothel was represented by a privy feature that was added in the last decade of the nineteenth-century. In 1901, the six-seater privy was torn down and toilets were installed in the parlor house. Around the same time, the parlor house was extensively cleaned and refuse from the brothel’s kitchens, pantry, salon, and bedrooms was used to fill the privy vaults. Almost 20,000 artifacts were removed and analyzed from the privy fill, providing an

extremely rich assemblage for analysis of life in a late nineteenth-/early twentieth-century parlor house (Costello et al. 1999:118-120).

Five Points, New York City, New York

The construction of the new federal courthouse on Foley Street in New York City allowed for a glimpse into the life of nineteenth-century inhabitants of the notorious Five Points neighborhood. Five Point refers to the intersection of three streets: Orange (now Baxter), Cross (now Park), and Anthony (now Worth) (Figure 9). In 1920, construction of the New York County Courthouse was completed, covering a portion of what was once the Five Points District. The study area, where the new courthouse was to be built, had been covered by a cement parking lot from 1961 to 1991, effectively sealing and preserving the remnants of “a complex of tightly packed tenement foundations, cellar floors, and courtyards” (Yamin 2000a:1). Columbia University professor James Stanton likened the area to a “veritable Pompeii” and thought this vestige of nineteenth-century life should be preserved in place (Yamin 2000a:1). Instead, 22 of 50 identified features were excavated by John Milner Associates from May of 1991 to January of 1992, providing nearly one million artifacts to be analyzed (Yamin 2000a:1). Eight features from the excavation, representing both working- and middle-class non-brothel buildings and two separate parlor houses, were utilized in the current study.

Figure 9. Location of Five Points in relation to the project area in New York City. The five red "angles" represent the five points that led to the moniker "Five Points Neighborhood" (Yamin 200a:Figure 2).

Feature AF referred to a privy feature from a very early nineteenth-century household of a baker and his family (Ponz 2000:49; Yamin 2000a:104,109). Bakers were considered artisans and the associated assemblage was thus termed “middle class.” Privy Feature H was associated with two Polish households on Orange Street, which was lined with clothes stores and secondhand shops during the 1850s and 1860s. The proprietors lived above the shops and took in boarders for extra income. The boarders of one of the Polish shopkeepers were two German tailors, while the other store owner, a shoemaker, boarded an Irish shoemaker and an apprentice. A glazier and another shoemaker resided in the building after the first shoemaker moved away, but by 1860, Italian immigrants had moved into the area. At some point, perhaps after the first shoemaker left in the mid-1850s, the residents of the two households began using the privy as a garbage pit, and as all of the professions listed above are also considered artisanal, Feature H’s assemblage was thus categorized as “middle-class non-prostitute” (Ponz 2000:53; Yamin 2000a:129,132).

Yet another privy feature, AK, was used by a German baker who lived and worked at 474-476 Pearl Street in addition to the residents of an apartment building with six units at 4 Orange Street. The apartment building housed shoemakers, clothiers, and tailors of Irish, Prussian, German, and Polish descent throughout the 1850s and 1860s. During the 1870s and 1880s, an addition with new and improved plumbing facilities was built onto the back of 4 Orange Street and Privy Feature AK was thus filled with refuse from the shoe and clothes making industries (Ponz 2000:57; Yamin 2000a:126,129). These professions, once again, rendered Feature AK “middle-class non-prostitute.”

Feature AG was also a privy feature, the refuse once belonging to the prostitutes of the parlor house at 12 Orange Street in the 1840s, warranting the designation “upper-class prostitute”

(Ponz 2000:51; Yamin 2000a:135). The refuse from Feature AL, another privy feature, also once belonged to prostitutes from a parlor house at 4 Pearl Street, except at a much later time period than the prostitutes at 12 Orange Street, probably sometime during the 1860s. The presence of a parlor house led to the categorization of Feature AL material as “upper-class prostitute” as well (Ponz 2000:53; Yamin 2000a:126).

An icehouse once used by the proprietor of an oyster house was represented by Feature AM. After the proprietor of the oyster house left in the late 1850s, upstairs working-class tenants used the abandoned icehouse as a garbage pit throughout the 1860s, rendering artifacts from Feature AM “working-class non-prostitute” (Ponz 2000:54; Yamin 2000a:119, 123). Features J/T/U/Z were a cluster of features surrounding a cesspool and cistern associated with the tenement at 472 Pearl Street. This assemblage, deposited from the 1850s to the 1870s, was also designated “working-class non-prostitute (Ponz 2000:52, 56; Yamin 2000a:A-29). Finally, Feature O was, yet again, another privy feature, associated with a saloon and tenement building at 474 Pearl Street, of which 47 of the approximate 60 residents were Irish. A new brick tenement building was constructed in 1874, and the material from the old building was used to fill the old privy, Feature O, whose assemblage, associated with a tenement, yet again, gained the categorization of “working-class non-prostitute” (Ponz 2000:55; Yamin 2000a:114,116).

The rich assemblage associated with Five Points spanned almost the entirety of the nineteenth century and derived from the lives of hundreds of working- and middle-class families, as well as New York citizens ascribing to a more illicit lifestyle. What makes the site report of the Five Points 1991-1992 excavation even more of a National Treasure is the sad fact that most of the artifacts were stored in the basement of the Twin Towers and destroyed during the 9/11 terrorist attack when the buildings fell. The extensive analysis performed by Rebecca Yamin and

others at John Milner Associates guaranteed that the archaeological community can continue to use the data for years to come.

Oakland Point Neighborhood, Oakland, California

Between 1994 and 1996, 22 city blocks of Oakland, California, were archaeologically excavated by Sonoma State University's Anthropological Studies Center during the replacement of I-880 Cypress Freeway. Over 100 features were discovered that were potentially eligible for inclusion in the National Register of Historic Places. The features included in the current study come from Project Blocks 19, 20, 21, and 37, originally part of the Oakland Point neighborhood, which emerged upon the completion of the San Francisco and Oakland Railway in 1863. During the nineteenth century, this neighborhood was inhabited by working families either directly or indirectly associated with the railroad, both working-class railroad workers and middle-class skilled tradesman (Praetzellis 2001:iii). Figure 10 summarizes the features from the Oakland Points neighborhood excavation.

Middle-Class Households				
<i>Feature</i>	<i>Address</i>	<i>Residents</i>	<i>Occupation</i>	<i>Dates</i>
Privy 8445	793 Wood St.	Frederick and Lydia Holderer	Sewing machine salesman	Mid 1890s
Privy 6260	1821 William St.	Frederick Leonhart	Cooper	Early 1880s
Privy 6239	1823 William St. (duplex)	Henry Hansen and wife	Fisherman	Early 1880s
	1825 William St. (Duplex)	Henry Hayles and family	Railroad man	Early 1880s
Privy 6292	1823 William St. (Duplex)	Joseph Finley and family	Shoemaker and dressmakers	Middle 1880s
Privy 6300	1827 William St.	Unknown	Unknown	Early 1880s
Privy 6325	1814 Atlantic St.	Daniel Robertson and family	Foreman	Middle 1880s
Privy 6270	1820 Atlantic St.	Ives Scoville and family	Machinist	Early 1870s
	1820 Atlantic St.	E.K. Rogers and family (boarders)	Engineer	Early 1870s
Privy 6282	1820 Atlantic St.	Hiram Haynes and family	Ship's carpenter	1880s
Well 7175	812 Pine St.	Unknown	Likely semi-skilled workers	ca. 1900
Well 7500	1768 Atlantic St.	John Weisheimer	Painter	ca. 1905
Working-Class Households				
<i>Feature</i>	<i>Address</i>	<i>Residents</i>	<i>Occupation</i>	<i>Dates</i>
Well 7511	1776 Atlantic St.	Southern Pacific/African American/Irish households	Laborers and laundresses	Early to mid-1890s
Privy 100	1708 William St.	John Stryker/George Huddleson families	Coffee-mill worker, machinist, dressmaker	ca.1880
Pit 141	1712 William St.	Margaret O'Connell	Widow	ca. 1878

Figure 10. Oakland features with associated address, residents, occupation, and approximate date of habitation.

Vanoli Sporting Complex, Ouray, Colorado

Steven Baker of Centuries Research, Inc., excavated Block 8, the archaeological remains of the Vanoli Sporting Complex, of Ouray, Colorado, between 1970 and 1981 (Burnette 2014:85; Horobik 2011:45). If a formal report was published, the whereabouts are currently

unknown. However, Baker's field notes, maps, and artifacts were kept at Centuries Research, Inc., until 2009, when the materials were transferred to Colorado State University for further analysis. Several of Mary Van Buren's students have written theses, research papers, and articles on the Vanoli Sporting Complex data, of which the theses of Heather Horobik (2011) and Richard T. Burnette (2014) provided substantial information for the current study.

Baker's excavations occurred when the structures on the historic block in Ouray, Colorado, that was once the Vanoli Sporting Complex, were slated for demolition. These excavations were an attempt to salvage as much information as possible regarding the Victorian-Era culture of a Western mining town red-light district. Several of the original buildings of the block were still standing, having been abandoned since Prohibition. Over the course of four field seasons, Baker carefully recorded spatial data and collected an exceptionally rich assemblage for future analysis (Horobik 2011:45-46).

Using the Canada Parks archaeological methodology, Baker excavated 21 separate units representing 23 operations. Each of the operations were divided horizontally into sub-operations to focus on specific features and designated by a letter of the alphabet. The sub-operations were broken down vertically by lots to represent different time periods within the stratigraphy; lots were represented by a numerical character added to the sub-operation's alphabet letter, which was thus added to the operation's numerical character (Horobik 2014:46-47). After the artifacts were transferred from Centuries Research, Inc. to Colorado State University, students there carefully analyzed each artifact in the laboratory and entered the data into a Microsoft Access database that was then made available through tDAR. Data for the current study was extracted from the tDAR Access file (Sherman 2013), an extremely rich dataset. The archaeological

material was dated to between 1877 and 1916 (Burnette 2014:85), the majority of this time period represented by the Victorian Period.

The Vanoli Sporting Complex was a series of buildings managed by John Vanoli during the late 1800s. A concise history of the block was provided in Burnette's thesis:

Between 1877 and 1885, a hotel or boarding house on lots 21 and 22, at various times called the Ouray House, Grand Pacific, and 2:20, operated in various capacities as a hotel, saloon, gambling and dance hall, and brothel. In 1885, the Torino-born businessman John Vanoli took ownership of the lots and existing structure, establishing the 220 Boarding House. After 1885, John Vanoli and his Italian business associates expanded the number of establishments on the block, creating a profitable brothel complex until state prohibition was enacted in 1916 [Burnette 2014:85].

Around the turn of the century, Block 8 consisted of "a livery, barns, a freighting office, wagon storage, two saloons, a Chinese laundry, the 220 dancehall/boardinghouse, the Gold Belt theatre, a possible restaurant, and many facilities for prostitution" (Horobik 2011:22). John Vanoli and his family owned four of the six buildings associated with the red-light district, as well as the multiple cribs located throughout the block (Horobik 2011:22); the area was thus designated as the "Vanoli Sporting Complex."

As can be seen in Burnette's reconstruction of Bakers excavation (Figure 11), Operations 1, 18, and 23 (which is within Operation 18) are associated with the Gold Belt Theatre and its adjacent cribs. Operations 3, 19, and 21 are all associated with the "220" dancehall/boarding house/brothel. Operation 7 is associated with the cribs behind the Chinese laundry while

Operation 8 is associated with either the Chinese laundry or the cribs behind the building. The Roma Saloon was represented by operation 17, while the saloon with possibly lodging above (most likely just a brothel) was represented by operation 10. As this area was a red-light district and contained multiple brothels, every single operation/feature is associated with prostitution. Since each of the brothels and cribs were associated with saloons and/or dance halls, the entire Ouray assemblage was categorized as “working-class prostitute.”

Figure 11. Richard Burnette's reconstruction of Steven Baker's 1970s Excavation at the Vanoli Sporting Complex. Structures ca. 1908 (Burnette 2014: Figure 40). Features (operations) included in the current analysis are marked by a red oval. Note: Feature/Operation 23 is part of Operation 18 (Horobik 2011: Table 2).

Original Town Site, Block 13, Prescott, Arizona

Archaeologists from SWCA Environmental Consultants, along with some enthusiastic volunteers, excavated lots 4 through 9 of Prescott's original town site Block 13 for four weeks from mid-October to mid-November of 2002. The excavation was conducted in order to gain information about the structures and former residents of a block that, historically, was at the heart of a red-light district, before construction began on a multi-level parking facility complete with residential lofts (Foster et al. 2004:xi).

Almost 2300 feet of backhoe trenches were excavated while over 8000 square feet of surface soil/debris was stripped. During the excavation, 38 archaeological features or possible features and 18 cultural features were discovered, although some of these were found to be the smeared, burned cultural remains from a 1900 fire. However, many glass, ceramic, faunal, and other types of artifacts were found that revealed a glimpse into the lives of both prostitutes and the Chinese that lived on Block 13 during the latter part of the nineteenth-century (Foster et al. 2004:xi).

As can be seen in Figure 11, Block 13 consisted of five lots with one main structure on each lot, occasionally associated with one or more smaller structures. The features analyzed in the current study are associated with Buildings A, C, and E. Very little documentary evidence was discovered for Building A, increasing the likelihood that the building was simply a dwelling of some type, most likely housing a working-class family; Building A's features, Features 1 and 36, were thus categorized "working-class non-prostitute" (Foster et al. 2004).

Building C was purported to be a two-story brothel and thus designated "working-class prostitute." The rationale for this designation comes from a discussion in an article based on the

more extensive site report, in which the authors concluded that the building was not quite a parlor house, but was definitely nicer than brothels associated with saloons (Foster et al. 2005: 372). Only one feature associated with the two-story brothel was analyzed in the current study: Feature 32.

The last building with features analyzed in the current study is Building E, which was a dancehall and opium den associated with the Chinese. Prostitution often occurred in conjunction with opium dens and dancehalls, so features associated with building E were also designated “working-class prostitute.” Features 17, 19, 22, and 37 from the Chinese assemblage are analyzed in the current study (Foster et al. 2004). See Figure 12 for spatial information regarding each lot, building, and associated feature.

Mission School at San Luis Obispo, California

In 2002, Parker & Associates/Archeological Research was asked to monitor construction and excavations associated with a new addition to the Mission Preparatory Catholic School in San Luis Obispo, California. The project area was once part of Mission San Luis Obispo de Tolosa, one of 21 missions built in California during Spanish settlement in the 1700s. In 1857, the land belonged to Don Dolores Herrera, a Spanish American. Mr. Herrera did not want to send his six daughters away to school in Santa Barbara, so he donated a portion of his land for the Mission to construct a convent school. Unfortunately for Mr. Herrera, construction of the school did not begin until 1872, long after his daughters were grown (Parker 2006:5).

On August 16, 1876, the Academy of the Immaculate Heart was opened to students. In 1882, this large three-story building was joined by “The Chapel,” a long building that housed not only the chapel room and upstairs dormitories for the students, but an infirmary for women, either aged or ill. The students themselves were all females from wealthy families, as tuition for boarding students was \$200/year plus an additional \$60 if piano lessons were desired. Non-boarding students were charged \$2-3/month depending on age, or \$6/month for additional piano lessons. The Academy was a combined elementary and secondary school until 1886 when some of the nuns were transferred to other schools in the area, but the Academy of the Immaculate Heart continued to serve as an elementary school until 1924 (Parker 2006:6).

During the 2002 field season, Parker & Associates discovered 17 historical features, of which only one, Feature 16—a privy feature—contained the patent medicine and health product bottles whose data are included in the current analysis (Parker 2006). As mentioned above, the privy was spatially not far from the Chapel that housed the infirmary (Parker 2006:46), so some

of the medicine bottles may have actually been used to treat women in the free clinic. However, the dormitories were also in the Chapel building so perhaps the medicines were being consumed by the young women boarding at the school. The lack of documentary evidence, such as receipts, reports, and ledgers, for the clinic negates the possibility of ever discovering the actual consumers of the patent medicines and other health products found at the excavation of the Academy of the Immaculate Heart.

As mentioned above, this site was originally chosen as the informal site report included the discovery of a large number of patent medicine and health product bottles as well as a lengthy discussion on these products. The site is problematic though, as individuals from three different socioeconomic classes could have been the actual consumers of the health products. However, due to the limited availability of site reports from excavations of upper-class households with an associated embossed-glass bottle assemblage, the San Luis Obispo data was still utilized to augment the David Davis Mansion upper-class non-prostitute assemblage. Analysis of additional upper-class sites is necessary to replace the health-product rich mission school site data.

The Cochran Gardens Hope VI Housing Development Tract, St. Louis, Missouri

The health product data from St. Louis comes from a 2005 excavation that occurred after the St. Louis Housing Authority razed the Cochran Gardens apartment complex. This area had once been a neighborhood of immigrants, mostly Irish and some German, during the mid-nineteenth century. The demographics of the neighborhood slowly changed so that by the turn of the twentieth century, mostly Russian and Polish immigrants and a small population of African

Americans lived there. Most of these residents held unskilled or low-skilled jobs, and added to the presence of tenement buildings, the associated assemblage was categorized “working-class non-prostitute.” During the mid-1950s, St. Louis experienced dramatic economic growth with an accompanying rise in population. The flats and tenements of the immigrant neighborhood were razed to construct the John J. Cochran Gardens apartments, also known as “Cochran Gardens.” As the population of St. Louis later declined, the Cochran Gardens buildings fell into disrepair and were eventually abandoned. Thus, in 2002, the buildings were demolished (Harl 2006; Zachmann 2010:32).

During the spring and summer of 2005, ten sample areas from the Cochran Gardens demolition site were chosen based on socioeconomic factors and use backgrounds of the structures that once stood in the project area. Most of the sample areas were from the backyards of the tenements and other structures in the immigrant neighborhood and consisted of privies, cisterns, and wells (Harl 2006; Zachmann 2010:34). Four of the 21 features excavated in 2005 were chosen for analysis in Carl Zachmann’s thesis (2010) and were thus included in the current analysis. Zachmann (2010:34-35) chose these specific features based on three criteria: the feature dated to a period from 1865 to 1910, contained a sufficiently large number of medicine bottles (30 or more), and was relatively undisturbed by looters or bottle diggers.

Feature 10, associated with 1410 and 1412 North Ninth Street, was a wood-lined privy of which the majority of the excavated artifacts dated to the 1870s, although the feature may have used as early as the 1850s (Harl 2006:103-104; Zachmann 2010:35). Feature 32 was a cement-lined privy associated with 1411 (or 1401) North Eighth Street, likely filled in sometime between 1890 and 1910 (Harl 2006:146; Zachmann 2010:35). Finally, Features 42, believed to be a privy, and 43, possibly a well, were associated with 1430 North Eighth Street (or 1416, 1428, and

1432); both features were closed sometime between 1890 and 1910 (Harl 2006; Zachmann 2010:35). These four features were extremely beneficial in augmenting working class data from New York City, Prescott, and Oakland.

Washington Street Residential Area, St. Paul, Minnesota

In the spring of 1997, the 106 Group Ltd. excavated the area that would soon be the new Science Museum of Minnesota in downtown St. Paul, Minnesota. The excavation revealed part of the late nineteenth-century/early twentieth-century red-light district that ran along Hill (formerly South Washington) Street between Eagle Street and Kellogg Boulevard. The remains of six brothels were discovered of which three plus a saloon were addressed during the 1997 excavation that recovered over 13,500 artifacts (Ketz et al. 1998:i). Features from two of the brothels were chosen for analysis in the current study.

Feature 3, consisting of a dense deposit of late nineteenth-/early twentieth-century artifacts situated between 147 and 149 Washington St., was associated with Nina Clifford's Bordello at 147 S. Washington St., essentially a parlor house. Nina Clifford purchased the land in 1887 and constructed a dwelling there at the cost of \$12,000. The beautiful, two-story, brick building featured a large arched window on the first floor, a bay window with a pedimented parapet, three tall pilasters topped with carved finials, and a cut-stone arched entryway resting on Doric columns. By 1895, Clifford was running the largest brothel on S. Washington Street, consisting of 11 "sports" (prostitutes/courtesans), two chambermaids, and a cook. In 1900, the number of prostitutes decreased to nine, but the serving staff included a housekeeper, three chambermaids, a cook, and a porter. The 1905 census only listed 16 boarders while the 1910

census called the structure a “male boarding house” and the 1920 census listed only four boarders. Clifford’s brothel most likely remained in business until her death in 1929. The girlfriend of a prominent gang member continued running the brothel until 1934, but Nina Clifford’s ornate bordello was condemned and demolished in 1937, only 50 years after it was built (Ketz et al. 1998:34).

Feature 26, a privy, was built against the west wall of the saloon at 222 Eagle St. Analysis of the material from the feature indicated that not only was the privy used by patrons of the saloon, but by the residents of the brothel next door on 163/165 S. Washington St. (Ketz et al. 1998:49). In 1885, Andrew Foos constructed a double boardinghouse on 163 and 165 S. Washington St. with the intent of renting the building to madams for use as bordellos rather than actual boarding houses. By 1891, the building was listed as a “female boarding house,” the polite term for a brothel. In the 1895 Census, Molly Henderson was running the bordello at 163 with three “sports” in residence, while at 165, Ruby Sherwood was the madam for six “sports” and employed a chambermaid. Five years later, Dottie Thorne was the proprietor of 163, employing six prostitutes, a musician, a housekeeper and a cook. Over at 165, Florence Belmont also had six prostitutes, a cook, a chambermaid, and a porter. In 1905, Dottie Thorne still ran 163 with eight boarders, while at 165, Nellie Wilson also had eight boarders. The 1910 Census listed Nellie Thomas as a “lodging house keeper” with six boarders and a servant at 163, and August Brandt was at 165 with five lodgers and a servant. In 1920, no one was listed as residing at 163, but a family with five small children lived at 165 S. Washington. The building was demolished in 1931 (Ketz et al. 1998:46). Thus, documentary evidence suggests that many prostitutes lived at 163/165 S. Washington St. during the late 1800s and early 1900s and that the brothels employed servants. The presence of servants in addition to an assemblage that resembled those

of other parlor houses, led to the categorization of the Feature 26 assemblage as “upper-class prostitute.”

The saloon at 222 Eagle St. was also built by Edward Foos sometime between 1870 and 1873, as he obtained a liquor license in 1873. Foos still owned the saloon in 1880, but two other people were running the saloon. In 1893, Foos passed away and in 1900, no saloon was listed at 222 Eagle St. The building, however, did stand until 1874 (Ketz et al. 1998:48-49). As mentioned above, the privy was built against the west wall of the saloon, but most likely served both the saloon patrons and the prostitutes residing at the double boardinghouse-brothels next door.

Federal Triangle, Washington, D.C.

Archaeological excavations were conducted in the Great Plaza of the Federal Triangle beginning in 1987 and 1988, in preparation for the construction of the International Cultural and Trade Center/Federal Office Building. The building site and project area were bounded by Pennsylvania and Constitution Avenues between 12th and 14th Streets. Historically, the site was part of C Street, D Street, 13th Street and 13 ½ Street. During the Civil War, the area was called Hooker’s Division after the men of Major General Joseph Hooker’s Division who frequented the brothels and saloons in the area. By the 1870s, the project area was a working-class neighborhood, composed of households of both skilled and unskilled laborers, their families, and their boarders. The neighborhood demographics changed as prostitutes moved into the area and by 1890, the entire area had become a red-light district. Brothels operated in the area until 1914 when Congress passed legislation banning houses of prostitution within the District of Columbia.

The brothels were closed down and replaced again by working-class families until the 1930s when the Federal Triangle was constructed. At that time, the neighborhood was razed and the project area was used as a parking lot until 1991 (Cheek et al. 1991: Abstract).

John Milner Associates conducted Phase I investigations in 1987 and 1988 which led to Phase II investigations of 42 lots. Seven of these lots, consisting of a total of 26 house lots, contained cultural deposits with the potential to reveal a wealth of information about the inhabitants of the nineteenth- and early-twentieth century neighborhood. Phase III investigations focused on two levels of analysis, the household level and the neighborhood level (Cheek et al. 1991:Abstract). From these analyses, brothel households were discovered from which comes a portion of the prostitute assemblage in the current study.

Excavations of 303 13 ½ St. revealed an exceptionally rich assemblage of embossed glass bottles, some of health products, in the cellar of the structure. While the 1860 Census records indicated that the address was occupied by the white working-class family of carpenter, John J Coumbe, the building housed a brothel from 1870 to 1903. There is no listing for the address in the 1910 census, but in 1914, the building was occupied by a laborer. Vacant from 1915 to 1920, the building became a sheet metal shop between 1921 and 1926 and was then used as a warehouse from 1927 until 1932 when the entire study area was razed (Cheek et al. 1991:58). The glass assemblage from 303 13 ½ St. consisted of 327 artifacts of which 91% were whole bottles and the other 9% contained identifiable embossing (Cheek et al. 1991:58). How a collection of such complete bottles came to be in one specific locale could not be explained with certainty, but the mean artifact date (MAD) of the accompanying ceramic assemblage fell within the time period when the building was used as a brothel (Cheek et al. 1991:61). Thus, the 303 13 ½ St. bottle assemblage was designated “working-class prostitute.” Very little documentary

evidence could be found about the brothel, as opposed to Mary Ann Hall's House, Nina Clifford's Bordello, and the Aliso Street parlor houses, contributing to the assemblage being categorized as "working-class."

The address 1359 Ohio Avenue was inhabited by the family of James Burke, an Irish immigrant carpenter, in the 1870 Census and an 1871 City Directory. The 1880 census listed another Irish immigrant, Pat McNamara, a grocery store clerk, his wife and nine children, three white heads of households of which one had a son, and two black boarders. This listing suggests a boarding house or multiple structures on the parcel, and an 1888 Sanborn map shows a three-story wood house on the front lot and a 1 ½ story outbuilding on the back lot. Other documentary evidence revealed that a brothel was run at this address from the 1890s to around 1914. A newspaper clipping from the 1890s depicted the entire 1300 block and the structure at 1359 Ohio Ave. was labeled as a "bagnio," another term for brothel. A Sanborn map from 1903 listed the 1359 building as a "f.b." or a female boarding house which is a polite term for a brothel, while both the 1900 and 1910 censuses listed the building as a boardinghouse run by a woman with five female boarders, all "at home" (Cheek et al. 1991:24-24). The glass health product bottles from this address were of a cultural horizon representing the time period the structure was a brothel. Again, the lack of specific documentary evidence referencing either the madams or the brothels led to the designation of this assemblage as "working-class prostitute."

Finally, the address 317 13 ½ St. represented two separate dwellings, a frame house and a two-story alley dwelling. Sometime between 1888 and 1903, both of these structures were replaced: a brick house replaced the frame house and another two-story alley dwelling replaced the previous alley dwelling. The 1860 census listed a white man, James Posey, and his wife at 317 13 ½ Street. By 1870, the address listed a white man, Thomas Pluckett, and his family, but

also John R. Rupert and his family. Seven black boarders and one white boarder listed as a prostitute were also present at 317 13 ½ Street. Perhaps the alley dwelling was added sometime between 1860 and 1870 and became a brothel. However, to confuse the matters, an 1871 city directory listed Thomas Pluckett at the alley dwelling and florist Leon Poppers as the resident of the main structure. The Rupert family and the boarders were all completely absent from the directory. By the 1880 Census, only Leon Poppers, his wife, four daughters, and a black servant are listed at 317 13 ½ St. No alley dwelling is listed in the 1880 Census, but there are 16 individuals, black, white, and mulatto, living at five different addresses on Napier Alley.

The 317 13 ½ St. lot is bordered by Somerville Court to the east; Napier Alley was another name for Somerville Court. The authors of the Federal Triangle site report speculated that one of those five addresses on Napier Alley was the alley structure brothel mentioned above. Josephine Butler was listed as operating a boardinghouse at this address with two black boarders in the 1900 census and a 1903 Sanborn map listed the address as a “f.b.” or female boardinghouse (Cheek et al. 1991:28-29). Although this particular lot experienced significant activity during the late 1800s and early 1900s, the deposit that included the embossed glass bottles analyzed in the current study was near the alley dwelling and of a horizon represented by the time that prostitutes were speculated to live at 317 13 ½ Street. Again, the lack of documentary evidence regarding the brothel and the association with an alley dwelling rendered the associated assemblage as “working-class prostitute.”

The above sites were chosen as they represent a diverse array of households from different socioeconomic classes and lifestyle choices throughout the Victorian Era and across the United States. Although a few of the sites have issues with indisputably associating class and/or

profession with particular contexts, they provide a baseline for the analysis of the health, quality of life, and experiences of women from different socioeconomic classes, backgrounds, and lifestyles by using archaeological assemblages containing glass bottles of health-related and grooming products.

CHAPTER IV: RESULTS

Analysis of the types of beauty and health-related products consumed during the nineteenth and early twentieth century reveal the types of ailments and diseases treated as well as the grooming regimens practiced during this time period. By comparing the prevalence of embossed glass bottles that once contained patent medicines and other health-related products between groups with differing socioeconomic statuses, careers, and lifestyles, patterns emerge that illuminate consumption patterns that represent the different life experiences of various groups of people. Analyzing the type and amount of ingredients in these products also provides insights into daily life during the Victorian Period. The combined analysis of the categories of products used, ailments treated, and ingredients consumed demonstrates that consumption habits were greatly affected by one's station in life.

In the following analysis, the results of comparisons between prostitute and non-prostitute assemblages as well as socioeconomic classes will be presented. In the first section, the various categories of products as represented by embossed glass bottles are examined to determine the types of ailments being treated or for what other purposes the products in the glass bottles may have been used. Analysis of the number of brands in relation to quantity consumed of each category of product also provides evidence for brand loyalty or opportunistic purchasing. In the second section, the ingredients of each of these products will be analyzed as they relate to prostitution and socioeconomic class to reveal the consumption patterns of each grouping.

In general, the results are separated by association with the sex industry as well as by socioeconomic class. The results are then further delineated by socioeconomic status within each of the prostitute and non-prostitute groupings. In the first section, the relative frequencies of 20

types of health and grooming products from the assemblages of the 10 archaeological sites listed above are arranged from most common to least common within each table. Due to the sheer number of ingredients present in health products from the 1800s and early 1900s, peaks from each of the ingredient graphs will be compared by association with the sex industry as well as by socioeconomic class in the second section.

These results demonstrate that there are observable and sometimes dramatic differences between the products and ingredients consumed as well as the ailments being treated between various groups of individuals during the nineteenth and early twentieth centuries. By organizing the results by association with prostitution and socioeconomic class, the results indicate whether the differences between prostitutes and non-prostitutes are due to socioeconomic status, lifestyle, or both. In addition, analysis of the data provides insights into the lives and experiences of both sex workers and non-prostitutes as well as members of differing socioeconomic classes.

