TRACKS AND TRACTS IN AMERICA’S FINEST CITY: AN
HISTORICAL ARCHAEOLOGY OF SAN DIEGO’S EARLY TROLLEY
SUBURBS

A Thesis
Presented to the
Faculty of
San Diego State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Anthropology

by
Douglas Wayne Mengers
Spring 2016
SAN DIEGO STATE UNIVERSITY

The Undersigned Faculty Committee Approves the

Thesis of Douglas Wayne Mengers:

Tracks and Tracts in America’s Finest City: An Historical Archaeology of San

Diego’s Early Trolley Suburbs

Seth Mallios, Chair
Department of Anthropology

Todd Braje
Department of Anthropology

Andrew Wiese
Department of History

11/4/15
Approval Date
ABSTRACT OF THE THESIS

Tracks and Tracts in America’s Finest City: An Historical Archaeology of San Diego’s Early Trolley Suburbs
by
Douglas Wayne Mengers
Master of Arts in Anthropology
San Diego State University, 2016

The late 19th and early 20th century suburbs of San Diego were originally connected to the city’s commercial core by horse-drawn and electric trolleys. This thesis investigates how historical archaeology contributes to our understanding of these neighborhoods. Popular research over the past few decades has largely focused on the homes of San Diego pioneers and on large-scale development in the downtown center. However, recent cultural resource management projects (CRM) supporting condominium development and utility construction have uncovered numerous small historical deposits in the suburbs that have been not been considered in past research, and explored whether useful information could be derived from this data.

In order to apply quantitative methods to the data, I converted over 90 sites to a common classification system using the system made popular by Steve Van Wormer. Once converted, I grouped resources according to the unit of neighborhood. Standard archaeological practice uses the household as a unit for grouping resources. The neighborhood unit provided the benefit of allowing smaller sites to contribute to the data. I then applied activity group analysis, bottled product analysis, culinary bottle analysis, ceramic economic scaling, and functional artifact profiling analytical tools to the data and compared the resulting patterns to those that Van Wormer had observed using other reference sites. Reflecting on my experience in cultural resource management, I also explored how CRM practices affect the recording of resources and the relationship those practices have with academic research.

Although I expected the data to exhibit a new urban upper class pattern in some areas and urban middle class in others, most of the data registered between urban middle class and small town working class. Unexpectedly, urban patterns across San Diego were similar to each other, yet notably different than the patterns seen in other reference cities in the southwest. Through the course of this project I expanded the database of comparative sites, developed artifact profiles for individual neighborhoods and the trolley suburbs as a whole, and incorporated previously ignored small isolated refuse deposits in order to contribute to a greater understanding of the San Diego trolley neighborhoods.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>ix</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>x</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose of Study</td>
<td>1</td>
</tr>
<tr>
<td>Research Questions</td>
<td>2</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>2</td>
</tr>
<tr>
<td>Project Description</td>
<td>3</td>
</tr>
<tr>
<td>Geographic Boundaries</td>
<td>3</td>
</tr>
<tr>
<td>Temporal Boundaries</td>
<td>4</td>
</tr>
<tr>
<td>CHAPTER 2: HISTORICAL CONTEXT</td>
<td>5</td>
</tr>
<tr>
<td>San Diego History</td>
<td>5</td>
</tr>
<tr>
<td>Early American Period</td>
<td>5</td>
</tr>
<tr>
<td>Boom-and-Bust</td>
<td>5</td>
</tr>
<tr>
<td>Steady Growth</td>
<td>6</td>
</tr>
<tr>
<td>Suburban Growth Factors</td>
<td>7</td>
</tr>
<tr>
<td>Municipal Utilities</td>
<td>7</td>
</tr>
<tr>
<td>Electric Trolleys</td>
<td>8</td>
</tr>
<tr>
<td>Suburbs</td>
<td>8</td>
</tr>
<tr>
<td>Balboa Park</td>
<td>9</td>
</tr>
<tr>
<td>CHAPTER 3: THEORETICAL CONTEXT</td>
<td>10</td>
</tr>
<tr>
<td>New Archaeology</td>
<td>10</td>
</tr>
<tr>
<td>South’s Functional Artifact Profiles (FAP)</td>
<td>10</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>--------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Consumerism Studies</td>
<td>11</td>
</tr>
<tr>
<td>Van Wormer’s System</td>
<td>12</td>
</tr>
<tr>
<td>Modified Classification System</td>
<td>13</td>
</tr>
<tr>
<td>Glass and Ceramic Analyses</td>
<td>15</td>
</tr>
<tr>
<td>Ceramic Economic Scaling (CES)</td>
<td>16</td>
</tr>
<tr>
<td>Functional Artifact Profiles</td>
<td>16</td>
</tr>
<tr>
<td>Recent Local Uses</td>
<td>17</td>
</tr>
<tr>
<td>Van Wormer</td>
<td>17</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
</tr>
<tr>
<td>Thematic Concerns</td>
<td>18</td>
</tr>
<tr>
<td>Reference Unit</td>
<td>18</td>
</tr>
<tr>
<td>Quantification</td>
<td>19</td>
</tr>
<tr>
<td>Artifact Quantities</td>
<td>19</td>
</tr>
<tr>
<td>Fragmentary Artifacts</td>
<td>20</td>
</tr>
<tr>
<td>Cultural Resource Management</td>
<td>20</td>
</tr>
<tr>
<td>Urban Development: Municipal Utilities</td>
<td>24</td>
</tr>
<tr>
<td>4 SITE SELECTION</td>
<td>26</td>
</tr>
<tr>
<td>Parameters</td>
<td>26</td>
</tr>
<tr>
<td>Record Search</td>
<td>27</td>
</tr>
<tr>
<td>Reduction Passes: Defining the Study Sites</td>
<td>27</td>
</tr>
<tr>
<td>Sites Removed from Consideration</td>
<td>28</td>
</tr>
<tr>
<td>Balboa Park</td>
<td>28</td>
</tr>
<tr>
<td>Prehistoric</td>
<td>28</td>
</tr>
<tr>
<td>No Artifacts</td>
<td>28</td>
</tr>
<tr>
<td>Modern Only</td>
<td>29</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
</tr>
<tr>
<td>Additional Sites Considered</td>
<td>31</td>
</tr>
<tr>
<td>Final Site List</td>
<td>31</td>
</tr>
<tr>
<td>Bankers Hill</td>
<td>31</td>
</tr>
<tr>
<td>Golden Hill</td>
<td>37</td>
</tr>
<tr>
<td>Grant Hill</td>
<td>38</td>
</tr>
<tr>
<td>Hillcrest</td>
<td>43</td>
</tr>
</tbody>
</table>
Logan Heights ..................................................................................................44
Mission Hills ....................................................................................................47
North Park ........................................................................................................48
Sherman Heights ..............................................................................................49
South Park ........................................................................................................58
University Heights ...........................................................................................60

5 METHODOLOGY .............................................................................................61

6 RESULTS AND DISCUSSION ............................................................................63
Activity Group Analysis ......................................................................................63
Bottled Product Analysis ....................................................................................68
Culinary Bottle Analysis ......................................................................................69
Ceramic Economic Scaling ..................................................................................73
Henry and Mean Ceramic Dating ......................................................................74
Previous CES in the Study Area .......................................................................75
Critique ...............................................................................................................76
Functional Artifact Profiles ..............................................................................77

7 CONCLUSIONS ................................................................................................81
Hypotheses and Research Questions Addressed .................................................81
Limitations .........................................................................................................83
Relation to Current Theory ................................................................................83
Applicability ......................................................................................................85
Future Research .................................................................................................86

REFERENCES ......................................................................................................87

APPENDICES

A SITE LOCATION MAPS ..................................................................................100
B MASTER SITE TABLE ..................................................................................111
C ANALYSES BY RESOURCE TABLE ...........................................................114
D ACTIVITY GROUP ANALYSIS TABLE .........................................................117
E BOTTLED PRODUCT ANALYSIS .................................................................119
F CULINARY BOTTLE ANALYSIS .................................................................122
G CERAMIC ECONOMIC SCALING ...............................................................125
LIST OF TABLES

Table 1. Activity Groups Used in Van Wormer's Classification System ................................14
LIST OF FIGURES

Figure 1. Map of San Diego highlighting study area and neighborhoods. ...........................................4
Figure 2. Activity groups by neighborhood; raw data. .............................................................................64
Figure 3. Activity groups by neighborhood; limited groups. .................................................................64
Figure 4. Activity groups by neighborhood; corrected. .........................................................................65
Figure 5. Activity groups by neighborhood; with reference groups. ......................................................65
Figure 6. Bottled product analysis by neighborhood; raw data. ...............................................................68
Figure 7. Bottled product analysis by neighborhood; with reference groups. ........................................69
Figure 8. Culinary bottle analysis by neighborhood; raw data. ..............................................................70
Figure 9. Culinary bottle analysis by neighborhood; corrected. .............................................................70
Figure 10. Culinary bottle analysis by neighborhood; with reference groups. ......................................71
Figure 11. Culinary bottle analysis by neighborhood; revised calculations. ..........................................72
Figure 12. Ceramic economic scaling; all neighborhoods. .....................................................................73
Figure 13. Ceramic economic scaling; Bankers Hill only. .....................................................................74
Figure 14. Functional artifact profiles by neighborhood; with reference groups. ..............................79
Figure 15. Functional artifact profiles sorted by consumer activity group. .........................................80
ACKNOWLEDGEMENTS

I’d like to thank my committee chair Dr. Mallios for knowing where to set the bar. I appreciate the input and direction of the remainder of my committee, Dr. Braje and Dr. Weise. Thanks also to my Anthropology Department cohort, especially Linda Bentz; the San Diego Archaeological Center staff, especially Ad Muniz; and to Dr. Bouscaren for getting this ball rolling.

Professionally I would like to thank Alice Brewster and Matt DeCarlo for keeping me flexibly employed through this whole process. Dennis Gallegos, Carol Serr, and Steve Van Wormer provided much-appreciated mentorship, guidance, and advice along the way. I’m grateful to Christiana for walking this walk with me, in so many ways; Michael for CRM discussions over coffee; Gary & Pennie for financial support. Thank you to the wonderful Anna Graham, my partner and editrix, for support, encouragement, and confidence when it was needed most. And finally, my family at home – Rosie, Elise, John, and Emily – thanks for providing an incredible environment in which to do my research.
CHAPTER 1

INTRODUCTION

PURPOSE OF STUDY

In this thesis, I explore historical artifact patterns in the late 19th– to early 20th–century trolley neighborhoods of the city of San Diego. The trolley neighborhoods were early suburban areas adjacent to the downtown core that were serviced by trolley systems. These trolleys were originally horse drawn and were later electrified. Residents in these outlying areas commuted by trolley to their places of employment and to businesses located in the downtown core. As population grew, new housing was desired outside of the industrial center of cities. Prior to the automobile, the solution was to provide transportation from outlying undeveloped rural areas to the downtown core where jobs and commerce were centered. The traction magnates risked an initial outlay of capital to build the trolley rail systems to these undeveloped areas. They expected to make profits from individual fares as houses were built and populations in newly serviced areas increased. Since land and housing costs were similar and real estate covenants restricted access to poor and non-white residents, these areas were initially very homogenous. This homogeneity informed consumption patterns, which are evidenced in the archaeological record.

In this study, I expand the comparative database of historical archaeological sites in San Diego using sites recently recorded in cultural resource management (CRM) projects. By grouping resources by neighborhood rather than household, small isolated refuse deposits that were previously ignored are incorporated. With their inclusion, we can develop a more nuanced understanding of the socioeconomic composition of these historical San Diego neighborhoods. The expanded database, which is converted to a common classification system based on artifact function, allows for examination of the theoretical frameworks of reference unit scale and quantification methods. Additionally, I examine impacts on the data from urban development and CRM within the context of this study.
The neighborhoods I have investigated were developed towards different socioeconomic markets. Mission Hills and Burlingame with their deed restrictions and minimum housing costs sought to attract a much different resident than did North Park and Golden Hill with their multi-family dwellings. Quantification tools allow an examination of this geographic variability in socioeconomic conditions.

**Research Questions**

Does the trolley suburb profile match the existing functional artifact profile for *middle and upper-middle class urban* sites?

Do some individual neighborhood profiles match the existing *middle and upper-middle class urban* or *small town working class* profiles?

Would some individual neighborhoods better fit a new *upper class urban* profile?

If so, what would be the characteristics of this new *upper class urban* pattern?

**Hypotheses**

My hypothesis is that the trolley suburbs, when examined collectively, will match the *middle and upper-middle class urban* profile defined by earlier researchers. I hypothesize, however, that due to socioeconomic variances some individual neighborhood profiles will instead match the existing *small town working class* profile. Additionally, I hypothesize that some individual neighborhood profiles, particularly in the more socioeconomically exclusive neighborhoods of Mission Hills and Burlingame, will better fit a new *upper class urban* profile. Finally, I hypothesize that this new *upper class urban* pattern will have the following characteristics:

- A high ceramic economic scaling index (2.20+)
- A high relative percentage of consumer artifacts (50%+) to kitchen artifacts (>20%)
- A high relative percentage of beverage bottles (50%+) to other consumer bottles
- An Anglo-American culinary bottle assemblage
PROJECT DESCRIPTION

Geographic Boundaries

Since the 1980s, much American-period historical archaeological research has been conducted in San Diego’s Old Town, including the Whaley House (Mallios et al. 2008; Mallios et al. 2009; Mallios et al. 2010; Mallios et al. 2011), the State Park entrance (Davis, et al. 1997; Felton 1995), the Aguirre House (Phillips et al. 2001; Van Wormer et al. 2005) and the Cosmopolitan Hotel (Schaefer and Wolf 2012; Schaeffer et al. 2012; Stiegler et al. 2012; Van Wormer and Walter 2012). Since the turn of the 21st century, historical archaeological research in San Diego has focused on the Downtown, East Village, and Little Italy neighborhoods as a byproduct of increased development of condominium towers, and the establishment of the Petco Park stadium (e.g. Allen et al. 2005; Clowery-Moreno and Smith 2008; Ní Ghabhláin et al. 2007; Pierson 2004; Schaefer 1999, 2009; Schaefer and Ní Ghabhláin 2006; Schaefer et al. 2009; Smith 2003). The early San Diego suburbs have been subject to much less development because they are lower-density residential areas.

