

Chapter 3. The Neighborhood

San Francisco Sanitation and Health

While change was sweeping the country as the economic base switched from agriculture to industry, San Francisco felt the omnipresent difficulties of moving from a boom town to an orderly, municipally governed city. Many regional problems surfaced as exponential growth stretched the limits of an already unfavorable location. During the late 19th century, San Francisco was no stranger to epidemics, water shortages, and sewage problems.

The San Francisco municipality, as well as other urban city governments in the late 19th century, was easing into the transition from “governments that apparently served the needs and interests of property holders and businessmen only, [to] ones that apparently served all urban residents” (Shah 2001:46). Similar to most cities in the late 19th century, San Francisco faced complications of urbanization and industrialization, including lack of sufficient housing, waste removal, and clean water supplies. These problems were best addressed economically in a collective manner rather than piecemeal (Blackford 1993:38). Thus, public health rose as one of the earliest municipally addressed urban problems as governments “experimented... with the express purpose of securing freedom from disease” (Shah 2001:45).

Despite its chaotic beginnings, San Francisco quickly recognized the significance of public health. In response to the city’s first cholera outbreak in 1850 which claimed the lives of 5% of its estimated 10,000 residents (Roth 1997:548), San Francisco enacted legislation to hire a health officer, made plans to build a hospital, established the city’s

first medical society, and created a Board of Health (Roth 1997:532-533, 546). The new Board of Health was given the power to do “whatever... the public health shall require” (cited in Roth 1997:549), but as with other boom towns, San Francisco dealt with matters on an emergency basis with little thought to prevention or continued maintenance (Cahn and Bary 1936:xiii). As immigration continued at a higher rate than the departures, San Francisco reached a level of neglect that a health officer likened to the “most wretched of any city in the civilized world” (cited in Shah 2001: 49). While health records were often inaccurate for earlier years and diagnosis varied (e.g., see Rowell 1867), in 1868 and ’69, 1% of the population was still succumbing to infectious diseases, such as small pox, diphtheria, typhoid fever, and cholera while another 1.5% died of other diseases, such as tuberculosis, pneumonia, cancer, respiratory and digestion diseases (Meares 1877:20-22; San Francisco Department of Public Health [SFDPH] 1888:22-23). While other diseases clearly remained more prevalent, the presence of infectious diseases commanded fear among the population. In response, the SFDPH announced a plan in 1872 to make San Francisco the “healthiest city in the known world” (cited in Shah 2001:45).

Immigrants were readily attacked as a threat to public health. Identified as potentially bringing deadly epidemics to the front door of all San Franciscans, these individuals were often targeted because of underlying superstitions and prejudice against them (Shah 2001; Trauner 1978). The Chinese, in particular, were targeted by health officials. Laws were established which specifically required ships arriving from China to have “all passengers... subjected to personal examination by [the Quarantine Officer] before being permitted to land” (Rowell 1867:6). Later these discriminating laws were strengthened to include the requirement that “any vessels bringing passengers from

Asiatic ports [would be boarded by the Health Officer and his deputy, who have the power to]... vaccinate each and every one of said passengers before they shall be permitted to land in the city and county of San Francisco” (SFDPH 1870:8), with each passenger held if they were unwilling to either be vaccinated or pay the one dollar fee for vaccination (SFDPH 1870:8-9). This blatant discrimination allowed San Francisco health officials to “[displace] blame for general sanitary conditions onto a vulnerable minority” (Shah 2001:53) and “rationalized the failure of their sanitary programs” (Trauner 1978:70).

With salt water on three of its borders, adequate fresh water supplies were also an immediate concern for San Francisco. Although private wells, streams, and springs were initially used, these sources of water “were no longer adequate by 1849” (Hanson 1999:8). Speculators, who were quick to adopt various ways of addressing this heavy demand, carried water in by the barrel on horses, mules, and barges (Delgado 1982:29-30). During this time, “water sold for \$1 and \$3 a bucket” (Delgado 1982:30). By 1850, the residents of San Francisco were calling for municipal water service and during this same year, Mayor John Geary “affirmed the city’s responsibility for assuring that a water supply would be developed” (Delgado 1982:31). In 1852, the Mountain Lake Water Company was created to accomplish this responsibility, but as construction of a complicated water distribution system lagged on with no end in sight, the city revoked their franchise (Delgado 1982:32). In place of the Mountain Lake Water, the San Francisco Water Company took over. Damming Lobos Creek and constructing pipes, flumes and pumping stations, this company established the first water system for San Francisco by 1858 (Delgado 1982:32-33). But, once again, the company was plagued

difficulties as deficiencies in the system required several costly repairs after strong storms (Delgado 1982:35). Also limiting their success, the company's water supply could only provide San Franciscan customers with 2 million gallons, far short of demands (Hanson 1999:11-12).