Comparisons of Product Type and Ailments Treated

When analyzing the relative popularity of health and grooming products, the increased prevalence of a certain category of product indicates importance to the particular population being examined. However, the number of brands present in an assemblage can be indicative of various consumption patterns. A large number of brands can either represent popularity of a certain type of product or opportunistic buying, the purchasing of multiple brands based on perceived value or lower cost. Categories of products that contain fewer brands may not necessarily indicate decreased popularity of those products, but instead represent brand loyalty. Thus, combined analysis of the popularity of the category and the number of brands present

contribute to the most accurate assessment of consumption patterns of patent medicines and other health and grooming products during the Victorian Period.

Prostitute vs. Non-Prostitute

As the main focus of this analysis is to examine differences in health status and lifestyles between individuals engaged in the profession of prostitution and those who are not, this first section will examine differences between the prostitute and the non-prostitute assemblages. The most common type of health product in both assemblages is the soda/mineral water category (Figure 13). The prostitutes used 24 brands of soda water, while the non-prostitutes consumed 30 different brands (Figures 13 and 15). Soda water contributed a very large percentage to both the prostitute and the non-prostitute assemblages: more than two-fifths of the entire brothel assemblage and one-fifth of the non-prostitute assemblage. Soda waters were apparently a very popular commodity for both prostitutes and non-prostitutes, even though the product was used roughly twice as much by prostitutes as by non-prostitutes.

The next most common product in the brothel assemblage, Vaseline, was used by both prostitutes and non-prostitutes, but far more by prostitutes than the non-prostitutes (Figures 13 and 15). Although Vaseline was the second most common type of product in the prostitute

assemblage, it was one of the least common non-prostitute products (Figure 13). Apparently, this product was used in much greater quantities by the prostitutes than the non-prostitutes.

Prostitute Data by Product			Non-Prostitute Data by Product		
Product	Number of Brands	Percent of Total Assemblage (MNV=454)	Product	Number of Brands	Percent of Total Assemblage (MNV=287)
Soda/Mineral Water	24	42.29	Soda/Mineral Water	30	22.65
Vaseline	1	9.91	Laxatives	4	14.98
Bitters	10	6.39	Cough/Consumption	10	7.67
Florida Water	3	4.85	Topical Aches/Pains	11	7.67
Tooth powders/pastes	5	4.41	Oral Aches/Pain	4	5.92
Topical Aches/Pains	10	4.19	Catarrh	3	5.92
Weakness Relievers/Female Complaints	11	3.97	Weakness Relievers/Female Complaints	10	5.58
Skin Creams	8	3.97	Kidney/Liver/Bladder	5	5.23
Oral Aches/Pain	4	3.97	Bitters	7	4.88
Venereal Disease	5	3.52	Florida Water	2	4.18
Cough/Consumption	10	3.08	Stomach Ailments	7	3.83
Laxatives	3	2.86	Vaseline	1	2.79
Stomach Ailments	6	2.64	Sarsaparilla	5	2.44
Kidney/Liver/Bladder	1	1.54	Skin Creams	3	1.74
Catarrh	2	0.88	Jamaican Ginger	4	1.74
Sarsaparilla	2	0.44	Hair Remedies	2	1.74
Eye	1	0.44	Venereal Disease	2	0.70
Antiseptics	2	0.44	Eye	1	0.35
Jamaican Ginger	1	0.22	Antiseptics	0	0
Hair	0	0	Tooth powders/pastes	0	0
TOTAL	109	100.01	TOTAL	111	100.01

Figure 13. Prostitute vs. Non-Prostitute Product Tables

Figure 14. Prostitute vs. Non-Prostitute Product Graphs (Part I)

Figure 15. Prostitute vs. Non-Prostitute Product Graphs (Part II)

Bitters were the third most common product in the brothel assemblage, consisting of nine different brands (Figures 13 and 14). The non-prostitute assemblage consisted of seven different brands of bitters and was closer to the middle of the list in terms of popularity. Although there were many types of bitters being consumed by both the prostitutes and the non-prostitutes, this product was more popular in the brothel setting.

The next most prevalent product in the prostitute assemblage was Florida Water with three different brands present, while the non-prostitutes used two different brands (Figures 13 and 15). Although this product contributed about the same percentage to both assemblages, Florida Water was much more popular with the prostitutes, near the top of the list, while it approached the middle of the non-prostitute list. The fifth most common health product in the prostitute assemblage, toothpastes and powders, demonstrated a noticeable difference between the two assemblages (Figures 13 and 14). While the prostitute assemblage contained five different brands of toothpastes and powders, the non-prostitute assemblage contained none.

Topical medicines for aches and pains were the sixth most prevalent product in the prostitute assemblage with a total of 10 different brands present (Figures 13 and 15). This type of product, however, was almost twice as common within the non-prostitute assemblage. Composed of eleven different brands, the topical aches and pain medications were the fourth most common product for the non-prostitutes. Although the prostitutes and non-prostitutes used about the same number of brands, topical pain relievers were slightly more popular among the non-prostitutes than the prostitutes.

Oral pain medications, skin creams, and weakness relievers all tied for the next most common product within the brothel assemblage, approaching the middle of the list as the seventh most popular products (Figure 13). The prostitutes used eight brands of skin creams, while the non-prostitutes used only three brands, the third least prevalent product in their assemblage (Figures 13 and 15). Thus, skin creams were much more popular among the prostitutes than the non-prostitutes. Both the prostitutes and the non-prostitutes used four brands of oral pain relievers, but this product was the fifth most common product in the non-prostitute assemblage, and in terms of percentage of assemblage, the non-prostitutes were using almost twice as much

oral pain medication as the prostitutes (Figures 13 and 15). Oral pain relievers were much more popular among the non-prostitutes than the prostitutes. Nine different brands of weakness-relieving medicines were present in the prostitute assemblage, while the non-prostitute assemblage contained 11 different brands (Figures 13 and 15). In terms of popularity, weakness relievers approached the middle of both assemblages' lists, thus the two groups used weakness relievers in about the same amount.

Patent medicines used to treat venereal disease were the eighth most common product in the prostitute assemblage, with five different brands present (Figures 13 and 14). While venereal disease medications were in the middle of the prostitute popularity list, this type of product was the second least common product present in the non-prostitute assemblage with only two brands. As measured in percentage of their respective assemblages, prostitutes used more than three times as much venereal disease medications as the non-prostitutes; if measured by number of brands, there were more than twice as many in the prostitute assemblage as that of the non-prostitutes. Although venereal disease medications were middling in the popularity list of the brothel assemblage, the product was used much more by prostitutes than non-prostitutes.

The next most frequent product within the brothel assemblage was the medicines used to treat cough, consumption (tuberculosis), and other pulmonary ailments (Figure 13). The prostitutes used 10 different types of cough/consumption medicines, approximately in the middle of the popularity list (Figures 13 and 14). The non-prostitutes also used 10 different cough/consumption medicines, but this category of products was the third most common in the non-prostitute assemblage. However, if not for the large number of California Fig Syrup at San Luis Obispo, the cough and consumption medications most likely would have been the second most common product in the non-prostitute assemblage. In terms of percentage of their

respective assemblages, the non-prostitutes were using more than twice as much cough/consumption medications as the prostitutes. Apparently, the cough and consumption medicines were of much greater value to the non-prostitutes than to the prostitutes.

The next most common product in the brothel assemblage, the laxatives, were in the middle of the popularity list, but beginning to approach the bottom (Figure 13). Use of the product varied greatly between the prostitutes and non-prostitutes. While the prostitute assemblage contained three brands of laxatives, in the bottom half on the scale of popularity, laxative products were the second most popular health product for the non-prostitutes with four brands present, contributing more than five times the percentage of their respective assemblages compared to the prostitute data (Figures 13 and 14). However, the assemblage of San Luis Obispo contained a very large quantity of California Syrup of Fig bottles, which dramatically skewed the non-prostitute assemblage in favor of laxatives (Figure 14, left). The removal of the San Luis Obispo data lowers the laxatives category to about the fourth most common product in the non-brothel assemblage, suggesting that laxative use was still much greater among the non-prostitutes than the prostitutes.

Medicines used to treat stomach ailments were the next most common product in the prostitute assemblage with six different brands present (Figures 13 and 14). The non-prostitutes used seven different brands of stomach medication and were also in the lower middle portion of the product prevalence list. This category of health products was the fifth least common in the brothel assemblage and the sixth least common in the non-brothel assemblage. The similar number of brands used, as well as the comparable popularity of stomach medications, suggest that digestive issues and abdominal discomfort caused by dietary factors were experienced by both prostitutes and non-prostitutes alike.

At fourth from the bottom of the prostitute list, medications to treat ailments of the bladder, kidney, and liver were the next most common health product in the brothel assemblage with only one brand present (Figures 13 and 14). However, the non-prostitute group used five different brands of liver/kidney/bladder medicines, and this product category was in the middle of the product prevalence list. Although the liver/kidney/bladder medications were sometimes surreptitiously used to treat venereal disease, the prostitutes apparently did not use as much of this product as the non-prostitutes; however, the prostitutes did use more medications that were specifically advertised to treat venereal disease.

Each of the remaining types of health products present on the prostitute list contributed less than one percent to the brothel assemblage (Figure 13). Catarrh medications, with two brands present, were the third least common product in the prostitute assemblage (Figures 13 and 14). The non-prostitutes used a total of four different brands of catarrh medications, the sixth most common product in the non-brothel assemblages. This data, however, was affected by the 15 bottles of Dr. Marshall's Snuff found at San Luis Obispo. Removing the San Luis Obispo data, the catarrh medications in the non-prostitute assemblage drop to three brands and are situated much closer to the bottom of the list of product frequencies. Despite the San Luis Obispo data skewing the non-brothel assemblage substantially in favor of medications to treat catarrh, this product was still more popular among the non-prostitutes than the prostitutes.

Sarsaparillas, eye medications, and antiseptics were all tied as the second least common product present at brothel sites (Figure 13). Only one brand of eye medicine was found within both the brothel and non-brothel assemblages and was the least common product present in the non-brothel assemblage (Figures 13 and 15). Thus, eye medications were not used much by either the prostitutes or the non-prostitutes. The antiseptics present in the brothel assemblage

were most likely used to treat or prevent venereal disease and while the prostitutes used two different kind of antiseptics, none were found within the non-brothel assemblage (Figures 13 and 15). Even though found in a very small quantity, antiseptics were undoubtedly more important to the prostitutes than to the non-prostitutes. Only two brands of sarsaparilla were found in the brothel assemblages, while the non-prostitutes consumed at least five brands of sarsaparilla (Figures 13 and 15). Although the fourth least common product within the non-brothel assemblage, sarsaparillas were almost six times more common in the non-brothel assemblage than the brothel assemblage in terms of percentage of their respective assemblages, suggesting sarsaparillas were much more popular among the non-prostitutes than the prostitutes.

The last product present in the brothel assemblage, Jamaican Ginger, contributed less than a quarter of a percent to the assemblage (Figure 13). While only one brand of Jamaican Ginger was found in the brothel assemblage, the non-prostitutes used four different brands and this product tied with skin creams and hair remedies as the third least common product present in the non-brothel assemblage (Figures 13 and 14). Jamaican Ginger, even with its high alcohol content and stomach soothing properties, was little used by either the prostitutes or the non-prostitutes yet may have been slightly more popular among the non-prostitutes.

Only one type of product was present in the non-prostitute assemblage and not in the brothel assemblage: hair care products (Figure 13). The non-prostitutes used at least two brands of hair remedies, but this category was still the third least common product found in the non-brothel assemblage (Figures 13 and 15). Although appearance was very important to prostitutes, hair care products were more popular among the non-prostitutes. As mentioned above, the antiseptics and toothpastes/powders found in the brothel assemblage were not present at all in the

non-brothel assemblage, as would be expected by the correlation of treating venereal disease and the importance of grooming with the practice of prostitution (Figure 13).

In conclusion, soda water was the most abundant health product found at both the brothel and non-brothel sites. Vaseline was the second most common health product found at the brothel sites, while laxatives were the second most frequently found product at the non-brothel sites (Figure 13). The next four most common products in the brothel assemblages were in descending order: bitters, Florida Water, toothpastes/powders, and topical pain medications. For the non-prostitutes, medications to treat cough and consumption, topical aches/pains medications, oral analgesics, and remedies for catarrh were the next four most common products, many of which contained a high alcohol content, opioids, and other pain-relieving substances. Thus, the main difference between the two assemblages is a focus on grooming aids and Vaseline in the brothel assemblage compared to products containing alcohol, opioids, and other psychoactive substances in the non-prostitute assemblage.

On the other end of the spectrum, no hair remedies were found at the brothel sites at all, while the non-brothel assemblage contained no antiseptics or toothpastes/powders (Figure 13). The five least common products present in the brothel assemblage were Jamaican Ginger, antiseptics, eye medications, sarsaparillas and medicines for the treatment of catarrh. In the non-brothel assemblage, the six least common health products still present included eye medications, patent medicines for the treatment of venereal disease, hair remedies, Jamaican Ginger, skin creams and sarsaparilla. Except for the most common product and the least common product, there are stark difference in the frequencies and categories of medicines consumed between the prostitutes and non-prostitutes. In order to detect all possible factors that affected the types and

quantities of products consumed, differences in patent medicine consumption between socioeconomic classes (i.e. upper, middle, and working) will be examined next.

Working vs. Middle vs. Upper Classes

As with the comparisons between the prostitute and non-prostitute assemblages, analysis across socioeconomic classes demonstrates an observable difference in the consumption patterns of patent medicines and other health-related products. The distribution is slightly skewed toward the working class, as there were many more poor individuals than rich or middle-class during the nineteenth-century. However, sufficient data from all three socioeconomic classes still allows for analysis of the consumption patterns of health products contained in embossed glass bottles. Of note, the working- and upper-class assemblages contained both prostitute and non-prostitute data, while the middle-class does not, due to the difficulty in categorizing a separate middle class of brothels and prostitutes. Future analyses may be better able to distinguish socioeconomic classes of prostitutes allowing for cross-comparisons between all three socioeconomic classes of both sex workers and non-prostitutes.

Analysis of the soda water consumption demonstrates the extent that the working-class data dominated the entire health product assemblage. In both the prostitute and non-prostitute assemblages, soda water was the leading product. Within the analysis of socioeconomic classes, though, soda water was the leading health product for only the working class, although this product still ranked fairly high within all three socioeconomic class assemblages (Figure 16). The working class used 39 different brands of soda water, this category of products accounting for more than half of their respective assemblage (Figures 16 and 17). Within the middle-class

assemblage, eight brands of soda water were present, approximately one-eighth of their assemblage and the third most common product (Figures 16 and 18). The upper-class assemblage contained 10 brands of soda water and was the second most common product (Figures 16 and 18). Soda water was extremely popular among the working class, despite limited monetary resources, and only slightly less popular among the middle and upper classes. The sheer number of brands of soda water within the working-class assemblage, though, dwarfs the other socioeconomic class assemblages by nearly four-fold (Figures 16-18).

The second most common product in the working-class assemblage was the bitters, represented by 10 brands (Figures 16 and 17). Within the middle-class assemblage, a total of five brands of bitters were consumed, and this product tied with three others as the fifth most common medicine within that particular assemblage (Figures 16 and 18). Bitters were apparently not as popular with the upper class; although the upper class consumed the same number of brands as the middle class, bitters were the fifth *least* common product in the upper-class assemblage (Figures 16 and 18). Thus, bitters were the most popular with the working class, less so among the middle class, and even less popular with the upper class.

The next most common product within the working-class assemblage was Chesebrough Vaseline (Figure 16). While Vaseline was third from the top in the working-class assemblage, this product tied with the bitters and two other products for fifth within the middle-class assemblage and was the fourth most common product in the upper-class assemblage (Figure 16). In terms of popularity, Vaseline was of roughly the same importance for all three socioeconomic classes, perhaps due to the multiple uses for Vaseline during the nineteenth and early twentieth centuries.

The topical aches and pains medicines were the fourth most common product found in the working-class assemblage, as represented by 13 different brands (Figures 16 and 17). With only four brands present, the topical aches/pains medications again tied with bitters, Vaseline, and sarsaparillas as the fifth most common medicine within the middle-class assemblage (Figures 16 and 18). In the upper-class assemblage, topical medicines for aches and pains fell within the bottom half of the list yet contained two more brands than the middle-class assemblage (Figures 16 and 18). In terms of number of brands represented, the topical aches and pains medicines appeared to be much more important to the working class than either the middle or upper classes. However, popularity-wise, the middle class and the working class used topical pain medications in about the same amount.

While the fifth most common product in the working-class assemblage was the oral aches and pains medications with five brands present, this category was the fourth most common within the middle-class assemblage with three brands (Figures 16-18). Represented by only two brands, the oral aches/pains medicines category fell within the bottom half of the upper-class assemblage (Figures 16 and 18). Despite the disparity in the number of brands present, oral aches and pains medicines were the most popular with the middle class and only slightly less important to the working class. Within the bottom half of the upper-class prevalence list, oral pain medications were apparently not as valuable to the upper echelons of society.

Working-Class Data by Product			Middle-Class Data by Product			Upper-Class Data by Product		
Product	Number of Brands	Percent of Total Assemblage (MNV=418)	Product	Number of Brands	Percent of Total Assemblage (MNV=73)	Product	Number of Brands	Percent of Total Assemblage (MNV=251)
Soda/Mineral Water	39	50.24	Florida Water	2	16.44	Laxatives	5	15.54
Bitters	10	7.89	Laxatives	3	15.07	Soda/Mineral Water	10	15.14
Vaseline	1	7.18	Soda/Mineral Water	8	12.33	Cough/Consumption	9	7.97
Topical Aches/Pains	13	6.70	Oral Aches/Pain	3	8.22	Vaseline	1	7.17
Oral Aches/Pain	5	5.74	Bitters	5	6.85	Tooth powders/pastes	4	6.77
Weakness Relievers/Female Complaints	10	3.83	Vaseline	1	6.85	Catarrh	2	6.37
Cough/Consumption	11	3.35	Topical Aches/Pains	4	6.85	Weakness Relievers/Female Complaints	9	5.98
Laxatives	4	2.15	Sarsaparilla	4	6.85	Florida Water	1	5.58
Stomach Ailments	8	1.91	Kidney/Liver/Bladder	3	5.48	Skin Creams	5	5.58
Venereal Disease	5	1.91	Cough/Consumption	3	4.11	Stomach Ailments	5	4.78
Skin Creams	5	1.91	Weakness Relievers/Female Complaints	3	4.11	Kidney/Liver/Bladder	4	4.38
Florida Water	3	1.91	Jamaican Ginger	2	2.74	Venereal Disease	1	3.59
Kidney/Liver/Bladder	1	1.68	Venereal Disease	1	1.37	Topical Aches/Pains	6	3.19
Catarrh	3	1.20	Skin Creams	1	1.37	Oral Aches/Pain	2	1.99
Tooth powders/pastes	2	0.71	Hair Remedies	1	1.37	Bitters	5	1.99
Jamaican Ginger	2	0.48	Catarrh	0	0	Sarsaparilla	3	1.59
Antiseptics	2	0.48	Stomach Ailments	0	0	Hair Remedies	1	1.20
Eye	1	0.48	Antiseptics	0	0	Jamaican Ginger	2	0.80
Hair Remedies	1	0.24	Tooth powders/pastes	0	0	Eye	1	0.40
Sarsaparilla	0	0	Eye	0	0	Antiseptics	0	0
TOTAL	126	99.99	TOTAL	44	100.01	TOTAL	76	100.01

Figure 16. Working-Class vs. Middle-Class vs. Upper-Class Product Tables

Figure 17. Working-Class Product Graphs

Figure 18. Middle Class vs. Upper Class Product Graphs

As the sixth most prevalent product in the working-class assemblage, patent medicines to treat female complaints and/or to relieve weakness were represented by 10 different brands (Figures 16 and 17). Within the middle-class assemblage, these patent medicines tied with cough and consumption medications as the third least common product with only three brands present (Figures 16 and 18). The weakness relievers and female complaints category of medications were the seventh most common product in the upper-class assemblage, containing nine different

brands (Figures 16 and 18). Thus, weakness relieving medicines containing psychoactive substances and a high alcohol content were fairly popular with both the working and upper classes yet approached the bottom of the list of products present in the middle-class assemblage.

With 11 different brands being used, the seventh most frequent product within the working-class assemblage were patent medicines for cough, consumption and other pulmonary ailments (Figures 16 and 17). These medicines were not nearly as popular in the middle-class assemblage, tying with the weakness relievers as the third least common product and represented by only three brands (Figures 16 and 18). Surprisingly, despite the healthier living conditions of the wealthy, cough and consumption medicines were the third most prevalent medicine within the upper-class assemblage with a total of nine different brands consumed (Figures 16 and 18). Thus, cough and consumption medicines were very popular among the upper class, slightly less popular among the working class even though more brands were present, and not very popular at all among the middle class.

Laxatives were the next most popular product within the working-class assemblage, approaching the middle of the list with four different brands (Figures 16 and 17). This category was much more popular with both the middle and upper classes: laxatives were the second most common medicine within the middle-class assemblage with three different brands and the most prevalent medicine within the upper-class assemblage with five different brands (Figures 16 and 18). The San Luis Obispo data, though, likely skewed the upper-class assemblage immensely in favor of laxatives. Removing the San Luis Obispo data decreases the number of laxatives brands to three as well as the percentage of the upper-class assemblage represented by laxative products by two-thirds, lowering the popularity of the category to the middle of the list. Subtracting the San Luis Obispo data from the analysis though causes the upper-class data to essentially become

the upper-class prostitute data with the exception of one upper-class non-prostitute household. Thus, with the San Luis Obispo data included, laxative use was apparently much more prevalent among the middle and upper classes than the working-class population.

In the middle of working-class assemblage product list, stomach ailment medicine, venereal disease medications, skin creams, and Florida Water tied as the next most prevalent products (Figure 16). The position of these products in the middle- and upper-class assemblage lists varies greatly, so each will be discussed separately. As in the working-class assemblage, stomach medications also fell in the middle of the upper-class product list, but only five brands were present versus the eight in the working-class assemblage (Figures 16 and 18). There were no medicines to treat stomach ailments in the middle-class assemblage at all (Figure 16). Thus, stomach medication consumption was about equal for the working and upper classes, but possibly used very infrequently by the middle class. However, a larger middle-class sample size would likely either reveal stomach medication use or support the validity of this finding.

The venereal disease medications also fell in the middle of the upper-class assemblage list, though containing only one brand compared to the working class's five (Figures 16-18). In the middle-class assemblage that contained no brothel data, venereal disease medications tied with hair remedies and skin creams as the least frequent product present in the middle-class assemblage with only one brand present (Figures 16 and 18). Patent medicines used to treat venereal disease appeared to be used more frequently by the working class and the upper class than by the middle-class populations analyzed in this study, although this is likely a result of the prostitute data included in the working- and upper-class assemblages and not in the middle-class assemblage.

Perhaps as part of a beauty regimen, Florida Water and face creams tied in the middle of the upper-class assemblage list as well (Figure 16). While both of the working- and the upper-class assemblages contained five brands of skin creams, the working class used three brands of Florida Water and the upper class only one (Figures 16-18). However, these two types of products are on opposite ends of the spectrum within the middle-class assemblage, with Florida Water being the most common product as represented by two brands and face creams being the least common with only one brand (Figures 16 and 18). Thus, within the working-class and upper-class assemblages, Florida Waters and face creams were apparently used in similar amounts and were neither very popular nor unpopular. However, these two products were on the opposite ends of the spectrum within the middle-class assemblage with Florida Water being the most common product and face creams being the least common.

With only one brand present, kidney/liver/bladder medications were fifth from the bottom of the working-class assemblage list (Figures 16 and 17). These medications were in the middle of both the middle-class product list with three brands and that of the upper-class with four brands (Figures 16 and 18). In terms of brands present, the middle and upper classes apparently used kidney/liver/bladder medications more than the lower class, but this type of medicine was not especially common within any of the three assemblages.

The fourth least common product in the working-class assemblage were the medications used to treat catarrh with three brands present (Figures 16 and 17). A seemingly different pattern is portrayed in the upper-class assemblage, as catarrh medications are the sixth most common health product present, although with one less brand than in the working-class assemblage (Figures 16 and 18). The San Luis Obispo site data, however, skewed the upper-class data in favor of this product, so catarrh medications are likely not much more popular with the upper

class than with the working class. No patent medicines to treat catarrh were found at all within the middle-class assemblage at all (Figure 16). Thus, with the San Luis Obispo data present, catarrh medications were fairly popular with the upper class, not so much in the working class, and completely absent in the middle-class assemblage.

Toothpastes and powders were the third least common product in the working-class assemblage with only two brands present (Figures 16 and 17). In the upper-class assemblage, four brands were present and this category was the fifth most common product (Figures 16 and 18). No toothpastes or powders were found in the middle-class assemblage at all (Figure 16). Similar to the catarrh medicine category, toothpastes and powders were fairly popular with the upper class, not so much with the working class, and nonexistent in the middle-class assemblage. Of note, since there were no tooth pastes/powders found in the non-prostitute assemblage, the presence of tooth powders in both the working- and upper-class assemblages is due entirely to their use by the prostitutes.

Jamaican Ginger (two brands), antiseptics (two brands), and eye medicines (one brand) all tied for the second least common product in the working-class assemblage (Figures 16 and 17). Jamaican Ginger was also the second least common product within both the middle- and upper-class assemblage with two brands each (Figures 16 and 18). With only one brand present, eye medications were the least common medicine present in the upper-class assemblage, while the middle-class lacked eye medications altogether (Figures 16 and 18). Antiseptics were also notably absent from both the middle- and upper-class assemblages (Figure 16). Thus, these three products were apparently rarely used by all three socioeconomic classes.

With one brand each, hair remedies were the least common product in both the working-class and the middle-class assemblage, although this product tied with venereal disease

medications and skin creams in the middle-class assemblage (Figures 16-18). Although the upper-class assemblage also contained only one brand of hair remedies, this category was the third least common in upper-class product list (Figures 16 and 18). Apparently, hair remedies were slightly more popular among the upper class than the working and middle classes, yet this product was used infrequently by all three socioeconomic classes.

Not present at all in working-class assemblage were sarsaparillas (Figure 16). Four brands were consumed by the middle class and this type of medicine tied with Vaseline, bitters, and topical pain medications as the fifth most common product in the middle-class assemblage (Figures 16 and 18). The upper class consumed three different brands of sarsaparillas, but this category was the fourth least common product in the upper-class assemblage (Figures 16 and 18). Apparently, sarsaparillas were used the most by the middle class, once in a great while by the upper class, and not at all by the working class.

While the most frequent health product (i.e. soda water) was the same for the prostitutes and the non-prostitutes, the comparisons between the socioeconomic classes demonstrate a much greater disparity (Figure 16). As with the prostitute and non-prostitute data, soda water was the most frequent product in the working-class assemblage. However, Florida Water was the most common product in the middle-class assemblage and laxatives the most common in the upper-class assemblage. The next three most common products in the working-class assemblage were bitters, Vaseline, and topical medications to treat aches and pains. Within the middle-class assemblage, the next three most frequent products were laxatives, soda water, and oral medications for aches and pains. In the upper-class assemblage, the second through fourth most common products were those for soda water, cough and consumption, and Vaseline.

Of note, soda water is still within the top three products of the product prevalent lists for all three socioeconomic classes (Figure 16). Laxative use appears to be fairly common by both the middle class and upper class, as this type of medicine was the most frequently found in the upper-class assemblage and second most frequent within that of the middle class. Regarding the top four medications in each class list, the middle class is more similar to the upper class having laxatives and soda water in common, while only soda water in common with the working class. Interestingly, the upper-class assemblage has two products in common with both the middle and working-class assemblages, sharing laxatives and soda water with the middle class and soda water and Vaseline with the working class. This lends support to hypotheses suggesting the middle class attempted to emulate the upper class during the Victorian period.

Each of the three assemblages are lacking at least one type of product that is present in the other assemblages (Figure 16). The middle-class assemblage lacks the most products, likely due to its having the smallest sample size of the three assemblages. Not present at the middle-class sites were catarrh medications, stomach medicines, antiseptics, toothpastes/powders, and eye medications. The upper-class assemblage also lacked antiseptics, while that of the working class lacked sarsaparillas. Again, the middle-class assemblage is more similar to the upper-class assemblage than the working-class, both lacking antiseptics. The working-class data stands out in light of missing products such as sarsaparillas that were present in both the middle- and upper-class assemblages.

The least common products from each assemblage demonstrate both similarities and differences. Within the working-class assemblage, the least common products still present were the hair remedies, with Jamaican Ginger, antiseptics, and eye medicines tying for second least common (Figure 16). Hair remedies were also the least prevalent products within the middle-

class assemblage, tying with skin creams and venereal disease medications. These three products were followed by Jamaican Ginger as the second least common product in the middle-class assemblage. In the upper-class assemblage, the least common product was for the eyes, followed by Jamaican Ginger as second least common. Thus, the least common products in each assemblage were the result of those particular products being found in minute quantities within each of the assemblages. However, the very presence of the least common products in the middle-class assemblage (i.e. venereal disease medications, skin creams, and hair remedies) may be significant, as these products could be viewed as tools of the trade of prostitution, despite there being no identified middle-class brothels in this study.

In summary, soda water was a popular product throughout all three socioeconomic classes, being within the top three most common products in all three assemblages (Figure 16). However, the other two medications within the top three most prevalent products were quite different for each assemblage, although the middle-class and the upper-class assemblages shared laxatives within their top three. As for the least common products present in or even missing from each of the assemblages, the shared trend between the socioeconomic classes was that these products were actually found in very small percentages throughout all three assemblages. However, the least common products present in the middle-class assemblage are interesting as they are possibly related to prostitution, despite the lack of identified middle-class brothels in this study. Thus, the three assemblages compare favorably for some of the health products in the middle of each list, although there are still substantial differences that likely emerged as a result of differing social circumstances and lifestyles. The next two sections will break down the prostitute and non-prostitute data by socioeconomic status.

Working-Class Prostitute vs. Working-Class Non-Prostitute

As mentioned above, no sites identified as middle-class brothels were analyzed within this study. Thus, socioeconomic class comparisons between assemblages with prostitute or non-prostitute designations only include the working class and the upper class. The following three analyses will facilitate the determination of the extent to which differing socioeconomic statuses as well as lifestyles affected the composition of health product bottles found at both brothel sites and non-brothel sites.

The trend of soda water bottles being the most abundant type of health product found within the working-class assemblage applied to both the working-class prostitute and the working-class non-prostitute assemblages as well, implying that soda water was equally popular between the two groups. The working-class prostitutes consumed 18 different brands of soda water, whereas the working-class non-prostitutes consumed 21 (Figures 19 and 20). The large number of brands coupled with the popularity of this health product category suggests that both the working-class prostitutes and non-prostitutes were purchasing soda water opportunistically, actively searching out and buying the brands with the best perceived value for the lowest cost.