The geographic focus of this project is the early trolley suburbs of the city of San Diego, which form a ring around the core of downtown San Diego and Balboa Park (Figure 1). From the late 19th century the trolley suburbs were connected to the downtown core by an expanding network of electric trolleys that preceded outlying development (Dodge 1960). The areas include what are known today as the neighborhoods of Park West (Bankers Hill), Midtown, Mission Hills, Hillcrest, University Heights, North Park, Burlingame, South Park, Golden Hill, Stockton, Grant Hill, Sherman Heights, and Logan Heights. Excluded from this study are areas that have been studied extensively in recent years (Old Town, Downtown, East Village, and Little Italy) and areas that are primarily non-residential (Balboa Park and the Barrio Logan waterfront). Most of the resources in the neighborhoods included in this study have not been previously subjected to cross-site comparison or other non-particularistic forms of analysis.
Temporal Boundaries

The timeframe of my research methods is defined by previous research. Van Wormer’s (1996) cross-site analyses focused on the years 1900 to 1920 primarily for urban sites, and 1900 to 1930 for others. The ceramic economic scaling indices developed by Susan Henry (1987) cover the time period 1895 to 1927. The date ranges represented by the artifact collections that I examined vary greatly, and generally extend beyond the time frames covered by Van Wormer and Henry. Since this study relies on profiles generated by Van Wormer’s methodological system, most of my analyses focus on the period of 1900 to 1930, although some data outside of this range are also generated.
CHAPTER 2

HISTORICAL CONTEXT

SAN DIEGO HISTORY

Early American Period

When California joined the United States after the Mexican-American War, most of the Euro-American development in San Diego centered in the area now known as Old Town. Settlements had been attempted farther south along the bay in Middletown and New Town (Davis’ Folly), but were for the most part unsuccessful. San Diego’s population grew slowly for most of the next two decades. Even with the activity of regular stagecoach lines in the 1850s, growth slowed in the 1860s as San Diego’s geographic isolation essentially cut it off from areas to the east during the Civil War (Engstrand 1980; Pourade 1964; Smythe 1908).

Old Town was situated along the San Diego River where there was no direct deep-water access for ships. Incoming ships had to anchor off of Point Loma and transfer goods over land. Merchant Alonzo Horton, who had arrived in 1867, felt that an area farther south along the bay had better port access and much potential for development. He quickly bought a large plot of land in the area, laid out a street plan, and began selling lots. Over the next three years, development in Horton’s Addition intensified at the expense of development in Old Town. The county seat moved to Horton’s Addition’s new commercial center in 1870, and a fire in Old Town in 1872 ensured that future development would continue to concentrate in Horton’s Addition rather than in Old Town (Engstrand 1980; Pourade 1964; Smythe 1908).

Boom-and-Bust

Development and population growth in the 1880s and 1890s was guided by railroad boom-and-bust cycles. The Union Pacific, the first transcontinental railroad, connected Northern California to the rest of the Union in 1869 (Bain 1999). The success of the Union
Pacific spurred plans for a southern route and led to competition over where that railroad would terminate in Southern California: Los Angeles or San Diego. The first boom, beginning in 1871, involved the Texas & Pacific Railroad and the development of National City. An economic bust occurred in 1873 when competition with the Southern Pacific Railroad and a national financial crisis occurred simultaneously. Another boom, related to the Atchison, Topeka & Santa Fe Railroad, occurred in the early 1880s. Although a rail connection to the north was completed in 1885, the expected direct connection to the eastern United States never materialized, leading to economic collapse in 1889 (Lowell 1985). San Diego did not obtain a direct transcontinental railroad connection until the San Diego & Arizona Railway was completed in 1919 (Dodge 1960).

The impact of each of these railroad boom-and-bust cycles on San Diego’s population and economy was increased as a result of the accompanying land speculation. Across the nation, speculators bought land ahead of rumored railroad arrivals hoping to cash in on increasing land values by reselling the land. If the railroad failed to materialize, banks would collapse, land values would plummet, and railroad companies would fail (Pourade 1964). The worst of these cycles for San Diego took place in 1889. After the collapse, the population of the city of San Diego dropped dramatically from about 40,000 in 1887 to 16,000 in 1890 (U.S. Bureau of the Census 1999). The nationwide Panic of 1893 hampered recovery, as did an extensive drought from 1895 to 1905 (Engstrand 1980). San Diego’s population would not reach pre-bust levels again until 1910 (U.S. Bureau of the Census 1999).

**Steady Growth**

Despite the disruption of the boom-and-bust cycles, San Diego gradually acquired the infrastructure of a major city. Along with the rail connection, the 1880s brought street lighting, telephone service, a steady water supply, and the first electric streetcars to the city (Dodge 1960; Dyke 1956; Hennessey 1978; Sholders 2002; Smythe 1908). Development continued to increase at the turn of the 20th century with the opening of a state teacher’s college (State Normal School in University Heights) and major improvements to City Park (renamed Balboa Park in 1910) (Montes 1977; Starr 1995).
Development shifted into high gear in 1909 with the planning for a World’s Fair, the Panama-California Exposition, which was coordinated with the scheduled opening of the Panama Canal in 1915 (Amero 2013). During the decade of the 1910s, San Diego grew tremendously. Early Balboa Park development, exposition planning, and boosterism, which drew large numbers of migrants from the Midwest, were undertaken by the Chamber of Commerce (Amero 2013; Bokovoy 1999; Smythe 1908). Many of the exposition’s 3.7 million visitors would return to settle permanently in San Diego; the population doubled between 1910 and 1920 (Amero 2013).

Another feature of the 1910s was the beginning of an increased permanent military presence in San Diego. The decade’s latter years saw the development of the Army’s Camp Kearny, the Marine Corps Recruit Depot, the Naval Training Center in Point Loma, the Naval Hospital in City Park, and the Coronado Naval Air Station (Canada 2006; Jensen 1965; Martin 2012; McClain 2012; Shragge 2002; Vezina and Marine Corps Recruit Depot Museum Historical Society 2004). The permanent military presence contributed to San Diego’s population growth, which doubled again between 1920 and 1930, and reached 100,000 by 1922 (U.S. Bureau of the Census 1999).

**SUBURBAN GROWTH FACTORS**

**Municipal Utilities**

San Diego’s population increased rapidly during this period, in part because of the development of a municipal utility system. Maintaining a sufficient water supply was facilitated by extensive dam building projects in the 1880s and 1890s (Hennessey 1978). Consolidation of water companies by the city after the turn of the century resulted in a complete municipal water system by 1913 (Hennessey 1978; Sholders 2002). The first municipal sewer system was installed in 1885 in Horton’s Addition, and the sewer system reached outlying communities by the 1920s (City of San Diego, Public Utilities Department 2015; Jamieson 2002). Refuse collection was handled by private contractors prior to 1908, and then taken on by city contractors between 1908 and 1918. In 1919, the City of San Diego assumed responsibility for waste collection. Waste was most often, depending on material composition, incinerated, delivered to hog farms, or dumped in the ocean. Many San Diego residents simply dumped their refuse into vacant spaces rather than pay fees for
Electric Trolleys

Electrification of the downtown area occurred in 1881, paving the way for electric trolley service in 1887 (Engstrand 1980). In the subsequent years, a number of electric and cable trolley lines started up and failed. In 1892, industrialist John Spreckels began buying and consolidating lines, giving the system the stability it needed for expansion. By the early 1890s, Bankers Hill, parts of Hillcrest, and parts of Logan Heights were connected to the downtown core. By the turn of the century, University Heights, Golden Hill, and Sherman Heights were also connected to downtown. A new Spreckels-funded power plant was built in 1905, and by the end of that decade electric lines also connected Midtown, Mission Hills, North Park, Burlingame, South Park, Stockton, and Grant Hill. By this time, the lines also served suburbs in East San Diego and several of the beach communities (Dodge 1960).

The system was further expanded for the 1915 Panama-California Exposition with a new trolley barn in University Heights, an additional power plant, and over 100 new Arts & Crafts Class I trolley cars put into service. After the Exposition, however, the system began to decline; the costs of materials increased during the war, and funding was now diverted by Spreckels to the San Diego and Arizona Railway. Private automobiles were being used more often, and autobuses were introduced. Although the greatest extent of the service area was reached in 1925, the electric trolleys waned in use through the 1930s. After a brief resurgence during World War II, the entire line was scrapped in favor of buses by 1949 (Dodge 1960).

Suburbs

Both the trolley system and the municipal utility system allowed and encouraged early suburban development in the study area neighborhoods, especially during the 1910s. Most of these areas were subdivided between 1905 and 1908, and fully built in by 1920. Bankers Hill was developed earlier because of its location between Old Town and Horton’s Addition. Some areas such as Mission Hills and Burlingame were planned enclaves for the wealthy, while the majority of the study area neighborhoods consisted of a mixture of single-
family homes, garden cottages, and small commercial areas (Covington 1993; Federal Writers’ Project 2013; Macchio 2006; Norris 1983). Suburban development in San Diego followed wider national trends in streetcar neighborhood build-outs, the adoption of mass production techniques by the construction industry, and suburban mail-order and self-built homes (Hayden 2003; Jackson 1985).

**Balboa Park**

Balboa Park’s central location impacted the development of neighborhoods surrounding it, as major park development coincided with the buildup of the neighborhoods to the north and east of the park. The park area itself was excluded from development as a result of earlier protective measures. The trolley connections between these neighborhoods, the downtown business district, and Balboa Park increased their appeal as residential areas.

In 1870 early town planners had reserved 1,440 acres for a public park. Originally named City Park, the expanse of chaparral-filled canyons and bare mesas remained mostly undeveloped for the next two decades (Engstrand 1980). In 1892 horticulturalist Kate Sessions began a large-scale planting campaign, focusing primarily on the west side of the park near already-developed Bankers Hill. In 1902 the Chamber of Commerce formed the Park Improvement Committee, which developed a master plan for the park. The plan directed landscape improvements, irrigation systems, and road-building through the rest of the decade (Balboa Park Online Collaborative 2014).

Planning for a World’s Fair, the 1915-1916 California-Pacific Exhibition, began in 1909 and included renaming the park to Balboa Park and implementing electric trolley connections to downtown and the developing neighborhoods surrounding the park. Unlike other World’s Fairs (Chicago 1893, San Francisco 1915), many of the structures built for the exposition were not torn down at the fair’s close but were retained as permanent cultural attractions. This included the Spreckels Organ Pavilion, the California Building (later the San Diego Museum/Museum of Man), the Fine Arts Building (now the San Diego Museum of Art), the Japanese Tea Garden, and early stages of the San Diego Zoo (Amero 2013). The cultural attractions that were maintained after the end of the exposition contributed to the continued infilling of these neighborhoods during San Diego’s post-Expo population boom.
CHAPTER 3

THEORETICAL CONTEXT

NEW ARCHAEOLOGY

By the mid-20th century, archaeology had entered a scientific, quantitative phase as a response to the anti-evolutionary and humanistic tradition of the early 20th century and as a result of new radiometric dating techniques (radiocarbon dating). This humanistic phase was itself a response to the “evolutionism and scientific functionalism” of the late 19th century (South 2002:2). An early example of this can be seen in the pipe stem bore measurements of J. C. Harrington (Harrington 1954).

In the 1960s, scientific archaeology developed further. Researchers theorized that information gained at one particular site would lead to the development of general laws, applicable over time and space. Scientific methods could be used to generate cultural models and extrapolate general laws for explaining cultural evolution based on testable hypotheses (South 2002). This processual, or New Archaeology, can be seen in the Kaolin pipe stem work of Lewis Binford, certain gravestone design analyses of James Deetz, and mean ceramic dating of Stanley South (Binford 1962; Deetz and Dethlefsen 1965; South 1971).

SOUTH’S FUNCTIONAL ARTIFACT PROFILES (FAP)

In addition to mean ceramic dating, another substantial contribution that South made to the growing field of historical archaeology in the 1970s was his development of a classification system for historical artifacts based on artifact function that also included material and form. South (2002) sought a method of determining the behavior of those who used the artifacts and argued that the best way to do this was to examine how people used the artifacts: what was the function? To answer this question, he used artifact attributes to define artifact types. Types were then grouped into classes related to processes and based on behavior. Once the artifacts from a site were classified by function they could be compared
to the assemblages from other sites that were classified in the same manner. Patterns in function, and by extension behavior, could then be ascertained. To this end, South developed several pattern recognition models, or profiles, based on sites he and others examined. These profiles included, among others, the Brunswick Pattern of Refuse Disposal, the Carolina Artifact Pattern, and the Frontier Artifact Pattern (South 2002).

Once patterns are recognized, a deeper level of analysis is possible; archaeologists can explore why the patterns exist, developing hypotheses and building theories. In a 2002 update to his 1977 text, South insisted that “…to discover that pattern exists is simply an early step in the archaeological process. To point out variability and stability, pattern and redundancy, is not to explain why these observations in the static archaeological record exist. Only when we can explain the patterns we see are we going to address the past culture that produced that patterned record” (South 2002:xvi). As Binford commented, South’s work served to “provide a model of how to organize and describe archaeological data so that analysis at increasingly graded geographical or temporal scales could be organized” (South 2002:ix).

**CONSUMERISM STUDIES**

Consumerism studies, research in how consumers behave, experienced a paradigm shift in the 1970s. Earlier models of consumer behavior focused on the rational actor concept from economics: consumers buy goods in a predictable way, based solely on price and utility. Beginning in the late 1970s, new ideas appeared from across the social sciences that challenged this view (Mullins 2011; Schlereth 1982). Chief among these was the concept that goods are not solely utilitarian, but also have meaning (Douglas and Isherwood 1979). Additionally, goods do not simply reflect social differences but are also used to create them (Bourdieu 1984). Finally, global forces affect local consumption patterns (D. Miller 1997). Although the purpose of this project is not to elaborate the many nuances of these bodies of theory, the project is informed by these ideas which set the stage for current studies.