Well aware of the San Francisco Water Company's problems, the Spring Valley Water Company seized the opportunity. Beginning with only a small spring, this company looked beyond its immediate vicinity of San Francisco and set their sights on Pilarcitos Creek in Half Moon Bay. This major watershed, once dammed, provided 65 million gallons fed to the city through by an extensive aqueduct system (Hanson 1999:11-12). In 1865, the Spring Valley Water Company bought out the troubled San Francisco Company (Delgado 1982:37; Hanson 1999:12) and "for the next fifty years the Spring Valley Water Company controlled the water supply of San Francisco" (Delgado 1982:37). In the process, Spring Valley built numerous dams, reservoirs, and pipelines to bring even more water to San Francisco (Hanson 1999:12-18). Beginning in 1873, the City of San Francisco made efforts to buy Spring Valley out, but did not succeed until 1930 (Hanson 1999:19).

With the increased water usage, common privies were rapidly overwhelmed. As backyards and alleys became swampy cesspools, residents put pressure on city officials to take action. In 1857 "Commissioners were authorized to prepare a [plan for a sewer] system" (Stout 1869:9). Construction of the first municipal sewer began in 1858 (Humphreys 1876:5; Stout 1869:11) and a decade later, a little over \$1.5 million had been spent to make 38 miles of sewers (Stout 1869:11). The primary building materials for these early sewers were bricks used in the higher elevations. Redwood was used in the

low flood plain due to the poor and swampy soil that could not support brick construction without pilings (Humphreys 1876:5).

Although this early construction of sewers was badly needed in San Francisco, designs and construction techniques varied throughout the city, presenting problems with efficiency and uniform service (Shah 2001:49; Stallard 1892:18). I.H. Stallard, who gave a lecture on the problem of sewerage in San Francisco in 1892, lamented that “these sewers illustrate every possible defect [because] their size and shape are not uniform” (Stallard 1892:18) resulting in a great cleaning and repairing cost. As early as 1866, reports pronounced San Francisco sewers as “shockingly bad” (Davidson 1886:4). Another report in 1869 noted that sewers were “choked and broken, their contents having no other escape than to soak through the soil and blend with the ordure already present” (Stout 1869:3), while another claimed that stagnant sewers below Montgomery Street contained “18,000 cubic yards of filth” (Stallard 1892:18).

As the fragmentary installation of San Francisco sewers created pungent smells, residents hotly debated proper methods of sewer cleaning and maintenance. Scavengers, men who traditionally undertook the arduous and unpopular job of cleaning privies, were regulated by an increasing number of laws (Board of Supervisors of the City and County of San Francisco 1861:6-8, 1863:8-10) and “public health officials regularly complained that scavengers exacerbated the filthy condition of the city” (Shah 2001:50). In his 1876 report on a new sewer system for San Francisco, Humphreys named scavengers as “the first and most natural” method of cleaning, but at the same time lamented that it was “vile practice... and when the true principles which should govern the proper construction of sewers are better understood and acted upon in this city, the disgusting operation will

come to an end here also” (Humphreys 1876:22). Many residents seemed to favor the use of water to flush out stagnant wastewater from sewers. In a report on hygiene and sewerage in San Francisco in 1869, Arthur Stout declared that “water is the only radical disinfectant” (Stout 1869:3). If water was used, Stout reported that “a bucket of sewage cast into a sewer on Taylor street... will, in fifteen minutes, be in the bay. Under such rapid action no foul gases can be generated” (Stout 1869:12). Charles Ellinwood supported Stout’s belief in water flushing, but turned to more plentiful sources of water in the vast surrounding bodies of saltwater to flush out the sewers (Ellinwood 1900:27). Other engineers believed that sewers should be self-cleaning through the movement of the sewage itself (Humphreys 1876:5), although in earlier reports argued against such a tactic (Davidson 1886:7). Indeed, the 1876 sewer plan called for sewers to be self cleaning, except for those below sea level which were to be flushed with salt water at the cost of \$27,300 a year (Humphreys 1876:12-14, 21-22)