Vaseline was the second most popular product in the working-class prostitute assemblage, but the third least common product present in the working-class non-prostitute assemblage, indicating this product was much more popular among the working-class prostitutes than their non-prostitute counterparts (Figure 19). Bitters, however, were the third most prevalent product found at both the working-class brothel and non-brothel sites, represented by seven brands in the prostitute assemblage and three brands in the non-prostitute assemblage (Figures 19

and 20). Thus, the two working-class assemblages demonstrated an interesting pattern in which the prostitutes and the non-prostitutes shared two of the top three products.

Topical medications to treat aches and pains were also high on the product list for both the working-class prostitutes and non-prostitutes as the fourth most prevalent product for the prostitutes and the second most common for the non-prostitutes (Figure 19). Although topical pain relievers ranked higher in popularity among the working-class non-prostitutes, the prostitutes used nine different brands while the non-prostitutes used only six (Figures 19 and 20). Related to topical pain medications, oral pain medications were the fifth most common product found at the working-class brothel sites with four brands present and the fourth most common product at the working-class non-brothel sites, also represented by four brands (Figures 19 and 20). Thus, pain medications were quite popular among the working-class population, both prostitutes and non-prostitutes alike.

The first product that distinguishes the working-class prostitute data from the non-prostitute data is the patent medicines advertised to relieve weakness or treat female ailments. This category was the sixth most common product at the working-class brothel sites, still in the upper half of the list (Figure 19). While the working-class prostitutes used seven different brands of weakness relievers, the non-prostitutes used only one brand and this category tied with hair remedies, catarrh medications, patent medicines to treat venereal disease, and skin creams as the least common product (Figures 19 and 20). Thus, weakness relievers were much more popular with the working-class prostitutes than the non-prostitutes.

Working-Class Prostitute Data by Product		
Product	Number of Brands	Percent of Total Assemblage (MNV=317)
Soda/Mineral Water	18	49.53
Vaseline	1	8.52
Bitters	7	8.20
Topical Aches/Pains	9	5.68
Oral Aches/Pain	4	5.68
Weakness Relievers/Female Complaints	9	4.73
Cough/Consumption	7	2.84
Florida Water	3	2.52
Kidney/Liver/Bladder	1	2.21
Venereal Disease	4	2.21
Skin Creams	4	2.21
Laxatives	2	1.26
Catarrh	2	1.26
Stomach Ailments	3	0.95
Tooth powders/pastes	2	0.95
Antiseptics	2	0.63
Eye	1	0.63
Jamaican Ginger	0	0
Hair Remedies	0	0
Sarsaparilla	0	0
TOTAL	79	100.01

Working-Class Non-Prostitute Data by Product		
Product	Number of Brands	Percent of Total Assemblage (MNV=101)
Soda/Mineral Water	21	52.48
Topical Aches/Pains	6	9.90
Bitters	3	6.93
Oral Aches/Pain	4	5.94
Cough/Consumption	4	4.95
Laxatives	2	4.95
Stomach Ailments	5	4.95
Vaseline	1	2.97
Jamaican Ginger	2	1.98
Hair Remedies	1	0.99
Catarrh	1	0.99
Weakness Relievers/Female Complaints	1	0.99
Venereal Disease	1	0.99
Skin Creams	1	0.99
Florida Water	0	0
Eye	0	0
Kidney/Liver/Bladder	0	0
Antiseptics	0	0
Tooth powders/pastes	0	0
Sarsaparilla	0	0
TOTAL	53	100

Figure 19. Working-Class Prostitute vs. Working-Class Non-Prostitute Product Tables

Figure 20. Working-Class Prostitute vs. Working-Class Non-Prostitute Product Graphs

In the middle of the list of products by prevalence, cough and consumptions medications were the seventh most common product in the working-class prostitute assemblage, represented by seven brands (Figures 19 and 20). This category was the fifth most common product in the

working-class non-prostitute with four brands, also in the middle of that particular prevalence list. Thus, both the working-class prostitutes and non-prostitutes consumed a substantial quantity of cough and consumption medications.

Florida Water was the next most prevalent product in the working-class brothel assemblage, actually the fifth least common product, as represented by three brands (Figures 19 and 20). No Florida Water was found in the working-class non-prostitute assemblage at all, indicating this health product was vastly more popular with the working-class prostitutes compared to the non-prostitutes.

Kidney/liver/bladder medications, patent medications to treat venereal disease, and skin creams all tied as the fourth least common product in the working-class prostitute assemblage (Figure 19). While both skin creams and the venereal disease medicines were represented by four brands in the working-class brothel assemblage, the kidney/live/bladder medications were represented by only one brand (Figures 19 and 20). Although these products were fairly low on the working-class brothel assemblage list, their popularity still represented a contrast with the working-class non-brothel assemblage, which contained no kidney/liver/bladder medications and only one brand each of skin creams and venereal disease medications, two of the least common products in that particular assemblage (Figures 19 and 20). Thus, skin creams, patent medicines to treat venereal disease, and kidney/liver/bladder medications were much more popular among the working-class prostitutes than the non-prostitutes,

Toothpastes/powders and stomach medications tied as the third least common products in the working-class brothel assemblage (Figure 19). The stomach medication category placed slightly higher on the working-class non-prostitute list as the fifth least common product, represented by five brands compared to the prostitutes' three (Figures 19 and 20). Although the

working-class prostitutes used two different brands of toothpastes and powders, none was found at the non-brothel sites, a result consistent with the above analysis indicating toothpastes and powders were a product utilized by the prostitutes, but not the non-prostitutes. Thus, stomach medications were slightly more popular among the working-class non-prostitutes while toothpastes and powders were vastly more popular among the prostitutes compared to the non-prostitutes.

Laxatives and catarrh medications tied for the third least common product present in the working-class brothel assemblage, each category represented by two brands (Figures 19 and 20). While the catarrh medications were similarly not very common within the non-prostitute assemblage as one of the least common products represented by only one brand, the laxatives were the fifth most common product in the working-class non-brothel assemblage, closer to the middle of the list, also with two brands present. Thus, catarrh medications were not used much by either the working-class prostitutes or the non-prostitutes, but like stomach medications, laxatives were more popular among the working-class non-prostitutes than the prostitutes.

The least common products in the working-class brothel assemblage were the eye medicines with one brand and the antiseptics with two brands (Figures 19 and 20). Neither of these products were found at all in the working-class non-prostitute assemblage (Figure 19). Conversely, one brand of hair remedies and two brands of Jamaican Ginger were found in the working-class non-brothel assemblage, but not at all in the brothel assemblage (Figures 19 and 20). Although present in the working-class non-brothel assemblage, Jamaican Ginger was the second least common product while hair remedies tied with four other categories for the least common product (Figure 19). Sarsaparillas were found in neither working-class assemblage.

In summary, the most common product in both of the working-class assemblages was soda water, contributing nearly half of the working-class prostitute assemblage and more than half of the working-class non-prostitute assemblage (Figure 19). The next four most common products in the working-class brothel assemblage were Vaseline, bitters, topical pain medications, and oral pain relievers. Except for the Vaseline, these same products were also within the top four products of the non-prostitute assemblage. Soda water, bitters, and pain relievers were apparently important to both working-class prostitutes and non-prostitutes. Although not in the top four products, the increased presence of face creams, toothpastes/powders, and venereal disease medications in the working-class prostitute assemblage compared to the non-prostitute assemblage is probably a result of these products being extremely beneficial to Victorian-Era sex workers. The greater use of laxatives and stomach medications by the working-class non-prostitutes compared to the prostitutes is likely a result of differences in both the type and quality of foods consumed.

Eye medicines and antiseptics were the least common products in the working-class prostitute assemblage and not present at all in the non-prostitute assemblage, suggesting these medications may have also had specific uses within the profession of prostitution (Figure 19). Five product categories were the least common within the working-class non-brothel assemblage: hair remedies, catarrh medications, weakness relievers/female complaint patent medicines, venereal disease medications, and skin creams. Neither assemblage contained sarsaparilla bottles and besides the two products mentioned above, the working-class non-prostitute assemblage also lacked Florida Water, kidney/liver/bladder medications, and toothpastes/powders, all of which were present in the working-class prostitute assemblage (Figure 19). Present in the working-class non-prostitute assemblage and absent in that of the

prostitutes were Jamaican Ginger and hair remedies. Since Jamaican Ginger was used to treat stomach upset, besides as a covert method of consuming alcohol, this product's presence in the working-class non-prostitute assemblage and absence in that of the working-class prostitutes likely correlates with the greater consumption of laxatives and stomach medications by the working-class non-prostitutes.

While the two working-class assemblages resemble each other near the top of each product list, the prevalence rates rapidly diverge, indicating the specific types of products important to the working-class prostitutes and those that are popular among the working-class non-prostitutes. Soda water and pain-relieving products were apparently important to both the working-class prostitutes and the non-prostitutes, but the prostitute assemblage contained more beauty and grooming products while the non-prostitute assemblage contained more products for treating tuberculosis and digestive issues. The increased prevalence of grooming and beauty products, Vaseline and venereal disease medications in the working-class prostitute assemblage demonstrates that certain health products associated with the profession of prostitution could possibly be used as supporting evidence for identifying or verifying the presence of historic brothels archaeologically.

Upper-Class Prostitutes vs. Upper-Class Non-Prostitutes

Unfortunately, the two upper-class assemblages each included very few sites, so the data are slightly more restricted and contain several gaps. The patterns, however, illustrate completely different trends from the two working-class assemblages. Whereas the two working-class assemblages were mostly very similar, the two upper-class assemblages are vastly different.

Comparisons between each of the product categories demonstrate the extent of the diversity between the two assemblages. This finding was not altogether unexpected, because although upper-class brothels catered to upper-class clients, the parlor houses themselves were still located in working-class neighborhoods.

As with the working-class assemblages, soda water was the most common product in the upper-class prostitute assemblage with eight brands contributing nearly one-quarter of the assemblage (Figures 21 and 22). However, with only two brands present, soda water was the third least common product in the upper-class non-prostitute assemblage, tying with stomach medicines, skin creams, and hair remedies. Thus, soda water was much more popular with the upper-class prostitutes than their non-prostitute counterparts.

Vaseline was the second most common product within the upper-class prostitute assemblage, yet none was found at the non-brothel sites (Figures 21). The third most common product in the upper-class brothel assemblage were the toothpastes and powders, represented by four different brands (Figures 21 and 22). As with the Vaseline, no toothpastes/powders were found at the upper-class non-prostitute sites at all (Figure 21). Florida Water was the fourth most common product found at the upper-class brothel sites with one brand present, while again, none was found at the non-brothel sites (Figures 21 and 22). These three products, Vaseline, toothpastes/powders, and Florida Water, were obviously very popular with the upper-class prostitutes, possibly even “tools of the trade.” Despite Vaseline and Florida Water having multiple uses, neither these nor the toothpastes and powders were found at the upper-class non-brothel sites at all (Figure 21).

Skin creams were also quite common to the upper-class prostitute assemblage with five different brands present (Figures 21 and 22). The upper-class non-prostitutes also used skin

creams, though only one brand represented this category as the third least common product in the non-brothel assemblage, tying with soda water, stomach medicines, and hair remedies.

Apparently, skin creams, another possible tool of the prostitution trade, were used much more by the upper-class prostitutes than their non-prostitute counterparts.

Tied in the middle of the upper-class prostitute list were laxatives, stomach medications, and medicines to treat venereal disease (Figure 21). Although the upper-class prostitutes and non-prostitutes both used three brands of laxatives, this category was the most prevalent product found at the non-brothel sites (Figures 21 and 22); however, the non-prostitute data were heavily influenced by the multiple California Fig Syrup bottles found at San Luis Obispo. Stomach medications appeared to be slightly more popular with the upper-class prostitutes, represented by three brands compared to the non-prostitutes' two. As mentioned above, stomach medications tied with three other products as the third least common product found at the upper-class non-brothel sites (Figures 21 and 22). Thus, laxatives were used much more by the upper-class non-prostitutes than by the prostitutes, whereas the stomach medications were used more by the upper-class prostitutes than their non-prostitute counterparts. Medications to treat venereal disease were represented by one brand in the upper-class brothel assemblage, while this product was completely absent in the non-brothel assemblage (Figures 21 and 22). As expected, products to treat or prevent venereal disease were much more popular among the upper-class prostitutes than their non-prostitute counterparts.

Upper-Class Prostitute Data by Product		
Product	Number of Brands	Percentage of Total Assemblage (MNV=137)
Soda/Mineral Water	8	25.55
Vaseline	1	13.14
Tooth powders/pastes	4	12.41
Florida Water	1	10.22
Skin Creams	5	8.03
Stomach Ailments	3	6.57
Venereal Disease	1	6.57
Laxatives	3	6.57
Cough/Consumption	4	3.65
Weakness Relievers/Female Complaints	3	2.19
Bitters	3	2.19
Sarsaparilla	2	1.46
Jamaican Ginger	1	0.73
Topical Aches/Pains	1	0.73
Catarrh	0	0
Kidney/Liver/Bladder	0	0
Antiseptics	0	0
Hair Remedies	0	0
Oral Aches/Pain	0	0
Eye	0	0
TOTAL	40	100.01

Upper-Class Non-Prostitute Data by Product		
Product	Number of Brands	Percentage of Total Assemblage (MNV=114)
Laxatives	3	26.32
Catarrh	2	14.04
Cough/Consumption	6	13.16
Weakness Relievers/Female Complaints	6	10.53
Kidney/Liver/Bladder	4	9.65
Topical Aches/Pains	5	6.14
Oral Aches/Pain	2	4.39
Soda/Mineral Water	2	2.63
Stomach Ailments	2	2.63
Skin Creams	1	2.63
Hair Remedies	1	2.63
Bitters	2	1.75
Sarsaparilla	2	1.75
Jamaican Ginger	1	0.88
Eye	1	0.88
Venereal Disease	0	0
Antiseptics	0	0
Tooth powders/pastes	0	0
Vaseline	0	0
Florida Water	0	0
TOTAL	40	100.01

Figure 21. Upper-Class Prostitute vs. Upper-Class Non-Prostitute Product Tables

Figure 22. Upper-Class Prostitute vs. Upper-Class Non-Prostitute Product Graphs

As the fourth least prevalent health product, four brands of cough and consumption medications were found in the upper-class prostitute assemblage (Figures 21 and 22). Conversely, cough and consumption medications were the third most common product present in the upper-class non-prostitute assemblage, represented by six different brands. Thus, cough and consumption medications were more popular among the upper-class non-prostitutes than their prostitute counterparts.

Tying for third least common product present in the upper-class prostitute assemblage were the bitters and medications used to relieve weakness or treat female complaints, represented by three different brands each (Figures 21 and 22). Bitters were similarly unpopular among the

upper-class non-prostitutes as the second least common product with two brands present, whereas the medications to relieve weakness or treat female complaints were actually the fourth most common product with twice as many brands present as in the upper-class brothel assemblage. Apparently, bitters were not consumed much by either the upper-class prostitutes or non-prostitutes, but medicines to relieve weakness or to treat female complaints were much more popular with the upper-class non-prostitutes than with the prostitutes.

The second least common product in both upper-class assemblages were the sarsaparillas, represented by two brands each (Figures 21 and 22). Apparently, neither the upper-class prostitutes nor the non-prostitutes used this product very much. Jamaican Ginger and topical aches and pains medications tied for the least common product present at the upper-class brothel sites, with one brand each (Figures 21 and 22). Jamaican Ginger, with one brand present, was also the least common product in the upper-class non-prostitute assemblage, tied with eye medications. However, topical aches and pains medicines were in the middle of the upper-class non-brothel list of medications (Figure 21). Therefore, Jamaican Ginger was not a particularly common product in either of the upper-class assemblages, but topical aches and pains medicines were definitely utilized more by the upper-class non-prostitutes than the prostitutes.

Only one product was absent in both upper-class assemblages: the antiseptics (Figure 21). The upper-class prostitute assemblage also lacked medicines to treat catarrh, nostrums for afflictions of the kidney/liver/bladder, oral medications to treat aches and pains, hair remedies and eye medicines. These five products, however, were all present in the upper-class non-prostitute assemblage; medications to treat catarrh were actually the second most prevalent product in the upper-class non-prostitute assemblage with two brands present (Figures 21 and 22), although the multiple bottles of Dr. Marshall's Snuff found at San Luis Obispo definitely

skewed the upper-class non-prostitute data in favor of catarrh medications. Four brands of kidney/liver/bladder medicines and two brands of oral pain relievers were in the middle of the upper-class non-prostitute list, neither the most popular, nor least popular product (Figures 21 and 22). Stomach medications with two brands present, eye medicine with one brand, and hair remedies with one brand were all within the three least common products present within the upper-class non-brothel assemblage (Figures 21 and 22). Thus, several of the medicines that were completely absent in the upper-class brothel assemblages were present in the non-prostitute assemblage in varying degrees of popularity.

In summary, the top three most prevalent products in the upper-class brothel assemblage were soda water, Vaseline, and toothpastes/powders (Figure 21). The top three products in the upper-class non-prostitute assemblage were laxatives, medications to treat catarrh, and medicines for cough and consumption. Several products tied as the least common products present in both upper-class assemblages. For the prostitutes the least common products were the topical pain medications and Jamaican Ginger, while the second least common were sarsaparillas; the third least common products were bitters and products to relieve weakness or treat female complaints. Within the non-prostitute assemblage, the least common products present were eye medicine and Jamaican Ginger, the second least common products sarsaparillas and bitters, and the third least common products were stomach medications, soda water, skin creams, and hair remedies. Thus, the prevalence of most of the products, with exception of the least common, varied substantially between the two upper-class assemblages.

While both assemblages lacked antiseptics, other products absent from the upper-class prostitute assemblage included catarrh medicines, kidney/liver/bladder medications, hair remedies, oral pain relievers, and eye medicines (Figure 21). The upper-class non-prostitute

assemblage lacked products to treat or prevent venereal disease, toothpastes/powders, Vaseline, and Florida Water, an interesting result as these products would likely be components of a prostitute's toolkit within a brothel setting. While the least frequent products within the entire archaeological assemblage caused small quantities of these products to appear in each of the individual upper-class assemblages, some of the products that were the most popular products in one upper-class assemblage were absent or present in small amounts in the other upper-class assemblage. Thus, there were more differences than similarities between the upper-class prostitute and upper-class non-prostitute assemblages.

As mentioned above, upper-class brothels (i.e. parlor houses) were typically located in working-class neighborhoods, thus the disparity between the two upper-class assemblages was not completely unexpected. Even though the upper-class parlor house prostitutes possessed more purchasing power than their working-class neighbors, they did not share the same amount of purchasing power as the upper-class nor conform to the same Victorian ideals. The final analysis of product type, socioeconomic class, and association with the sex industry investigates the differences between the working-class prostitute and upper-class prostitute assemblages to determine the differences in health status, quality of life, and purchasing power between the prostitutes living in parlor houses and those living near or above saloons and dancehalls.

Working-Class Prostitute vs. Upper-Class Prostitute

Comparisons between the upper-class prostitute assemblage and that of the working-class prostitutes reveal a very interesting pattern: while the two assemblages initially appear quite similar, they rapidly diverge, indicating very different conditions and experiences for the two

groups as would be expected for brothels catering to the wealthy and those catering to the poor. Following is a comparison of the two prostitute assemblages.

As has been the trend throughout the previous analyses in this study, soda water was the most prevalent product in both the upper-class and working-class prostitute assemblages (Figure 23). The working-class prostitutes were consuming 17 different brands of soda water accounting for more than half of the assemblage, while their upper-class counterparts were consuming about half as much (i.e. 8 brands) which contributed slightly more than one-quarter to that particular assemblage (Figures 23 and 24). Although soda water was the most prevalent product in both assemblages, the product was apparently more popular among the working-class than the upper-class prostitutes, conforming to the consumption patterns revealed in the above analyses.

The second most common product in the working-class brothel assemblage were the bitters of which six different brands were present (Figures 23 and 24). In the upper-class prostitute assemblage, bitters tied with weakness relievers as the third least common product and was represented by only three brands. Thus, bitters consumption was drastically different between the two assemblages: while the bitters were extremely popular among the working-class prostitutes, the opposite was likely true among the upper-class prostitutes.

Only one other product besides soda water shared a spot in the top five products of both brothel assemblages. In the working-class prostitute assemblage, Vaseline was the third most common medicine, whereas in the upper-class prostitute assemblage, Vaseline was the second most common product (Figure 23). Given the numerous uses for Vaseline in the line of sex work, the finding of increased prevalence within both brothel assemblages is not at all unexpected.

Working-Class Prostitute Data by Product		
Product	Number of Brands	Percent of Total Assemblage (MNV=317)
Soda/Mineral Water	18	49.53
Vaseline	1	8.52
Bitters	7	8.20
Topical Aches/Pains	9	5.68
Oral Aches/Pain	4	5.68
Weakness Relievers/Female Complaints	9	4.73
Cough/Consumption	7	2.84
Florida Water	3	2.52
Kidney/Liver/Bladder	1	2.21
Venereal Disease	4	2.21
Skin Creams	4	2.21
Laxatives	2	1.26
Catarrh	2	1.26
Stomach Ailments	3	0.95
Tooth powders/pastes	2	0.95
Antiseptics	2	0.63
Eye	1	0.63
Jamaican Ginger	0	0
Hair Remedies	0	0
Sarsaparilla	0	0
TOTAL	79	100.01

Upper-Class Prostitute Data by Product		
Product	Number of Brands	Percentage of Total Assemblage (MNV=137)
Soda/Mineral Water	8	25.55
Vaseline	1	13.14
Tooth powders/pastes	4	12.41
Florida Water	1	10.22
Skin Creams	5	8.03
Stomach Ailments	3	6.57
Venereal Disease	1	6.57
Laxatives	3	6.57
Cough/Consumption	4	3.65
Weakness Relievers/Female Complaints	3	2.19
Bitters	3	2.19
Sarsaparilla	2	1.46
Jamaican Ginger	1	0.73
Topical Aches/Pains	1	0.73
Catarrh	0	0
Kidney/Liver/Bladder	0	0
Antiseptics	0	0
Hair Remedies	0	0
Oral Aches/Pain	0	0
Eye	0	0
TOTAL	40	100.01

Figure 23. Working-Class Prostitute vs. Upper-Class Prostitute Product Tables

Figure 24. Working-Class Prostitute vs. Upper-Class Prostitute Product Graphs

The fourth most common product in the working-class prostitute assemblage were the topical pain medications of which nine different brands were present (Figures 23 and 24).

However, in the upper-class prostitute assemblage, topical medicines for aches and pains tied

with Jamaican Ginger as the least common product present, represented by only one brand. Related to topical pain relievers, the oral pain medication category was the fifth most prevalent product in the working-class prostitute assemblage, as represented by three different brands, while this product was completely absent from the upper-class prostitute assemblage (Figures 23 and 24). Thus, pain relievers were vastly more popular among the working-class prostitutes than the upper-class prostitutes, possibly indicating harsher conditions or more difficult life experiences for women working in lower classes of brothels.

Approaching the middle of the product prevalence list, weakness relievers were the sixth most common product in the working-class prostitute assemblage as represented by seven brands (Figures 23 and 24). Conversely, weakness relievers tied with bitters as the third least common product in the upper-class prostitute assemblage with only three brands present. Relieving weakness or treating female complaints were apparently greater priorities for the working-class prostitutes than their upper-class counterparts, once again suggesting that the lives of the working-class prostitutes were much more difficult than those of the upper-class prostitutes.

Directly in the center of the working-class brothel product prevalence list were the kidney/liver/bladder medications with one brand and the venereal disease medicines with four (Figures 23 and 24). With only one brand present, venereal disease medications were also in the middle of the list for the upper-class prostitutes tying with laxatives and stomach medications as the sixth most common (or fifth least common) product while the medicines to treat kidney/liver/bladder ailments were not present at all. In terms of number of brands, the working-class prostitutes may have used products to treat or prevent venereal disease more often than the upper-class prostitutes, although the single brand in the upper-class brothel assemblage coupled with similar popularity among the working-class prostitutes may actually indicate brand loyalty

and increased purchasing power. However, since some kidney/liver/bladder medications were used to covertly treat the symptoms of venereal disease, the greater prevalence of this product in the working-class brothel assemblage suggests that the working-class prostitutes were actually at a greater risk of contracting venereal disease than the upper-class prostitutes.

In the bottom half of the working-class product list, skin creams were the fifth least common product in the assemblage with only two brands present (Figures 23 and 24). In the upper-class prostitute assemblage, skin creams were in the top five most prevalent products, with more than twice as many brands present compared to the working-class prostitute assemblage. Skin creams were obviously more important to the upper-class prostitutes than the working-class prostitutes.

Cough and consumption medicines tied with Florida Water as the fourth least common product present at the working-class brothel sites (Figure 23). The working-class prostitutes used four different brands of cough and consumption medications and two brands of Florida Water (Figures 23 and 24). Cough and consumption medication use was similar between the two prostitute groups as the upper-class prostitutes also used four brands of the cough and consumption medications while the category was the fourth least common in their respective assemblage as well. Conversely, the upper-class prostitutes used only one brand of Florida water, yet this type of health product was the fourth most common in the upper-class brothel assemblage (Figures 23 and 24). So, although cough and consumption medication use was similar between the two groups of prostitutes, Florida Water was actually much more popular among the upper-class prostitutes than their working-class counterparts.

Toothpastes/powders with two brands and stomach medications with three brands were the third least common products in the working-class prostitute assemblage (Figures 23 and 24).

In the upper-class brothel assemblage, stomach medications, also with three brands present, tied with venereal disease medications and laxatives as the fifth least common product, roughly in the middle of the prevalence list. However, the upper-class prostitutes used twice as many brands of toothpastes and powders which were the third most common product in the upper-class brothel assemblage. Thus, stomach medications were used in about the same amount by both the working-class and upper-class prostitutes, but toothpastes and powders were much more popular with the upper-class prostitutes.

Four different products were present in very small quantities in the working-class brothel assemblage, three of which were not even present in the upper-class brothel assemblage. One brand of catarrh medicine, one brand of laxatives, and two brands of antiseptics all tied as the second least common health product found in the working-class prostitute assemblage (Figures 23 and 234). Of those three products, only the laxatives were present in the upper-class prostitute assemblage, tying with stomach medications and patent medicines to treat or prevent venereal disease as the fifth least common product. Finally, one brand of eye medication was the least common product found at the working-class brothel sites whereas none were present at all in the upper-class brothel assemblage. Thus, of these four products, only laxatives were used slightly more by the upper-class prostitutes than their working-class counterparts; the other three products were either very rare or absent at both socioeconomic classes of brothel sites.

Two brands of sarsaparilla and one of Jamaican Ginger were present in the upper-class brothel assemblage but not that of the working-class prostitutes (Figures 23 and 24). Jamaican Ginger tied with topical pain relievers as the least prevalent product in the upper-class prostitute assemblage while sarsaparilla was the second least common product (Figure 23). Thus, sarsaparilla and Jamaican Ginger were used exclusively by the upper-class prostitutes and not at

all by their working-class counterparts. Oddly, in a profession that often required attention to appearance, hair remedies were not present at either class of brothel site.

In summary, the five most common products in the working-class brothel assemblage were the soda waters, bitters, Vaseline, topical pain relievers, and oral pain relievers (Figure 23). The top five most common medicines in the upper-class brothel assemblages were soda waters, Vaseline, tooth powders/pastes, Florida water, and skin cream. While soda water and Vaseline were within the top five most prevalent products of both prostitute assemblages, the other three products were vastly different between the two assemblages. In the upper-class brothel assemblage, these products were part of beauty and grooming regimens, while in the working-class prostitute assemblage, the products were intended to relieve physical discomfort. These results indicate that the conditions and experiences of the upper-class parlor house prostitutes were likely very different from the lives of the working-class prostitutes.

The top six least common products in the working-class prostitute assemblage were eye medicines, antiseptics, medication to treat catarrh, laxatives, toothpastes/powders, and stomach medications (Figure 23). In the upper-class prostitute assemblage, the six least common products were topical medications for aches and pains, Jamaican Ginger, sarsaparilla, bitters, medicines to relieve weakness or treat female complaints, and medications to treat cough and consumption. As with the six most common products, there is a substantial discrepancy between the two assemblages at the bottom of the product list. Some of the health products that were very common in the working-class prostitute assemblage were rare in the upper-class prostitute assemblage, whereas some of the products popular with upper-class prostitutes were not used much at all by the working-class prostitutes.

Of particular importance when analyzing the experiences of different socioeconomic classes of prostitutes, medications to treat and prevent venereal disease were the sixth most common product in both the upper-class and working-class assemblages, neither extremely common nor relatively uncommon (Figure 23). Evidence suggests that working-class prostitutes were likely more exposed to venereal disease than the parlor house prostitutes due to the larger number of brands of venereal disease medicine present in the working-class brothel assemblage coupled with the increased prevalence of kidney/liver/bladder medications, antiseptics, and products to treat female complaints, all of which could possibly be used to treat symptoms of venereal disease.

The likely cause for more rampant venereal disease in the working-class brothels arises from the upper-class prostitutes and brothels being more selective of customers as well as catering to upper-class citizens with more resources to treat health issues and greater opportunities to practice cleanliness. Also, working-class prostitutes likely serviced many customers during the course of one night, while the upper-class parlor house prostitutes were reserved by either one or just a few customers each night. More customers increased the risk of exposure to venereal disease, thus placing working-class prostitutes in a worse position than their upper-class counterparts. However, the one brand of venereal disease medication in the upper-class brothel assemblage may instead arise from brand loyalty and the increased purchasing power that enabled the parlor house prostitutes to buy one particular brand instead of employing the opportunistic buying method apparently used by the working-class prostitutes.

Both prostitute assemblages lacked products that were present in the alternate assemblage. The working-class brothel assemblage lacked Jamaican Ginger and sarsaparillas, which were present in that of the upper-class prostitutes, while not present in the upper-class

brothel assemblage were the catarrh medicines, kidney/liver/bladder medications, antiseptics, oral pain relievers, and eye medications, all of which were present in that of the working-class prostitutes (Figure 23). Surprisingly, in a setting where beauty was valued and often a selling point, hair remedies were not present in either the working-class or the upper-class prostitute assemblages (Figure 23).

In conclusion, the working-class and upper-class assemblages shared some similarities, such as the popularity of soda water and Vaseline and the complete absence of hair remedies. The main difference between the assemblages, though, was that the most popular products in the upper-class brothel assemblage (i.e. beauty and grooming products) were the least popular in the working-class assemblage and the most popular products in the working-class brothel—medications to treat physical discomfort—were not nearly as popular in the upper-class assemblage. Although venereal disease medications were used by both socioeconomic classes of prostitutes, the increased prevalence in the working-class brothel assemblage of antiseptics, liver/kidney/bladder medications, and products to treat female complaints demonstrates the likelihood that the working-class prostitutes were treating symptoms of venereal disease more often. These findings suggest that the socioeconomic status of prostitutes definitely contributed to differences in the quality of life, health, experiences, and purchasing power of the working-class prostitutes as compared to their upper-class counterparts.