Specific to historical archaeology, studies were applied toward understanding the relationship between historical artifacts (material culture) and socioeconomic status by investigating patterns in consumption. Researchers Suzanne Spencer-Wood, Susan Henry, and Charles LeeDecker focused on the hypothesis that socioeconomic status, which can be

Combined, these new lines of thought pointed out deficiencies in quantitative methods. First, quantitative frameworks assumed that the same goods were equally available to all people. However, social differences and local manifestations of global trade networks affected which goods were available to which people at any given time. Second, quantitative frameworks assumed that everyone related to material possessions in the same way. This ignores, however, the significant role that goods play in identity construction. Additionally, individual usage variation and concepts of real need versus perceived need are also unaddressed by quantitative methods (Majewski and O’Brien 1987).

South argued that artifacts are behavioral by-products and that as such, patterns in artifacts indicate patterns in behavior (Majewski and O’Brien 1987). However, patterns illuminated by quantitative measures may be the result of the classification system chosen, as opposed to patterns in behavior of the group who left the artifacts behind (Majewski and O’Brien 1987). The common critique of quantitative methods is the understanding that consumption is both a social and an economic behavior, and that multiple lines of evidence must be incorporated to overcome the limitations of a single method (Majewski and O’Brien 1987; VanderVeen 2007). Ultimately, quantitative methods must seek quantification of economic behavior and social behavior. In order to address this issue, I have employed Van Wormer’s multiple methods in this study.

**Van Wormer’s System**

South’s system of functional artifact classification followed by functional pattern analysis lends itself to modification and adaptation. South’s contribution is more of a conceptual framework than a rigid system. The patterns upon which he devised the Brunswick, Carolina, and Frontier Patterns were based on the specific sites he investigated. However, the functional artifact classification system may be used to index sites from other eras or in other regions, revealing distinct patterns, as evidenced by archaeologists after South who applied his system elsewhere (Majewski & O’Brien 1987). Stephen Van Wormer
has applied a similar theoretical framework to his research in Southern California, largely in San Diego.

Van Wormer excavated many historical sites in San Diego and Southern California in the 1980s and early 1990s, including the San Diego City Dump (Van Wormer 1991a, 1995), the Theosophical Society Dump (Van Wormer 1991b), the East Mesa Detention Facility (Phillips and Van Wormer 1991), and the El Cajon Hotel (Van Wormer and Manley 1994). He found that the assemblages for these late 19th–century and early 20th–century sites did not fit well into South’s classification system. There were two main reasons for this incompatibility. First, South’s system was developed using mid-Atlantic sites, and different products were available in the West than in the East. Second, South’s system was developed using antebellum sites; massive industrialization and the development of a consumer economy after the Civil War led to a much greater variety of products in late 19th– and early 20th–century sites (Van Wormer 1991a, 1996).

**Modified Classification System**

Van Wormer modified South’s classification system by expanding it from 8 functional categories (kitchen, architecture, furniture, arms, clothing, personal, tobacco pipes, activities) to 20 categories (consumer items, kitchen, household items, garment items, personal items, furniture parts, hardware, tools, livery items, munitions items, coins, building materials, machinery items, forge materials, agricultural implements, other occupations, unique items, unidentified metal, unidentified items, and intrusive items) (Table 1). These activity groups more closely matched the assemblages from the Southern California sites that Van Wormer investigated: urban, small town, and rural; residential, commercial, and farming (Van Wormer 1996).
Table 1. Activity Groups Used in Van Wormer's Classification System (Van Wormer 1996)

<table>
<thead>
<tr>
<th>Activity Group</th>
<th>Components</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Items</td>
<td>Products purchased and consumed on a regular basis</td>
<td>Bottles, jars, tin cans, bottle caps, can lids</td>
</tr>
<tr>
<td>Kitchen</td>
<td>Food preparation and serving</td>
<td>Stove parts, flatware, canning jars, canning jar lids, jelly tumblers,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>glass tableware, ceramic kitchen and tableware, cooking items, butchere</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d bone, shellfish, seeds</td>
</tr>
<tr>
<td>Household Items</td>
<td>Daily household maintenance</td>
<td>Household ceramics and glassware, lamp parts, light bulbs, medical items,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>batteries</td>
</tr>
<tr>
<td>Garment Items</td>
<td>All clothing items</td>
<td>Shoe parts, cufflinks, collar stays, hat and scarf pins, strap slides,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>buttons, garter and suspender clasps, hook and eyes, straight pins,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>snaps, buckles, clothing rivets</td>
</tr>
<tr>
<td>Personal Items</td>
<td>Belonging to a single individual</td>
<td>Watches, jewelry, toys, gaming items, musical instruments, eye glasses,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>toiletry items (toothbrush, razor, comb, hairbrush, etc.), smoking pipes</td>
</tr>
<tr>
<td>Furniture Parts</td>
<td>All furniture parts</td>
<td>Upholstery tacks, springs, cabinet hinges, drawer pulls, scroll trim,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>trunk parts, bed and other furniture frames and springs</td>
</tr>
<tr>
<td>Hardware</td>
<td>Miscellaneous hardware not included in a specific group</td>
<td>Bolts and nuts, screws, washers, chain links, metal bands and strapping,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cotter pins, rivets, baling wire, wire fencing</td>
</tr>
<tr>
<td>Tools</td>
<td>All hand tools</td>
<td>Gardener's, carpenter's, mason's, mechanic's, jeweler's, and artist's</td>
</tr>
<tr>
<td></td>
<td></td>
<td>tools; other miscellaneous hand tools</td>
</tr>
<tr>
<td>Livery Items</td>
<td>Horse and horse-drawn vehicle items</td>
<td>Bridle, saddle, harness, wagon, and buggy parts; horse shoes and nails</td>
</tr>
<tr>
<td>Munitions Items</td>
<td>All firearms and related items</td>
<td>Bullets, cartridges, musket balls, shotgun parts</td>
</tr>
<tr>
<td>Coins</td>
<td>All coinage and tokens</td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
<table>
<thead>
<tr>
<th>Activity Group</th>
<th>Components</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Materials and Architecture</td>
<td>Construction materials</td>
<td>Nails and spikes, window glass, construction hardware, door locks and parts, electrical hardware, counter glass, asphalt, plaster, concrete, ceramic drain pipe, ceramic flue lining</td>
</tr>
<tr>
<td>Machinery Items</td>
<td>All machine parts except agricultural implements</td>
<td></td>
</tr>
<tr>
<td>Forge Materials</td>
<td>All forge, furnace, and stove wastes</td>
<td>Coal, clinkers, slag</td>
</tr>
<tr>
<td>Agricultural Implements</td>
<td>All farm machinery</td>
<td>Plow, harrow, cultivator, mower, hay rake, threshing machine, manure spreader, and tractor parts; chain belting</td>
</tr>
<tr>
<td>Other Occupations</td>
<td>Specialized occupation items</td>
<td>Farmstead, mining, and factory items</td>
</tr>
<tr>
<td>Unique Items</td>
<td>Items not included in other groups</td>
<td></td>
</tr>
<tr>
<td>Unidentified Metal</td>
<td>Unidentified metal fragments</td>
<td></td>
</tr>
<tr>
<td>Unidentified Items</td>
<td>Items that cannot be identified</td>
<td></td>
</tr>
<tr>
<td>Intrusive Items</td>
<td>Items intrusive to a discrete dated deposit</td>
<td></td>
</tr>
</tbody>
</table>

**Glass and Ceramic Analyses**

Van Wormer (1991a) also introduced two new methods for the analysis of glass bottles. Based on his study of the San Diego City Dump and the Pio Pico Adobe in Whittier (Van Wormer 1983b), as well as John Blanford’s Riverside Chinatown investigation (Blanford 1987), the first of Van Wormer’s new methods analyzed relative frequencies of beverage, culinary, medical, household, and toiletry bottles. There were distinct differences in the bottle types of rural settings versus those in urban or small town areas.

The second of Van Wormer’s new analytical methods, based on an examination of the culinary bottle subset, revealed ethnic dietary preferences. A wide variety of culinary
bottle types, dominated by ketchup, mustard, club sauce (Worcestershire sauce), and packer lip bottles, indicated an Anglo-American diet. In contrast, a limited variety of culinary bottles, dominated by pepper sauce, spice, and olive oil, pointed to Hispanic or Southern European dietary preferences (Van Wormer 1983a).

**Ceramic Economic Scaling (CES)**

In 1980, George Miller (1980) introduced a system for analyzing ceramics at early American sites. First, he presented a new classification system, based on decoration style and color instead of vessel type. Using historical documents, he then calculated the value of each ceramic piece and combined values to arrive at a ceramic value index for each assemblage. Collections were then compared for relative value and patterns could be observed. These patterns speak to the socioeconomic stratification. Miller’s research indexed ceramics from the 1790s to the 1860s. In the late 1980s, Susan Henry (1987) extended this research to include ceramics from the late 19th and early 20th centuries.

Van Wormer incorporated ceramic economic scaling into his suite of analytical tools, using Henry’s 1987 extension of Miller’s 1980 work. He applied this method to several San Diego sites including Woods Valley Ranch (Van Wormer 1990), the San Diego City Dump (Van Wormer 1991a), the Robert Israel Adobe (Van Wormer and Schaeffer 1991), the East Mesa Detention Facility (Phillips and Van Wormer 1991), and the El Cajon Hotel (Van Wormer and Manley 1994).

**Functional Artifact Profiles**

While patterns within each of these types of analyses could be meaningful, Van Wormer noted that the patterns among them reinforced each other. Unlike South’s functional artifact profiles, which were based solely on an analysis of relative percentages within activity groups, Van Wormer’s profiles combine aspects from activity groups, bottled product analysis, culinary bottle analysis, and ceramic economic scaling. This combined analysis more effectively addresses socioeconomic status than a single analytical method does.

The individual components of Van Wormer’s suite of analytical tools were delineated in a variety of site reports through the early 1990s (Gross et al. 1991; Phillips and Van
Wormer 1991; Van Wormer 1991a, 1991b; Van Wormer and Cheever 1995, Van Wormer and Manley 1994, Van Wormer and Schaefer 1991). In 1996, he presented the consolidated system in the Society for California Archaeology annual conference *Proceedings* journal. At the time of publication, the system included new functional activity groups (20 activity groups to South’s 8), new functional artifact patterns (*middle to upper-middle class urban*, *small town working class*, and *rural farmstead*, each with a particular relative mix of artifacts), bottled product consumption patterns (bottle types and culinary bottle types), and ceramic economic scaling indexes for the referenced sites (Van Wormer 1996).

**RECENT LOCAL USES**

**Van Wormer**

The consolidated system of analytical tools has been applied to many sites by Van Wormer and other archaeologists since its 1996 enumeration. Van Wormer and colleagues applied it to newly excavated sites including St. Anthony’s Indian School in Old Town (Van Wormer et al. 2005) and Warner’s Ranch near Warner Springs (Van Wormer and Walter 2011). He also used the suite of analytical tools to revisit previously excavated sites in order to perform more in-depth analysis. These sites include the Carrizo Creek Station (Van Wormer et al. 2012) and the Theosophical Society Dump (Van Wormer and Gross 2006).

**Others**

Other archaeologists working in San Diego have applied Van Wormer’s system to their own research. Recent examples include the Heerandner Residence-Eureka Hotel-Ocean House Hotel (Allen et al. 2005), the El Paso Saloon and Lodgings (Ní Ghabhláin et al. 2007), the Major Levi Chase mansion (Schaefer 2009), and the Florence Hotel (Ní Ghabhláin et al. 2012). Others have used Van Wormer’s classification system without the analytical tools (Case and Serr 2005a, 2005b, 2006, 2008a, 2008b, 2011a, 2011b, 2012; Case, Serr, et al. 2012; Case, Yerka, et al. 2012). Through the application of Van Wormer’s system, at least two new functional artifact profiles have been identified. These are the Indian School profile (Van Wormer et al. 2005) and the Luxury Hotel profile (Ní Ghabhláin et al. 2012).
THEMATIC CONCERNS

Reference Unit

The standard reference unit in historical archaeology and cultural resource management is the household, with groups of households making up larger reference units based on social class or ethnic group (Henry 1987). Households operate as a microcosm of the culture in which they are embedded. Within the household, family members learn cultural rules, and these rules are expressed physically and materially. Archaeologically, households are universal, readily available, and easily accessible (Deetz 1982).

Site boundaries are arbitrary, however, and often are not based on the household unit. Boundary delineation is determined by the archaeologist who records the resource, and many factors influence this decision, not least of which is the scope of the project. For sewer projects especially, because of the linear nature of sewers, site composition has been extremely varied. Some archaeologists have recorded individual subsurface refuse lenses as individual sites (Case and Serr 2011b, 2012; Case, Serr, et al. 2012; Case, Yerka, et al. 2012; Zepeda-Herman and Price 2013), whereas other archaeologists have recorded them as loci within larger sites that may encompass several blocks (Case and Serr 2008a; Rosenberg and Smith 2005).

Since site boundaries are arbitrary and do not match households, it is difficult to make meaningful cross-site comparisons. Establishing a common denominator enables cross-site comparison by overcoming inconsistency in site recording. Toward this aim, I have introduced the neighborhood as a reference unit. Neighborhood scale resolves the problem of arbitrary site boundaries by combining all sites in a geographic area, regardless of how they were recorded.

Precedents exist for the use of different scales other than the household. Many residential situations are not based on the one-family-one-house model. In her study of Chinese immigrant housing in the Bay Area, Barbara Voss (2008:37) found that “rather than being a fundamental and universal aspect of social life, households are historically specific and produced through structured relations of power that include race, ethnicity, gender, and class.” Voss studied communal transient living spaces of marginalized workers; even so, her examination of housing via the reference unit of the group has application here in trolley
neighborhoods. Residents of trolley neighborhoods, especially the portions built out in a short amount of time from 1906 to 1920, were likely to reside in houses of a similar cost to their neighbors, requiring similarly paying jobs in the same part of the city (downtown) to which they commuted (by trolley). They were in culturally homogenous groups based on these economics. Their similar dietary preferences underscore this point.