After the early haphazard construction of the city’s sewers, comprehensive sewer plans were developed in the late 19th century. First announced in 1870, Michael Hayes introduced legislation to authorize the Board of Supervisors “to devise plans for a proper system of sewers and grades... to fix upon a general plan either to modify or wholly supersede the present system” (Anonymous 1870:1). By 1876, Humphreys developed a comprehensive plan to standardize the sewers by resizing them to be ‘self-cleaning’ and installing a salt water flushing system for those below the tide where self-flushing was not possible. However, the early funding of the San Francisco Department of Health was not significant (McDonald 1979:64), possibly preventing such system wide plans, but by the 1890s, San Francisco merchants “equated business development with civic progress”

(Blackford 1993:32). As these businessmen formed active neighborhood improvement clubs, public support for improvements grew (Blackford 1993:33-34). In 1899, “San Franciscans voted on \$10 million in bonds for sewer, school, park, and hospital improvements” (Blackford 1993:35), allowing for San Francisco sewers to move towards standardization.

By the turn of the century, the reported cases of disease had changed dramatically. Where once long lists of infectious diseases reigned in the Board of Health’s reports, by this time only four main threatening forms remained: diphtheria, scarlatina, typhoid fever, and small pox. Of these, only 89 cases were reported for the 1895 to ’96 fiscal year, compared to the 156 of just diphtheria and typhoid fever during the period from 1866-67, while scarlatina and small pox were not yet identified (Rowell 1867:6-12; Health Department City and County of San Francisco, California 1896:14-16, 1897a-f).

On Site in the South of Market

The archaeological material on which I base this study was recovered during the San Francisco West Bay Approach Project (SFWBA). SFWBA was located in northwest San Francisco, south of Market Street, and consisted of fourteen city blocks. With artifacts dating from the late 19th and early 20th century, this neighborhood witnessed changes in public health policy and municipal services from the city, as well as drastic changes within the makeup of the neighborhood itself. Undoubtedly influencing the health practices of individual households, these vital networks provide a background framework for this study.

During the years, or even months, following the discovery of gold in California,

the small village of Yerba Buena quickly became the city of San Francisco. Thousands of immigrants came through the golden gate in search of their fortune, pushing settlement beyond the developed northern shore towards the south. This area south of Market Street, true to the nature of speculation and fortunes made and lost daily during the Gold Rush, contained an ever-changing variety of residents ranging from the extraordinarily rich to those on the brink of poverty. Changed physically with land filling, economically with new industry, and residentially as working class populations moved in to replace the wealthy, the area South of Market evolved drastically during the latter half of the 19th century from its modest beginnings as a sand dune (Bloomfield 1995/1996:372).

For the decade immediately following the Gold Rush, the South of Market was divided evenly between an area of tent encampments called Happy Valley and a neighborhood for the city elite located on Rincon Hill (Olmsted 2000:63-70). In Happy Valley thousands of men camped out in what began as ‘free land’ open for anyone to pitch their tent (Averbach 1973:198; Olmsted 2000:63). Happy Valley populations were so high that one doctor even estimated that the “average population within a half mile was about 1,200” people (Stillman 1851:291).

The early temporary nature of the residents of Happy Valley began to take its toll by the end of 1849. Deemed by one doctor as the “most unhappy locality on God’s earth” (Harris 1932:81), Happy Valley experienced cholera, dysentery, and fever (Olmsted 2000:65) which were, according to one doctor, caused by their reliance on “water... obtained from wells two to three feet deep [that] was brackish” (Stillman 1851: 292). These conditions were further complicated by poor hygiene that made “the flea... quite prevalent” to the point that “the sojourners in Happy Valley never required cupping

[a traditional medical technique of raising the skin] or leeching [blood-letting], as both operations were performed by the fleas” (Upham 1878:258). One newspaper even reported that potential residents had “difficulty find[ing] enough unoccupied ground to pitch a tent, [because] the cleared surface [presented] the appearance of numerous graves” (cited in Shumate 1988:20). Indeed, prior to July of 1850, 75 graves were reported in the vicinity of Happy Valley (Soulé, Gihon, and Nisbet 1998:595).