To more thoroughly examine the consumption patterns of health products among the various Victorian-Era groupings listed above, trends in the consumption patterns of certain ingredients will be analyzed next.

Results by Ingredient

In the above section, analysis of the types of products consumed by each group revealed insights into the health status, grooming regimens, life experiences, and cultural values of various groups of individuals during the Victorian Period. However, a closer inspection of the ingredients themselves elucidates consumption patterns indicating whether the Victorian-Era consumers purchased the health products due to inclusion of certain ingredients that caused pleasurable effects or simply for the advertised cures or results. Also, the analysis of certain ingredients in conjunction with products reveals consumption patterns that relate to socioeconomic status and lifestyle choices as well as aspects of Victorian culture. Finally, ingredient analysis demonstrates how the purchasing power of different socioeconomic classes affected the types and quality of products consumed.

During the nineteenth century and into the early twentieth century, many of the patent medicines and health products included a number of herbal ingredients, which may or may not have produced a therapeutic effect. Due to the sheer number of ingredients in the patent medicines and other health products in this analysis, only the ingredients with distinctive peaks in each of the graphs will be examined in this section.

Prostitute vs. Non-Prostitute

In the previous analyses of specific product consumption, soda water was shown to be extremely popular among the prostitutes; further analysis of the ingredients consumed by Victorian-Era prostitutes clearly confirms this observation. In the prostitute assemblage, soda

water was the most common ingredient consumed with alcohol as the second most common (Figure 25). Soda water and alcohol are also the two most common ingredients in the non-prostitute assemblage, except alcohol was the most prominent ingredient followed by soda water (Figure 25). Thus, products containing soda water or alcohol were popular among both the prostitutes and the non-prostitutes. However, more soda water bottles than alcohol-containing products were found in the brothel assemblages, while the opposite was true at the non-brothel sites. The inverse relationship between soda water and alcohol consumption for the prostitutes and non-prostitutes is the most significant finding in the ingredient analysis.

The next highest peak in the prostitute graph is for the ingredient petroleum jelly (Figure 25). While present in the non-prostitute graph, the peak is much less pronounced (Figure 25). Petroleum jelly was the main ingredient of Chesebrough Vaseline—the second most common product in the prostitute assemblage—as well as a component of skin creams. The peaks of antiseptic compounds are also much more enhanced in the brothel assemblage compared to the non-brothel assemblage (Figure 25), as these substances were frequently used to either treat or prevent venereal disease. Six of the eight antiseptic substances demonstrate substantial peaks in the prostitute graphs, while only one of five of the antiseptic substances in the non-prostitute graph presents an obvious peak (Figure 25). Thus, both products containing petroleum jelly or antiseptic ingredients were more popular among the prostitutes than the non-prostitutes, as would be expected considering the product analyses.

Many of the peaks in the prostitute assemblage are the result of the large numbers of Fernet Branca bottles found at the Ouray, Colorado site (Figures 25 and 26). Fernet Branca is an Italian brand of bitters purported to aid digestion and was often consumed after a meal; these bitters are present in many modern mixed drink recipes, as they would have likely been during

the Victorian Era. The main ingredients of Fernet Branca are alcohol and a wide variety of herbs and other compounds (Cavalieri 2005; O'Bryan 2013). Thus, a myriad of herbs from angelica root to yarrow appeared in the prostitute ingredient graph (Figure 26). Unfortunately, the presence of the other ingredients in the brothel assemblage was thus suppressed due to the sheer number of ingredients in Fernet Branca in addition to the substantial number of Fernet Branca bottles present in the Ouray, Colorado assemblage.

Figure 25. Prostitute vs. Non-Prostitute Data Ingredient Graphs, Part I.

Figure 26. Prostitute vs. Non-Prostitute Data Ingredient Graphs, Part II.

The recipe for Fernet Branca is a carefully guarded family secret with at least 27 confirmed ingredients as well as several more rumored ingredients. Because there are trace opioids in today's version, some of these rumored components will be included in the analyses as these ingredients were also included in a number of other health products from the nineteenth and early twentieth centuries. Codeine, coca leaves (from which cocaine is derived), and wormwood (from which absinthe is derived) are some of the rumored ingredients. Another ingredient, saffron, can be used to manufacture MDMA, also known as the street drug Ecstasy (O'Bryan 2013). Methanol was included as an ingredient of Fernet Branca in this study due to reports of multiple bottles adulterated with methanol found on the market in the early twentieth century (United States Department of Agriculture 1919:358). These adulterated products were likely the result of nefarious companies and manufacturers cutting costs while copycatting the recipe of the original Fernet Branca, but as the bottles were still labeled "Fernet Branca" and identical to the original product, they may have been part of the Ouray assemblage.

Both aloe and peppermint occurred in large quantities in the prostitute assemblage because of the Fernet Branca bottles found in Ouray (Figure 25); however, the peaks of the two aforementioned ingredient were more enhanced than can be accounted for by the abundance of Fernet Branca bottles. Both aloe and peppermint have multiple uses and therapeutic effects to be considered during analysis of the ingredient data. Aloe, containing the chemical compound emodin was, and still is, used as a laxative to stimulate intestinal motility. One of the ingredients present in many of the *digestif* bitters and Lydia Pinkham's Vegetable Compound, aloe was perhaps consumed to regulate the digestive system. Aloe, though, also exhibits skin-soothing properties and was present in the Cuticura Treatment System, designed for skin care. In

the non-prostitute ingredient graph, aloe formed a much smaller peak as bitters and skin creams were not nearly as popular among the non-prostitutes as compared to the prostitutes (Figure 25).

The laxative ingredients with enhanced peaks in the non-prostitute graph were the chemical compounds senna and glycerin (Figure 25). Although glycerin suppositories are a common treatment of constipation today, this compound was most likely used mainly in non-laxative products in the nineteenth century. Like aloe, glycerin exhibits skin soothing properties and was thus present within a number of facial creams and beauty products. Glycerin was also utilized as the base or vehicle in the manufacturing process of many health products, as its emollient properties aid in the blending of ingredients and maintenance of consistency. The large amount of senna in the non-prostitute assemblage (Figure 25), however, did result from actual laxative use, as this particular compound was the active ingredient of the large quantity of California Fig Syrup apparently consumed at San Luis Obispo; unfortunately, the plethora of California Fig Syrup bottles heavily skewed the non-prostitute data in favor of not only senna, but alcohol and peppermint as well. In terms of ingredients with laxative effects, the ingredient senna was consumed more by non-prostitutes whereas aloe was used more by the prostitutes (Figure 25), direct results of increased quantities of certain types of products present in each assemblage.

The ingredient peppermint created a prominent peak in both the prostitute and non-prostitute assemblage ingredient graphs (Figure 25). Peppermint, like aloe and glycerin, has multiple uses from treating stomach upset to a flavoring additive. As peppermint was an ingredient of both California Fig Syrup and Fernet Branca bitters, the large numbers of bottles of these products found at San Luis Obispo and Ouray, respectively, resulted in the enhanced peppermint peaks in both ingredient graphs. Other products found in each assemblage also

contributed to the peppermint peaks, such as the cough/consumption medications in the non-prostitute assemblage and the toothpastes/powders in the prostitute assemblage. Therefore, peppermint was a commonly-used ingredient by both the prostitutes and non-prostitutes; however, this ingredient was being used differently by the prostitute and non-prostitutes, in terms of the types of products consumed and ailments treated.

As mentioned above, the majority of the peaks within the herbal group of ingredients were due to the large number of Fernet Branca bottles found in Ouray. However, as with the peppermint and senna, some of the peaks are more enhanced than others, indicating these ingredients were also used in multiple products. The more prevalent herbs within the prostitute assemblage include angelica root, anise oil, bergamot oil, calamus root, cardamom, chamomile, cinchona (quinine), cinnamon, clove oil, Colombo root, gentian, juniper, linden, mace, myrrh, orris root, rhubarb, saffron, wormwood, and yarrow (Figure 26). The majority of these are ingredients in the other bitters within the assemblage, as well as Dr. Kilmer's Swamp Root, one of the patent medicines advertised to treat ailments of the kidney/liver/bladder but was also potentially used to treat venereal disease. Others, such as anise oil, cinnamon, clove oil, and cardamom, were used as flavoring or scents in products such as the toothpastes/powders and the Cuticura cleansing system. All in all, the prostitutes used products that contained some 77 herbal ingredients, many of these forming substantial peaks in their respective ingredient graph (Figure 26), indicating that Victorian-Era prostitutes frequently consumed products containing herbal components.

In the non-prostitute ingredient graph, the herbal section displayed fewer prominent peaks than the prostitute graph, despite containing a larger number of ingredients (at least 99) (Figure 26). Only the anise oil, bergamot oil, Canada snakeroot/ginger, cassia oil, clove oil,

sassafras, tobacco, and wintergreen ingredients peaked somewhat higher than the other herbal ingredients. The cassia and clove oil ingredients produced larger peaks than the other herbal ingredients as they were components of California Fig Syrup, while the Canada snakeroot/ginger and tobacco peaks resulted from their inclusion in Dr. Marshall's Snuff; as mentioned above, both of these products were present in large quantities at San Luis Obispo in California.

Wintergreen was often used as a flavoring or stomach-soothing compound in many patent medicines and health products such as the sarsaparillas, liver/kidney/bladder cures, and Castoria. Anise oil was also added as a flavoring agent to many of the bitters and other products, while bergamot oil was utilized as a scent in cosmetic products. Thus, the peaks of the herbal products are a direct result of either a large amount of a certain product present at a specific site or an ingredient common to many types of products. The herbal peaks are of importance as they confirmed the popularity of nineteenth- and early twentieth-century medications and health products that contained herbal ingredients.

In the narcotic section of the ingredient graphs, morphine, codeine, and cocaine formed peaks in the prostitute graph, but only morphine and opium formed peaks in the non-prostitute graph (Figure 25). The similarity in the size of the codeine and the cocaine peaks in the prostitute graph attests to these ingredients both being components of one particularly common product, Fernet Branca. Conversely, the enhanced morphine peak of the prostitute graph represented this ingredient's inclusion in several different products found within the prostitute assemblage, such as both oral and topical pain medications, cough and consumption medicines, stomach medications, and even the products to treat or prevent venereal disease. Opium peaked slightly in the prostitute assemblage but was less than half that of morphine. Morphine also constituted a greater peak than opium in the non-prostitute graph, although the opium peak was more than half

of the morphine peak, as opposed to less than half as in the prostitute graph. The enhanced morphine peak of the non-prostitute graph resulted from this particular ingredient being a component of products whose category was very prominent in the non-prostitute assemblage, especially cough and consumption medicines as well as the oral pain medications.

The implications of these narcotic ingredient findings result from the innate differences between morphine and opium: morphine is actually a pure substance derived from opium, one of the many alkaloids present in crude opium. Not all of these alkaloids have favorable effects on the human body as some produce fatigue while others can cause convulsions, thus rendering opium a less safe alternative compared to morphine. In addition, the morphine content of opium is not consistent across the various species of the poppy flower or even within the seeds from a single poppy plant. This non-uniformity of the morphine content in opium negatively affected products derived from opium, preventing exact dosing of opium-containing products. Thus, many health practitioners preferred morphine over opium, as morphine's safety profile was much enhanced over that of opium (Waugh 1909:630-632) rendering products containing morphine more expensive than those containing opium. The significance of the ratio of morphine to opium is potentially important in determining the extent of socioeconomic status on the consumption patterns of narcotic-containing health products. As opium was the lower cost alternative, an increase in the consumption of opium-containing products may represent diminished purchasing power compared to other groups. The morphine to opium ratio for the prostitute versus non-prostitute ingredient analysis thus suggests that the prostitutes possessed greater purchasing power, enabling increased consumption of the preferred morphine-containing products. Further analyses of socioeconomic status in conjunction with association with the sex industry will elucidate the actual effects of purchasing power on health product consumption patterns.

In the stimulant/psychoactive compound category, both caffeine and bromide form distinctive peaks in the prostitute graph (Figure 25). The peaks of these two ingredients are not quite as enhanced in the non-prostitute graph as they were overshadowed by the nicotine peak, a direct result of the plethora of Dr. Marshall's Snuff bottles found at San Luis de Obispo. Bromo-Seltzer and Bromo-Caffeine, oral analgesics for treating headaches and other types of pain, were products common to both assemblages. However, the other non-narcotic pain-relieving compounds such as acetanilide, ether, chloroform, and salicylate, occurred in a much greater frequency in the prostitute assemblage as compared to that of the non-prostitutes (Figure 25).

The capsicum peak in the non-prostitute graph also warrants consideration (Figure 25); this ingredient was present in many of the health products in this study, but the afore-mentioned peak was likely a result of the large number of topical pain relievers present in the non-prostitute assemblage. Topical aches and pain medications tied with cough and consumption medications for third most common product in the non-prostitute assemblage and the large capsicum peak in addition to the slightly increased peaks of soap, turpentine, and camphor all attest to the popularity of topical pain relievers among the non-prostitutes. Soap and turpentine formed slight peaks in the brothel graph as well, since topical pain medications were also fairly popular among the prostitutes (Figure 25). The soap peak in the prostitute graph, however, was due in part to the popularity of the toothpastes and powders within the brothel setting (Figure 25). Thus, ingredients in topical pain relievers formed peaks in both the prostitute and non-prostitute graphs, attesting to the popularity of topical pain medications among both groups. However, while the larger capsicum peak in the non-prostitute graph was due to topical pain relievers, the enhanced soap peak coupled with those of peppermint and cinnamon in the prostitute ingredient

graph resulted instead from the presence of toothpastes and powders in the brothel assemblage (Figures 25 and 26).

In conclusion, alcohol and soda water were the most common ingredients in both the prostitute and non-prostitute assemblages (Figure 25), although the soda water products were more common among the prostitutes while high alcohol content formulations were more popular among the non-prostitutes. The non-prostitutes' preference for products containing alcohol was likely a result of Victorian cultural ideals dictating women should be frail, weak, and sickly creatures who avoided consumption of alcohol and other mind-altering substances. However, Victorian women were also encouraged to partake of medicinal products to treat the failings of their delicate constitutions; thus, the consumption of medicine or health products became a covert way by which Victorian women could obtain alcohol and other forbidden substances. The enhanced peaks of narcotic pain-relieving compounds in the non-prostitute ingredient graph versus those in the prostitute graph further support the hypothesis that proper Victorian women were consuming acceptable medicinal products to obtain the mind-altering substances otherwise disallowed.

The petroleum jelly, antiseptic substances, and soap peaks in the brothel assemblage support the product data in demonstrating the presence of certain products (Figure 25), namely Vaseline, antiseptics, venereal disease medications, and toothpastes/powders, which were likely components of many prostitutes' basic "toolkit. Other enhanced peaks in the graphs were the direct result of large number of bottles of a few specific products preset at just two of the sites analyzed in this study, mainly Fernet Branca at Ouray and both California Fig Syrup and Dr. Marshall's Snuff at San Luis Obispo. In the next section, the peaks of each of the socioeconomic class ingredient graphs will be examined to determine whether, and how, socioeconomic status

and the lifestyles and cultural values associated with each grouping affected consumer choice of health products during the nineteenth and early twentieth century. Of note, there were no identified middle-class brothel site, thus only the working- and upper-class assemblages contained data pertaining to prostitution.

Working vs. Middle vs. Upper Class

As has been the trend thus far, the ingredient graphs demonstrated that the working class was consuming health products which contained soda water 1.5 times more than those containing alcohol. This is in stark contrast to the middle and upper classes where alcohol appears in the ingredient lists roughly four times as often as soda water (Figure 27).

Figure 27. Working-Class vs. Middle-Class vs. Upper-Class Data Ingredient Graphs, Part I

Figure 28. Working-Class vs. Middle-Class vs. Upper-Class Data Ingredient Graphs

Within the stomach-soothing ingredient category, the peppermint peak is enhanced across all three class graphs (Figure 27), likely due to peppermint's multiple functions as a flavoring agent, scent, aromatic in cough and consumption medications, and stomach soother. However,

the presence of large quantities of specific products containing peppermint also contributed to the enhancement of the peppermint peaks, namely Fernet Branca in the working-class assemblage and California Fig Syrup in that of the upper class. The peak for sodium bicarbonate, the chemical name for baking soda, was enhanced in the working- and middle-class graph as a result of sodium bicarbonate's use with citric acid to create the effervescence in Bromo-Seltzer (Figure 27). Oral pain medications were quite common in the working- and middle-classes assemblages due, in part, to the presence of a substantial number of Bromo-Seltzer bottles thus explaining sodium bicarbonate's enhanced peak in the working- and middle-class ingredient graphs. The other ingredients listed in the stomach-soothing category of the upper-class graph such as calcium carbonate, calcined magnesia, and bismuth carbonate, were all ingredients in toothpastes/powders and face creams, product types more common to the upper-class assemblage than those of the working or middle class. Thus, the enhanced peaks of peppermint across all three graphs were due to its multiple functions in health products as well as inclusion in specific products which occurred in large numbers, while the other ingredients in the stomach-soothing category were due to the popularity of oral pain relievers among the working and middle classes and cosmetics and toothpastes/powders among the upper class.

Since Vaseline as a brand-name product was discussed in the product results, petroleum jelly as an ingredient will be discussed in the ingredient results. Although petroleum jelly was (and still is) the main ingredient of Vaseline, this substance was an ingredient in the Cuticura Cleansing System as well. Soap and turpentine were also key ingredients in many topical products, thus they were included with petroleum jelly in the specific category of ingredients used as a base or vehicle in many products applied topically. As topical analgesics were the fourth most common type of product in the working-class assemblage and Vaseline the third, the

enhanced peaks of petroleum jelly, soap, and turpentine in the ingredient graphs conform to the findings of the product analyses (Figure 27). Turpentine was also a component of worm medications, thus its enhanced peak in the working-class assemblage compared to that in the upper- or middle-class ingredients graphs is not wholly unexpected, due to difficulties obtaining clean water and uncontaminated foods in working-class neighborhoods.

While the soap peaks in the working- and middle-class graphs were due mainly to these groups' preference for topical pain relievers, the soap peak in the upper-class graph was likely a result of the toothpastes/powders (Figure 27), of which many were present in the upper-class assemblage. Thus, petroleum jelly was used in about the same amount between the three classes, although possibly slightly more by the working- and upper-classes due to the prevalence of Vaseline bottles found at brothel sites. Turpentine was used slightly more by the working class due to its presence in topical pain relievers and worm medications. While the increased soap peak in the middle-class graph was likely due to the middle class's increased use of topical relievers, the soap peak in the upper-class graph was due to its presence in toothpastes and powders, a product more common in the upper-class assemblage than the other two class assemblages.

Lastly, the frequencies of narcotics in the socioeconomic class ingredient graphs warrant consideration. The codeine and cocaine peaks in the working-class graph are due, yet again, to the large number of Fernet Branca bottles found in the working-class neighborhood in Ouray (Figure 27). Morphine was used by the working-class about as much as the codeine and cocaine, due to its presence in topical and oral pain relievers as well as cough and consumptions medications, all of which were fairly popular among the working class. Within the middle- and upper-class assemblages, morphine was the most common narcotic due to its inclusion in the oral

pain relievers preferred by the middle class and the cough and consumption medications prevalent in the upper-class assemblage. Opium was present as well in all three class assemblages, but the peaks are not nearly as enhanced as those of morphine, mainly due to differences in the composition and effects of opium and morphine as discussed above. With the exception of the rumored narcotics in Fernet Branca, morphine, with its enhanced safety profile, as well as its multiple uses such as cough suppression, pain relief, sleep enhancement, and constipating effects to treat diarrhea, was the most popular of the narcotics for all three socioeconomic classes.

The middle-class graph exhibited several peaks that resulted from the large number of Florida Water bottles found at those sites. Lemon oil, lavender, and bergamot oil were all ingredients of Florida Water, and since this product was the most common found at the middle-class sites, the three aforementioned ingredients formed substantial peaks in the middle-class ingredient graph (Figure 27). Conversely, lemon oil, lavender, and bergamot oil were not exceedingly common in the working-class assemblage, as Florida Water was low on the list of products. However, Florida Water was fairly high on the list of products for the upper class and the upper-class ingredient graph also contains peaks for these aromatics, with the addition of eucalyptol as well, due to the large number of Dr. Marshall's Snuff found at San Luis Obispo. The results suggest that aromatic ingredients were used quite a bit by both the middle and upper classes, but very rarely by the working class.

Among the herbal ingredients in the middle-class assemblage graph, ginger, sassafras, and wintergreen all formed peaks (Figure 28). These ingredients were mainly components of the sarsaparillas and root beers; however, they were also components of the bitters, laxatives, and topical pain medications also prevalent in the middle-class assemblage. The ginger peaks in the

working- and upper-class graphs were not nearly as dramatic as in the middle-class graph, but the sassafras and wintergreen peaks were present throughout all three class graphs, likely a result of the large number of bitters in the working-class assemblage and the variety of uses for wintergreen. Herbal peaks in the upper-class graphs, specifically those of Cassia oil, clove oil, Canada Snakeroot, and tobacco, were a result of the multiple bottles of California Fig Syrup and Dr. Marshall's Snuff found at San Luis Obispo, while the bergamot oil peak was a result of the upper-class's slightly elevated consumption of Florida Water. Thus, the herbal peaks in the working-class graphs were caused by the prevalence of bitters in the working-class assemblage, while the herbal peaks in the middle-class graph were due to the middle class's preference for laxatives and sarsaparillas. Finally, the upper-class graph's herbal peaks were a result of the large number of California Fig Syrup and Dr. Marshall's Snuff found at San Luis Obispo as well as the upper class's increased usage of Florida Water.

In conclusion, the ingredients soda water and alcohol exhibited the largest discrepancy in the data, with soda water far more prevalent than alcohol in the working-class data, and alcohol predominating over soda water in the middle- and upper-class data. Large quantities of certain products at individual sites heavily influenced the ingredient graphs, particularly Fernet Branca in the working-class assemblage and California Fig Syrup and Dr. Marshall's Snuff in the upper-class assemblage. Due to the versatility of peppermint as an ingredient, its peak was enhanced across all three socioeconomic class graphs. Other ingredients, such as morphine and petrolatum, also displayed peaks in each of the graphs of all three classes; however, the products in which these ingredients are found differed throughout the various class assemblages.

As would be expected, the most common products from each of the class assemblages affected the peaks of certain ingredients. Soda waters were the most common product in the working-class assemblage, thus the most enhanced peak of the working-class ingredient graph was soda water. Bitters were the second most common in the working-class assemblage, thus alcohol also formed a large peak in the ingredient graph. Laxatives and cough/consumptions medications, two of the three most common products in the upper-class assemblage, and Florida Water and laxatives, two of the three most common products in the middle-class assemblage, all contained a high alcohol content, rendering alcohol the largest peak in these two assemblages. Senna, a common ingredient in laxatives, and aromatic oils, common to the Florida Waters, also exhibited large peaks in the upper-class and middle-class ingredient graphs, respectively.

This analysis illustrates the ways in which cultural values, economic opportunities, and residence all affected the ingredient distribution graphs of each socioeconomic class examined in this study, particularly regarding soda water and alcohol consumption. The next two sections will analyze how socioeconomic status and association with prostitution affected consumption of particular substances, while the section following those will investigate the ways in which increased income and greater purchasing power influenced the lives and experiences via consumption patterns of prostitutes with differing socioeconomic statuses. The final section will examine the ingredient data of each socioeconomic class without the influence of the prostitute data to better ascertain the effects of socioeconomic status alone on the consumption patterns of health products and their associated ingredients during the Victorian Period.

Working-Class Prostitute vs. Working-Class Non-Prostitute

Conforming to the consumption patterns previously elucidated within this study, soda water was once again the most enhanced peak for both the working-class prostitute and non-prostitute ingredient graphs with alcohol the second highest peak (Figure 29). Although soda water contributed more to the working-class non-prostitute assemblage than to that of the working-class prostitutes, alcohol contributed roughly half as much as soda water to each assemblage. Despite the similar patterning of these two ingredient peaks from both working-class graphs, this data support the earlier finding from the product analysis that soda water was slightly more popular among the working-class non-prostitutes than their prostitute counterparts.

An interesting pattern emerged in the narcotic ingredient peaks of the two working-class graphs that closely resembled the findings of the general prostitute versus non-prostitute graph. In the working-class prostitute graph, as in the general prostitute graph, the morphine, codeine, and cocaine peaks were again all enhanced (Figure 29), the codeine and cocaine peaks due to being a component of a single very common product (i.e. the multiple Fernet Branca bottles found in Ouray) and the morphine peak representing inclusion in many different types of products such as topical and oral analgesics, cough and consumption medications, stomach medicines, and nostrums to treat or prevent venereal disease. In the specific working-class prostitute graph though, the opium peak reached almost half that of morphine, compared to less than half in the general prostitute assemblage.

However, in the working-class non-prostitute graph, the narcotic ingredients are much less pronounced with only the morphine and opium peaks slightly enhanced (Figure 29). Again, the opium peaked at more than half that of morphine, as in the general non-prostitute graph,

suggesting that in terms of percentage of assemblage, the working-class non-prostitutes were consuming slightly more opium-containing products than their prostitute counterparts. The enhanced consumption of health products containing opium by the working-class non-prostitutes suggests that the working-class prostitutes may have possessed a greater purchasing power than the working-class non-prostitutes which enabled them to buy and consume more of the safer, thus more expensive, health products containing morphine instead of those containing opium.

The laxative ingredient data also exhibit a difference between the working-class prostitutes and non-prostitutes. While the enhanced aloe peak in the working-class prostitute ingredient graph is likely due to the multiple Fernet Branca bottles found in Ouray, the enhanced senna peak in the working-class non-prostitute graph results from its inclusion in products advertised specifically as laxatives (Figure 29). As discussed above, glycerin was often employed as a suspending agent in many products, which likely resulted in the glycerin peak of the working-class non-prostitute graph. Regardless, the ingredient aloe was more common in the working-class prostitute assemblage, whereas senna and glycerin were more common in the working-class non-prostitute.

Figure 29. Working-Class Prostitute vs. Working-Class Non-Prostitute Data Ingredient Graphs

Related to the laxative substances, the stomach-soothing ingredient peppermint formed a much larger peak than sodium bicarbonate in the working-class prostitute graph, but sodium bicarbonate was used more than peppermint by the working-class non-prostitutes (Figure 29). However, the working-class prostitute assemblage is so skewed by the Fernet Branca bottles found in Ouray that peaks of ingredients not present in Fernet Branca from the working-class non-prostitute graph possibly represent more accurately the peppermint and sodium bicarbonate use by the working class as a whole, both prostitute and non-prostitute alike. The enhanced peppermint peak in the working-class prostitute graph, though, may actually be a result of the versatility of peppermint in the products used by the prostitutes, namely the stomach soothers and as a flavoring, such as in toothpastes and powders, of which there were more in the working-class prostitute assemblage than that of their non-prostitute counterparts.

Unlike the trend in the general prostitute versus non-prostitute graph where the petroleum jelly peak of the prostitute graph was greatly enhanced compared to that of the non-prostitutes, the working-class prostitute and non-prostitute graphs actually demonstrated that petroleum jelly use among the working-class prostitutes was only slightly greater than that of their non-prostitute counterparts (Figure 28). The slight increase in petroleum jelly use among the working-class prostitutes is to be expected given the variety of uses of petroleum jelly in a brothel setting, yet petroleum jelly usage among the working-class non-prostitutes likely resulted from harsh conditions or physically demanding employment.

The soap and turpentine peaks were also slightly enhanced in the working-class prostitute graph, but not so much as in that of their non-prostitute counterparts (Figure 29). While the enhanced soap peak of the working-class prostitute graph was likely a result of the fairly common topical pain products coupled with the toothpastes and powders found in that particular

assemblage, the enhanced soap, turpentine, ammonia, capsicum, and camphor peaks in the working-class non-prostitute graph represented the extreme popularity of topical pain relievers, the second most common product after soda water in their assemblage. Turpentine was also a component of worm medications, indicating the likelihood that the working-class non-prostitute population did not enjoy the same quality of food and/or water as their prostitute counterparts. However, as with the slightly enhanced petroleum jelly peak, the greater number of antiseptic ingredients present in the working-class prostitute graph were indicative of the increased usage of antiseptics and venereal disease medications by the prostitutes.

Thus, the most common ingredients in both working-class assemblage graphs, soda water and alcohol, presented an analogous pattern between the two groups with the soda water peak roughly twice that of alcohol (Figure 29), this similarity likely an effect of comparable demographics between the working-class prostitutes and their non-prostitute counterparts (i.e. newly arrived immigrants or first-generation Americans); however, the data did indicate that soda water was much more popular among the working-class non-prostitutes than their counterparts engaged in the sex industry. Petroleum jelly usage was also similar between the two groups, but likely for different reasons: while the various uses for petroleum jelly within a brothel setting enhanced this particular peak in the working-class prostitute graph, the enhancement of petroleum jelly use in the working-class non-prostitute graph likely resulted from harsher conditions and more physically demanding employment. However, given the burden of additional children on familial financial resources, the working-class non-prostitutes may have also been using petroleum jelly mixed with certain compounds as a contraceptive.

The patterning between the two working-class graphs rapidly diverged after consideration of soda water, alcohol, and petroleum jelly. A difference emerged in narcotic usage between the

two assemblages, with the working-class non-prostitutes overall using narcotics less than the working-class prostitutes and morphine only slightly more than opium; conversely, the working-class prostitutes used more narcotics and morphine twice as much as opium, possibly indicating variations in purchasing power. Many of the other peaks present in the working-class non-prostitute graph and not in that of the prostitutes resulted from the sheer popularity of topical pain medications among the working-class non-prostitutes. Apparently; the conditions, experiences, health issues, and employment opportunities associated with both working-class prostitutes and their non-prostitute counterparts differed substantially enough to produce distinct variations in the patterning of the peaks from each of the graphs.

Upper-Class Prostitute vs. Upper-Class Non-Prostitute

The upper-class prostitute ingredient graph actually differs quite a bit from the upper-class non-prostitute ingredient graph, as would be expected since the upper-class brothels were located in working-class neighborhoods. A few of the ingredients from the upper-class non-prostitute graph were once again affected by the presence of a large number of certain medications (i.e. California Fig Syrup and Dr. Marshall's Snuff) found at San Luis Obispo. Unfortunately, these two products again skew the results, possibly overshadowing or even concealing alternate patterns. The available data, though, still demonstrated variations in the health product consumption patterns between the two upper-class groups suggesting cultural and lifestyle differences definitely existed between the upper-class prostitutes and their non-prostitute counterparts. As upper-class prostitutes were not actually upper-class citizens, the differences in

the product and ingredient results exhibited disparities arising from the opposing socioeconomic classes and backgrounds.