Sherman Heights is an especially effective example of the application of the neighborhood as a reference scale. Approximately one-third of the resources in this study ($n = 38$), accounting for over 15 percent of the artifacts examined, were small domestic trash deposits in Sherman Heights. Alone, none of these resources would be eligible for inclusion on the National Register of Historic Places, the California Register of Historic Resources, or the San Diego County Local Register of Historical Resources (Case and Serr 2011b; Case, Serr, et al. 2012; Case, Yerka, et al. 2012). When combined, however, these sites provide important insights into early urban life in Sherman Heights. The only other historical archaeological site in Sherman Heights was that of a well-known upper class family, for which there is already extensive historical documentation (Roth 1991). Archaeological evidence can illuminate the daily lives and culture of the remainder of the residents of this neighborhood, especially when combined and examined from the neighborhood scale.

**Quantification**

**Artifact Quantities**

Artifact quantities are another concern that are well-served by the use of neighborhood as a reference unit. Profiles developed by South (2002) and Van Wormer (1996) were created using sites with large numbers of artifacts, most in the thousands or tens of thousands. Quantitative methods benefit from larger samples: the larger the sample, the more reliable the observed patterns (VanPool and Leonard 2011). Consolidation of standard reference units into neighborhood units addresses the limitation of artifact quantities. In this way, sites that would normally contain too few artifacts are able to contribute.

Researchers conducting studies using a smaller subset of artifacts may encounter difficulties detecting patterns. Research would benefit from the determination of a standard quantity of artifacts or fragments required for a particular analytical method to produce reliable results. None of the methods so far discussed addressed this concern, and some
methods, ceramic economic scaling in particular, have relied on relatively small numbers of artifacts to identify patterning. Neither Van Wormer (1996) nor Henry (1987) address minimum numbers of artifacts necessary for useful pattern detection, nor do they discuss the impact of using sites with small numbers of relevant artifacts. In fact, Henry’s models were developed using a small number of artifacts (Henry 1987).

Although the value of the data is not dependent on the significance process of CRM regulations, it is still affected by CRM practices, such as inconsistency in data recording among CRM firms. This variability in recording led to complications when I employed quantitative tools in cross-site comparison during this study.

**FRAGMENTARY ARTIFACTS**

Fragmentary artifacts introduce limitations to particular types of quantitative analyses, especially those related to activity groups and bottled products. Frequently, it is not possible to ascertain whether a curved piece of glass belongs within the Consumer category (for example, an expendable soda bottle), or within the Kitchen category (for example, a non-expendable canning jar). At times, it is challenging to determine whether a flat piece of glass is from a window or from a paneled bottle. Improvements in glass analysis methods may be warranted. Misclassifications are likely, and a large percentage of what exists in the archaeological record is unidentifiable between category types. If the quantity of unattributable artifacts from a certain site reaches a certain threshold (larger than the rest of the consumer or kitchen categories, for instance), then it is impossible to derive useful conclusions from the overall data. Even if, for example, we know that a particular glass shard belongs to a consumer bottle or a certain ceramic sherd is from a plate and not a saucer, we still have the problem of Minimum Number of Items (MNI). Because MNI is required in activity group analysis and ceramic economic scaling, without MNI some useful analyses cannot be performed.

**Cultural Resource Management**

In the years since the development of Van Wormer’s Southern California profiles, a number of new sites have been recorded that contribute to his model. When many of the neighborhoods in the study area were being developed, municipal water and sewer systems
were established (City of San Diego, Public Utilities Department 2015; Hennessey 1978; Jamieson 2002; Sholders 2002). The iron pipes installed at the time are now over 100 years old in most areas and are beginning to fail. San Diego’s city government has funded projects for the rehabilitation and replacement of these pipes over the past decade (Case and Serr 2005a, 2005b, 2006, 2011a; Stropes and Smith 2012a, 2012b). San Diego Gas & Electric has carried out many recent utility undergrounding projects in these neighborhoods (Case and Serr 2008a, 2011b, 2012; Case, Yerka, et al. 2012; Pigniolo 2011; Zepeda-Herman and Price 2013). Also, several residential and commercial development projects have been built in the area, and archaeological monitoring during these undertakings has revealed new historical archaeological sites. (Case and Serr 2008b; Kraft and Smith 2012; Ni Ghabhláin et al. 2012; Pierson 2010; Rosenberg and Smith 2005).

These recent trolley suburb projects are cultural resource management (CRM) projects. CRM consists of private, for-profit archaeology related to development. Unlike academic archaeology, which prioritizes research, CRM projects are driven by compliance with federal and state cultural resource laws. The regulatory perspective of CRM shapes practices for recording, collection, analysis, and reporting, which in turn affects the resulting data.

The data that results from CRM and subsequently used by archaeological researchers is affected by the process of determination of significance. In this use, significance (called importance by some government agencies) refers to the significance of the resource in question, not to be confused with significant impacts, which refers to the degree of effect of a development project. The City of San Diego is the managing agency on all archaeological projects in the study area, and oversees the application and review of pertinent regulations, including those related to determining significance.

During CRM projects, resources are determined either significant or not significant. Significance assessment takes place in the field upon discovery of a new resource (in CRM known as an unexpected discovery). In short, assessment is based on whether a resource can contribute information of historical importance, depending on specific resource characteristics, or project-level research questions. For urban historical resources, this is based primarily on whether the site can be associated with a specific historically-documented household. Significant resources are defined as those that are either included on, or eligible
for, inclusion on the National Register of Historic Places, the California Register of Historical Resources, or the San Diego County Local Register of Historical Resources. Significance is determined by criteria put forth by each of these historic preservation agencies, documented in the National Environmental Protection Act, the California Environmental Quality Act, and the San Diego County Administrative Code.

While most archaeological resources contribute information in varying degrees, the level of information they are able to provide has bearing on significance assessment and varies from resource to resource. The level is, in part, based on a resource’s integrity, defined as “the authenticity of a resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (County of San Diego, Land Use and Environment Group 2007:17). It is the job of the archaeologist in the field (the archaeological monitor) to collect data with which project directors and city historic resources personnel can make assessments on integrity and significance.

At times, significance determinations may be more dependent on project goals than on individual resource characteristics. When goals are the determinant, significance is “based on the potential for the resource to address important research questions as documented in a site specific technical report prepared as part of the environmental review process” (City of San Diego 2001:13). In such cases, research questions are based on themes. Themes related to urban environments include subsistence patterns, ethnic group identity and assimilation, economic adaptations, and the “definition of a common culture for working, middle and upper-middle class urban residents” (City of San Diego 2001:A38).

Unless integrity is compromised, most archaeological resources are considered significant by default. Some of the resource types that are automatically considered not significant include isolates (less than three associated artifacts in a 50 square meter area) and resources that are less than 45 years old, or that consist of only a surface component (City of San Diego 2001). An exception applies to pipeline projects within the City of San Diego. On these projects, resources that are limited in size, unassociated with other resources, and contain no unique features or artifacts are considered small historic deposits and are automatically considered not significant (Case, Serr et al. 2012).

According to the City of San Diego Land Development Code, “Resources found to be non-significant as a result of the survey and assessment, will require no further work beyond
documentation of the resource and inclusion in the survey and assessment report” (City of San Diego 2001:14). The treatment for resources that are considered significant is covered by the San Diego County Resource Protection Ordinance (RPO) (Ordinance 9842, County Administrative Code §86.601-86.608), which states that “if any resources are determined significant under RPO, they must be preserved. RPO prohibits development, trenching, grading, clearing, and grubbing, or any other activity or use that may result in damage to significant prehistoric or historic site lands” (County of San Diego, Land Use and Environment Group 2007:9).

Cultural resource regulations do not demand that the significance of every found resource be determined. If undetermined, significance is assumed: “If it is agreed to forego significance testing on cultural sites, the sites will be treated as significant resources and must be preserved through project design” (County of San Diego, Land Use and Environment Group 2007:19). While avoidance and project redesign are common in more rural areas, it is usually not practical in urban projects. One exception in the study area is the Florence Hotel Tree in Bankers Hill, which is protected by redesign of the Sharp Rees-Steely medical center on the Florence Hotel property. The tree had already been listed on the San Diego County Local Register of Historical Resources (HRB #53).

The regulatory framework regarding the determination of the significance of a resource affects how that site is treated, mitigated, or protected depending on the recommendation provided by the archaeological monitoring. Because researchers rely on data made available from CRM projects, these projects affect the extent to which we can learn about the wider San Diego area through cross-site comparison. This study is informed by my own experience in CRM which includes my involvement in CRM projects in the study area (CA-SDI-14,797 and CA-SDI-20,672), both before and during the writing of this thesis.

Artifact significance relates to this study in several ways. Most projects in the study are covered under pipeline project guidelines for small historic deposits. This includes 21 water, sewer, and utility projects comprising 80 resources with over 70 percent of the artifacts in the current study. Additionally, at least nine of these resources were identified as secondary deposits of artifact-bearing fill (see Appendix B: Master Site Table). Thus, the majority of resources considered for this study had been determined not significant upon discovery, and as such were required to be only minimally recorded.
Most of these sites were treated thoroughly, however, and recorded in detail. A status of “not significant” does not necessarily result in poor data collection or insufficient site analysis. For instance, all 16 of the artifact-bearing resources from the Sherman Heights Undergrounding 8G Job 1 Project were deemed small historic deposits, yet they substantially contributed to the understanding of Sherman Heights in this study. Even the sites that I could not convert to Van Wormer’s classification system provided extensive historical analysis; they were simply incompatible with the quantitative measures used in this study.

**Urban Development: Municipal Utilities**

Urban development plays a role in how archaeological data became available in the study area. While it is important today for its impact on the discovery of the archaeological record, urban development was important in the past for its impact on the creation of that record. Municipal utilities including sewer service, water service, and refuse collection were established in most parts of the study area in the early 20th century.

Prior to the establishment of municipal water service, residents used cisterns to store potable water. Once a residence was connected to municipal water service, the cistern often was abandoned and used for trash discard instead of water storage. Municipal water service was available city-wide by 1913 (Hennessy 1978; Sholders 2002). Similarly, connection to municipal sewer service, which was prevalent in the study area by the 1920s, allowed residential privies to be used for trash disposal (City of San Diego, Public Utilities Department 2015; Jamieson 2002). Additionally, by 1919 municipal refuse collection was available for removal of most other domestic waste (City of San Diego, Environmental Services Department 2013). Prior to 1919, many residents dumped refuse into canyon heads or vacant lots. Access to these municipal utilities such as trash and water services varied by location, and individual use of the services certainly did as well.

Urban development has resulted in the bulk of archaeological resources in the study area. For instance, sites CA-SDI-17,204 (Sewer Group 744), CA-SDI-17,309 (Sewer Group 744), and CA-SDI-20,303 (Sherman Heights Undergrounding 8F Job 2) were all deposits that were likely discarded into open trenches during early utility placement. Additionally, at least 14 resources were trash deposits capped and sealed by early road or home construction.
Several of the condominium projects uncovered deposits sealed by earlier urban development projects. All of these resources were either created or preserved by early urban development.

This early urban development provides an opportunity to study the archaeology of the city itself on a macro scale, but comes with its own set of challenges related to urban archaeology. Early urban development can shed light on the process of commodification of land and on the changing role of municipal government in citizens’ lives. Historical documentation may show when certain neighborhoods were connected to city services such as water and sewer, but urban archaeology has the ability to uncover how this actually played out from one residence to the next.
CHAPTER 4
SITE SELECTION

Site selection for this research was a multi-step process. First, I established parameters for what type of sites would be included. Next, I acquired a complete list of sites for consideration based on a record search at the South Coastal Information Center (SCIC). Then I performed a series of reduction passes to arrive at a final list of sites for inclusion in the study.

PARAMETERS

This investigation focused on American-period historical resources. I eliminated prehistoric sites as well as those historical sites with only a Spanish-era or Mexican-era component. The American period in San Diego began with the conclusion of the Mexican-American War and the admission of California into the United States (1848 to 1850). I also excluded resources that consisted of only modern-era artifacts.

I took into consideration the date range of sites from the main source articles. Van Wormer’s key comparison site, the San Diego City Dump, dates from 1908 to 1913 (Van Wormer 1991a). The comparison sites to which he refers in his 1996 article date within either 1890 to 1920, or 1900 to 1920, depending on the grouping (Van Wormer 1996). Henry’s ceramic economic scaling spans from 1895 to 1927 (Henry 1987). I considered all sites with an artifact component within these ranges, though certain analytical tools were only applicable for sites within a more limited date range. When necessary, I used a more limited artifact scope for the comparison of assemblages within a common date range, as Van Wormer’s research did.

Presence of artifacts was necessary because I intended to use quantitative tools. However, I found that I was able to include sites with small artifact counts after they were
combined into larger neighborhood groups. I eliminated any sites that consisted of only historical structures and any sites that had only features with no artifacts.

**RECORD SEARCH**

The record search defined by the project area boundary was filed with the South Coastal Information Center (SCIC) in October 2014. Record search results included site records, archaeological reports, National Register information, and geographic data for all cultural resources in the study area. A total of 185 resources were identified in the study area (including the Balboa Park area).

**REDUCTION PASSES: DEFINING THE STUDY SITES**

Early in the study, I subjected the sites provided by the SCIC to *reduction passes*, which served to identify which sites were suitable for use in the study based on whether they were appropriate for the application of the analytical tools I planned to use. I defined exclusion categories in order to eliminate those sites that were not appropriate. Some resources were comprised of multiple components; I retained some of these sites and excluded others. To perform the reduction passes, I utilized Geographic Information Systems (GIS) software to process geographic data supplied by the SCIC. Examples of my exclusion categories are the following: prehistoric sites, modern sites, and sites that have no artifact component.

Site definitions here follow those used in cultural resource management (CRM) as established by the California State Office of Historic Preservation: “The term ‘historic’ applies to all historical resources associated with non-indigenous peoples, as well as those used by Native Americans after direct contact with non-indigenous peoples. The term ‘prehistoric’ applies to all historical resources used by Native Americans prior to direct contact with non-indigenous peoples” (California Office of Historic Preservation 1995). In San Diego, direct contact is usually taken to be 1769, the first permanent settlement of Europeans in the region. Modern resources are defined by the Office of Historic Preservation as those less than 45 years old.