This common use of land did not last forever, however. Many wood-frame homes began appearing in Happy Valley (Soulé, Gihon, and Nisbet 1998:414) and in 1850 alone, two prominent men each built 12 new cottages to put up for rent (Shumate 1988:20). Before long, several new roads opened up sections of Happy Valley to industry. By 1853 Happy Valley was a predominantly working class neighborhood and the manufacturing center of the city, and earned the new name ‘Tar Flat’ because of the waste coal tar discharged from San Francisco’s first gas works polluted the bay’s tidewater (Shumate 1988:21-23).

While men seeking their fortune in California resided in the low-lying squalor in Happy Valley and Tar Flat, those who had already found theirs resided in the higher, picturesque country setting of Rincon Hill. Building sizable mansions, these families of wealth built unique homes, lavish gardens, and commuted on new, horse-drawn omnibuses (Olmsted 2000:67-68). Rincon Hill continued to attract San Francisco’s wealthy through the 1860s, and by 1870, “had become a strong center of powerful moneyed interests with many political connections in Washington and Sacramento” (Olmsted 2000:73).

Two major construction projects in the late 1860s significantly impacted the

South of Market area. The Second Street cut, a project spearheaded by a land speculator, undertook the drastic and expensive grading of Second Street to open up the area to increased commerce and industry, but at the same time, left houses perched precariously at the edge of a chasm on unstable soil (Averbach 1973:199; Bloomfield 1995/1996:378-379; Lockwood 1979: 53; Olmsted 2000:73-76; Shumate 1988:42-45). The second project, the intercontinental railroad, opened San Francisco to economic competition, class struggle and increased immigration (Olmsted 2000:78-79).

After the completion of both the Second Street cut and the transcontinental railroad in 1869, change swept over South of Market, forever altering its composition of residents. To Rincon Hill residents, industry, traffic and the closer proximity to lower class communities, combined with the invention of the cable car in the early 1870s (Avenbach 1973:199; Olmsted 2000:75), made the higher, less accessible hills to the north more appealing (Olmsted 2000:75). As the wealthy left, their mansions stood vacant or were converted into tenements (Olmsted 2000:98). These large, cramped buildings were also appearing among the factories in Happy Valley and on newly reclaimed marshland. Tenements housed more and more people as laid-off railroad workers and immigrants utilizing the new railroad flooded San Francisco. As a result of the flooded job market and increased competition from east coast industries, wages plummeted, population density increased, job stability decreased and some businesses went bankrupt due to their owners over speculation (Olmsted 2000:78-87).

During this time, the health and disease in the South of Market area reflected these major changes. In the early years as a tent city, the area accounted for 8% of San Francisco's deaths (Soulé, Gihon, and Nisbet 1998:595). By 1876 and '77, the influence

of the wealthy in Rincon Hill resulted in number of deaths dropping to a mere 2% of the city's total (Meares 1877:20, 24-25). Yet, with the deepening of the depression, the continued outflow of the wealthy, and the lack of new, clean housing led to the South of Market climbing back up to claim 5% (SFDPH 1888:24-25). Among these, miasmatic disease, respiratory and nervous system diseases and developmental diseases were the most common (Meares 1877:24-25)

Although the San Francisco economy began to grow and new technologies facilitating business emerged in the 1890s, little new building took place until after the earthquake of 1906. Yet the earthquake brought a cleansing of the variety of residents and architecture. In the place of the mansions and decaying, cramped buildings, the South of Market moved towards "light industry, interspersed with pockets of tenements and flats" (Olmsted 2000:108). While the middle class disappeared, only a few working class families remained as "the population of single men emerged predominant" (Averbach 1973:203).

Summary

As the United States experienced vast changes in the late 19th century, San Francisco in general and the South of Market area in particular faced related issues specific to their location. Throughout the late 19th century, San Francisco struggled with faulty sewers, inadequate water supplies, and epidemics, which were often blamed on the Chinese to divert municipal responsibility. Meanwhile, by the end of the century the South of Market area had evolved from a tent city plagued with disease with a pocket wealthy residents to an industrial center. These conditions provide the historical setting

for the archaeological collections discussed next in this study.