Although soda water was the most common ingredient in the prostitute assemblage as a whole, the upper-class prostitute ingredient graph displayed an alternative outcome. While the most common type of product found at the upper-class brothel sites was soda water, the ingredient with the most enhanced peak in the corresponding graph was actually alcohol (Figure 30); however, soda water still formed a significant peak in the upper-class prostitute graph. The most common ingredient in the upper-class non-prostitute graph was also alcohol, but the amount of soda water in this assemblage was miniscule. Alcohol as an ingredient was often used as the vehicle of many products, both topical and oral, but the majority of the alcohol-containing products in both the upper-class prostitute and non-prostitute assemblages were consumed by mouth. Thus, in the upper-class prostitute assemblage, neither soda water nor alcohol followed the general prostitute pattern, suggesting the combined-class prostitute ingredient graph was affected by the working-class prostitute data more than by the upper-class prostitute data. Similarly, the combined upper-class graph more closely paralleled the upper-class non-prostitute distribution than the upper-class prostitute distribution, suggesting the upper-class non-prostitute data contributed more to the combined upper-class graph than did the upper-class prostitute data.

While the petroleum jelly use did not differ much between the working-class prostitute and non-prostitute, there is an obvious disparity in the petroleum jelly distribution between the two upper-class graphs with a much larger peak in the upper-class prostitute graph compared to that of the non-prostitutes (Figure 30). Petroleum jelly was not only the main ingredient of Chesebrough Vaseline (of which many jars were found at the upper-class brothel sites), but

also of face creams, another popular product among the upper-class prostitutes. The peaks of calcium carbonate and bismuth carbonate were also enhanced in the upper-class prostitute graph; while these two ingredients are today used to treat stomach upset, during the Victorian Period they were additional components of face creams as well as toothpastes and powders, all very popular products among the upper-class prostitutes. The enhanced soap peak and the modest peppermint peak were also caused by the numerous glass bottles of toothpastes and powders found at the upper-class brothel sites. Although the upper-class non-prostitute graph also exhibited a peppermint peak, likely due to the numerous bottles of California Fig Syrup found at San Luis Obispo, few if any, of the other ingredients mentioned above were found in the upper-class non-prostitute assemblage. As many of the aforementioned ingredients derived from products common to a sex worker's toolkit, the variations between the two ingredient graphs likely represented differences in the lifestyle and career choice of the upper-class prostitutes and their non-prostitute counterparts.

Florida Water was yet another common product found in the upper-class prostitute assemblage, as supported by the lavender, lemon oil, and bergamot oil peaks (Figure 30); conversely, the upper-class non-prostitute assemblage contained no Florida Water bottles. Thus, Florida Water was much more popular among the upper-class prostitutes than their non-prostitute counterparts, likely a result of differing lifestyles and the prostitutes' greater initiative to use alluring scents. Although expensive perfumes and colognes were found at the brothel sites, the consumption of Florida Water in the parlor house brothels may have been a tactic to supplement and extend the use of more expensive perfumes in an effort to conserve limited monetary resources. Or perhaps, the cheaper Florida Water was used as a mouthwash or medicinal product while perfumes and colognes were used as a scent. Regardless, the use of

Florida Water by the upper-class prostitutes and not by their non-prostitute counterparts may demonstrate differences in purchasing power or the extent of monetary resources between the two groupings.

Finally, for the upper-class prostitute graph, the ingredients chlorine and permanganate also formed enhanced peaks (Figure 30). These are two components of Darby's Prophylactic Fluid, an antiseptic that many prostitutes used as a douche after sexual intercourse to prevent venereal disease. The very small amount of antiseptic substances in the upper-class non-prostitute graph suggests that the presence of Darby's and other antiseptic solutions in the upper-class prostitute assemblage were likely the result of lifestyle and profession, as these products would have been much more useful to prostitutes than to non-prostitutes despite the antiseptic products' claims to treat a wide array of ailments and infections.

Most of the enhanced peaks in the upper-class non-prostitute graph resulted from the large quantity of Dr. Marshall's Snuff and California Fig Syrup found at San Luis Obispo (Figure 30). Senna, peppermint, and Cassia oil were all ingredients of California Fig Syrup, whereas nicotine, eucalyptol, and Canada Snake Root were ingredients in Dr. Marshall's Snuff. The lack or very small presence of most of these ingredients in the upper-class prostitute assemblage suggests that constipation and catarrh, or at least the habit of using snuff, were more common among the well-to-do non-prostitutes than the parlor house prostitutes.

Figure 30. Upper-Class Prostitute vs. Upper-Class Non-Prostitute Data Ingredient Graphs

Thus, the upper-class prostitute and non-prostitute ingredient graphs suggest vast differences in lifestyle, experiences, and even purchasing power between the two groups. While the peaks of several ingredients in the upper-class non-prostitute graph were the result of a large number of just a few very prominent products in the associated assemblage, the enhanced ingredient peaks of the upper-class prostitute graph were caused by the presence of products such as Vaseline, venereal disease medications, face creams, toothpastes/powders, and Florida Water that would have comprised a prostitute's toolkit. Also, the effect of working-class prostitute soda water ingredient data overwhelmed the upper-class prostitute data so that even though alcohol was the most common ingredient in the upper-class prostitute assemblage, soda water remained the top ingredient in the overall prostitute-assemblage. The following section will analyze additional variations in the distributions of the working-class prostitute and upper-class prostitute data.

Working-Class Prostitutes vs. Upper-Class Prostitutes

Despite the working-class prostitutes and the upper-class prostitutes sharing soda water as the most common product in their respective assemblages, the individual ingredient graphs of each group were quite different. The implications of these variations suggest the health status, quality of life, and purchasing power were quite disparate between the working-class prostitutes and their upper-class counterparts. The working-class prostitute data was once again greatly skewed by the large number of Fernet Branca bottles, but other ingredients did demonstrate noticeable differences.

The greatest disparity between the working-class prostitute ingredient graph and that of the upper-class prostitutes was the patterning in the peaks of soda water and alcohol (Figure 30). In the working-class prostitute graph, the soda water peak was almost twice that of alcohol versus the upper-class prostitute graph where the alcohol peak was only slightly enhanced compared to the soda water peak. This pattern emerged despite soda water being the most common product of both prostitute assemblages and the large number of Fernet Branca bottles in the working-class prostitute assemblage adding a significant amount of alcohol to the working-class prostitute ingredient data. The upper-class prostitute lavender, lemon oil, and bergamot peaks are all greatly enhanced as well, indicating that the alcohol peak is likely a result of the parlor house residents' preference for Florida Water and other cosmetics.

The next highest peak in the upper-class prostitute graph after soda water and alcohol is the petroleum jelly (Figure 31). Not only were several large glass jars of Vaseline found at the upper-class parlor houses, but face creams were also prevalent, many of which contained petroleum jelly. Although Vaseline was the second most common product in both the upper- and working-class prostitute assemblages, the upper-class prostitute petroleum jelly peak is much more prominent than the working-class prostitute petroleum jelly peak, possibly a result of the large number of ingredients from the large number of Fernet Branca bottles drowning out the overall prevalence of petroleum jelly in the working-class brothel assemblage.

Figure 31. Working-Class Prostitute vs. Upper-Class Prostitute Data Ingredient Graphs

The remainder of the peaks in the upper-class prostitute graph are a direct result of the other products common to that assemblage. The peaks of peppermint, clove oil, licorice, calcium

carbonate, and soap, all components of toothpastes and powders, were enhanced in the upper-class prostitute graph (Figure 31), likely the result of the toothpastes and powders being the third most prevalent product in that particular assemblage. In the working-class prostitute graph, the calcium carbonate peak is miniscule while the soap peak is enhanced, but not as much as the soap peak in the upper-class prostitute graph. The enhanced calcium carbonate peak in the upper-class ingredient graph compared to that of the working-class prostitutes resulted from the inclusion of this ingredient in face creams, which were more prevalent in the upper-class prostitute assemblage than the working-class prostitute assemblage. Conversely, the enhanced soap peak in the working-class prostitute graph emerged due to the greater consumption of topical pain medications, of which soap was a component. Thus, the variations in the peaks of calcium carbonate and soap resulted from the prevalence of certain products in each of the prostitute assemblages.

The enhanced peaks in the upper-class graph of the antiseptic compounds chlorine and permanganate for the prevention or treatment of venereal diseases were slightly unexpected (Figure 30), as the parlor house prostitutes did not service as many men per night as some of the lower classes of prostitutes. Thus, one might suspect the rate of venereal disease among the parlor house prostitutes to be less than that in the working-class brothels. Yet in the working-class prostitute assemblage, the antiseptic ingredient peaks are present, but much less prominent. Rates of venereal disease were probably similar between the upper-class and working-class brothels, if not more rampant among the lower classes of brothels; these results thus demonstrate that the upper-class prostitutes may have had greater purchasing power and therefore the means to buy medications to treat or prevent venereal disease, whereas the working-class prostitutes did not. Closer inspection of the ingredient graphs reveals that the enhanced chlorine and

permanganate were antiseptic compounds included in the product Darby's Prophylactic Fluid, of which nine bottles were found at the site of the Aliso Street parlor house in Los Angeles. Thus, the upper-class prostitutes' ability to purchase one particular brand, exhibiting brand loyalty, further supports the hypothesis that the parlor house prostitutes were indeed in possession of greater purchasing power than the working-class prostitutes.

The decreased prevalence of petroleum jelly and venereal disease medications in the working-class prostitute assemblage suggests that the lower classes of prostitutes may have experienced harsher conditions compared to those of the upper-class prostitutes. Supporting this hypothesis is the enhancement in the working-class prostitute graph of the peaks of both narcotic and non-narcotic pain medicine ingredients as well as those of the topical pain relievers, such as the soap, turpentine, capsicum and camphor (Figure 31). While the product analysis revealed a focus on beauty and grooming regimens among the upper-class prostitutes, the working-class prostitute assemblage exhibited a fixation on products that would relieve discomfort. Thus, the parlor house courtesans likely consumed Florida Water scented spirits in an attempt to smell alluring, while the working-class prostitutes drowned their sorrows with high-alcohol content bitter beverages.

Thus, the ingredient graphs in conjunction with the product prevalence tables demonstrate the many disparate differences in the lives of working-class and upper-class prostitutes, likely due to variations in purchasing power or stricter beauty and requirements by the madams for the upper-class prostitutes versus an attempt to cope with harsher conditions by the working-class prostitutes. However, these graphs and tables also demonstrate the extent that large quantities of certain products can skew the results. Vaseline was the second most common product in both the working-class and upper-class prostitute assemblages, yet the large number

of Fernet Branca bottles, and therefore its many ingredients, in the working-class prostitute assemblage likely drowned out the effect of petroleum jelly in that particular ingredient graph. Regardless, these results deftly illustrated the disparity in the lives and experiences of working-class and upper-class prostitutes: while the working-class prostitutes fixated on pain relief and alleviating discomfort, the upper-class prostitutes focused on beauty and grooming regimens. The following section will analyze the working-, middle- and upper-class assemblages sans prostitute data, to further examine the effect of the brothel data on the general socioeconomic class data as well as investigate further differences in health product consumption between the three socioeconomic classes.

Working-Class Non-Prostitute vs. Middle-Class Non-Prostitute vs. Upper-Class Non-Prostitute

To examine the influence of socioeconomic status on the ingredient data not associated with prostitution, the following section will analyze and compare the working-class non-prostitute data to that of the upper-class non-prostitutes. The middle-class data is also included in this analysis to determine the extent to which the middle class attempted to emulate the upper class or retained characteristics of their working-class neighbors. Consistent with the previous analyses, the large number of California Fig Syrup and Dr. Marshall's Snuff bottles skewed the upper-class non-prostitute data, as can be observed in the enhanced peaks of ingredients found in these two products (Figures 32 and 33). However, upon further examination of the ingredient data from the other products in the assemblages, enlightening patterns still emerged that further supported findings from the previous analyses.

As has been the general pattern thus far, soda water was the most common ingredient in the working-class non-prostitute assemblage followed by alcohol. However, in both the upper-class non-prostitute and middle-class graphs, the alcohol peak was vastly enhanced compared to that of any of the other ingredients (Figure 32). The soda water peak in the upper-class non-prostitute graph was barely visible while in the middle-class graph, the soda water peak was roughly one-quarter the height of the alcohol peak. Thus, without the effect of the prostitute data, the working class still preferred soda water over other health products that contained alcohol, while the upper-class used many products composed of alcohol and not many made of soda water. The middle-class data retained aspects of both the working- and the upper-class data: like the upper-class graph in which the alcohol peak was enhanced compared to the soda water peak, yet similar to the working-class graph in which the soda water peak was still quite visible. This data is consistent with studies that demonstrated the ways in which the nineteenth-century lower middle class attempted to emulate the upper-middle or upper-class but still maintained characteristics of their working-class neighbors.

The peaks of ingredients present in topical pain medications, such as petroleum jelly, soap and turpentine, were enhanced in both the working-class non-prostitute and the middle-class graphs, much more so than in the upper-class non-prostitute graph (Figure 32). While the petroleum jelly peak is greatest in the middle-class graph, the soap and turpentine peaks are greater in the working-class non-prostitute graph. Topical pain medications were the second most common product in the working-class assemblage, as would be expected from the extent of manual labor jobs held by the working class. Turpentine was also a component of worm medications, present in the working-class assemblage, possibly explaining the enhanced turpentine peak of that particular graph. Topical pain medications were in the middle of both the

middle-class and the upper-class product lists, thus the enhancement of the topical pain medication ingredients in the middle-class graph may be a relic of the small middle-class sample size.

The peak of capsicum, also a component of topical pain relievers, was enhanced across all three graphs (Figure 32). Hair remedies, present in the middle- and upper-class assemblages but not in that of the working class, may have caused the enhancement of the capsicum peaks despite topical pain relievers' decreased popularity in the middle- and upper-class product lists compared to the working-class non-prostitute list. As camphor usually accompanied capsicum in topical pain relievers, the enhanced camphor peak in the working-class non-prostitute graph and not the other two graphs further suggests that the enhanced capsicum peak of the middle- and upper-class graphs was a result of products other than the topical pain relievers (e.g. hair remedies). Thus, the ingredient data supports the product data in suggesting that the working-class non-prostitutes' manual labor jobs led to an increased use of topical pain relievers. Additionally, the presence of hair remedies in the middle- and upper-class assemblages and not that of the working class supports a hypothesis that the middle and upper classes possessed greater purchasing power than the working class, as they could afford frivolities such as nostrums for the hair.

Figure 32. Working-Class Non-Prostitute vs. Middle-Class vs. Upper-Class Non-Prostitute Data Ingredient Graphs, Part I

Figure 33. Working-Class Non-Prostitute vs. Middle-Class vs. Upper-Class Non-Prostitute Data Ingredient Graphs, Part II

The middle class's assemblage was more similar to that of the upper class, suggesting their lives were not as hard as those of the working class. However, the increased peaks of non-narcotic pain-relieving substances in the middle-class graph implies this group was consuming oral versus topical products for pain (Figure 32). The very nature of middle-class careers (e.g. clerical or managerial) may have led to increased use of oral pain products. While topical analgesics treat pain associated with muscle strain and aches, oral pain relievers were utilized more for headaches. Perhaps headaches caused by eye-strain were more common among the middle class due to their propensity for desk jobs while the working class experienced more muscle-related pain resulting from their manual labor jobs.

The narcotic section of the middle-class graph resembles that of the upper class more than the working class (Figure 32). While the middle and upper classes consumed more products containing morphine than opium, the working class used equal amounts of products containing morphine and opium. This finding further supports the hypothesis of the enhanced purchasing power of the middle and upper classes, as morphine was a more preferable product over opium and thus more expensive.

The laxative ingredients are greatly enhanced in the graphs of the middle class and the upper class and only slightly enhanced in the working-class graph (Figure 32). Glycerin was a component of many different products as discussed above, so this ingredient will not be considered regarding the laxative data. The large senna peak in the upper-class graph is, of course, an effect of the large number of California Fig Syrup bottles found at San Luis Obispo, of which removal from the data would cause the upper-class senna peak to more closely resemble that of the working- and middle-class graphs. Laxatives were the most common

product in the upper-class product list and the second most common in the middle-class list, although the San Luis Obispo data skewed the upper-class data heavily in favor of laxatives.

The enhanced peaks of ingredients found in Florida Water within the middle-class graph are fascinating, as these ingredients were completely absent from the working-class and upper-class non-prostitute assemblages (Figures 32 and 33). This data may support both the emulation of higher classes hypothesis and that of greater purchasing power as socioeconomic status increases. Florida Water was a cheaper alternative to perfumes and colognes. An analysis of perfume, cologne, and Florida Water consumption among socioeconomic classes may reveal that the middle class used Florida Water in an attempt to emulate the wealthier class's use of perfume and cologne, but at a lower cost. If few bottles of scented spirits were found in working-class assemblages, then the consumption of Florida Water by the middle class and perfume/cologne by the upper class would represent a progression of increasing purchasing power from the working class either unable or unwilling to purchase scents to the middle class's use of cheap Florida Water to the upper class's consumption of expensive perfumes and colognes. Additional analyses of scented spirit consumption during the Victorian Era would greatly benefit both emulation and purchasing power hypotheses.

Comparing data from the three socioeconomic classes without the effect of the prostitute data suggests that there were substantial variations in the lifestyle and purchasing power between the socioeconomic classes. Use of products intended to relieve discomfort was greater among the working and middle classes, indicating that their lives were more difficult than those of the upper class. However, the types of pain relieving products also differed between the working and middle classes, possibly a result of the different types of jobs common to each class. These ingredient analyses also demonstrated that the middle class was indeed the middling class. For

many of the products and ingredients, the middle class resembled the upper class, especially the increased alcohol peaks of the two graphs. However, the greater presence of soda water in the middle-class graph more closely resembles the working-class graph, perhaps suggesting that despite the middle class's attempt to emulate the upper class or at least establish themselves as superior to the working class, middle-class citizens still retained aspects of working-class life. The popularity of Florida Water among the middle class may represent yet another attempt at emulating upper-class beauty trends on a tighter budget.

All of these product and ingredient analyses combined illustrate that each of the groups examined in this study contended with very different types of social and cultural issues during the Victorian Period: the more physically demanding manual labor jobs of the working class, the middle class's struggle to either emulate the upper class or demonstrate their superiority over the working class, and the strict Victorian code that kept upper-class women weak, sickly, and ill.

CHAPTER V: DISCUSSION AND CONCLUSION

Analyses of the consumption patterns of various health and grooming products in conjunction with association with the sex industry and socioeconomic status illuminated many facets of life during the Victorian Era. Examination of the categories of products consumed and the ingredients therein identified the types of health issues treated and grooming regimens employed during the nineteenth and early twentieth centuries. Further investigation of the data contained in this study revealed possible motivations for and factors related to these consumption patterns such as purchasing power, adherence to cultural precepts, influence of period literature, market availability, and assimilation into new cultures. Altogether, the health data, consumption patterns, and motivational factors provide insights into the lives and experiences of Americans, particularly women, during the Victorian Era.

The Immense Popularity of Soda Water in the Nineteenth-Century

One of the most striking results of the analysis of health product consumption during the nineteenth and early twentieth centuries was the sheer volume of soda water consumed by the various groups in this study, especially the working class. Carbonated beverages are still extremely popular today, as are bottled water products, yet soda water as an unflavored carbonated water beverage is rarely consumed except as a tonic in mixed drinks. Throughout history and across the globe, water as well as the healing traditions associated with this life-giving substance were important aspects of many cultures, yet the health effects of spring water, mineral water and soda water were first made popular in Western culture during the eighteenth

century (Back et al. 1995; Davis 2007; Linn 2010). The popularity of the British trend of “taking the waters” at resort towns such as Bath in England spread to America along with British colonization of the land. One of the earliest spa towns in America was even called Bath, although today it is known as Berkeley Springs, West Virginia (Back, et al. 1995). George Washington visited this American version of Bath in 1748 and later wrote in 1761, “I am thinking myself benefitted by the water and I am not without hope of their making a cure for me” (Cohen 1981).

Some may suggest that George Washington’s belief in the healing powers of the spring waters was merely the result of archaic eighteenth-century medical knowledge, yet many springs actually do contain minerals which have been and still are used to treat a variety of health issues. Throughout the course of his lifetime, George Washington suffered a variety of physical ailments, but both tuberculosis and dysentery (i.e. bloody diarrhea) were two particular conditions in which spring water could have actually alleviated some of the symptoms Washington experienced (Public Broadcasting Service 2011). Consumption of mineral waters imbued with iron could treat iron-deficient anemia, an affliction resulting from blood loss as in the case of George Washington’s dysentery. However, iron-rich soda or mineral water could also relieve malnourishment or help strengthen the constitution of a consumptive patient after the physical wasting associated with tuberculosis; both of these conditions were particular scourges among the working class. Iron-enhanced mineral water could have even treated lead poisoning, yet another issue faced by the urban working class (Heywood 1999). Other substances also contributed to the healthful ambience of spring waters: mineral waters impregnated with high concentrations of sulfate or magnesium caused a laxative effect, while mineral water rich in bicarbonate could remedy dyspepsia (Chapelle 2005:59). Although the spring waters themselves may have provided health benefits, the fresh air and rest that accompanied trips to the spa resorts

also contributed to the improved health and well-being of the affluent visitors, such as George Washington (Linn 2010:83).

While wealthy Americans traveled to Bath in West Virginia, the famed Saratoga Springs in New York, and other spa resorts to “take the waters” during the nineteenth and early twentieth centuries, the urban American working class obtained their mineral, spring, and soda waters through commercial bottling companies. The results of the present study clearly demonstrate the immense popularity of soda waters among the working class, yet the particular reasons are not entirely clear; possible explanations range from unhealthy water sources to ethnic preferences to a symbol of Nationalism or the Temperance Movement.

Unhealthy Water Sources

In the nineteenth century, urban water sources and sewer systems were quite different from those of today, as neither treatment plants nor clean water standards yet existed. Most of the urban poor lacked basic indoor plumbing and entire tenement buildings shared just a few privies in the backyard. Inconsistent sewage removal and especially wet weather caused privies to overflow and contaminate available water sources. Add the extensive use of lead pipes to the situation and one obvious explanation for the enormous popularity of soda water in the nineteenth century is the sad reality that drinking water from public pumps, wells, and even indoor plumbing was unsafe.

Although most American cities experienced difficulties maintaining clean water sources, sanitation, and sewage systems during the mid-nineteenth century, the Five Points neighborhood in New York City was one of the most extreme examples of unhealthy living conditions in

working-class urban areas. Claudia Milne (2000) contributed an entire chapter in the Five Points archaeological technical report to the unsanitary conditions of the slums in Five Points. Due to the inefficient sanitation efforts of Victorian-Era New York City, typhus, yellow fever, and cholera ran rampant throughout the slums, especially in the wake of the enormous influx of immigrants and the subsequent overcrowding of tenement buildings. As Germ Theory was still highly suspect during the mid-nineteenth century, the disease and illness prevalent in the city slums were blamed on the filth of not just the neighborhoods and tenements, but the newly arrived immigrants themselves (Milne 2000:345).

Street cleaning via water flushing and application of carbonate of lime disinfectant was implemented in New York City during the early nineteenth century, yet the cholera and typhus epidemics continued. Despite the passing of the Metropolitan Health Bill in 1866, garbage, refuse from slaughterhouses, and night soil were still discarded in the streets and, unfortunately, the city's plumbing, sewer, and garbage removal systems were incapable of maintaining clean streets (Milne 2000:348). An adequate supply of clean water was also difficult to attain in Five Points during the nineteenth century as early neighborhood pumps became contaminated by industrial waste while public cisterns were rendered useless during the winter freeze or depleted after a rash of fires (Milne 2000:349).

The Croton Aqueduct was built to bring fresh water from outside the city into Manhattan during the 1830s and 1840s, and by 1851 most of the lower wards had access to water mains. However, connection to individual buildings were the responsibility of property owners of which many were unwilling to put forth either the energy or the capital (Milne 2000:349-350). Older buildings were still supplied water via wells or pipes with only the street pressure to actually move the water. Pumps were installed in the backyards of the tenements from which the first

floor and cellar tenants could use to draw water, but the street pressure was sometimes so inadequate at propelling water to the upper levels of the buildings that pumps had to be installed in the hallways to force the water upwards. Water access issues continued into the early twentieth century, although the 1900 Tenement House Commission found the lack of adequate water pressure to be nothing more than a “nuisance” to the residents of the tenements (Milne 2000:350).

The use of lead pipes throughout most of urban America during the nineteenth and early twentieth centuries also contributed to mortality rates. Troesken (2008) examined the infant mortality rates of municipalities in Massachusetts that utilized lead plumbing around the turn of the twentieth century and found that the use of lead pipes for water distribution increased infant mortality rates by 25 to 50 percent. The age of the pipes also figured into the amount of lead present in city water sources, as the corrosion of older pipes actually formed a protective barrier inhibiting the process of lead being leached from the metal pipes. Acidified water actually enhanced the leaching of the lead from the pipes; thus, urban areas using newer pipes for the distribution of water derived from acidic sources only amplified the leaching of lead from the pipes and increased infant mortality rates by three- to four-fold.

Anecdotal evidence of two individuals –one a physician– admitted to the New York Hospital after unsuccessful attempts to treat lead colic with soda water suggests that the medical community as well as the general population were aware of the extent of lead poisoning during the mid-nineteenth century and that the condition could potentially be treated with soda water due to its mineral content. Drinking the iron and calcium rich water from Bath, England and other spa towns was known to cure lead paralysis during the nineteenth century as these minerals act as chelating agents which bind up the lead ions and thus enhance the elimination of this toxic

metal from the body. The Irish immigrants escaping the Great Potato Famine of the mid-nineteenth century were especially susceptible to lead poisoning since iron-deficient anemia was one specific consequence of malnutrition associated with famine (Linn 2010:90). The added risk of lead poisoning to the unsanitary water sources and the knowledge that soda and mineral water could treat lead colic or paralysis rendered the consumption of soda water via fountains or bottles especially popular among urban Americans during the nineteenth and early twentieth centuries.

With Germ Theory yet unproven and disease rampant throughout the slums of major American cities, the urban working class likely distrusted their inadequate water sources distributed via lead pipes and subsequently purchased bottled soda and mineral water. But with bottles of soda water ranging in price from 25¢ to \$2.00 a piece while male salaries averaged \$1 per day and those of females \$2 per week (Chapelle 2005:110), some other factors likely contributed to the working class's preference for soda water.

Irish Nationalism and Soda Water as the "Elixir of Emigration"

Strong traditions or beliefs must have been attached to soda water for a working-class consumer to spend up to a week's worth of wages on just one bottle. Meredith B. Linn (2010) argued that Irish immigrants purchased and consumed soda water as the healing powers associated with the beverage resonated with the traditional Irish remedies and water cures of their homeland. The Great Famine in which potato crops failed throughout Ireland spanned a decade from 1845 to 1855 during which time America saw the greatest influx of Irish immigrants (Linn 2010:72). From Ellis Island in New York City, the Irish immigrants spread across the country, working on canals and railroad as they made their way West. While some

Irish immigrants remained in the East, others traveled to the Midwest or even further settling in the mining towns of the American West and California.

Evidence of the Irish migration is contained within many of the assemblages analyzed in this study, as archival research revealed Irish residents, either foreign-born or first-generation American Irish, living and working at many of the sites. Numerous soda water bottles were discovered in almost all of the assemblages associated with these sites, particularly those from New York City, Washington, D.C., St. Paul, St. Louis, Ouray and Prescott, providing further support for Linn's (2010) hypotheses regarding the Irish and their preference for soda water. Although the research conducted by Linn (2008; 2010) applied to the New York City Irish population, the emotions, traditions, and beliefs inspired by soda water likely accompanied the Irish throughout their travels.

Xenophobic attitudes pervaded the views and beliefs of the Protestant Anglo-Americans of New York City during the mid-nineteenth century, when as many as 400 Irish immigrants arrived in the port each day (Linn 2010:74). Irish cultural values, traditions, and Catholic beliefs were perceived as so different from those of the established Americans that a deeply-rooted prejudice emerged which led to the Irish being stigmatized as carriers of disease. Typhus so frequently accompanied overseas travelers that the illness came to be known as "ship fever" and later as "Irish fever" when native New York residents began associating the affliction with the Irish immigrants (Linn 2008:118). This "[p]rejudice, combined with limited skills, experience, and funds kept these immigrants in low-paying dangerous jobs and forced them into the city's worst housing, exacerbating health problems in a population already weakened by famine and difficult transatlantic voyages" (Linn 2010:74).

The newly-arrived Irish immigrants were indeed weak and sickly, having survived the Great Hunger and a harrowing journey across the Atlantic; once they arrived in America, the immigrants received no more than a cursory glance at the tongue upon medical examination at Ellis Island (Linn 2008:126). Annual reports from New York hospitals indicated that Irish patients outnumbered German- and American-born patients in every illness and ailment category during the late 1840s and 1850s (Ernst 1949; Linn 2008). While the average death rate for New York City as a whole was 1 in 35 during the 1860s and 1 in 60 for the wealthy 15th Ward in 1863 (Citizen's Association of New York 1866:xliv-xlvi), the death rate for the Irish immigrants in 1850 was 1 in 5 (Keneally 1998:302). While much of the Irish mortality could be attributed to tuberculosis, “the natural death of Irish immigrants” (Keneally 1998:302), this disease was only one of many afflictions such as typhus, typhoid, cholera, dysentery, influenza, malaria, venereal diseases, childhood illnesses and more that affected the Irish immigrant population (Linn 2010:74). The New York hospital records mentioned above also stated that the Irish immigrants only used the public hospital as a last resort and most had been self-treating at home for days, weeks, or even months (Linn 2008).

The malnutrition and iron-deficient anemia related to starvation and famine discussed above also rendered the urban working class particularly susceptible to communicable diseases such as measles, cholera, dysentery, tuberculosis, whooping cough and other respiratory ailments in addition to intestinal parasites. Iron-rich soda water would have alleviated iron deficiency and strengthened the general constitution which would have ultimately facilitated the body in fighting off infection. As mentioned above, soda water imbued with sodium bicarbonate demonstrated stomach-soothing properties while soda water containing magnesium caused a

laxative or purging effect; both of these types of soda water could have been used to treat the intestinal distress and digestive ills caused by cholera, dysentery, and intestinal parasites.

Finally, before the acceptance of Germ Theory, physicians and the general population alike believed that illness arose due to impurities of the blood. Typhus fever, tuberculosis, and syphilis were just a few ailments thought to be caused by impure blood during the Victorian Era. To emphasize the strength of the belief in the blood-purifying power of soda water is a case study from Bellevue Hospital: a young boy had been bit by a rabid dog and his mother took him to an Irish healer who initially treated the child with soda water. Sadly, neither the healer's treatment nor that of the physicians at the hospital could save the boy (Linn 2010). As the plethora of soda and mineral water bottles found at archaeological excavations of residences and neighborhoods once inhabited by the Irish demonstrate, soda and mineral water, despite their dear price, was a mainstay in the Irish immigrants' medicinal toolkit: a practice which integrated the traditional Irish remedies of the Old World with the commodities readily available in the New World.