I also performed additional reduction passes based on criteria developed during the research phase. This included an assessment of whether sites could be converted for use with
Van Wormer’s classification system, exclusion of sites with poor excavation controls, and evaluation of whether to include sites consisting only of spoils-pile collection and not excavation. The final result was a subset of the record search results consisting of sites suitable for detailed analysis.

**Sites Removed from Consideration**

**Balboa Park**

Resources located in Balboa Park were from consideration during my reduction passes. Balboa Park (originally called City Park) was set aside as an undeveloped open space area in 1870 (Engstrand 1980). As such, no residences were ever built within the park. A few domestic trash scatters have been recorded within the bounds of the park, but there is no way to definitively link the resources with a particular neighborhood. This included the following five sites: CA-SDI-9,716, CA-SDI-11,721, CA-SDI-15,826, CA-SDI-15,827, and P-37-19074.

**Prehistoric**

Any sites that consisted of only prehistoric resources were excluded. No sites in the study area had both a prehistoric and historical component. Prehistoric resources that I removed from consideration are the following six sites: CA-SDI-1,300, CA-SDI-11,054, CA-SDI-11,055, CA-SDI-12,091, P-37-014904, and CA-SDI-18,471.

**No Artifacts**


The following 42 excluded resources consisted only of sidewalk stamps and had no artifactual component: P-37-018393, P-37-018394, P-37-018395, P-37-018396, P-37-
Seven resources consisted entirely of subsurface archaeological features with no artifactual component. This included: P-37-016659, P-37-018425, P-37-025743, P-37-026470, P-37-032010, P-37-032920, and P-37-033596. Additionally, portions of the following sites were excluded for the same reason: CA-SDI-12,253 (Haines Privy and Depression), CA-SDI-15,379 (Features 1, 4, and 5), CA-SDI-19,958 (Cistern 1), and CA-SDI-20,672 (Cistern 1).

**Modern Only**

The following four resources consisted of modern material only, so I did not consider them for the study: CA-SDI-17,202, CA-SDI-32,408, CA-SDI-20,557, and CA-SDI-21,283. Additionally, I excluded portions of the following sites for the same reason: CA-SDI-12,253 (Cistern and Feature 2), CA-SDI-15,144 (Central, Central East, and Central South), CA-SDI-15,738 (Locus B), and CA-SDI-16,952 (Feature 4).

**Other**

I excluded other sites for reasons that did not fit into the above exclusion categories. The reasons for eliminating these sites are here addressed on a site-by-site basis.

**CA-SDI-14,787 (SEWER GROUP 608)**

Recorded in 1998 by Brian F. Smith and Associates as part of the Sewer and Water Main Replacement Group 608 Project, this resource was a deposit of industrial material from initial road grading in the area (Pierson 1998). The deposit was incorporated into material used to fill a canyon in the 1920s and was excluded from this study because it contained no domestic artifacts.
CA-SDI-15,647 (SEWER GROUP 636)

Recorded by Brian F. Smith and Associates in 2000 as part of the Sewer & Water Group 636 project, this resource was the exposure of a domestic refuse deposit under an alley (Krosch 1999). Dated to the late 1890s to early 1900s, no project report was available for this site from the SCIC. Only a Mitigated Negative Declaration with no artifact details was available. Based on the site record, the resource was not recorded using Van Wormer’s classification system nor one commonly used by Brian F. Smith and Associates (2000a).

Only rough artifact details were given on the site record table, and no Minimum Number of Items (MNI) were indicated. Undifferentiated ceramic, metal, and glass fragments accounted for over 80 percent of the 273 artifacts. The site record indicated that artifacts were collected but did not state curation location, and the San Diego Archaeological Center (SDAC) had no record of the assemblage. Since MNI could not be determined, this resource was excluded from the artifact group and ceramic economic scaling analyses. Since no consumer bottle details were given, I was unable to conduct bottled product and culinary bottle analyses.

CA-SDI-17,203 (SEWER GROUP 744)

Originally recorded as a prehistoric shell midden in 2005 by Tierra Environmental as part of the Sewer Group Job 744 project, this site record was updated in 2014 by AECOM as part of a gas line relocation project and was linked to nearby prehistoric habitation site CA-SDI-12,091 (McGinnis and Baksh 2005). The AECOM update added a historical component to the site that consisted only of architectural material and no domestic artifacts. Therefore, I excluded the site from this study.

CA-SDI-17,283 (RODRIQUEZ SCHOOL)

This site, recorded by Mooney • Jones & Stokes in 2004, was listed as the Rodriguez School Site or Laura Rodriguez School property, and was the location of an ad hoc neighborhood dump from 1920 to 1938 (Case 2004a). The site form indicated that artifacts were collected and that cataloging is in process, but no artifact details were attached, and no report was linked to this site in SCIC records. With no collection details or report available, this site was excluded from the present study.
CA-SDI-18,590 (City Lights Townhomes)

Part of the City Lights Townhomes Project and recorded by Laguna Mountain Environmental in 2007, this site was a disturbed vacant lot with a small domestic deposit mixed in with modern building demolition material and refuse (Pigniolo 2007). Counts of bulk glass and ceramic fragments were estimated in the report and site record. Because of the lack of MNI calculations and artifact details, I excluded this site from the study.

Additional Sites Considered

Several sites were not part of the record search results but came to light through the research process and recommendation from local archaeologists. This group of sites includes the following: CA-SDI-17,309, CA-SDI-16,689, CA-SDI-20,558, and CA-SDI-20,673. Each of these sites met criteria for inclusion in the present study.

Final Site List

The following sites, grouped by neighborhood, were included in this analysis. A brief site description is provided for each resource, along with information on the related CRM project and any relevant recording or collection details. See Appendix A for maps of site locations by neighborhood and Appendix B for the master site table.

Bankers Hill

CA-SDI-16,214 (Laurel Bay Apartments)

Consisting of three features spread over a full-block area, this site was recorded by Brian F. Smith and Associates in 2001 during excavation for the Laurel Bay Apartments project (Smith and Pierson 2002). Feature 1 was a brick-lined cistern in the backyard of a single-family residence. The cistern was filled with the demolition debris of a house that burned on the property sometime between 1912 and 1927. Only a sample of the building material was collected: mortar, plaster, nails, and lath were neither collected, recorded, nor quantified. Only three non-building material artifacts were collected and recorded. Feature 2 was a plaster-lined cistern in the yard of a private residence. The cistern was filled with domestic refuse from the mid to late 1920s and totaled 7,973 artifacts, plus uncounted
additional materials mainly classified as belonging to the building materials group. Feature 3 was a discrete trash pit behind a carriage house on the property of a single-family residence dating to the late 1880s to 1890s, containing 409 artifacts, as well as uncounted building materials and food remains.

The classification system used was not based on Van Wormer’s system, but one used frequently by Brian F. Smith and Associates that employs different functional artifact categories. This classification system did not permit conversion to Van Wormer’s system for Features 2 and 3 (see Activity Group Analysis in Chapter 6: Results), so I excluded this resource from activity group analysis. However, I was able to convert Feature 1. Enough detail was available in the artifact catalog for bottled product analysis, culinary bottle analysis, and ceramic economic scaling for all features of the site.

CA-SDI-16,689 (SEWER GROUP 680)

This resource was a multi-episode domestic trash scatter originally deposited in a canyon head, recorded by Mooney • Jones & Stokes in 2003 as part of the Sewer Group 680 Project (Case and Serr 2005b). Earlier artifacts, deposited between 1887 and 1907, were overlain with trolley tracks. After track abandonment, a second layer of domestic trash was later capped by fill dating between 1916 and 1918. Only temporally diagnostic artifacts were collected, along with a representative sample of non-diagnostic artifact types. Artifacts were recorded using Van Wormer’s classification system.

CA-SDI-16,926 (SEWER GROUP 680)

Also recorded by Mooney • Jones & Stokes in 2003 as part of the Sewer Group 680 Project, this resource was a multi-episode deposit at what was once a canyon head (Case and Serr 2005b). An exposed low-density domestic trash scatter was intruded on by a discrete secondary deposit of domestic refuse that was likely obtained locally and used as levelling fill in the late 1920s to early 1930s. Artifacts were collected from the discrete feature as well as the scatter, and were recorded using Van Wormer’s classification system.

CA-SDI-16,927 (SEWER GROUP 680)

This resource was an ad hoc neighborhood dumpsite at what was once a canyon head, containing domestic, commercial, and construction materials (Case and Serr 2005b). The
record was created by Mooney • Jones & Stokes in 2004 as part of the Sewer Group 680 Project. Artifacts dated from the first quarter of the 20th century. The site was likely capped for road construction during the mid- to late 1920s. Van Wormer’s classification system was used to record the artifacts.

CA-SDI-16,952 (PARK LAUREL CONDOMINUMS)

Part of the Park Laurel Condominium Project in 2002 and recorded by Mooney & Associates, this resource consisted of six features (Case 2004b), five of which I analyzed for this thesis. The site also contained a collection of isolated finds scattered across the full square block project area. Historical records indicate that several upper-middle-class and upper-class single-family residences were constructed in the project area during the late 1890s, including various outbuildings such as stables, sheds, and outhouses. The block changed dramatically during the 1910s, likely as a response to the 1915 to 1916 Panama-California Exposition, the main entrance of which was immediately across the street to the east. During this time, a large apartment building was constructed in the project area, at least two larger homes were converted into multi-family residences, and several smaller single-family homes were added to the block. By the 1950s, several stores, offices and restaurants had either been constructed on the block, or converted from previous structures. In the early to mid-1950s, the large home on the southeast corner of the block was replaced with a bank branch. Sometime in the 1960s or 1970s, the remainder of the block was leveled and paved for use as the bank’s parking lot. The bank and parking lot remained until 2004, when they were demolished for the Park Laurel condominium project.

Feature 1 consisted of a cobble retaining wall dating to the late 19th or early 20th century, along with a small collection of artifacts likely used as fill during original construction of the wall. Feature 2 was a small burned trash deposit, originally located in the backyard of a single-family home and likely deposited prior to the 1920s. Feature 3 consisted of the remains of a root cellar underneath the same home. The few domestic artifacts recovered from the cellar indicated that it was likely cleaned out prior to demolition of the structure above. Feature 4 consisted of a brick wall segment related to an apartment building dating to the 1910s, but only modern trash and construction materials were
recovered nearby, so I did not include this resource in the current study. Feature 5 was the remains of a boiler room or furnace room related to the same apartment building. Though most artifacts recovered were construction materials or modern trash, a few historical bottles were found. Feature 6 was the partial remains of a basement, likely dating from the 1920s to 1940s based on the few domestic artifacts recovered. Isolated finds from the project area included several of a domestic nature. Artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-17,552 (SEWER GROUP 681)**

Recorded by Mooney • Jones & Stokes as part of the Sewer Group 681 Project, this resource was an exposed portion of a domestic trash pit (Case and Serr 2006). It was likely deposited by multiple families over multiple instances at a canyon head on undeveloped lots during the 1880s or later. The resource was in primary context and was capped by the 1906 paving of Elm Street. Artifacts were collected from spoils piles and were recorded using Van Wormer’s classification system.

**CA-SDI-17,553 (SEWER GROUP 681)**

Also, part of the Sewer Group 681 Project and recorded by Mooney • Jones & Stokes, this resource was an exposure of four intermittent trash scatters underneath a 475 foot stretch of 6th Avenue (Case and Serr 2006). It consisted of a mixture of domestic and construction debris from the 1880s to 1910s, discarded into canyon heads and capped by the paving of 6th Avenue sometime after 1908. Deposits were in primary contexts and had multiple sources and episodes. Artifacts were collected from spoils piles and combined for the length of the sewer trench. Van Wormer’s classification system was used to record the artifacts.

**CA-SDI-17,554 (SEWER GROUP 681)**

Another component of the Sewer Group 681 Project recorded by Mooney • Jones & Stokes, this resource was an exposure of five intermittent trash scatters underneath a 230 foot stretch of 6th Avenue (Case and Serr 2006). It consisted of a mixture of domestic and construction debris from the 1880s to 1910s, discarded into canyon heads and capped by the paving of 6th Avenue sometime after 1908. Deposits were in primary contexts and had multiple sources and episodes. Like the previous site, artifacts were collected from spoils...
piles and combined for the length of the sewer trench. Van Wormer’s classification system was used in this record as well.

**CA-SDI-19,958 (MERRILL GARDENS)**

The Merrill Gardens project was a half-block condominium development monitored by Brian F. Smith and Associates in 2010 (Pierson 2010). The project covered six lots that contained three single-family houses by 1906, with an additional single-family home and a garage by the end of the 1910s. The site consisted of three features and three isolated artifacts.

Feature 1 was the remnants of a plaster-lined cistern. The cistern contained no artifacts and had been backfilled with sand. Consequently, I did not include it in this thesis. Feature 2 was a plaster-lined cistern in the backyard of a middle-class two-family residence, and included 459 artifacts. Feature 3 was a plaster-lined cistern in the backyard of a single-family upper-class residence and included 1,601 artifacts. Both cisterns were constructed in the 1880s, and abandoned and filled with domestic refuse in the late 1920s. They were both mechanically excavated, and two standard test units also were excavated in Feature 3. In addition, three isolates were collected in the project area.

The classification system used was not based on Van Wormer’s system, but on one used frequently by Brian F. Smith and Associates (the functional artifact categories are not Van Wormer’s). This classification system did not permit conversion to Van Wormer’s system for Features 2 and 3 (see Activity Group Analysis in Chapter 6: Results), so I excluded this resource from activity group analysis. Enough detail was available in the catalog, however, to allow for incorporation of Features 2 and 3 and the isolates in their entireties for bottled product analysis, culinary bottle analysis, and ceramic economic scaling.

**CA-SDI-20,452 (SEWER GROUP 682M)**

Recorded by in 2011 as part of the Sewer Group 682M project, this site was a single-family domestic trash deposit dating from 1880 to the early 1920s (Stropes and Smith 2012a). This area was originally a canyon, and the material was likely imported from the local area around 1920 to fill the canyon prior to the extension of 3rd Avenue. The site was
mechanically excavated and spoils piles were screened. Brian F. Smith and Associates’ monitors recorded artifacts using Van Wormer’s classification system.

**CA-SDI-20,670 (SEWER GROUP 682)**

Recorded by Brian F. Smith and Associates in 2011 as part of the Sewer Group 682 project, this site was an exposure of a multi-family domestic trash deposit dating from 1880 to the early 1920s (Ní Ghabhláin et al. 2012). The material was likely brought in from nearby and used as fill during gas line construction between the 1930s and 1970s. The site was mechanically excavated, spoils piles were screened, and the artifacts were recorded using Van Wormer’s classification system (Stropes and Smith 2012b).

**CA-SDI-20,672 (FLORENCE HOTEL)**

Part of the Sharp Rees-Stealy Medical Center project, this site was recorded by ASM Affiliates in 2011 (Ní Ghabhláin, et al. 2012). The site was a full-block resource consisting of several features and surface isolates. The location was the site of the luxury Florence Hotel from 1884 to 1903. The property was renovated and operated as the Robinson Hotel, a primarily seasonal luxury resort, from 1903 to 1918. It was renovated again in 1918 and operated as the Casa Loma Hotel, providing middle-class residential lodging. By 1930 it had become a long-term residential hotel for elderly women. The hotel was demolished in 1947, and was paved for use as a parking lot for the original Rees-Stealy medical center across the street.

The General Surface Collection feature included artifacts collected from the whole of the project block after asphalt removal. Cistern 1 was a brick-lined cistern constructed in the late 1880s, but was devoid of artifacts and not considered for this thesis. Feature 2 consisted of a concentration of building debris, with no diagnostic artifacts, and was not considered for this thesis. Cistern 2 was a brick-lined cistern. Because of the presence of contaminated soils, the cistern was mechanically excavated and only 10 to 20 percent of artifacts were collected. The cistern was constructed in 1887 and filled with refuse by 1906. Similar to Cistern 2, Cistern 3 was brick-lined, constructed in 1885 or 1886, and filled with refuse by 1906. Soil contamination from the nearby boiler room was identified; therefore, the cistern was mechanically excavated and only a small sample of artifacts was collected. Only a few
artifacts were collected from the Boiler Room feature on account of the severity of soil contamination. Originally the location of a store room, the Boiler Room was constructed by 1906. The Florence Hotel Western Wing feature is comprised of foundation remains and a brick fireplace. Since no diagnostic artifacts were recovered from this feature, it has been excluded from this study. A large discrete Bottle Dump was found under a portion of the foundation in this area, which was buried either before or during the Florence Hotel construction in 1884. The Florence Hotel Eastern Wing feature consisted of brick foundation remains along with a small collection of diagnostic artifacts (Ni Ghabhláin, Castells et al. 2012).

All features were recorded using Van Wormer’s classification system. The report authors conducted activity group analysis, bottled product analyses, and ceramic economic scaling for some individual features and for the site as a whole. The results were compared with other San Diego area residential, commercial, and hotel sites and the report suggested the creation of a *Luxury Hotel* functional artifact profile.

**Golden Hill**

**CA-SDI-14,797 (SEWER GROUP 610)**

This resource consisted of domestic and railroad material used to fill in a canyon to create an alley prior to home construction. Recorded in 1998 by Affinis, the site was part of the Sewer and Water Replacement Group 610 Project (Alter 1998). Deposition date was stated as 1907 to the 1940s, though the source of the artifact-bearing fill was unknown.

The resource was not recorded using Van Wormer’s classification system, but with a system based on a combination of artifact material and function. Because a detailed artifact catalog was not included in the report or on the site record, conversion to Van Wormer’s activity groups was not possible, so I excluded this resource from activity group analysis. Enough detail was included in the report, however, for bottled product analysis, culinary bottle analysis, and ceramic economic scaling. The report indicates that the assemblage was curated at the SDAC, however, the assemblage was not in the SDAC system.
**CA-SDI-20,366 (B & C ST UNDERGROUNDING 25TH-30TH)**

Recorded by Laguna Mountain Environmental as part of the B and C Streets (25th to 30th Streets) Utility Undergrounding Project in 2004, this site was a domestic trash deposit dating to the early 1930s (Pigniolo and Davidson 2011). Located beneath a public alley, only a portion of the deposit was exposed. It was recorded using Van Wormer’s classification system.

**CA-SDI-20,689 (B & C ST UNDERGROUNDING 19TH-24TH)**

Part of the B and C Streets (19th to 24th Streets) Utility Undergrounding Project in 2004 and recorded by Laguna Mountain Environmental, this site was the partial exposure of a domestic trash pit dating between 1900 and 1920. As the project report was unavailable through either the SCIC or the SDAC, artifacts have been converted to Van Wormer’s classification system for this study based on the text description from the site record (May 2004).

**CA-SDI-20,694 (30TH ST UNDERGROUNDING)**

This site was the partial exposure of a domestic trash deposit dating to the 1910s or earlier. It was recorded by Laguna Mountain Environmental as part of the 30th Street Phase II Transmission Route Undergrounding Conversion Project in 2007 (Davidson 2007; Serr 2012). Located beneath the city street, the deposit appeared to have been used as fill during construction of an early water main. This project report was unavailable through the SCIC and the SDAC; I used the text description from the site record as a basis for conversion to Van Wormer’s classification system for this study.

**Grant Hill**

**CA-SDI-16,436 (SEWER GROUP 697)**

Recorded by Mooney & Associates in 2002 as part of the Ortiz Sewer Group 697 Pipeline Project, this resource was a domestic trash scatter dating to the early 20th century (Case and Walker 2003). The material was originally deposited in a canyon head, which was
paved over prior to 1928. A portion of the deposit was moved locally and used as fill during the paving process, but the resource was otherwise undisturbed by any prior utility activity in the exposed area. Two features were recorded, and I included both in this study. The first was a small intact concentration which contained most of the intact artifacts. The second was a larger, more fragmentary concentration. No excavation was conducted, but spoils piles were screened. Only diagnostic artifacts were curated, but a detailed report catalog includes discarded items. Van Wormer’s classification system was used in the project report. Both features were combined in the report for analysis, and I maintained that system for this thesis.

**CA-SDI-18,580 (Grant Hill Substation)**

This site consisted of two resources discovered during grading of the 2-square-block SDG&E Grant Hill Substation Redevelopment Project in 2006 and 2007 (Case and Serr 2008a). Both appeared to be primary deposits resulting from multiple dumping episodes by local residences. The canyon topography of the area was less desirable for building than other parts of the neighborhood and was gradually filled in with residences and commercial buildings from the 1920s to 1940s. Several commercial buildings that were built in the 1940s along the southern edge of the project were demolished at the beginning of the project.

Locus A was a series of intermittent trash scatters on the south face of a mesa finger on the eastern edge of the project area. Mixed in with the historical deposits were several layers or lenses of sterile fill soil and demolition debris. Primarily domestic in nature, a total of 281 artifacts were collected. Manufacture dates range from 1924 to 1964, though the majority were from the 1930s and 1940s. Locus B was a shallow trash deposit in the northeast corner of the project area, consisting of 26 domestic artifacts. Manufacture dates for temporally diagnostic artifacts range from the 1920s to the early 1950s. Both resources were recorded using Van Wormer’s classification system.

**CA-SDI-20,301 (Sherman Heights Block 8F Undergrounding Job 2)**

Recorded as part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2010, this site consisted of a small historical trash deposit associated with a burnt ash layer underneath Island Street (Case and Serr 2012). Primary in context, the eight
domestic artifacts were likely discarded prior to 1915. Van Wormer’s classification system was used in the artifact record.

**CA-SDI-20,302 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Also part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2010, this site consisted of a small historical trash deposit associated with a burnt ash layer underneath an alley behind a large residence built in 1908 (Case and Serr 2012). Primary in context, the 20 domestic and architectural artifacts were believed to have been discarded prior to 1940. Manufacture dates for diagnostic artifacts range from the 1910s to the 1920s. Again, Van Wormer’s classification system was used in recording the artifacts.

**CA-SDI-20,303 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Another site within the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a small historical trash deposit in an alley (Case and Serr 2012). Primary in context, the four domestic artifacts were likely discarded into an open trench during sewer line installation. Manufacture dates indicated that discard was likely prior to 1920. As were the other sites that were part of this utilities undergrounding project, the resource was recorded using Van Wormer’s classification system.

**CA-SDI-20,304 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Continuing with the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a small historical trash deposit in an alley (Case and Serr 2012). Primary in context, the eight domestic artifacts were thought to have been discarded in the early 1930s. This resource also was recorded using Van Wormer’s classification system.

**CA-SDI-20,307 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

As part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a small historical trash deposit under the parkway along K Street
(Case and Serr 2012). Primary in context, the six domestic artifacts were likely discarded prior to 1929. Van Wormer’s classification system was used in the recording of these artifacts as well.

**CA-SDI-20,931 (K STREET UNDERGROUNDING PHASE 2)**

Recorded by RECON Environmental in 2012 as part of the K Street District Phase 2 (20A) Utility Undergrounding Project, this site was a small historical scatter in the yard of a single-family residence (Zepeda-Herman and Price 2013). Comprised of 29 domestic and architectural artifacts, it was likely the result of multiple discard episodes from the residence. It was recorded using Van Wormer’s classification system. The catalog for this site was accidentally excluded from the report and only minimal bottle details were available in the report text or site record. Without this information, I was unable to conduct culinary bottle analysis; however, I was able to conduct activity group and bottled product analyses.

**CA-SDI-20,932 (K STREET UNDERGROUNDING PHASE 2)**

Another component of the K Street District Phase 2 (20A) Utility Undergrounding Project, recorded by RECON Environmental in 2012, this site was a low-density domestic trash scatter adjacent to a single-family residence (Zepeda-Herman and Price 2013). The deposit was likely the result of multiple-episode discard by residents of the front house on the property and then disturbed by construction of the back house in the 1950s. The 26 artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,933 (K STREET UNDERGROUNDING PHASE 2)**

Also part of the K Street District Phase 2 (20A) Utility Undergrounding Project and also recorded by RECON Environmental in 2012, this site was a low-density domestic trash scatter adjacent to a single-family residence (Zepeda-Herman and Price 2013). The deposit was likely the result of multiple-episode discard from the single-family residence next door to the east onto a lot that was vacant until the late 1940s. The 41 artifacts were recorded using Van Wormer’s classification system.
CA-SDI-20,934 (K Street Undergrounding Phase 2)

This site was a low-density domestic trash scatter adjacent to a single-family residence. As were the other resources within the K Street District Phase 2 (20A) Utility Undergrounding Project, the site was recorded by RECON Environmental (Zepeda-Herman and Price 2013). The deposit was believed to be the result of multiple-episode discard from the single-family residence next door to the west, discarded onto a lot that was vacant until sometime prior to the mid-1950s. Bottle maker marks indicated that the deposit was created no earlier than 1940. Van Wormer’s classification system was used to record the 32 artifacts.

CA-SDI-20,935 (K Street Undergrounding Phase 2)

Recorded by RECON Environmental in 2012 as part of the K Street District Phase 2 (20A) Utility Undergrounding Project, this site was a low-density domestic trash scatter on the side of a single-family residence (Zepeda-Herman and Price 2013). It was likely discarded over multiple episodes, but included no temporally diagnostic artifacts. The 93 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,936 (K Street Undergrounding Phase 2)

Also part of the K Street District Phase 2 (20A) Utility Undergrounding Project and recorded by RECON Environmental in 2013, this site was a portion of a low-density domestic and architectural trash scatter behind a single-family residence exposed by utility line trenching (Zepeda-Herman and Price 2013). Likely the result of multiple deposit episodes, the 22 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,937 (K Street Undergrounding Phase 2)

The final site considered within the K Street District Phase 2 (20A) Utility Undergrounding Project, this site was a domestic trash scatter, a portion of which was exposed under a city street (Zepeda-Herman and Price 2013). The 22 artifacts were located in a fill of unknown source that was brought in for road leveling. Though some artifacts dated to the late 19th or early 20th century, deposit date could not have been prior to the late
1950s based on makers marks found on glass bottles. Artifacts were recorded using Van Wormer’s classification system by RECON Environmental in 2012.

**Hillcrest**

**P-37-029476 (PASEO MISSION HILLS)**

Recorded in 2008 by ICF Jones & Stokes as part of the Paseo de Mission Hills Affordable Housing Project, this resource (not issued a trinomial) consisted of two connected brick septic tanks originally serving a single-family residence (Case and Serr 2008b). Artifacts recovered from within and around the tanks were likely deposited in the 1910s and were recorded using Van Wormer’s classification system.

**CA-SDI-15,379 (MARSTON HOUSE)**

This resource consisted of six features in the corner of the Marston House property in Hillcrest in an area used by gardening staff. The site was recorded in 1999 by ASM Affiliates as part of the Northwest Corner of the Marston Estate project (Schaefer and O’Neill 1999). I considered three of the features in this report: Feature 3 was a primary disturbed trash pit from the 1920s, Feature 2 was a partial redeposit of material from Feature 3, and Feature 6 was an adjacent concrete enclosure. Feature 1, 4, and 5 contained no artifacts. Material appeared to have originated from household residents, servants, and gardening activity. Additionally, several unprovenienced artifacts were included since it can be assumed that they came from the three artifact-bearing features.

The resource was recorded using a functional system similar to Van Wormer’s that allowed for easy conversion for this thesis. I combined the three features with the unprovenienced artifacts for purposes of my analysis. According to the site record, the assemblage was curated at the SDAC, though it does not appear in their system.

**CA-SDI-18,108 (ATLAS PROJECT)**

This site was the exposure of a domestic scatter under an alley, recorded by Brian F. Smith and Associates in 2006 as part of the Atlas condominium project (Pierson 2007). It was likely the result of multiple discard episodes from nearby residences in the 1910s and
1920s. Two test units were excavated to determine site extent. A total of 756 artifacts were collected.

The classification system used was not based on Van Wormer’s system, but on the system employed by Brian F. Smith and Associates that applied different functional artifact categories. I excluded this resource from activity group analysis, as the classification system could not be converted to Van Wormer’s system. However, enough detail was available in the catalog to conduct bottled product analysis, culinary bottle analysis, and ceramic economic scaling. Although the site record indicated that the artifact assemblage is curated at the SDAC, it could not be located in the SDAC system.