Irish Holy Wells. The common denominator between Irish Nationalism and soda water was the holy wells of Ireland. By the eighteenth century, certain springs or wells in Ireland were deemed by both Irish Catholics and Irish Protestants as "Holy Wells." These springs were thought to possess supernatural healing or knowledge-giving powers granted by their associated saint or holy figure, especially in the case where the holy well contained carbonated water (Linn 2010:84, 86). Visits to the holy wells were purported to cure all types of illnesses and ailments ranging from disorders of the eyes, skin, and reproductive organs to insanity, generalized pain, headaches, fevers, paralysis and even fairy possession. The majority of these afflictions were chronic in nature and had defied both traditional remedies and professional treatment by

physicians. While some spring waters are indeed imbued with the healthful minerals mentioned above, the majority of the Irish holy wells' effects were placebo (Linn 2010:86). Regardless, thousands of people from all walks of life visited the some 3,000 holy wells in Ireland across the years, often making pilgrimages to particular springs associated with certain saints or holy figures (Linn 2010:85-86). The presence of carbonation in a spring was an indication of its healing powers, and pilgrims often collected the holy well water in containers of wood, ceramic, metal, or glass to take home for future use. Some of these containers of holy water even traveled across the Atlantic with the Irish immigrants (Linn 2010:86). If the Irish likened their emigration from Ireland to America to the difficult pilgrimages to the holy wells, then the significance of bubbly water in glass bottles, the so-called "Elixir of Emigration," becomes apparent.

Fairs often sprang up in the vicinity of holy wells, where the rural Irish congregated on Holy Days. Festivities included dancing, drinking, and fighting, arrangement of marriages and alliances, and a market-like atmosphere where goods and products were exchanged for monetary compensation. Some of these exchanges involved the purchase of a glass of healing carbonated spring water, which may have facilitated the Irish immigrants' transition to the capitalist economy of New York City which required payment for healthful, cure-all, bubbly water by the glass at soda fountains or by the bottle at apothecaries (Linn 2010:86-87).

Holy wells became the site of a larger fight as well: independence from British rule. Irish Nationalists used the presence of large crowds of people at the holy day fairs to organize resistance to the British. Although the link between holy wells, soda water, and Irish Nationalism appears tenuous on the surface, the largest Irish Nationalist meeting of the nineteenth century was actually held at a holy well, specifically one associated with St. Patrick nonetheless. Once the Irish immigrants arrived in America and experienced poor treatment at the hands of Anglo-

Americans similar to that perpetrated by the British in Ireland, the association of holy wells with Irish Nationalism was propagated by the purchase and consumption of bubbly water, so similar to that of the healing holy wells, in bottles specifically embossed with Irish or Irish-sounding surnames. The preference for soda water bottled by their fellow Irish countrymen not only portrayed pride in their heritage and belief in Irish Nationalism, but further supported other immigrants and their commercial business interests (Linn 2010).

Soda Water and Irish Nationalism. The basis for the hypothesis connecting soda water bottles embossed with Irish surnames to Irish Nationalism comes from the findings of archaeological excavations of sites and features associated with the Irish in America, specifically their neighborhoods and households. Analysis of the mineral and soda water bottles from the Five Points assemblages demonstrated that not only did the features associated with the Irish contain an abundance of soda water bottles, but that the Irish immigrants did indeed prefer soda water bottles embossed with Irish, Anglo-Irish, or Scottish surnames (Linn 2010:91). Of the 31 soda and mineral water bottles found at the Five Points excavation, almost one-half were embossed with Irish and Anglo-Irish names, such as Walsh & O'Neill, Seely & Bro., Lynch & Clark, and G. Cassidy, while slightly more than one-third had Scottish surnames, like Tweedles Celebrated Soda and Mineral Waters. Only one brand of soda water found at Five Points actually originated from Ireland, that of Cantrell & Cochran bottled in Dublin and Belfast (Yamin 2000a; Linn 2010:91). A similar trend was observed in assemblages from excavations in New Jersey as well: bottles of Seely & Bro., the most popular brand of soda water at Five Points, were found in Irish contexts within Patterson's Dublin neighborhood along with several other bottlers with Irish or anglicized-Irish surnames (Yamin 1999).

In the current study, soda water bottles with Irish surnames were found in great quantities throughout several of the sites. The St. Louis working-class non-brothel assemblage was composed of artifacts disposed sometime between 1865 and 1910 by residents from a neighborhood composed of mostly Irish immigrants with a smattering of German households as well; the Irish surnames on these bottles conformed to the trends seen in the assemblages from excavations in New York and New Jersey, with the addition of soda water bottles embossed with German surnames. Found at the St. Louis site were seven bottles of Ed. A. Fennerty Soda water and two bottles of John Fitzgibbon soda water, embossed with obvious Irish surnames. However, four bottles each of G.H. Sudhoff and Co. soda water and H. Grone soda water were also found, representing the German population. At some point during the late nineteenth or early twentieth centuries, Ed. A. Fennerty went into business with the German Herr Sudheimer and nine bottles of their Fennerty and Sudheimer soda water were also excavated in St. Louis (Harl 2006; Zachmann 2010). Apparently, both the working-class German and Irish immigrants in nineteenth-century St. Louis were consuming the “elixir of emigration.” While the purchasing of soda water bottles embossed with surnames common to one’s ethnic group is one hypothesis explaining the plethora of these soda water bottles found in St. Louis, Mazrim (2013:710) suggested that the consumption pattern was likely a result of the members of the neighborhood shopping at the same shops and stores.

The remainder of the sites presented in the current study containing large numbers of soda water bottles embossed with Irish or Anglo-Irish surnames originated from the brothel sites. Ten bottles of Ross’s Belfast soda water were found at the brothel site in Prescott, Arizona (Foster et al. 2004), while 14 Cantrell & Cochrane and Ross’s Belfast soda water bottles were found in Ouray, Colorado associated with brothels (Sherman 2013). The only census available

for these two sites within the time period covered in the current study is the 1900 U.S. Census, as most of the 1890 census was destroyed in a fire. In Prescott during the 1900 census, prostitutes rarely told the enumerator their actual profession, preferring dress maker, seamstress, or something similar (Foster et al. 2004:67) while the prostitutes in Ouray apparently had no qualms about their chosen profession. The page most likely associated with Ouray's Gold Belt Saloon and Dancehall indicates 22 courtesans, music callers, musicians, bar tenders, saloon keepers, "theater proprietor man", and saloon laborer. A few of the Ouray courtesans do list Ireland as place of birth, but at this later date it is difficult to determine if any of the other prostitutes at either Prescott or Ouray were of Irish descent as well (Ancestry.com 2004). However, the number of Cantrell & Cochrane bottles at Ouray and Ross's Belfast at Prescott do seem to indicate that at least some prostitutes of Irish descent were living and working at the brothels in mining towns in the American West.

Comparing the Ouray assemblage with the New York assemblage is enlightening as the data suggest that the prostitutes in Colorado may have possessed increased purchasing power which enabled the consumption of more expensive soda water actually imported from Ireland, while the working-class inhabitants of Five Points in New York only discarded one bottle of Cantrell & Cochrane. However, this may be an effect of limited market availability of soda water or even a lack of Irish or Scottish bottlers in the West. The brothels from Ouray and Prescott are also from a later time period than the Five Points brothels, thus the enhanced globalization, modernization of trade practices, and improved manufacturer processes all contributed to increased purchasing power for many American during the late nineteenth and early twentieth centuries.

This preference for buying soda water embossed with surnames associated with specific nationalities was not limited to the Irish in the Ouray brothels. Five bottles of Hafner & Will's soda water were also components of the Ouray brothel assemblage, possibly a preference of the native Germans living and working at the Gold Belt Saloon and Dancehall (Ancestry.com 2004; Sherman 2014). The trend of soda water bottles embossed with surnames of Irish, German, or even both nationalities was also observed in the assemblages from the Washington, D.C. and the St. Paul brothels. The Washington D.C. census records from the 1860s through 1880s, the early years of the study period, indicated Irish immigrants composed a large proportion of the working-class neighborhood studied in Cheek, et al. (1991) with German immigrants the second largest ethnic group. Although the working-class neighborhood had mostly developed into a red-light district by the turn of the twentieth century, 10% of the residents were still foreign-born, while 30% were first-generation Americans. The surnames embossed on the soda water bottles found near the Washington, D.C. brothel sites demonstrated a trend similar to the that in St. Louis: 10 Finley & Son, 1 J.D. O'Meara, and 27 S.C. Palmer bottles represented the Irish immigrants while 17 Herrmann & Son, 4 J.H. Schleuter, 11 R.T. Matzinger, and 5 Smithson & Matzinger represented the German population (Cheek, et al. 1991). Like the St. Louis working-class site, both the Irish and German immigrants were frequently consuming soda water, the "Elixir of Emigration." However, as in St. Louis, the Washington D.C. working-class likely frequented the same shops.

Similarly, the St. Paul brothel site also contained a large number of soda water bottles yet only one was Irish: the lone Ross's Belfast bottle. The rest of the bottles consisted of one English surname, 6 bottles of Drewry Bottling soda water, and the rest German: 5 J.C. Haupt and 8 Wm. Rosencranz soda water bottles (Ketz et al. 1998b). A large number of beer bottles accompanied

the soda water bottles outside of Nina Clifford's bordello in St. Paul and since beer was a staple in both the German diet and culture, the presence of both these bottles and those of soda water embossed with German surnames were consistent with Nina Clifford's German ancestry as well as that of the large German ethnic population of St. Paul during the late nineteenth and early twentieth centuries (Ketz et al. 2005:78).

Thus, the purchase and consumption of soda water whose bottles were labeled or embossed with surnames from the consumer's own ethnic group may have represented a symbol for nationalism but was also be a mechanism by which immigrants and their descendants could support companies started or operated by fellow immigrants of similar ancestry. There is yet one more possible connection between soda water and Irish Nationalism: Father Theobald Mathew and Temperance.

Soda Water and Temperance. Many Irish Nationalists actually supported the temperance movement; Daniel O'Connell, who organized the nationalist meeting at St. Patrick's holy well, is just one example of an Irish Nationalist who subscribed to Father Theobald Mathew's tenants of temperance (Linn 2010:87). Prior to the rise of Irish Nationalists and Father Mathew, proponents of the temperance movement were mainly wealthy Protestants who advocated for Irish temperance only to improve work efficiency and productivity in the highly industrialized global economy, essentially to increase their own profits (Malcom 1986:59). However, the Irish Catholic population paid little attention to the Protestants preaching temperance, suspecting the Protestants were only seeking converts (Kelly 2000:266). But Father Mathew, an Irish Catholic priest, appealed to the Irish as his goals for temperance benefitted the entire Irish population: to erase class and religious differences while providing more monetary resources for the children (Linn 2010:87). Father Mathew's desire for the erasure of class differences with enhanced

financial stability to better provide for families coincided with objectives of the Irish Nationalists; thus, by the 1840s pledging to temperance also meant pledging to nationalism (Malcom 1986:126-128).

Father Theobald Mathew realized that alcohol consumption was at the root of the economic hardships experienced by the Irish during the early part of the nineteenth century (Kelly 2000:265), thus he preached abstinence and composed a pledge for anyone who wanted to join his temperance movement: “I promise to abstain from all intoxicating drinks, except used medicinally, and by order of a medical man, and to discountenance the cause and practice of intemperance” (Mathew 1890:35). Father Mathew and other temperance leaders realized, though, that abstaining from alcohol would be difficult as alcoholic beverages had been a dietary mainstay for centuries due to frequently contaminated water sources (Kelly 2000:266).

Irish immigrants, upon their arrival to New York City, discovered the same scarcity of potable water in nineteenth-century Five Points. While The Cold Water Army and other total abstinence groups promoted consumption of clean, fresh water in place of alcoholic beverages, the immigrants had little access to the Croton water being supplied to the water mains in the streets since many of the landlords refused to bear the cost of connecting the households to the mains, as discussed above (Reckner and Brighton 1999:77). All of the well water in the city was also contaminated by the mid-nineteenth century (Linn 2010:89). Thus, Irish immigrants turned to soda and mineral water, either bottled or from soda fountains found in pharmacies and drugstores throughout the city (Linn 2010:91).

Soda water was already a choice beverage promoted by temperance leaders and reformists during the nineteenth century (Linn 2010:91). The ways in which soda or mineral water could promote abstinence was discovered during the Revolutionary War when the

Continental Army was stationed at Saratoga Springs. General Humphreys noted, “The soldiers became so attached to this water [of Saratoga Springs], that during their stay much less quantity of spirits was drunk by the men, and that fewer instances of drunkenness came to the knowledge of their officers” (Meade 1817:25). Temperance and soda water were soon associated with good health via Father Mathew’s pledge of abstinence as heavy drinkers found themselves both feeling and looking better after taking the pledge; thus, Father Mathew became known as a healer of the sick (Kelly 2000:266,268). Soda water was already believed to contain healing properties as the bottles of carbonated bubbly water so resembled the containers of holy well water Irish pilgrims and immigrants carried and treasured. Advertisements for soda water heralding its purity and healthfulness as well as the connection to the apothecaries, pharmacies, and drug stores that sold bottled soda and mineral water further reinforced confidence in soda water as a healing, medicinal product (Linn 2010:89).

One particular artifact discovered during the excavation of Five Points provided hard evidence that some Irish immigrants actually put stock into the concept of temperance: a single Staffordshire teacup with a transfer-print image of Father Theobald Mathew administering the Abstinence Pledge to a group of enthralled onlookers (Yamin 2000a:152). In the context of Irish healing traditions, association with Nationalism, restricted access to potable drinking water, unsanitary living conditions rife with disease and suffering as well as the promise of healing by both temperance and bubbly bottled water, the consumption of large quantities of soda water by Irish and German immigrants as well as other members of the working class despite the dear price is no longer quite as astounding.

The Cult of Domesticity and the Consumption of Alcohol

Temperance was not only essential for reforming the multitude of newly arrived immigrants to the county, but also to maintain respectability in society. The Cult of Domesticity was one of the central tenets of Victorian ideology, ascribing women with the sole duty of keeper of morality and teacher of gentility. Although Harriet Beecher Stowe is most well-known for *Uncle Tom's Cabin*, some of the most influential handbooks and textbooks on domesticity from the Victorian Period were written by Harriet and her sister, Catherine Beecher. The purpose of these handbooks was to ensure the rising middle class embraced the principles of moral living and gentility to avoid the risk of falling back into a lower class.

Formation of the Middle Class and their Obsession with the Cult of Domesticity

Due to the rise in industrialism and the concomitant upswing in consumerism, the American white-collar middle class developed sometime between 1820 and 1850, accompanied by the formation of the working class (Fitts 1999:43). The middle class, mostly white American-born Protestants, differed from the newly immigrated, foreign-born working class by the type of occupation in which the head of the household was employed, either manual labor or non-manual labor (Wall 1999:103). Middle-class employment typically included “professional men, clergy men, artists, college professors, shopkeepers, and upper mechanics” (Blumin 1989:247). In the working class, the Irish immigrants tended to work as laborers, bricklayers, and stonemasons, while the German immigrants made cabinets, cigars, and shoes, were tailors or bakers (Stott 1990:92). Studies have shown that working-class men’s wages were not usually

enough to support a family (Wilentz 1984; Stansell 1986), thus working-class women were often forced to take jobs as well, unlike the middle-class wives, who stayed at home to act as the moral compass of her family (Wall 1999:104).

The ideology that espoused the importance of women as the keepers of morality and teachers of gentility in their households, that is the Cult of Domesticity, arose in the first three decades of the nineteenth century during the Second Great Awakening. Prior to this movement, American Protestantism was based on the Calvinist tenets of predestination and human depravity, “that humans were inherently evil but through the grace of God a select few would be allowed into heaven. God selected these individuals before their birth and earthly accomplishments could not alter a person's fate” (Fitts 2001:115). After the Second Great Awakening, Calvinist doctrine evolved to profess God as a rational, kind, and forgiving being while humans were naturally good and moral creatures that had simply been born into an evil world.

God promised salvation and eternal life to anyone who maintained a moral path and accepted Jesus Christ as their savior, thus transferring the responsibility of salvation to individuals instead of a higher being. With the souls of children now in the hands of their mothers, middle-class women had to ensure their homes were moral sanctuaries where children could be protected from the evils of the outside world and their innocence thus maintained (Fitts 2001:116). Family, hearth, and home were incredibly important to Victorian-era, middle-class women:

The family state then, is the aptest earthly illustration of the heavenly kingdom, and in it woman is its chief minister. Her great mission is self-denial, in training its members to

self-sacrificing labors for the ignorant and weak: if not her own children, then the neglected children of her Father in heaven. She is to rear all under her care to lay up treasures, not on earth, but in heaven. All the pleasures of this life end here; but those who train immortal minds are to reap the fruit of their labor through eternal ages.

[Beecher and Stowe 1869:19].

To further aid women's mission in life as the epitome of domesticity and moral leader of the household, improved transportation allowed the middle-class white-collar workers to move their families and households out of the city and into the newly developed suburbs which required only a short commute to work downtown (Fitts 1999:43). The women and children were thus safely ensconced away from the city as well as the evil, vice, and other forces that could steal away innocence and perpetuate a fall from grace.

Victorian Views of Alcohol Consumption

Temperance was a particularly important facet of the Cult of Domesticity, as alcohol was the vehicle of many the downfall of upright members of society: "the twin perils of alcohol and tobacco were often presented as sources of spiritual and economic dissipation among members of the middle class" (Reckner and Brighton 1999:67). Catherine E. Beecher and Harriet Beecher Stowe (1869) added opium as well: "In this country there are three forms in which the use of such stimulants is common; namely, alcoholic drinks, opium mixtures, and tobacco. These are all alike in the main peculiarity of imparting that extra stimulus to the system which tends to exhaust its powers." The most effusive danger of stimulants was their addictive potential, the drive that

kept the consumer constantly returning to the initial source of stimulation. Unfortunately, the power of the desire for more of the stimulant not only overwhelmed the lessons of self-sacrifice taught by the spiritual leader of the household, but was also detrimental to both the mind and body:

The ... evil is the temptation which always attends the use of stimulants. Their effect on the system is so agreeable, and the evils resulting are so imperceptible and distant, that there is a constant tendency to increase such excitement both in frequency and power. And the more the system is thus reduced in strength, the more craving is the desire for that which imparts a temporary invigoration. This process of increasing debility and increasing craving for the stimulus that removes it, often goes to such an extreme that the passion is perfectly uncontrollable, and mind and body perish under this baleful habit [Beecher and Stowe 1869:139].

Although the addictive potential of alcohol and other stimulants assisted Beecher and Stowe in making their case against complete abstinence from alcohol, Victorians were also aware of the detrimental effects of alcohol on the human body. In the same volume whence comes the above excerpt, Beecher and Stowe (1869) state that alcohol affects brain cells (140-141), inhibits the body from bearing up against the cold (141), and destroys pepsin in the digestive fluid, promoting serious disorders of the digestive system (142). The National Christian Temperance Union also warned of the dangers of alcohol to the human body with a 444-page treatise written by Martha M. Allen (1900), in which Allen took excerpts from medical reports of the day and explained them in layman's terms. Expounding on the harms mentioned by Beecher

and Stowe during the nineteenth-century, Allen (1900) described the effect of alcohol on the stomach lining and blood vessels as well as the nerves aiding digestive function, the circulatory system and the heart, the removal of toxins in the blood by the liver and kidneys, and even the alimentary canal's ability to clear the body of waste. Allen's treatise (1900) even offered an entire scathing chapter on the evils of alcohol and narcotic-containing patent medicines, particularly pertinent to the current study. While Victorian women experienced no shortage of reading material educating the masses on the dangers of alcohol, the results of the current study suggest that both middle- and upper-class women were consuming many health products containing alcohol as well as other unpermitted substances. Thus, some other factor must have out-competed the tenets of the Cult of Domesticity as well as the advice provided in the guidebooks and other prescriptive literature of the day for so much alcohol-containing products to still appear in the middle- and upper-class assemblages within this study.

The Fashionable Diseases of Women in the Nineteenth Century

As evidenced by the data in the current study, nineteenth-century consumption of health products containing alcohol was widespread, especially among the upper and middle classes despite Victorian ideologies supporting temperance and expounding on the evils of alcohol consumption. Discounting the effect of the San Luis Obispo laxatives and catarrh medications, the upper class consumed large quantities of cough and consumption medicines, weakness relievers, liver/kidney/bladder medications and both topical and oral pain relievers. Of interest, cough and consumption medications were the third most common product in both the working-class and the upper-class non-prostitute assemblages. Yet the upper class as well as the middle

class lived in spacious single-family homes, while the working class resided in tenement buildings in the slums where thousands of people were crammed into a small amount of space. Thus, the increased prevalence of tuberculosis and other infectious diseases as evidenced by the enhanced consumption of medications for the treatment of pulmonary complaints among the working-class population is to be expected; however, the factors and motives behind the heightened consumption of these health products among the upper class are less apparent.

According to multiple genres of nineteenth-century literature, the concept of women being of a delicate constitution, ill, and sickly was quite popular among the middle and upper classes during the Victorian Period. Catherine E. Beecher (1856:164) noted in her textbook on physiology and calisthenics that “[p]hysicians in all quarters testify that there is a delicacy of constitution, and an increase of disease, both among mature women and young girls, that is most alarming, and such as was never known in any former period.” She continues to tell the reader that a healthy woman is more the exception than the norm and statistics demonstrate that not even 3 out of 10 American women can be categorized as healthy (Beecher 1856:164).

How did Beecher arrive at her conclusion portraying such poor health among early Victorian-Era women? During the first half of the nineteenth century, Beecher traveled extensively visiting relatives and former students, thus discovering:

[T]he more I traveled, and the more I resided in health establishments, the more the conviction was pressed on my attention that there was a terrible decay of female health all over the land, and that this evil was bringing with it an incredible extent of individual, domestic, and social suffering, that was increasing in a most alarming ratio [Beecher 1855:119].

But with the popularity of sentimental fiction featuring heroines bearing up under the stress of one ailment or another, “ill health in women had become positively fashionable and was exploited by its victims and practitioners as an advertisement of genteel sensibility and an escape from the too pressing demands of bedroom and kitchen” (Wood 1973:27). Even Harriet Beecher Stowe, Catharine’s own sister, was known to frequent health establishments to escape the demands of her needy husband and their seven children (Wood 1973:35). While sentimental fiction played a role in popularizing the Victorian state of ill women with delicate constitutions, a number of other factors popularized the belief that middle- and upper-class women were particularly susceptible to being unwell.

The Middle and Upper Class’s “Right to be Sick”

Morality and “worthiness” were powerful aspects of Victorian cultural beliefs and impacted the way in which practitioners of medicine viewed their patients; the moral female gender and non-working-class status were perceived as especially worthy of treatment and were thus granted “the right to be sick” (Gosling and Ray 1986:252). Neurasthenia, proposed medical terminology of the 1860s by New York neurologist, George M. Beard, was described as “a nervous condition caused by a combination of overwork and hereditary predisposition characterized primarily by mental and physical fatigue, insomnia, headache, inability to concentrate, phobias, and a variety of system irregularities” (Gosling and Ray 1986:252). During the latter half of the nineteenth century, physicians perceived neurasthenia to be a condition specific to the wealthy due to beliefs that the upper class was more evolutionarily advanced than

the working class; thus, the upper-class population was much more capable of finer sensibilities, rendering its members much more susceptible to emotional stress and attacks of neurasthenia (Gosling and Ray 1986:265). Beard believed the increase in nervous disorders of Americans was due chiefly to certain aspects of modern civilization, namely “steam power, the periodical press, the telegraph, the sciences, and the mental activity of women” (Beard 1881:vi). The inclusion of women’s mental activity in this list alludes to physicians’ particular belief that the ailments and illnesses specific to the fairer sex were actually caused by the women themselves.

The perceptions and conclusions of medical practitioners affected the belief systems of the Victorian Society as a whole, likely fueling the sentimental fiction mentioned above in which the ill heroines were able to overcome their physical ailments in order to prevail against evil and immorality. Treatises on health, domesticity, and the proper role of females in Victorian Society, such as those written by Catharine E. Beecher and Harriet Beecher Stowe, also shaped nineteenth-century culture. In fact, Catharine E. Beecher first suggested that American women’s health was affected by changes resulting from modernization and industrialization in 1841, nearly 40 years before Beard published his works on American nervousness! As mentioned before, American socioeconomic classes were developing during the first half of the nineteenth century around the time various editions of Beecher’s *Treatise on Domestic Economy* were published. Beecher (1845) devoted an entire chapter on “Difficulties Peculiar to American Women,” in which she expounded on the numerous ways in which American culture and socioeconomic status wreaked havoc on the physical and mental health of women.

In an economic climate where fortunes changed on a dime, the uncertain status of any one individual in the early half of the nineteenth century was one particular stressor affecting American women’s health (Beecher 1845:40). The very domestic sciences that Catharine E.

Beecher and Harriet Beecher Stowe claimed were women's greatest duties caused extreme stress on a woman's body: "The anxieties, vexations, perplexities, and even hard labor, which come upon American women, from this state of domestic service, are endless; and many a woman has, in consequence, been disheartened, discouraged, and ruined in health" (Beecher 1845:41). Being the keeper of morality and beacon of spirituality in the home was already the cause of much stress, but "[a]dd to these multiplied responsibilities, the perplexities and evils ... resulting from the fluctuating state of society, and the deficiency of domestic service, and no one can deny that American women are exposed to a far greater amount of intellectual and moral excitement, than those of any other land" (Beecher 1845:44).

Nearly 40 years before Beard's publication on American nervousness Catherine Beecher advised that "mental excitement tends to weaken the physical system, unless it is counterbalanced by a corresponding increase of exercise and fresh air" (Beecher 1845:43). Beecher also suggested that in the first half of the nineteenth century, American citizens were affected by more commercial, religious, and political stimuli than in any other nation, and young women pursuing an education experienced 10 times the mental taxation than ever before (Beecher 1845:43). Further complicating the issue, young American women of the upper classes were sent to school at a very young age and neither the parents nor the teachers made an effort to supply opportunities for exercise or fresh air to counteract the intellectual taxation of education (Beecher 1845:45). Constant study with no breaks for calisthenics or fresh air thus caused many young women to develop curvature of the spine, "one of the most sure and fruitful causes of future disease and decay" (1845:41). Therefore, it is little wonder that American women developed delicate constitutions, nervousness, and ill health during the Victorian Period.

Even in Beecher's earliest textbooks on domesticity, she reminds her readers that "[a] perfectly healthy woman, especially a perfectly healthy mother, is so unfrequent [*sic*], in some of the wealthier classes, that those, who are so, may be regarded as the exceptions, and not as the general rule [Beecher 1845:43]. The handbooks and guides to health and domesticity by Catharine E. Beecher and those co-authored with her sister, Harriet Beecher Stowe, were popular throughout the nineteenth century and read by thousands of American women across the young nation. The sickly heroines of sentimental fiction and the testimonials of later specialists like Beard combined with the advice from handbooks on domesticity effectively convinced the women of the American middle and upper classes that they were supposed to be ill; this conviction likely fueled the patent medicine industry and drove wealthier women "to the bottle," so to speak.

Other Factors Contributing to the Persistence of the Patent Medicine Industry of the Nineteenth and Early-Twentieth Centuries

Besides women being advised through printed media that they were supposed to be ill, the medical profession itself played a role in wealthy American women's extensive consumption of patent medicines during the nineteenth century. A general lack of knowledge regarding the very physiology of the female body was one particular shortcoming of the nineteenth-century male physician. Prior to the 1860s, medical students were required to attend instruction for only two years and clinical experience was not necessary to attain a medical degree (Wood 1973:32). Women were slightly at fault for the male physician's lack of knowledge regarding female anatomy and physiology as the prudery associated with the Victorian Period was not exactly

exaggerated: “Ladies were expected, even by their doctors, to object to ‘local examination,’ to prefer modesty to health, and many of them did” (Wood 1973:32-33).

Today, the concept of appropriating a woman’s entire state of health to her reproductive organs seems ludicrous, but during the Victorian Period when motherhood was a woman’s greatest possible achievement, male physicians were particularly fixated on the womb, that is, the uterus; furthermore, these medical practitioners believed all diseases and ailments suffered by women were directly related to a malfunctioning reproductive system. To demonstrate the level of this obsession, one particular male physician asserted that God first created the uterus and then built Woman’s body around it (Holbrook 1874:15). Thus, medical men concluded that every ailment experienced by women, from neurasthenia and nervous debility to headaches, backaches, constipation, and indigestion, were all caused by the bodily organ common to all women: her uterus (Wood 1973:29).

Medical Treatment by Male Physicians. Unfortunately, due to the medical education requirements—or lack thereof—discussed above, nineteenth-century medical professionals were unschooled in the treatment of the wide-ranging disorders thought to originate from women’s reproductive system. Thus, a “local treatment” was devised, of which the four stages included: manual investigation, leeching, injections, and cauterization, all essentially medical holdovers from previous centuries (Wood 1973:30). As mentioned above, manual investigation, the visual and physical examination of the female genitalia, was already rued by the proper Victorian lady, but the procedures following were absolutely horrific, especially by today’s medical standards.

Leeching, as the name implies, involved the placement of leeches directly on the vulva or the neck of the uterus; fortunately, the medical literature describing this procedure cautioned the practitioners to count the leeches as they filled with blood and disengaged, as some especially

adventurous leeches were known to venture into the cervix or the uterus itself (Wood 1973:30). Dr. Bennet, the British proponent of leeching therapy, wrote, “I think I have scarcely ever seen more acute pain than that experienced by several of my patients under these circumstances,” likening the torment to birthing pains (Bennet 1853:267). Not nearly as distressing to modern readers, injections were essentially a douche with soothing substances such as water, milk and water, linseed tea, “decoctions of marshmallow” (the herbal extract not the sweet treat), or laudanum. If astringent compounds were required, Dr. Bennet suggested “sulphate of alumen [a caustic made of burnt alum, that is, potassium aluminum or ammonium aluminum], sulphate of zinc, acetate of lead, solution of nitrate of silver, decoction of oak bark, [or a] solution of tannin” (Bennet 1853:255).

However, to modern readers, the cauterization process is likely the most disturbing component of the four-step treatment. While Dr. Bennet preferred a mildly caustic chemical cauterizing agent, specifically nitrate of silver (Bennet 1853:269), stronger acidic solutions of nitrate of mercury, nitric acid, hydrochloric acid, or sulfuric acid were sometimes needed if the infection was especially severe (Bennet 1853:278). In cases of extreme infection or other conditions resistant to the use of chemical cauterization, Bennet suggested the use of physical cautery with a white-hot instrument: “It is necessary that the cautery should be brought to a white heat, as otherwise it adheres to the tissues on being withdrawn” (Bennet 1853:292). The principle behind the cauterization procedure was medically sound to the nineteenth-century practitioner: “drive out one infection by creating a greater inflammation, and thus provoke[e] the blood cells to activity great enough to heal both irritations” (Wood 1973:30). Unfortunately, the procedure was even performed in instances where no inflammation was present. Given the medical treatment Victorian-Era women were forced to endure in the event a male physician was called,

the extreme popularity of patent medicines used for self-treatment, despite the content of alcohol and other forbidden substances, is actually quite rational.