Logan Heights

CA-SDI-15,144 (Central Area Police Substation)

Recorded in 1999 by Gallegos and Associates as part of the Central Area Police Substation project, this resource, referred to as Concentration, was a privy deposit dating to the 1910s located behind a single-family residence (Harris et al. 1999). It was recorded by Van Wormer using his classification system. In addition, bottled product analysis, culinary bottle analysis, ceramic economic scaling, and other analyses were conducted by Van Wormer, as well as comparison with other sites traditionally referenced by Van Wormer.

CA-SDI-17,204 (Sewer Group 744)

This resource was the exposure of a domestic trash deposit likely discarded into an open trench during early sewer line construction, and was recorded in 2004 by Tierra Environmental Services as part of Sewer Group Job 744 (McGinnis and Baksh 2005). Temporally diagnostic artifacts dated from the 1880s to 1915. Primary in context, the deposit was undisturbed. No artifact details were available in either the site record or the project report, but a detailed catalog was available at the SDAC. I used information from the catalog to classify the 16 site artifacts for this study using Van Wormer’s system.

CA-SDI-17,309 (Sewer Group 744)

Also part of Sewer Group Job 744 and recorded by Tierra Environmental Services, this resource was a domestic trash deposit likely discarded into an open trench during early...
sewer line construction (McGinnis and Baksh 2005). Most of the temporally diagnostic artifacts were manufactured in the 1930s and 1940s. No artifact catalog was available in the report or site record; therefore, I converted the nine artifacts to Van Wormer’s classification system based on report descriptions.

**CA-SDI-20,235 (SEWER GROUP 745)**

This resource was a late 19th– to early 20th–century scatter of domestic and architectural material capped by street paving (Case and Serr 2011a). Primary in context, the resource was likely discarded on a vacant lot over multiple episodes from more than one residence. The 87 artifacts were recorded using Van Wormer’s classification system by Laguna Mountain Environmental in 2010.

**CA-SDI-20,250 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 1)**

Recorded in 2010 by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project, this resource was a domestic trash deposit underneath a driveway in an alley (Case and Serr 2011b). The 37 artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,251 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 1)**

This resource was an exposure of a trash deposit under an alley behind two large single-family residences and was also recorded in 2010 by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project (Case and Serr 2011b). Temporally diagnostic artifacts date to pre-1920. The 173 artifacts were primarily domestic in nature and were also recorded using Van Wormer’s classification system.

**CA-SDI-20,252 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 1)**

Continuing with the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project recorded by Laguna Mountain Environmental in 2010, this resource was an exposure of a trash deposit under the street in front of the same two large, single-family residences.
mentioned in CA-SDI-20,251 (Case and Serr 2011b). Temporally diagnostic artifacts dated to pre-1920. The 81 artifacts were primarily domestic in nature and were recorded using Van Wormer’s classification system.

**CA-SDI-20,305 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Recorded by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a small historical trash deposit associated with a burnt ash layer underneath an alley (Case and Serr 2012). Primary in context, the 37 domestic and architectural artifacts likely were discarded prior to 1930; several were manufactured in the 1910s or earlier. Van Wormer’s classification system was used to record the artifacts.

**CA-SDI-20,306 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Also part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project completed by Laguna Mountain Environmental as in 2011, this site consisted of a small historical trash deposit underneath an alley (Case and Serr 2012). Primary in context, the five domestic artifacts included at least two that were manufactured in the 1940s. This resource was recorded using Van Wormer’s classification system.

**CA-SDI-20,448 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)**

Recorded using Van Wormer’s classification system by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a small historical trash deposit underneath the pavement of a parking area just off of an alley (Case and Serr 2012). Primary in context, the resource included 28 domestic and architectural artifacts. Manufacture dates ranged from the 1910s to the 1940s, indicating discard in the early 1940s.
CA-SDI-20,449 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 2)

Another part of the Sherman Heights Block 8F Job 2 Utilities Undergrounding Project in 2011, this site consisted of a historical trash deposit along an 80-foot section of Commercial Boulevard (Case and Serr 2012). The site was also recorded by Laguna Mountain Environmental using Van Wormer’s system. The three utility trenches were placed across the sidewalk between the street and existing commercial structures. Primary in context, the resource included 34 domestic, architectural, and transportation-related artifacts, as well as extensive unrecorded building rubble. Manufacture dates ranged from 1900 to post-1923, indicating discard prior to 1930.

CA-SDI-20,796 (SEWER GROUP 698)

This resource was the exposure of a domestic trash deposit along an alley, recorded in 2012 by Laguna Mountain Environmental as part of the Sewer Group 698 project (Aguilar 2012). Many of the diagnostic artifacts dated to pre-1920, though several others dated from the 1930s to early 1950s. A total of 170 artifacts were recorded using Van Wormer’s system. The report number was linked to an incorrect report at the SCIC and was therefore unavailable, though the site record did include artifact tables using Van Wormer’s classification system.

Mission Hills

CA-SDI-15,737 (SEWER GROUP 671)

Recorded in 2000 by Brian F. Smith and Associates as part of the Sewer & Water Group 671 Project, this resource was a domestic trash scatter originally deposited in a canyon head that was later paved over, dating from the mid-1910s to the mid-1920s (Pierson 2000). One hundred thirty five artifacts were collected, although only a portion of the resource was exposed during trenching.

The classification system used was not based on Van Wormer’s system, but on the system used often by Brian F. Smith and Associates. I excluded this resource from activity group analysis, as the existing system did not allow for conversion to Van Wormer’s. Enough detail was available in the catalog to conduct bottled product analysis, culinary bottle
analysis, and ceramic economic scaling. Although the site record indicated that the artifact assemblage was curated at the SDAC, the site did not appear in the SDAC system.

**CA-SDI-15,738 (SEWER GROUP 671)**

Also part of the Sewer & Water Group 671 Project, this resource consisted of two domestic deposits (Pierson 2000). Locus A was the exposure of a domestic trash scatter, originally deposited between 1915 and 1925 in a canyon head and later paved over. Locus B was a domestic trash scatter, originally deposited in a canyon head and later paved over, dating from 1943 to 1954. I excluded this locus from my study because the majority of the artifacts were datable to the 1940s and 1950s. The 15 artifacts recovered from Locus A were recorded using a classification system very similar to Van Wormer’s, which allowed for easy conversion for this thesis. The report by Brian F. Smith and Associates in 2000 stated that the assemblage was curated at the SDAC, but the assemblage was not found in the SDAC system.

**North Park**

**CA-SDI-15,646 (SEWER GROUP 636)**

Recorded by Brian F. Smith and Associates in 2000 as part of the Sewer and Water Group 636 project, this resource was the exposure of a domestic refuse deposit under a city street (Krosch 1999). Dated to the 1920s to 1930s, no project report was available for this site from the SCIC. Only a Mitigated Negative Declaration with no artifact details was available.

Based on the site record, the 168 artifacts were not recorded using Van Wormer’s classification system nor the system commonly used by Brian F. Smith and Associates (2000b). The classification system used did not permit conversion to Van Wormer’s system, so I excluded this resource from activity group analysis. Bottled product analysis, culinary bottle analysis, and ceramic economic scaling were possible based on the information available in the catalog. The site record indicated that artifacts were collected but did not state curation location, and the SDAC had no record of the assemblage.
CA-SDI-17,543 (RENAISSANCE NORTH PARK)

Part of the Renaissance at North Park Project, this resource consisted of two trash deposits and a collection of isolates from a two-thirds block project area (Rosenberg and Smith 2005). Deposit A was a domestic scatter at the foot of a subsurface retaining wall. Deposit B was a burned domestic deposit. The isolates were collected from spoils piles throughout the project area. Two excavation units were placed at Deposit A and one unit at Deposit B. The deposits appeared to date from the 1900s to the 1940s. Artifacts collected were approximately 220 from Deposit A, 400 from Deposit B, and 100 isolates. The artifacts were recorded by Brian F. Smith and Associates in 2005.

Brian F. Smith and Associates used their own classification system, which employed different functional artifact categories than Van Wormer’s system. This system did not permit conversion to Van Wormer’s, so I was unable to apply activity group analysis. Using the detailed information available in the catalog, I was able to conduct bottled product analysis, culinary bottle analysis, and ceramic economic scaling.

CA-SDI-20,673 (FLORIDA STREET APARTMENTS)

Recorded in 2012 by Brian F. Smith and Associates as part of the Florida Street Apartments Project, this resource was a domestic trash deposit later disturbed by utility pole replacement (Kraft and Smith 2012). The deposit dated from the 1910s to the 1930s and was located at the edge of an alley that served several homes built in the 1920s. The 151 artifacts were recorded using Van Wormer’s classification system.

Sherman Heights

CA-SDI-12,253 (SHERMAN HEIGHTS COMMUNITY CENTER, FEATURE 1)

This resource, recorded in 1991 by Roth and Associates as part of the Sherman Heights Community Center project, consisted of four features on the property of a single-family residence (Roth 1991). The Haines family, prominent local residents, occupied the home from 1900 to 1940. Feature 1 was a single-episode domestic trash pit deposited between 1908 and 1920, from which 156 artifacts were collected. Feature 2 was a trash pit
containing only modern trash. The privy contained no artifacts, only dirt fill. The cistern contained only modern trash.

This resource was not recorded using Van Wormer’s classification system, but instead with a system combining material and function. Enough detail was included in the artifact catalog that I was able to convert the resource to Van Wormer’s system with ease.

**CA-SDI-20,245 (Sherman Heights Block 8F Undergrounding Job 1)**

Part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project, this resource was a small domestic trash deposit in the backyard of a single-family residence, near an alley (Case and Serr 2011b). It was recorded in 2009 by Laguna Mountain Environmental. The four artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,246 (Sherman Heights Block 8F Undergrounding Job 1)**

Also recorded in 2009 by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project, this resource was an exposure of a domestic trash deposit under an alley (Case and Serr 2011b). The eight artifacts were also recorded using Van Wormer’s classification system.

**CA-SDI-20,247 (Sherman Heights Block 8F Undergrounding Job 1)**

This resource, which was also recorded in 2009 by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project, was an exposure of a domestic trash deposit adjacent to a single-family residence (Case and Serr 2011b). The deposit lay atop an early gas line and appeared to have been excavated and redeposited during installation of the early gas line. These 22 artifacts were recorded using Van Wormer’s classification system as well.

**CA-SDI-20,248 (Sherman Heights Block 8F Undergrounding Job 1)**

An exposure of a domestic trash deposit adjacent to a single-family residence, this resource was also recorded in 2009 by Laguna Mountain Environmental as part of the
Sherman Heights Block 8F Job 1 Utilities Undergrounding Project (Case and Serr 2011b). The resource likely dates from the mid-1930s to the 1940s, and like other sites in this undergrounding project, the 35 artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,249 (SHERMAN HEIGHTS BLOCK 8F UNDERGROUNDING JOB 1)**

This site was also recorded in 2009 by Laguna Mountain Environmental as part of the Sherman Heights Block 8F Job 1 Utilities Undergrounding Project (Case and Serr 2011b). It was an exposure of a domestic trash pit on the edge of an alley behind a single-family residence. The refuse appeared to have been burned before being dumped in a pit and buried. Based on diagnostic artifacts, the discard date was sometime in the mid- to late 1940s. Van Wormer’s classification system was used.

**CA-SDI-20,264 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)**

One of many sites recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was a domestic deposit in the front yard of a single-family residence (Case, Serr et al. 2012). No temporally diagnostic artifacts were recovered, but the artifacts were primary in context and probably discarded in the 1940s or 1950s. Recovered from spoils piles, the sample of eight artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,265 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)**

Also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was a domestic deposit recovered on the south side of a city street between two single-family residences (Case, Serr, et al. 2012). The 11 artifacts were likely discarded onto the vacant lot before the houses were constructed. They were recorded using Van Wormer’s classification system.
CA-SDI-20,266 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site consisted of domestic and architectural material recovered from the parkway and a terrace in front of a multi-family residence (Case, Serr, et al. 2012). Though some artifacts date to the 1920s, the fill used in the terrace area also included modern intrusions. Recovered from spoils piles, the 19 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,267 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Another site recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site consisted of historical domestic material mixed with modern trash (Case, Serr, et al. 2012). Recovered near the street in the front yard of a single-family residence, the 13 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,269 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Also part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project and recorded in 2011, this site consisted of a domestic and architectural deposit with a modern intrusion (Case, Serr, et al. 2012). They were recovered from the spoils pile of a trench in the front yard of a single-family residence. The four artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,270 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Recorded by Laguna Mountain Environmental, also in 2011, as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was a small domestic deposit recovered from trench spoils adjacent to a single-family residence (Case, Serr, et al. 2012). Van Wormer’s classification system was used to record the six artifacts.
CA-SDI-20,271 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Continuing with sites recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was the exposure of a domestic deposit adjacent to the back of a multi-family residence (Case, Serr, et al. 2012). The deposit was likely discarded in the 1940s, with some artifacts manufactured in the 1910s. The 21 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,272 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

This site, also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, was a domestic deposit under a sidewalk planter in front of a single-family residence (Case, Serr, et al. 2012). Dating to pre-1920, the 16 artifacts appeared to be in primary context and were recorded using Van Wormer’s classification system.

CA-SDI-20,273 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

An exposure of a domestic and architectural deposit near the street between two single-family residences, this site was also recorded in 2011 by Laguna Mountain Environmental; however, this site was part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project (Case, Yerka, et al. 2012). Van Wormer’s classification system was used to record the 28 artifacts.

CA-SDI-20,274 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic and architectural deposit (Case, Yerka, et al. 2012). The artifacts were collected from spoils piles near the street in front of a single-family residence. Discard was likely prior to 1945, and the four artifacts were recorded using Van Wormer’s classification system.
CA-SDI-20,275 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic and architectural deposit in the front yard of a single-family residence. Collected from spoils piles, three artifacts appeared to date prior to the 1940s. A modern intrusion was likely the result of 21st century remodeling to the property. The four artifacts were recorded using Van Wormer’s classification system (Case, Yerka, et al. 2012).