Effect of Patent Medicine Advertising Campaigns. Another factor involved in the persistence of nineteenth-century patent medicines—despite the Beecher sisters and others strongly cautioning against the consumption of any alcohol—is the sheer genius of the nostrum manufacturers’ advertising. Primarily, the patent medicines advertisements comparing the brutal treatments at the hands of male physicians to the mildness of their product’s remedy likely resonated with many Victorian-Era women (Young 1961:169). Patent medicine manufacturers also utilized the recently industrialized nation’s fascination with science, mineralogy, and “scientific breakthroughs” to promote products. For instance, nostrums containing iron were extremely popular, such as Lackey’s Iron Bitters in the upper-class assemblage of the current study. Patent medicines containing steel, petroleum, and radium conveyed their amazing, scientific properties to the consumer, while oxygenated, hydrogenated, electric, and ozonated compounds emanated healing energy (Young 1961:171-173).

Another tactic employed by the patent medicine manufacturers was to appeal to America’s fascination with the exotic as well as far-away lands by naming products after countries and cultures spanning the globe from Spain and Germany to Japan and China, from Iceland and the Arctic to Peru, Brazil, and the Cape of Good Hope, from the Mediterranean and the Middle East to Mexico, Maui and everywhere in between (Young 1961:173-176). Even America’s fascination with the “Noble Savage” and Native American culture was capitalized upon to promote products such as Pawnee Indian Too-Re and Kickapoo Indian Sagwa (Young 1961:176-179). The “snake oil salesman” and medicine shows were yet another method used by patent medicine companies to gain loyal consumers (Young 1961:190-202).

A brief return to printed media and literature is warranted in the discussion of patent medicine advertising. While domestic textbooks conveyed guidance and counsel to both current and future wives and mothers, almanacs provided important information to all members of society and contributed yet another source of advertising for the patent medicine manufacturers. Hostetter's Bitters, Ayer's, and Bristol's became common household names during the nineteenth-century as a result of the almanacs distributed by these companies (Young 1961). Some early drug companies went a step further and published their own textbooks or guides resembling those of the Beecher sisters. For instance, Lydia Pinkham's Vegetable Compound not only treated female complaints, but the company published a textbook on ailments specific to women that claimed to be written "by women for women", as opposed to other medical literature of the day. *Lydia E. Pinkham's Private Text-book upon Ailments Peculiar to Women* printed throughout the late nineteenth century and into the early twentieth century was likely particularly popular as it specified male medical attention was not needed: "In rare cases, of course, nothing will avail save the surgeon's skill, but almost always there is more certain help to be had from a woman than any medical man knows how to provide" (The Lydia E. Pinkham Medicine Company [1881]:7). Any printed media suggesting the painful, invasive techniques of nineteenth-century male physicians could be avoided was most certainly embraced by American women across the Nation.

Actual Therapeutic Effects of Patent Medicines. Finally, some of the medications consumed by the women actually contained ingredients that resulted in noticeable therapeutic effects. As mentioned above, narcotics truly do relieve pain, suppress the cough reflex, and act as a sleep aid. Peppermint soothes the stomach while senna relieves constipation. Iron supplements treat anemia, resulting in increased energy levels and improved health. Even Lydia Pinkham's

Vegetable Compound contained at least one ingredient with pharmacological activity. Research in the 1990s studied the therapeutic effects of the herbal supplement, Black Cohosh, for the treatment of menopausal symptoms as this herbal supplement compound estrogen-like behavior due to its ability to bind to estrogen receptors. In a study of hysterectomized patients, no significant differences were found when women were treated with Black Cohosh versus other estrogenic compounds. The suppression of hot flashes in menopausal women by Black Cohosh is a result of the herbal compound's ability to suppress luteinizing hormone (LH) (Tyler 1995:26-27). Thus, actual therapeutic effects of the patent medicines and other health products likely contributed to their popularity.

In conclusion, the large alcohol peaks in the middle- and upper-class assemblages of the current study are a result of the combination of Victorian-Era medical and cultural beliefs. The incompetence of nineteenth-century male physicians added to their painful and degrading examinations, treatment, and procedures likely increased women's appreciation of patent medications, while domestic guidebooks and sentimental literature reaffirmed women's "right to be ill." Cunning advertisements and the clever naming of products appealed to the cultural values of the newly industrialized, modernized, and commercialized young America and played a role in perpetuating the patent medicine industry despite the high alcoholic content decried by the Beecher sisters and other reformers. Almanacs and textbooks published by the drug manufacturers themselves encouraged women to purchase their products. Finally, actual therapeutic effects of the patent medicines and other health products encouraged consumption. Thus, despite the content of alcohol and other nefarious compounds within these health products,

nineteenth-century American women likely preferred the sometimes-effective patent medicines compared to the painful, humiliating experiences of medical treatment by male physicians.

Unfortunately for the prostitutes, many of their health issues actually did stem from the genitourinary tract, as suggested by the large numbers of venereal disease medications found within the archaeological assemblages of the brothel sites. The alcohol content of patent medications would not have posed a problem for the prostitutes as alcohol was freely consumed in the brothels of the time. While the previous section illuminated the life and experiences of non-prostitute female Americans during the nineteenth-century, the following section examines those of Victorian-era prostitutes regarding their health, quality of life, and financial stability.

Female, Free, and Wealthy?

Although parlor houses and lower-class brothels sometimes associated with saloons were physically in the same type of neighborhood (i.e. working class and/or red-light district), these two types of Victorian-Era brothels actually represented completely different socioeconomic classes of prostitutes. Although the term “working-class brothel” was used in this analysis, prostitutes who worked above saloons were actually higher on the socioeconomic scale than the women who worked in cribs, who were in turn better off than the street walkers (Sanger 1858; Meyer et al. 2005; Yamin 2005). For this study, the term “parlor house” was key in differentiating upper-class brothels from lower-class brothels. The Aliso Street brothel in Los Angeles, Nina Clifford’s bordello and the nearby duplex-style brothel in St. Paul, Minnesota, and the two brothels from the Five Points neighborhood in New York City were all characterized as parlor houses in site reports and related articles. The brothel features in Prescott, Arizona and

Ouray, Colorado were associated with saloons, dance halls, and cribs, so were thus categorized as working-class, or at least a lower class of brothels than the parlor houses.

The brothel features in Washington, D.C. were difficult to typify as little documentary evidence is currently available regarding these specific households. As so much has been written—both in the past and today—about Mary Ann Hall’s house, Nina Clifford’s bordello, and the Aliso Street parlor house, the lack of documentary evidence or notoriety for the Washington, D.C. brothels in this study led to their categorization of “working-class.” Since even the parlor houses were in working-class neighborhoods, accurately classifying the socioeconomic status of any brothel is challenging. Seifert and Balicki (2005:65) described similar difficulties in their pattern analysis of several brothel assemblages in the Washington, D.C. area, including both Mary Ann Hall’s parlor house and the brothels termed working-class in the current study: “There is no simple brothel pattern, no clear artifact signature that reveals a brothel in the archaeological record.”

The analyses in this study though have revealed at least some differentiating characteristics in the content and make-up of health and grooming products within archaeological assemblages from various types of brothels. While the small sample sizes of the assemblages in the current study restrict the quality of recommendations for the construction of guidelines to definitively identify brothel sites, the data does allude to the diverse experiences of prostitutes from differing types of brothels as well as socioeconomic statuses. The methodology employed in this study perhaps does provide a new mode of discovery to aid future researchers in distinguishing the socioeconomic status of prostitutes from particular brothel archaeological sites.

The assemblages from the two types of brothel sites examined in the current study clearly demonstrated different characteristics in the pattern of health and grooming products consumption of prostitutes from differing socioeconomic statuses. Both the working-class and upper-class prostitutes shared soda water and Vaseline in the top five products of each assemblage, while the other three products in the top five of the working-class brothel assemblage were bitters, topical pain relievers, and oral pain relievers, and face creams, toothpastes/powders, and Florida water in the upper-class brothel assemblage. The data reveals a discernable disparity between the two groups: a focus on numbing or relieving pain and discomfort by the working-class prostitutes and a fixation on beauty and grooming by the upper-class prostitutes. One hypothesis to explain the consumption patterns observed in this study involves the likelihood that the experiences, conditions, and therefore the lives of the working-class prostitutes were much harsher than the realities faced by the upper-class prostitutes. However, other factors such as the requirements imposed by madams on the parlor house prostitutes or differences in purchasing power and financial stability likely played roles in the patterns which emerged in each of the two brothel assemblages. The following section examines the disparities between the working-class and upper-class prostitute assemblages as well as possible explanations for these variations.

Enhanced Purchasing Power, a Middle-Class Signature, and Beauty and Grooming in the Brothel

The most prosperous madams understood that the outward appearance of their prostitutes as well as their associated scents were of the utmost importance in sustaining business; thus, they

encouraged their prostitutes to purchase cosmetics, fragrances, and other health products that encouraged the aura of youth and beauty. Especially in the parlor houses, the prostitutes were encouraged to look and smell like the middle-class wives, sisters, mothers, and daughters of the men who frequented the brothels (Yamin 2005:11,16).

The archaeological assemblage of the Aliso Street parlor house in Los Angeles contained one of the most extensive and extravagant collections of beauty and grooming products from the current study: 18 jars or pots of skin and face creams, 17 bottles of expensive perfumes, nine bottles of cheaper colognes, 14 bottles of Florida water (of which all were of the same brand, Murray & Lanman), 17 bottles and containers of toothpaste and six toothbrushes (Costello et al. 1999:Table 14). Similarly, Ketz et al. (1998:106-107) also found an emphasis on grooming products across their entire St. Paul, Minnesota, assemblage that consisted of multiple nineteenth and early-twentieth century brothels and parlor houses in the city's red-light district. Only five bottles of perfume were found in the New York City Five Points brothel assemblage, but various other artifacts attested to the existence of a parlor house at No. 12 Orange Street (Yamin 2005:10). The assemblage from 4 Pearl Street also indicated the presence of a parlor house with its multiple glass perfume and cologne bottles, including two imported from Paris, along with a multitude of other artifacts demonstrating attempts at presenting a middle-class signature (Yamin 2000a:126).

Conversely, there were only four perfume/cologne bottles between two of the brothel features in Ouray (Sherman 2013), while the Washington, D.C. cellar at 303 13 ½ St. contained five bottles of perfume, but the dates of the bottles from this specific feature spanned some 86 years (Cheek et al. 1991:61). Feature 32 from the Prescott brothel site was an anomaly though; the artifacts from this specific feature were categorized as working-class due to its association

with saloons and dancehalls, Chinese laundries, and opium dens (Foster et al. 2004). Even the archaeologists hypothesized that the brothel associated with Feature 32 was not exactly a parlor house, but more upscale than the saloon brothels (Foster et al. 2005:371-372). However, the 11 bottles of Parisian perfume, 2 bottles of cheaper cologne, 6 bottles of hair dye, and various other cosmetics discovered within privy Feature 32 are more consistent with a parlor house assemblage than that of a working-class brothel (Foster et al. 2004). While the plethora of grooming products in the Prescott brothel assemblage suggests this brothel was actually a parlor house, the pattern may simply be a relic of the large number of prostitutes living and working in that particular brothel (at least 17 per the census records discussed above).

Another indication of increased purchasing power is brand loyalty, the consumption of a particular brand due to quality or efficacy. As is still the case today, cheaper generic products were available for many branded products during the nineteenth and early twentieth centuries; one way to demonstrate wealth (or the appearance of wealth) is to purchase the more expensive branded products. The most obvious display of brand loyalty in the current study appeared in the assemblage of the Los Angeles parlor house on Aliso Street which contained 11 bottles of Calder's Dentine, 14 bottles of Murray and Lanman's Florida Water, 13 bottles of Chesebrough Vaseline, 12 bottles of Los Angeles Star Soda, and 9 bottles of Darby's Prophylactic Fluid (Costello 1999:137,140). The plethora of products just within the current analysis demonstrates the very presence on the nineteenth- and early twentieth-century market of multiple brands of toothpaste/powder, Florida Water, soda water, and venereal disease medications. In addition, a quick search of "petroleum jelly" in Victorian-era newspapers reveals Chesebrough Vaseline was not the only manufacturer or supplier of petroleum jelly during the Victorian Era. This evidence of market and product variety suggests that the Aliso Street parlor house prostitutes did

indeed use their increased purchasing power to procure specific branded products. The motivational factors for this consumption pattern such as quality, efficacy, or a strategy to demonstrate wealth unfortunately do not present physically within the archaeological assemblage.

While some of the other brothel sites contained a few products demonstrating brand loyalty, none of the other sites can be associated as strongly with prostitution as the Los Angeles parlor house. The seven bottles of Bromo-Seltzer, 10 bottles of Chesebrough Vaseline, and multitude of soda water bottles in the Washington, D.C. cellar feature are problematic as the mode of deposition for the assemblage is difficult to discern. Vaseline and soda waters are both common components of brothel assemblages, yet the stratum in which these products were found does not exhibit patterning that suggests the items were discarded over an extended period of time, but rather in one specific episode. This deposition pattern further complicates the absolute assignation of the artifacts to a brothel, as there are several possible explanations for the mode of site formation (Cheek et al. 1991:57-58).

The remainder of examples of brand loyalty at the brothel sites can perhaps be attributed to the ethnic preferences mentioned in the discussion of soda water consumption above. The 14 Cantrell & Cochran soda water bottles found near the Gold Belt Saloon in Ouray may represent either a preference of the prostitutes with Irish descent, superior quality, or a limited market availability of soda water in the nineteenth- and early twentieth-century American West. Eleven Fernet Branca bottles originated from a feature behind the Chinese laundry in Ouray, Colorado and while the presence of multiple bottles of an Italian beverage within a feature associated with the Chinese may, at first, seem out of place, perhaps the increased frequency of the Fernet Branca was simply a relic of the entire block, known as the Vanoli Complex, being owned and

managed by an Italian family. This particular feature was also situated spatially near the Vanoli Saloon and the Fernet Branca may have been popular with patrons of this establishment. Finally, the presence of an Italian beverage associated with a Chinese feature may have represented the Chinese's attempt to impress their Italian landlords, or perhaps the herbal ingredients in the Fernet Branca digestif was reminiscent of traditional Chinese medicine, which typically included many herbal compounds. Regardless, the examples of brand loyalty at working-class brothels cannot be associated with the sex industry as clearly as the examples from the Aliso Street parlor house assemblage.

Thus, the analysis of beauty, grooming, and health products in conjunction with displays of brand loyalty is one possible method for affirming the presence of a brothel and ascertaining the socioeconomic status of the prostitutes therein. Further examination of alternative archaeological assemblage component categories such as foodways, glass serving and consumption vessels, associated glass alcohol bottles, ceramics, and lighting equipment represent yet another mode of discovery to determine the possible presence of a brothel site archaeologically in addition to the socioeconomic status of the former inhabitants. Furthermore, discernment of socioeconomic status of prostitutes as well as their associated spending power has the potential to reveal much about the prostitutes' experiences, quality of life, and financial stability.

Additional Methodology for Possible Confirmation of Brothel Sites and Determination of Socioeconomic Status via Analysis of Non-Health Product Archaeological Data

In general, brothels, whether parlor houses or bawdy houses/female boardinghouses, demonstrate a duality in their ceramic assemblages that portrays both a middle-class signature for serving customers as well as characteristics reminiscent of the prostitutes' working-class neighbors. This duality also presents in archaeological evidence of foodways in which the faunal data contain components representing expensive cuts of meat perhaps reserved for customers in addition to remnants of cheaper cuts likely consumed by the prostitutes themselves. Traces of delicacies and luxury foods were also found in association with brothel sites, concurrent with fancy glassware for serving these expensive and exotic food items. In addition, an increased presence of glass components from lighting fixtures are often found within brothel settings as well, since business occurs mostly at night. Finally, one distinguishing feature of parlor houses and more upscale brothels is the presence of increased wine and champagne consumption as well as the stemware used to serve these alcoholic beverages. Below, then, are alternative archaeological methodologies that could be employed to confirm the possible presence of brothel sites, as well as elucidate the socioeconomic status and the experiences of the prostitutes that once lived and worked there.

New York City, New York. Rebecca Yamin (2005:12) compared the tableware and teaware of an upper middle-class household, the Robsons, to the parlor house assemblage of feature AG from Five Points in New York City, and discovered that both the Robsons and the parlor house prostitutes utilized high-quality porcelain tableware. However, the main difference between the two assemblages was the type of ceramics used for everyday meals; the Robson's

owned a matching set of porcelain dishes compared to the prostitutes' cheaper shell-edged dishes similar to those used by their working-class neighbors in Five Points. Also, while the Robsons used their matching set of fine porcelain for both everyday meals and entertaining, the prostitutes only used their non-matching sets of porcelain while entertaining (Yamin 2005:12-14). If the prostitutes from the Five Points parlor house used their porcelain only to serve their customers hors d'oeuvres or individual meals, then matching sets would not necessarily be required while the use of porcelain would still portray a middle-class signature. Conversely, the teaware of both the upper middle-class Robsons and the parlor house prostitutes displayed fewer distinguishing characteristics. In fact, the brothel residents used high quality matching porcelain teaware sets very similar to those of the Robsons to serve their guests further promoting the display of a middle-class signature. Ironically, one of the brothel teaware sets was of an even higher quality than any the Robsons owned (Yamin 2005:14).

Unfortunately, the AG feature brothel assemblage was not compared to the other Five Points working-class assemblages except in the context that the everyday meals of the Five Points parlor house prostitutes were served upon shell-edged ceramics similar to those of their tenement-dwelling neighbors. Steven A. Brighton (2000:16-17), however, did compare the Five Points Irish tenement ceramic assemblage to the Robsons and other ceramic assemblages from both within New York City and concurrent sites outside of the city. Brighton found that the CC index for measuring the net worth of ceramics was slightly more depressed among the Five Points tenement dwellers than the Robsons, yet the working-class Five Points ceramic assemblage CC index was greater than those of earlier New York City middle-class assemblages, rural assemblages, and working-class assemblages from farther west in Ohio. These findings led Brighton (2000:14,20) to suggest that the working-class Five Points residents were able to afford

nicer teaware as a result of the greater market availability of ceramics within the extensive merchant economy of New York City during the mid-nineteenth century. In addition, Father Mathews' encouraging assimilation of the newly arrived Irish immigrants into American culture as well as the emphasis on symmetry within Victorian cultural ideals played roles in the enhanced consumerism of the Five Points Irish tenement dwellers (Brighton 2000).

Despite the attempts of urban archaeologists, Rebecca Yamin in particular, to disprove the stereotypes of the Five Points neighborhood as a downtrodden and crime-ridden area whose residents were in constant dire straits as portrayed in nineteenth-century reformist literature (Fitts 2001; Yamin et al. 1997; Yamin 1998; Yamin 2000b), the presence of parlor houses in Five Points was still slightly unexpected. Steven A. Brighton's (2000) findings of heightened CC values in the Five Points working-class ceramic assemblage and his hypotheses regarding enhanced consumerism due to the expansive merchant economy of New York City during the mid-nineteenth century provide possible explanations for the circumstances which allowed parlor houses to emerge in one of the most notorious slums in American history. The enhanced market availability of high-quality ceramics coupled with the elevated purchasing power of prostitutes as discussed in works by Donna J. Seifert (1991, 2005) would have promoted the existence of parlor houses in Five Points, New York—supposedly the slummiest of slums—and enabled the prostitutes to entertain and serve their customers using ceramics portraying a middle-class signature.

Beyond ceramics, the New York City brothel assemblages included a number of glass artifacts further supporting the assertion that this establishment was indeed a parlor house. Six glass lighting components associated with the New York City brothel feature AG suggest that the inhabitants may have indeed been involved with night work and of the glass liquor and alcohol

bottles, 94% once contained wine (Yamin 2005:10). As the consumption of beer has often been associated with the working class, the presence of so many wine bottles in the parlor house assemblage indicates an attempt to emulate the middle and upper classes. Although glass stemware usually accompanies wine and champagne bottles, the majority of the drinking vessels found at the New York City parlor house site were actually tumblers with only a few pieces of stemware intermixed. Wide-mouthed flacons found in Feature AG suggest that the visitors of the parlor house were served brandied fruits, or at least capers, olive oil, and other types of delicacies (Yamin 2005:10). Yamin's narrative (2000a:135) of life at a Five Points brothel depicted the prostitutes and their customers enjoying beef steaks, veal, and pot roasts, or rather expensive cuts of meat not typically consumed by their working-class neighbors. In addition, faunal data demonstrated that soft-shelled clams, a delicacy and purported aphrodisiac, were also served to the visitors of the brothel at 12 Orange Street.

The duality in the ceramic assemblage of Feature AG was mirrored by the faunal data with both expensive cuts of meat and inexpensive cuts added to a diverse array of poultry, seafood, and the delicacies mentioned above. The quantity of immature bovine remains suggests that veal was often served at the brothel in addition to expensive cuts of meat such as beef short loin, mutton loin, and rack of mutton. A variety of birds, fish, and shellfish remains represented the exotic fish and game once consumed at 12 Orange Street. However, the majority of the meat cuts found in the Five Points brothel assemblages were moderately priced and less expensive cuts of meats including hams, hocks, beef arm, mutton neck, and pigs' feet, similar to the diets of the Irish immigrants living nearby (Milne and Crabtree 2000:149-152). Interestingly, Feature AG was one of the few features that contained the remains of rabbit and squirrel, suggesting a cook with a rural background was preparing some of the meals at the brothel (Milne and Crabtree

2000:148). The ability to hire servants was yet another distinguishing feature of a parlor house compared to other types of brothels. Thus, the possible presence of a cook from the country is yet another piece of evidence supporting the presumption that the residence at 12 Orange Street was likely a parlor house.

Thus, the presence of a plethora of wine bottles, glass lighting fixtures, and the duality of both the ceramic and faunal assemblages all suggest that Feature AG contained artifacts from a parlor house in the Five Points neighborhood. While documentary evidence such as an 1840s indictment indicated the presence of a “disorderly house” at 12 Orange Street (Yamin 2000a:135), archaeological evidence suggests this “disorderly house” was in actuality an upscale parlor house catering to middle-class men. Furthermore, the higher quality ceramics, meat cuts, and other faunal remains coupled with various other artifacts such as those suggesting the presence of birdcages indicate that these parlor house prostitutes experienced a slightly higher standard of living than their working-class neighbors, further supporting the hypotheses of increased purchasing power or greater economic stability of parlor house prostitutes or prostitutes in general. Adding the health and grooming product data, such as the Parisian perfumes, to the various other types of archaeological assemblage types discussed above enables researchers to confirm not only the presence of a brothel but reinforce the evidence of a parlor house at 12 Orange Street in Five Points, New York.

Washington, D.C. Seifert (2005) compared Washington, D.C. brothel and working-class households’ ceramics from different time periods, including the brothels sites included in the current study. These brothel assemblages were not designated by the original excavating archaeologists or Seifert as belonging to any particular socioeconomic class, but within this analysis, the Washington, D.C. brothel assemblages were categorized as working-class mainly

due to the lack of documentary evidence relating to any other parlor house madams as well-known as Mary Ann Hall from the late nineteenth and early twentieth centuries within the area of the Federal Triangle archaeological excavation. Also, comparisons of the ceramic assemblages between the Washington, D.C. proposed working-class brothels in the current study and that of Mary Ann Hall's Washington, D.C. parlor house demonstrated notable disparities. The main difference between the two assemblages was that the percentages of higher-quality ironstone and porcelain ceramics were much greater in Mary Ann Hall's parlor house assemblage than those of the other Washington, D.C. brothels in the current study (Seifert 2005:66).

In addition, specific vessel analysis of both assemblages suggested that meals were being served to clients of Mary Ann Hall's parlor house, whereas the later brothels of the current study were not, further supporting the hypothesis that these brothels were indeed not of a parlor house status (Seifert 2005:69). One distinguishing aspect of the Five Points parlor house assemblage was the large percentage of tea service vessels (Yamin 2005); however, the Washington, D.C. working-class non-brothel assemblages contained more teaware than the working-class brothel assemblages (Seifert 2005:66). Although the Washington, D.C. working-class brothel ceramic assemblage did not contain as much high-quality ironstone and porcelain as Mary Ann Hall's parlor house assemblage, the working-class prostitutes were using more high-quality ceramic serving and consumption vessels than their contemporaneous working-class non-prostitute neighbors (Seifert 2005:66; Cheek et al.1991: table 5). Thus, the higher quality ceramics found at the Washington, D.C. brothel sites of the current study differentiated that particular assemblage from those of their working-class non-brothel neighbors. However, the scarcity of teaware, the lower percentage of high-quality ceramics compared to Mary Ann Hall's House assemblage, and

the lack of evidence for meals being served to brothel clients set the Washington, D.C. working-class brothels of the current study apart from parlor houses.

While both documentary evidence and the ceramic assemblage of Mary Ann Hall's house suggest that her brothel was indeed an upscale parlor house from the 1860s, archaeological data from the Washington, D.C. brothels dating to between 1890 and 1914 analyzed by which Seifert (2005) suggested that the temporally later prostitutes were living as well or even better than Mary Ann Hall's prostitutes. While an abundance of kitchen-related artifacts and the ceramic assemblage indicated meals were definitely being served to customers visiting Mary Ann Hall's parlor house, the percentage of clothing, personal, and activity-related artifacts from the later brothel assemblage far exceeded those of the earlier (1870-1890) brothels as well as Mary Ann Hall's house. The greater quantity of these artifacts from the later brothel assemblage does not necessarily indicate the later brothels operated as parlor houses though, as the increased industrialization, improvements in manufacturing processes, and the expanded market and commercialism accompanying the turn of the twentieth century likely lowered the cost of goods thus enhancing the later prostitutes' purchasing power.

The modernization of domestic illumination methods actually caused the increase in the amount of lighting fixture glass and glass chimney remnants found in the later Washington, D.C. brothel assemblage compared to that of both Mary Ann Hall's parlor house and the earlier brothels (Seifert 2005:65). Gas lighting fixtures were not installed in homes until near the end of nineteenth century, thus the prostitutes in Mary Ann Hall's parlor house and the earlier Washington D.C. brothels were more likely to utilize candles than the new-fangled kerosene lamps (Seifert 2005:65). Therefore, the presence of more glass lighting fixture components in the later brothel assemblages is a direct result of the development of new illumination technologies

and their availability to the madams and prostitutes during the time period of their residence in the brothels.

However, the faunal assemblage of Mary Ann Hall's house compared to that of the later Washington, D.C. brothels does indicate the diet of the prostitutes residing in 1860s parlor house was more luxurious than that of the later prostitutes. As mentioned above, the presence of wild game elements in a brothel faunal assemblage represented a key feature of meals typically served to patrons of parlor houses which portrayed the illusion of wealth and luxury in addition to a sense of the exotic. Not only did Mary Ann Hall's house faunal assemblage include wild game, but most of the meat cuts of beef, pork, and mutton were medium to high-priced cuts (Seifert 2005:71). The faunal assemblage of turn-of-the-century brothels in Hooker's Division also contained a large amount of high-priced meat cuts while concurrently exhibiting the duality seen in the Five Points brothel with lower-priced cuts (e.g. pigs' feet) also present (Seifert 1991:102). As with the other types of archaeological assemblages discussed above, the presence of higher-priced meat cuts at the later brothels does not necessarily indicate a greater degree of opulence or the presence of a parlor house but is instead a result of the increased purchasing power of the temporally later, turn-of-the-century prostitutes.

Thus, the Washington, D.C. brothels in the present study are categorized as working-class due to the lack of evidence of artifacts characteristic of parlor house assemblages in addition to the paucity of literature regarding the madams. The ceramic assemblage of these brothels does not support the serving of meals to the male patrons while the scarcity of teaware, champagne bottles, and glass stemware coupled with the lower quality of the ceramic assemblage all depict a lower class of brothel compared to Mary Ann Hall's parlor house or the Five Points brothels in the current study. However, the increased percentage of clothing and personal items as well as

the expensive meat cuts in the turn-of-the-century brothel assemblage suggest that the later prostitutes possessed a greater purchasing power than the Washington, D.C. prostitutes from the 1860s through the 1890s, even more so than the prostitutes that once resided at Mary Ann Hall's parlor house. The increased presence of lighting fixture glass in the later brothels may simply be a result of the different illumination technologies available during each time period.

This analysis of Washington, D.C. brothels from different time periods illustrates the difficulty in ascribing socioeconomic status to brothels from different time periods even within the same spatial or geographical area while also demonstrating how purchasing power can change over time. However, the greater amount of clothing and personal items found in the later brothel assemblage added to the rich array of health and grooming products discovered in the cellar feature indicate a greater purchasing power and likely better conditions, a more pleasurable existence, and an enhanced quality of life compared to those of the prostitutes residing in the earlier Washington, D.C. brothels, even Mary Ann Hall's luxurious parlor house.

St. Paul, Minnesota. As observed in the parlor house assemblages discussed above, the ceramic assemblage from Nina Clifford's bordello also exhibited the dichotomous pattern that represented both the public and the private lives of prostitutes. Ceramics from Feature 3, the front or public side of the brothel, exhibited a much superior quality compared to those found in Unit 5, the backyard in the private sphere of the brothel. Included in the ceramic assemblage from the public sphere of Nina Clifford's bordello were mainly decorated porcelain and refined earthenware, while the backyard assemblage contained a mixture of lower-cost and inferior quality ironstone, whiteware, yellowware, and Rockingham/Bennington, mostly undecorated (Ketz et al. 1998a:70).

The minimum number of vessels (MNV) from the front entrance assemblage was much less than that of the backyard, but plates and cups with high CC indices dominated the Feature 3 ceramic assemblage, indicating patrons were served with teaware demonstrating a middle- or upper-class signature. The backyard ceramic assemblage contained a much larger quantity of domestic ceramics with a variety of functions from food consumption, food preparation, and food storage, while the front ceramic assemblage contained only food consumption and serving vessels (Ketz et al. 1998a:69-70). Thus, Nina Clifford's bordello assemblage clearly adheres to the parlor house pattern of portraying an upper-class signature to the public with the provision of tea and meals to the patrons while concurrently exhibiting a much lower quality of ceramics for use by the prostitutes themselves.

The other St. Paul brothel assemblage represented by a privy fill, Feature 26, was hypothesized to be comprised of artifacts discarded by parlor house prostitutes based on the glass assemblage which included a large number of bottles that once contained pharmaceuticals, Vaseline, grooming products, perfume, and champagne as well as the stemware dedicated to the consumption of wine and champagne (Ketz et al. 1998a:83). However, the privy was physically attached to a saloon and likely serviced both the patrons and employees of the saloon at 222 Eagle Street as well as the residents and visitors of the duplex-brothel next door at 163/165 Washington Street. Thus, with only one available feature composed of the fill of a privy utilized by two separate buildings, there was not sufficient opportunity to compare the public versus private spheres of a brothel as provided by Feature 3 and Unit 5 of Nina Clifford's bordello site mentioned above. However, the variety of functions as well as the quality of the ceramics from the privy Feature 26 assemblage suggested that the residents of the double-brothel building at

163/165 Washington Street concurrently disposed of ceramics representing both the public and private realms of the brothel (Ketz et al. 1998a: 88-93).

The technical report of the 106 Group's excavation of St. Paul (Ketz et al. 1998a:101) designated Feature 26 as a neighborhood assemblage since the feature was associated with multiple buildings; the current analysis, though, actually suggests the artifacts more closely follow a parlor house pattern similar to that of the Five Points brothels and Nina Clifford's bordello which contained artifacts representing both the public and private aspects of life in a brothel. While some of the artifacts found in Feature 26 possibly originated from the saloon next door, slightly altering the composition of the assemblage, the majority of the glass from the feature represented the likely presence of a parlor house at 163/165 Washington Street. Of note, six ceramic containers of toothpaste/powders were discovered in Feature 26 (Ketz et al. 1998a:88), further supporting the hypothesis that the assemblage arose from a parlor house in which existed a heightened focus on beauty and grooming regimens.

Although the embossed glass bottle assemblage supports the assertion that Nina Clifford's bordello was a parlor house, the beverage glass assemblage does not. Instead of champagne bottles, Nina Clifford's brothel assemblage actually contained a preponderance of beer bottles comprising over 60% of the domestic glass bottle assemblage in the feature associated with the front, or public side, of Clifford's brothel; only one champagne bottle and very little stemware were present (Ketz et al. 1998a:65). As the majority of the artifacts definitively supports Clifford's bordello being a first-class brothel or parlor house, the presence of so many beer bottles can instead be attributed to the sizeable German ethnic population of St. Paul during the time period of this study (Ketz et al. 1998a:64).

Feature 26, a privy that serviced the saloon at 222 Eagle Street as well as the duplex brothel next door, contained a wealth of glass artifacts, likely a result of contributions from both buildings. While Nina Clifford's bordello contained very few remains of either wine and champagne bottles or the associated stemware, Feature 26 contained at least eight wine and champagne bottles as well as a substantial amount of stemware in which to serve these alcoholic beverages. Again, the privy fill may have contained refuse from both the saloon and the double-brothel building, but the large quantity of stemware suggests that at least some wine or champagne was served at the brothels. Similar to Nina Clifford's brothel assemblage, beer bottles comprised the largest percentage, over half, of domestic bottles of the assemblage while tumblers also contributed a large proportion of glass to the privy fill assemblage, as would be expected being associated with a saloon (Ketz et al. 1998a:83-84). Also consistent with late nineteenth/early twentieth century brothels was the presence of three lamp globes and 6 glass chimneys, lighting elements indicating business was mostly conducted at night (Ketz et al. 1998a:87). Thus, the large assemblage from Feature 26 which contained a substantial quantity of grooming, beauty, and health products coupled with glass lighting elements, wine/champagne bottles, and stemware, suggested the duplex-brothels next door to the saloon at 222 Eagle Street were of fairly high class status and the prostitutes likely earned a decent wage enabling the purchase and consumption of so many beauty, grooming, and health products.

Unfortunately, the St. Paul technical report did not include an extensive faunal analysis; only the findings from three features or test sites were reported. However, these findings exhibited patterns similar to other brothel faunal assemblages within this study. Feature 3, the front or public side of Nina Clifford's bordello contained much fewer animal remains than Unit 5, the midden behind the bordello representing domestic/private aspects of life. However,

Feature 3 did contain elements suggesting Clifford was not serving entire meals to her patrons, but rather finger foods and hors d'oeuvres such as poultry wings and legs as well as oysters for their supposed aphrodisiac potential. Conversely, Unit 5 contained 12 times the amount of faunal elements as Feature 3 with twice as much beef compared to pork added to a very diverse array of fish (Ketz et al. 2005:84). Nina Clifford employed several prostitutes at any one time in her bordello, so an extensive faunal assemblage in the domestic midden is not unexpected. Feature 26, the privy fill, also contained an extensive faunal assemblage, larger than any of the other proveniences thus analyzed from the St. Paul excavation. The majority of this faunal assemblage consisted of beef and pork cuts, such as ribs and pigs' feet, but bird and fish remains were also present. Interestingly, amphibian elements suggested frog legs may have been served at either the double-brothel building at 163/165 Washington Street or the saloon at 222 Eagle Street (Mather 1998:8); perhaps, similar to Nina Clifford's bordello, the duplex brothels were serving finger foods such as frog legs and chicken wings to their patrons as well.

Various attributes of the of the St. Paul brothels followed the general parlor house trends such as the presence in the public setting of superior quality teaware and other ceramic vessels for use by their patrons versus the utilization of inferior quality ceramics by the prostitutes themselves within the domestic/private sphere. Other common features of parlor houses, though, were either not present or at least not as prominent as in other assemblages within this study. While entire meals were not being served to the patrons of Nina Clifford's bordello or the other nearby duplex brothel, a variety of finger foods, hors d'oeuvres and oysters were available to the prostitutes and their customers. There exists little doubt that Nina Clifford's bordello was a first-class brothel, yet wine and champagne bottles were not as prevalent in her brothel assemblage as in those of the other classic examples of parlor houses; the prevalence of beer bottles, however,

suggests that Clifford was catering to the large ethnic German population of St. Paul. The duplex brothels though, or possibly the saloon, were serving some wine and champagne in glass stemware while the presence of glass lighting elements in the privy fill assemblage also conformed to the parlor house pattern. Regardless of the strength of the adherence to typical parlor house practices, the large number of pharmaceuticals, beauty and grooming products coupled with the variety and fairly high-quality diet and the use of fine ceramics all suggest that the St. Paul prostitutes led relatively comfortable lives and possessed the enhanced purchasing power characteristic of prostitutes from around the turn of the twentieth century.

Los Angeles, California. The Aliso Street brothel in Los Angeles was characterized as a parlor house in the technical site report (Costello et al. 1999) not only did this brothel have one of the richest and most extensive assemblage of health, beauty, and grooming products, but a number of other artifact categories also conformed to the parlor house trends described above. Of note, the ceramic assemblage from the Aliso Street brothel consisted of particularly valuable and fine quality pieces: nearly two-thirds of the Aliso Street parlor house ceramic tableware assemblage consisted of porcelain vessels compared to those of the household assemblages from the surrounding neighborhood of which porcelain only comprised one-third (Mason 1999:129). However, the dual nature of parlor house and other brothel assemblages was also observed in the Aliso Street assemblage. Functional analysis of the parlor house ceramic assemblage demonstrated that the majority of the serving vessels were of undecorated, white refined earthenware, very similar to the serving vessels used by the rest of the neighborhood (Mason 1999:129). Thus, the high-quality porcelain tableware was likely used to serve patrons of the parlor house thus presenting a higher-class signature within the public sphere, while the lower

quality ceramics were instead utilized for the everyday meals consumed by the residents within the private sphere of the brothel.

The duality observed in the Aliso Street parlor house ceramic assemblage was also expressed in the artifacts representing aspects of the diet and foodways of the brothel residents. The majority of the mammal faunal elements found at the Alison Street brothel site indicated that the prostitutes consumed meat cuts mid-range in price, similar to those found in the working-class household assemblages within the same neighborhood. However, the variety of fish and shellfish species in the brothel assemblage suggested that the patrons of the parlor house were instead served delicacies and hors d'oeuvres (Mason 1999:130, Table 9). Supporting this hypothesis were the small, delicate porcelain fruit bowls in the brothel's ceramic assemblage and the colorful, decorated cut- and pressed-glass dishes within the glass assemblage (Mason 1999:130).

The sheer number of alcohol bottles discovered in the Aliso Street brothel assemblage ($n=147$) compared to the average from neighboring household assemblages ($n=10$) likely indicates a less restrictive environment within the parlor house. Nearly half of these bottles once contained beer, while roughly one-quarter were whiskey flasks. Conforming to the parlor house trend, wine and champagne bottles comprised part of the alcohol bottle assemblage from the Aliso Street brothel, but the percentage of the assemblage representing this category of alcohol was only 21%. However, the percentage of the alcohol glass bottle assemblage composed of wine and champagne bottles from the neighboring households averaged 57%, nearly three times the percentage found in the parlor house assemblage (Mason 1999:134, Table 11, Table 12).

Considering the small number of alcohol bottles contained within the household assemblages coupled with the location of this excavation in Los Angeles, California—the “City

of Vineyards,” one of the most important wine-producing locales in California during the nineteenth century (Costello et al. 1999:16)—the enhanced wine consumption by the households neighboring the Aliso Street parlor house is hardly unexpected. Yet another distinguishing factor between the parlor house assemblage and those of the nearby households is the composition of the various types of drinking glasses: the brothel assemblage contained many more goblets, wine glasses, and tumblers than those of the households. As with the other glassware found in the Aliso Street brothel assemblage, most of the drinking vessels were also exquisitely decorated: hand-blown, etched, and pressed- or cut-glass in many colors (Mason 1999:132).

As the Aliso Street brothel was operated around the turn of the century, many glass lighting elements were discovered within the assemblage. The use of highly decorated glass extended to the lampshades: 21 of the 26 lampshades were either etched or press molded with intricate designs and motifs (Figure 34; Mason 1999:125-126). The use of these decorative lighting elements not only inspired imagery of a Victorian middle-class parlor—from whence arose the term “parlor house”—but also created a subdued lighting effect that enhanced the sensuality of the brothel atmosphere and likely softened the appearance of the prostitutes themselves (Mason 1999:127).

Thus, the expansively rich assemblage from the Aliso Street brothel nearly epitomizes the typical Victorian parlor house brothel of the nineteenth or early twentieth century: the dual nature of the ceramics and diet; the presence of wine, champagne and their associated stemware; elaborately decorated glassware and lighting elements; and the extensive array of health, beauty, and grooming products. The sheer opulence of this assemblage hints at the conditions experienced by the Aliso Street prostitutes and suggests that these women were relatively well-

off compared to even the prostitutes from contemporaneous parlor houses in other cities across the United States.

However, the large number of bottles that once contained Darby's Prophylactic Fluid found in the Aliso Street brothel assemblage does indicate these prostitutes were far from immune to exposure to venereal disease; yet, the product loyalty expressed by this product, Chesebrough Vaseline, Murray & Lanman's Florida Water, and Calder's Dentine demonstrates that the parlor house prostitutes did possess considerable purchasing power. Therefore, the Aliso Street parlor house assemblage is a prime example which illustrates in great detail the ways in which the consolidation of analyses of various artifact categories can not only confirm the presence of a brothel but provide substantial physical evidence for the classification of the socioeconomic status of a brothel and its residents.

Figure 34. Lamp shade motifs found within the Aliso Street parlor house assemblage. (a) press-molded Cameo and Spider; (b) press-molded Cameo and Griffen; (c) etched Floral Bouquet; (d) press-molded Lace Poinsettia; (e) etched Flower and Vine; and (f) cross section and dimensions of all lamps (adapted from Mason 1999:Figure 76)

Ouray, Colorado. Previous research on the Vanoli Complex archaeological data examined gender and/or ethnic differences in the artifacts with a focus on health, appearance, or general functional analysis (Burnette 2014; Gensmer 2012; Horobik 2011; Knee 2012; Spude

2005; Van Buren and Gensmer 2017). Therefore, little information is currently available on either the ceramic or faunal assemblages in which to analyze in order to attain a definitive categorization of the general socioeconomic status of the former inhabitants of Ouray.

Fortunately, the artifact database created and maintained by Colorado State University facilitated the expedient analysis of the cataloged Vanoli Complex archaeological data to determine the amount and types of ceramics found during the archaeological excavations of Ouray during the 1970s.

Since porcelain and decorated versus undecorated refined earthenware have been analyzed thus far within the archaeological assemblages from other sites within this study, these ceramic types were chosen for examination within the Vanoli Complex assemblage. Porcelain accounted for only a small percentage of the ceramic assemblages from the Gold Belt Dancehall, the 220 brothel, the Roma Saloon, and Feature 8, likely associated with the Chinese laundry, compared to the nearly one-quarter of the ceramic assemblage of Feature 7, associated with the cribs behind the Chinese laundry. Thus, the general pattern of the minimal use of porcelain ceramics by the former residents of Ouray corresponds with the provisional designation of working-class status for the features associated with the Vanoli Complex.

As for the refined earthenware, decorated sherds accounted for slightly more than two-fifths of this particular type of ceramics in the cribs' assemblage, while the undecorated sherds comprised just under two-fifths of the assemblage. Within the ceramic assemblage associated with the Roma Saloon, undecorated sherds accounted for almost two-fifths of the refined earthenware assemblage, nearly twice the amount of decorated sherds. For both the Chinese laundry and the 220 brothel, undecorated sherds far outnumbered those of the decorated refined

earthenware: undecorated sherds accounted for more than 10 times the decorated sherds in the Chinese laundry assemblage and more than 4 times those of the 220 brothel ceramic assemblage. The extent to which the prostitutes and other employees of the Gold Belt Theater utilized decorated versus non-decorated refined earthenware is difficult to determine as more than half of the refined earthenware sherds from the Gold Belt assemblage were categorized as “unspecified.” Reanalysis of these sherds is critical to determine the actual usage of decorated and undecorated vessels at the Gold Belt. Available data, however, indicated that decorated refined earthenware accounted for almost one-fifth of the refined earthenware assemblage while the undecorated sherds accounted for slightly less. Again, the general pattern of decorated and undecorated sherds is consistent with the classification of the site’s inhabitants as working-class.

The crib assemblage from the Vanoli complex is particularly striking; not only was the glass health and grooming product assemblage quite extensive, but the percentage of the ceramic assemblage consisting of either porcelain or decorated refined earthenware sherds was the largest among all of the buildings discussed in this section. These findings are in stark contrast to the crib privy feature excavated in Los Angeles, which consisted of very few artifacts (Costello et al. 2005:121). A number of hypotheses could be developed regarding the cribs in the Vanoli Complex, but perhaps the most likely explanation is that the crib prostitutes either resided in or spent much more time in the cribs than the crib prostitutes in Los Angeles. Regardless, the Ouray crib assemblages provide further research opportunities in which to determine whether the Vanoli Complex cribs or the Los Angeles cribs were more representative of typical Victorian-Era cribs.

In her study of clothing and accessory artifacts from the Vanoli Complex, Kristin A. Gensmer (2012) found that the prostitutes in Ouray were dressing very similarly to other

working-class women from the surrounding area, further supporting the categorization of the brothel sites as working-class. Unfortunately, the extensive faunal assemblage from the Vanoli Complex excavations has never been analyzed in detail and thus the socioeconomic status as portrayed by the diets of the former inhabitants of Ouray cannot be determined at this time.

However, the extremely rich assemblage from the Vanoli Complex excavations of the 1970s and the associated database of artifacts (Sherman 2013) present many possible areas of future archaeological research such as complete and extensive analyses of both the faunal and ceramic assemblages, further examination of crib assemblages to determine the characteristics necessary for accurate determination or reaffirmation of cribs sites, and the reanalysis of the Gold Belt Theater ceramic assemblages to better determine the quantity of decorated versus refined earthenware sherds and vessels. Overall, the patterning of the artifacts from the Vanoli Complex does conform to the provisional classification of working-class socioeconomic status of the former inhabitants, alluding to the harsher conditions and rougher existence experienced by prostitutes in the Wild West. The following section will examine the archaeological assemblage of another excavation of a Victorian-Era Western mining town.

Prescott, Arizona. Like the Ouray assemblage, little has been written about the ceramic assemblage from the Prescott, Arizona brothel excavations either, rendering definitive analysis of the socioeconomic statuses of these prostitutes also quite difficult. Andrea C. Vermeer (2005) encountered a similar difficulty while researching for her dissertation on prostitution in Prescott and her subsequent analysis on the extent to which the prostitutes there were adhering to Victorianism. The first issue with the Prescott site report is the presentation of ceramic data only from whole or nearly whole vessels. Secondly, only grab samples of ceramic sherds from each feature were analyzed in detail, thus the MCV was not calculated. Finally, the data from these

grab samples presented in the site report tables referred only to the vessel type and listed no other distinguishing features of each sherd, most importantly, the type of paste used or decorations applied. Thus, neither the quantity nor the quality of the complete ceramic assemblage from the brothel can be thoroughly analyzed from the available data.

As mentioned above, the Prescott site archaeologists suggested that the brothel was likely neither a parlor house nor a lower-class brothel associated with a dancehall or saloon, but rather something in between (Foster et al. 2004:157; Foster et al. 2005:371-372). The decorative majolica pitcher, Staffordshire covered dish, and decorated chamber pot (Foster et al. 2005:354) as well as the eight sherds of decorated whiteware and two sherds of porcelain (Foster et al. 2004: Appendix F) all suggest that the Prescott prostitutes from the brothel site in the current study may have possessed slightly more purchasing power than their working-class neighbors; unfortunately, the technical site report does not present sufficient ceramic data in which to analyze and definitively determine socioeconomic status.

While the health product assemblage from the Prescott brothel site suggests a higher-class establishment, the faunal data indicated no expensive cuts of beef; however, chicken, turkey, and pork—of which several faunal elements were found within the brothel assemblage—may have been considered luxury items in late nineteenth-century Western mining towns. As beef elements are the most commonly excavated meat product from nineteenth-century sites, the lack of higher-priced cuts is especially conspicuous (Foster et al. 2005:368-369). While wine and champagne bottles were present in the brothel assemblage (Foster et al. 2005:368), the amount of glass stemware was either not recorded or simply not presented in the site reports and accompanying article. Based on the health and grooming data coupled with the wine and champagne bottles, faunal evidence, and limited ceramic assemblage, the researchers'

original assertion of an establishment somewhere between a parlor house and a brothel associated with a saloon is likely accurate. Thus, the available evidence from the Prescott excavation parallels that from the Vanoli Complex data: similar to the brothels in other areas of the country during the Victorian Era, working-class prostitutes possessed a slightly enhanced purchasing power compared to that of their working-class non-prostitute neighbors, but did not experience the same type of luxuries and more accommodating conditions as did the prostitutes residing and working in parlor houses.

Therefore, the addition of analyses of health and grooming product consumption to those of faunal, ceramic, and alternative types of glass artifacts creates an expansive mode of discovery in which to aid in the affirmation of the presence of a brothel as well as the elucidation of the socioeconomic status of the prostitutes themselves. Rare archaeological sites such as that of Nina Clifford's bordello may provide insights into the ways in which both brothels and prostitutes were portrayed to the public compared to the prostitutes' experiences within the private and domestic sphere. However, analysis of the composition of the health, grooming, and beauty products added to those of alternate artifact categories can reveal additional information regarding the health status, experiences, conditions endured, and even the ethnicity of the prostitutes from Victorian-Era brothels across the United States. Further analysis of embossed glass health product data represents an emergent and essential mode of discovery for the elucidation of the experiences, conditions endured, and health status of the consumers who once used and then discarded these glass bottles.

Future Archaeological Research Opportunities

Prior to this study, archaeological examination of health, beauty, and grooming product consumption has occurred mainly at the site level with only a few studies in which data from multiple sites were analyzed to gauge either quality of life (Taylor 2008) or the expression of gendered differences in archaeological assemblages (Spude 2005). The current analysis has attempted to distinguish health product consumption differences between brothel and non-brothel sites, various socioeconomic statuses, and the socioeconomic classes within brothel and non-brothel settings. While enlightening patterns did emerge in the data from the current study, larger sample sizes are needed to propose provisional guidelines to enable future research of health product consumption, specifically from middle-, upper-middle, and upper-class sites as well as additional assemblages containing much less ambiguous proveniences than that from the San Luis Obispo site, which likely contained products consumed by groups of three separate socioeconomic statuses: the upper-class students, the middle-class teachers and staff, and the free clinic that served the poor in the area surrounding the mission.

The difficulty in finding adequate upper-class sites is a direct result of the smaller percentage of wealthy households compared to those of the working- and middle-classes. However, this study did reveal interesting patterns in the upper-class data that defied messages inundating the Victorian-Era literature. Unfortunately, the current analysis only included one assemblage from a definitively wealthy household which, technically, should be categorized as upper-middle class. Further analyses of embossed glass health product bottles from upper-class households would reveal if the majority of wealthy women were indeed consuming high-alcohol content products similar to those consumed by the Davises or possibly the upper-class students

of the Sacred Heart Academy in San Luis Obispo or whether the observed pattern was simply an effect of a very small upper-class sample size.

In the past, glass analysis has been used mainly to date archaeological sites, thus site reports present glass bottle data based on whether the vessel was machine-made or hand-blown, the color of the glass, manufacturer marks, shape, and function. Embossed glass bottle data is sometimes presented in site reports but is generally interspersed throughout the entire glass assemblage. The current study has demonstrated the vast amount of information which can be extracted from analyses of health products and their ingredients and what this data can reveal about lifestyle, personal experiences, purchasing power and economic stability, conditions endured, and quality of life. Further archaeological analyses of embossed glass bottle data with attention to not only the manufacture date, but to the products and ingredients contained therein are needed to reinforce the hypotheses formed based on the patterns which emerged in the current study as well as to elucidate even more specific consumption patterns related to health, grooming, and beauty products of the past.

In addition, more effort should be made to share site reports and data sets within the entire archaeological community. Cross-site analyses reveal patterns that aid in the reaffirmation or the future categorization of archaeological sites in the absence of available documentary evidence. The Digital Archaeological Record (tDAR at tdar.org) is an excellent resource to search for available archaeological data, but many of the records list only citations. Less-restricted access to archaeological site reports and data sets from across the globe would not only promote international collaboration, but more easily allow for cross-site analyses and pave the way for establishing future archaeological research standards and guidelines.

Ingredient data within the current study was obtained using late nineteenth-century and early twentieth-century formularies as well as early twentieth-century chemical assays. Modern technology has developed exponentially since the early twentieth century and the more sensitive chemical assays available today and in the future would confirm the accuracy of the pharmaceutical formularies as well as earlier assays. For instance, Torbenson et al. (2000) analyzed the contents of a sealed bottle of Lash's Bitters and the results revealed not only the high alcohol content of the product, but the presence of dangerous compounds such as lead and methanol. Torbenson's team also discovered that Lash's did not actually contain the extract of the bark of the buckthorn tree as advertised by the manufacturers (2000). Discovery of intact sealed glass pharmaceutical bottles is exceedingly rare, but still possible. Assays of the contents of such bottles similar to those of Lash's Bitters by Torbenson et al. (2000) have incredible potential to reveal important information regarding the health products consumed in the past such as the verification and analyses of ingredients, the examination of product safety, and the evaluation of product efficacy, that is, whether the product could have actually treated any of the symptoms as advertised by the manufacturers. Collaboration between historians of pharmacy, biochemists, pharmaceutical researchers, and archaeologists would pave the way for the development and enhancement of the formal study of the archaeology of pharmacology.

The current study attempted to analyze socioeconomic classes of brothels, but with the exception of the Washington, D.C., Federal Triangle excavation, became an analysis of mining town brothels versus those from larger metropolitan areas. Archaeological data from additional brothel sites are essential to more accurately determine actual socioeconomic differences within brothel assemblages. While the archaeologists of the Los Angeles site found little material evidence associated with the Los Angeles cribs, the features from near the Ouray cribs contained

a wealth of artifacts providing information illuminating aspects of the lives of one of the lowest class of prostitutes. Since cribs are frequently mentioned in literature regarding prostitution, this type of brothel structure likely has the potential to present with even more assemblages from other archaeological investigations. Since crib prostitutes were truly working-class, comparisons between their associated assemblages and those from parlor houses would reveal even more discrepancies in the quality of life, health, conditions, and purchasing power between these two types of prostitutes given the expansive socioeconomic divide between these classes of brothels.

The consumption patterns that emerged within this study demonstrated that brothels from Western mining towns were essentially a class of their own; thus, additional analyses of these assemblages are essential to the discovery of patterns which represent the socioeconomic status of prostitutes particular to this geographical area. Seifert and Balicki (2005) elucidated patterning related to the different socioeconomic classes of brothels in Washington, D.C.; similar analyses of the data from the brothels and cribs associated with saloons and dancehalls, stand-alone cribs, and stand-alone brothels of the American West would illuminate aspects of the lives of prostitutes living and working in the Wild West. In addition, many red-light districts of the West contained Chinese establishments with their own accompanying cribs or brothels; further analyses of ethnic differences between various groups of prostitutes in the West would reveal information about the lives of Chinese prostitutes working in the opium dens or other foreign-born prostitutes operating out of cribs. The plethora of “ghost towns” in the American West provide mostly undisturbed snapshots of mining towns in their heyday, essential resources which could be mined in order to further illuminate facets of everyday life in Western mining towns.

Furthermore, several of the assemblages utilized in this study would benefit from additional analyses of certain artifact types, such as the ceramic and faunal assemblages from the

Vanoli Complex in Ouray and the ceramic assemblage from Prescott. Re-analysis of this data would enhance the elucidation of consumption patterns amidst the various socioeconomic statuses and types of brothels in the American West during the Victorian Era. Consumption patterns from Western mining towns in which the majority of goods were imported were likely vastly different from those of urban areas which boasted of a booming market and manufacturing economy.

Finally, data from the middle-class assemblage within this study also demonstrated interesting patterns, resembling the upper-class assemblage in some aspects and that of the working class in others. Current literature suggests that the middle class moved to the suburbs to avoid both the excess display of wealth by the upper class as well as the crime, vice, and disease of the poor, simultaneously developing a specific set of middle-class customs and traditions: the so-called “Cult of Domesticity.” Many archaeological studies have focused on the working class emulating the middle class, but very few consider the middle class’s emulation of the upper class, which is demonstrated in the patterning of health product consumption within the current study. Further investigations into the Victorian-Era consumption patterns of the middle class compared to those of the working and upper classes would illustrate the extent to which the middle class used upper-class styles and preferences as a guide.

Thus, the analysis of the consumption of health products by type and the ingredients they contained provides multiple avenues of research in which to reveal socioeconomic markers, adherence to cultural precepts, extent of purchasing power, emulation of higher social classes, assimilation into foreign cultures, and quality of life via health status for various groups amid the American population during the Victorian Era. Embossed glass bottle data related to health and grooming has been analyzed on a very limited scale up to this point, but the addition of

ingredient data to product analyses provides endless possibilities for future research. The current study effectively demonstrates that embossed glass bottle data provides a wealth of information and that the accurate identification of health products is essential to developing a new mode of anthropological discovery: the archaeology of pharmacology.

Conclusion

When I began researching embossed glass health product bottles from brothels during Research Design, a required course in the various archaeology graduate programs at Illinois State University, the preponderance of Vaseline bottles at some of the brothel sites was a source of much levity for both the students and the professor—the graduate advisor for this thesis—and thus became a running joke throughout the year. However, as this study demonstrates, the enhanced presence of Vaseline bottles at an archaeological site could possibly be one of the many defining characteristics of a brothel assemblages. While verifying data from Nina Clifford's bordello site in St. Paul, an assemblage from the same neighborhood as Clifford's brothel caught my attention: the glass data included five Vaseline containers, five different brands of perfume, as well as a plethora of bottles which once contained toothpastes and powders, face cream, and champagne. This assemblage appeared so rich in health and grooming products, that I immediately suspected I had stumbled upon yet another brothel assemblage. Upon further investigation, the site report revealed this feature was a privy utilized by not only the patrons of the adjacent saloon at 222 Eagle Street, but by the prostitutes of the duplex-brothel next door at 163/165 Washington Street. The discovery of the second St. Paul brothel

assemblage is a prime example of the way in which embossed bottle and alternate glass data can help identify or support documentary evidence of a brothel.

In past studies, archeologists have claimed they could not identify any specific artifact category that would indicate the likely presence of a brothel. The results of the current study, though, demonstrate that the amalgamation of analyses of various artifact types can indeed be utilized to form hypotheses regarding the likely presence of a brothel site and possibly even the specific class of brothel, at least for Victorian-Era brothels in America. At the very least, analyses of multiple artifact categories can be employed to verify and support documentary evidence of a brothel site. Glass bottle artifacts possess a particular propensity for providing instantaneous archaeological evidence, as the embossment of the product's name or manufacturer, the specific shape of the bottle, or even the color of the glass can convey immediate information about the health product. While glass assemblages may aid in the initial identification or confirmation of a probable brothel site, the composite analysis of the glass, faunal, and ceramic assemblages has the potential to reveal the type of brothel as well as the socioeconomic status of the brothel and even the prostitutes themselves. Architectural artifacts and features, clothing remnants, and metal artifacts can also contribute to the identification of brothel sites.

Through the carefully chosen research questions, this analysis initially set out to detect differences between brothels and non-brothel sites, assemblages from different socioeconomic backgrounds, and brothel sites with different socioeconomic statuses. Not only did analysis of glass bottle data from health products reveal different consumption patterns of certain types of health products across various lifestyles and socioeconomic statuses, but analysis of the ingredients revealed possible motives for the consumption of particular products or product

categories. The enhanced consumption of soda water by the working class despite the dear cost of this particular product illuminated particular traditions retained from immigrants' native land, while the upper class's consumption of medicines with a high alcohol content revealed the level of adherence to the Cult of Domesticity as well as to the proscriptions provided within period guide books, sentimental fiction, and other types of literature targeting proper Victorian ladies. Unfortunately, any attempts at adhering to the instructions from women's behavior and health specialists such as the Beecher sisters to avoid the consumption of alcohol were thwarted by the prevailing opinions of women's health status by the male medical community and even within the very literature denouncing alcohol consumption. These scenarios both emphasize human ingenuity in either carving out a place in a foreign culture or obtaining desired substances despite societal strictures. Further analysis of glass bottle and health product data, as well as the ingredients these products contained, can only reveal even more hidden facets of life during the Victorian Era, especially regarding the experiences of women whose voices were not often heard.

As for whether glass bottle data from health and grooming products can be used to supplement documentary evidence in the identification of particular sites or even to identify possible sites lacking documentary evidence, the answer is a resounding yes, as illustrated by the discovery of an additional brothel site in St. Paul. This study demonstrated that analysis of the types of health products coupled with the ingredient data can reveal much regarding archaeological site types as well as socioeconomic status, especially when analyzed in conjunction with data from diet and foodways, ceramics, and other artifact categories. Hopefully, the insights gained from the analysis of glass bottle data, and subsequently health products and their ingredients, will provide future avenues of archaeological research in the study of

prostitution and socioeconomic status during the Victorian Period. But until specific guidelines can be delineated to successfully identify brothel sites, archaeologists should pay strict attention to the increased presence of Chesebrough Vaseline containers!

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APPENDIX: ACCESS TO ARCHAEOLOGICAL DATA

As the data for this thesis is extremely expansive and not able to be printed here, please email the author for access to the dataset at Erin.L.Randolph@gmail.com.