CA-SDI-20,540 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

Returning to the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was a domestic deposit under the city street in front of the driveway to a multi-family residence and was recorded in 2011 by Laguna Mountain Environmental (Case, Serr, et al. 2012). At least some of the artifacts dated to the 1930s or later. Recovered from spoils piles, the 16 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,541 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

This site was a small domestic and architectural deposit near the street in front of a single-family residence, and was also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project (Case, Serr, et al. 2012). Although none of the artifacts were temporally diagnostic, the deposit appeared to date to the 1950s or earlier. Found in primary context, the seven artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,542 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)

A large domestic and architectural deposit found adjacent to a subsurface concrete block wall next to a multi-family residence, this site was also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project (Case, Serr, et al. 2012). Most of the temporally diagnostic glass
bottles dated to the 1930s and 1940s, though some were manufactured earlier. Van Wormer’s classification system was used to classify the 286 artifacts.

**CA-SDI-20,543 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)**

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project as well, this site was a domestic deposit adjacent to a single-family residence (Case, Serr, et al. 2012). Temporally diagnostic artifacts dated the deposit to the late 19th or early 20th century. The eight artifacts were recorded using Van Wormer’s classification system.

**CA-SDI-20,544 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)**

Another site that was recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site consisted of two separate domestic and architectural deposits in front of a single-family residence (Case, Serr, et al. 2012). Approximately eight inches beneath the current driveway, another concrete driveway remnant was discovered. Artifacts were recovered from above and below this earlier driveway. The Lower Level appeared to date prior to 1935 and consisted of five artifacts. The Upper Level was comprised of 33 artifacts, including some that dated to the 1950s. Both levels were recorded using Van Wormer’s classification system.

**CA-SDI-20,545 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 1)**

Twenty-one artifacts found at this site, likely discarded prior to 1920 and in primary context, were recorded using Van Wormer’s classification system in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project (Case, Serr, et al. 2012). The site was a small domestic deposit adjacent to a cottage in a garden complex.
CA-SDI-20,546 (Sherman Heights Block 8G Undergrounding Job 1)

Also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 1 Utilities Undergrounding Project, this site was a domestic and architectural deposit along the driveway of a single-family residence (Case, Serr, et al. 2012). The deposit was located in fill associated with an old sewer line and probably was discarded after 1930. Van Wormer’s classification system was used to record the 22 artifacts.

CA-SDI-20,555 (Sherman Heights Block 8G Undergrounding Job 2)

Returning to the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic and architectural deposit in the front yard of a single-family residence (Case, Yerka, et al. 2012). Collected from spoils piles, the artifacts were probably discarded prior to 1940. The five artifacts were recorded using Van Wormer’s classification system by Laguna Mountain Environmental in 2011.

CA-SDI-20,558 (Sherman Heights Block 8G Undergrounding Job 2)

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project as well, this site was a domestic and architectural deposit at the edge of an alley behind a single-family residence (Case, Yerka, et al. 2012). Although no temporally diagnostic artifacts were recovered, the deposit appeared to have been discarded prior to 1940. The 20 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,559 (Sherman Heights Block 8G Undergrounding Job 2)

Also part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic and architectural deposit at the edge of an alley behind several single-family residences (Case, Yerka, et al. 2012). Collected from spoils piles, the artifacts were likely discarded in the 1930s or 1940s and appeared to have been burned after deposition. The 12 artifacts were recorded using Van Wormer’s classification system in 2011 by Laguna Mountain Environmental.
CA-SDI-20,560 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic deposit located along an alley in the backyard of a single-family residence (Case, Yerka, et al. 2012). Probably discarded prior to 1945, the four artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,561 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

This site was a small domestic and architectural deposit in the backyard of a single-family residence (Case, Yerka, et al. 2012). Recovered from spoils piles, the artifacts were likely discarded in the late 1920s. The four artifacts were recorded using Van Wormer’s classification system by Laguna Mountain Environmental in 2011 as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project.

CA-SDI-20,562 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a domestic deposit in the backyard of a single-family residence (Case, Yerka, et al. 2012). Collected from spoils piles, the artifacts were likely discarded onto a vacant lot prior to 1920. The eight artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,563 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

A domestic deposit in the backyard of a single-family residence, this site was part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project (Case, Yerka, et al. 2012). The 19 artifacts were likely discarded in the late 1920s or early 1930s and were recorded using Van Wormer’s classification system by Laguna Mountain Environmental in 2011.
CA-SDI-20,564 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

This site was the remains of a burned domestic trash pit that was also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project (Case, Yerka, et al. 2012). Located near the alley in the backyard of a single-family residence, the artifacts were probably discarded in the 1920s. The 51 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,565 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Another site recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a deposit of horseshoes and domestic material likely discarded in the 1910s (Case, Yerka, et al. 2012). Located in the backyard of a single-family residence, no evidence was found of livery or stables in the area. The 36 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-20,566 (SHERMAN HEIGHTS BLOCK 8G UNDERGROUNDING JOB 2)

Also recorded in 2011 by Laguna Mountain Environmental as part of the Sherman Heights Block 8G Job 2 Utilities Undergrounding Project, this site was a small domestic deposit in the backyard of a large residence (Case, Yerka, et al. 2012). Although multi-family now, the property was likely a single-family residence when constructed. Temporally diagnostic artifacts range from the 1910s to the 1950s. Van Wormer’s classification system was used to record the six artifacts.

South Park

CA-SDI-16,701 (SEWER GROUP 640)

This resource was an exposure of domestic and construction debris in an alley (Case and Serr 2005a). The soil in which the artifacts were located was likely brought in during the 1920s or early 1930s as road-leveling fill of unknown provenance. The 78 artifacts were
recovered from trench spoils and were recorded using Van Wormer’s classification system by Mooney • Jones & Stokes in 2003 as part of the Sewer Group 640 project.

CA-SDI-16,702 (SEWER GROUP 640)

Also recorded in 2003 by Mooney • Jones & Stokes as part of the Sewer Group 640 project, this resource was a shallow domestic trash pit behind residences on the edge of an alley, dating from 1900 to the 1930s (Case and Serr 2005a). Only a portion of the pit was exposed, though it appeared to be a primary deposit slightly disturbed by later utility trenching. The 79 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-16,703 (SEWER GROUP 640)

This resource was an exposure of a discard scatter in the backyard of a private residence (Case and Serr 2005a). The material was likely deposited prior to the 1950s and capped by fill brought in to level the lot for construction of an additional structure. The 103 artifacts were recorded using Van Wormer’s classification system by Mooney • Jones & Stokes in 2003 as part of the Sewer Group 640 project.

CA-SDI-17,127 (SEWER GROUP 640)

Recorded in 2004 by Mooney • Jones & Stokes as part of the Sewer Group 640 project, this resource was an exposure of a domestic trash scatter originally on a vacant lot, capped by construction of a driveway in the late 1930s (Case and Serr 2005a). The 64 artifacts were recorded using Van Wormer’s classification system.

CA-SDI-17,128 (SEWER GROUP 640)

Also part of the Sewer Group 640 project and recorded by Mooney • Jones & Stokes in 2004, this resource was an exposure of a domestic trash scatter at a private residence, capped by construction of a garage on the property in the 1950s or early 1960s (Case and Serr 2005a). During monitoring, the property owner demanded the return of the six collected artifacts and ordered the monitor off of the property before recording could be completed. This incomplete recording was made using Van Wormer’s classification system.
CA-SDI-17,129 (SEWER GROUP 640)

This resource, dating from 1900 to 1940, was an exposure of a trash scatter in the front yard of a private residence (Case and Serr 2005a). Previous utility trenching had compromised the site’s stratigraphic integrity. The deposit was likely discard from workers constructing the earlier utility lines, although it may have represented discard at a canyon head capped by fill or have been comprised of the imported fill. The 17 artifacts were recorded using Van Wormer’s classification system by Mooney • Jones & Stokes in 2004 as part of the Sewer Group 640 project.

University Heights

CA-SDI-20,244 (SEWER GROUP 689)

Originally recorded by Laguna Mountain Environmental in 2010 or 2011 as part of the Sewer and Water Group 689 Project, this resource consisted of four separate domestic deposits combined into one resource (Kraft 2011). The resources likely were the result of discard by multiple nearby residences into canyon heads that were later paved over. Management of the project was taken over by Brian F. Smith and Associates after this site was discovered (Pierson 2011). The resource was recorded using Van Wormer’s classification system, however, only an artifact summary was present in the report and site record. Details were obtained from the catalog provided to the SDAC.
CHAPTER 5

METHODOLOGY

The analytical methods that I employed in this study included several steps. After my final site selection was made, I converted to Van Wormer’s classification system all resources that had been recorded using a different system. I then applied four quantitative analytical methods to sites that had the required components and then compared the results with reference groups. Finally, I used the combined results and compared them with existing functional artifact profiles. Each of these steps is described below.

After reduction passes, the dataset consisted of 109 resources within 91 sites from 33 CRM projects among 10 neighborhoods (see Appendix C: Analyses by Resource Table). These data were derived from project reports, site records, and artifact catalogs.

At this point I conducted activity group analysis on 98 resources (see Appendix D: Activity Group Analysis Table). Resources were comprised of two different types: those that were recorded using Van Wormer’s classification system and those that were not. For those resources that were recorded using Van Wormer’s system, I copied the appropriate data into a table listing the 20 activity groups, correcting some misclassified artifacts at the same time. Resources where Minimum Number of Items (MNI) was not calculated and could not be reconstructed (primarily those from reports that recorded only bulk weight for certain materials) could not be converted. Once tabulated, I calculated relative percentages for each artifact group for each resource, for each neighborhood, and for the trolley suburbs as a whole. Next, I corrected for the variable recording of building materials and faunal remains and compared the results with reference groups used by Van Wormer.

I followed the same procedure for the 102 resources that had a bottled product component and the 64 resources that had a culinary bottle component (see Appendix E: Bottled Product Analysis Table and Appendix F: Culinary Bottle Analysis Table). I tabulated the data and calculated the relative percentage of bottle types for each resource,
each neighborhood, and the trolley suburbs as a whole. Once this was done, I compared the results with reference groups used by Van Wormer. Based on patterns observed in the culinary bottle analysis, I corrected for unidentified bottles and made additional calculations using different parameters, again comparing the results with the reference groups.

Form, decoration, manufacture date, and MNI are required to conduct ceramic economic scaling. Fifteen resources had ceramics that met these criteria (see Appendix G: Ceramic Economic Scaling). After tabulating the data, I calculated the ceramic index for these resources using Susan Henry’s tables for late 19th–century and early 20th–century ceramics (Henry 1987). Once this was complete, I combined the results by neighborhood and for the trolley suburbs as a whole and compared the results with values used by Van Wormer (Van Wormer 1996).

I then combined specific parts of the activity group, bottled product analysis, culinary bottle analysis, and ceramic economic scaling results for each neighborhood and the trolley suburbs as a whole and compared them against functional artifact profiles referenced by Van Wormer and others (Ní Ghabhláín et al. 2012; Van Wormer 1996; Van Wormer and Gross 2006; Van Wormer, Walter, et al. 2005)
CHAPTER 6

RESULTS AND DISCUSSION

ACTIVITY GROUP ANALYSIS

The artifacts that I classified by activity group totaled 4,891. I combined these by neighborhood and also by the trolley suburbs as a whole (Figure 2). Golden Hill, Mission Hills, and University Heights all contributed fewer than 100 artifacts to the analysis, while Bankers Hill accounted for nearly one-third of the combined total. Several outliers were apparent at this stage (for example, high relative amounts of Household Items and Unidentified Metal in Hillcrest, high Unidentified Items in North Park).
Figure 2. Activity groups by neighborhood; raw data.

Van Wormer’s reference groups compared the Consumer, Kitchen, Household, Garment, Personal, and Hardware Activity Groups, combining the rest into an All Other category. I combined the trolley suburb neighborhoods in a similar manner to examine the relative percentages across activity groups (Figure 3).

Figure 3. Activity groups by neighborhood; limited groups.
Issues with Faunal Remains and Building Materials activity groups were apparent. Investigation showed that the source of the high Kitchen percentage for Logan Heights was related to high faunal remain counts at two sites, and Building Materials accounted for most of the inflated All Others total. I corrected for these outliers by removing faunal remains from the two Logan Heights sites and Building Materials from all (Figure 4).

I then added reference groups from Van Wormer 1996 (San Diego City Dump, Phoenix, Santa Ana, Urban reference, small town reference, rural reference, saloon/pharmacy reference, hotel reference), the Florence Hotel, the Theosophical Society Dump, and the Indian School profile (Figure 5).

Figure 4. Activity groups by neighborhood; corrected.

I then added reference groups from Van Wormer 1996 (San Diego City Dump, Phoenix, Santa Ana, Urban reference, small town reference, rural reference, saloon/pharmacy reference, hotel reference), the Florence Hotel, the Theosophical Society Dump, and the Indian School profile (Figure 5).

Figure 5. Activity groups by neighborhood; with reference groups.
Because of the small size of their artifact counts, I have excluded the neighborhoods of Golden Hill, Hillcrest, Mission Hills, North Park, and University Heights from the discussion of activity group patterns below. For each of the remaining neighborhoods, Consumer Items ranged from just below 40 percent to just below 50 percent and were, in most cases, the largest activity group. Although this suggests an urban setting, none of these neighborhoods reached the amount of Consumer artifacts present in the Phoenix and Santa Ana urban collections. This finding was unexpected and its importance is discussed further in Chapter 7: Conclusions. The Kitchen activity group was also extensive in these neighborhoods, ranging from 32 to 44 percent. This most closely aligned with a small town or working class profile.

With Building Materials removed from consideration, the combined trolley suburbs most closely matched the San Diego City Dump (1908-1913), considered an urban site by Van Wormer. The defining characteristic of urban sites is that the Consumer group dominates the collection. This was the case in all but one of the neighborhoods with a substantial number of artifacts. The exception was Grant Hill, but even there the Kitchen group had less than five percent more artifacts than did the Consumer group. The largest percentage of Consumer artifacts was in Bankers Hill, which also had the largest spread between Consumer and Kitchen artifacts. The Small Town Working Class profile is characterized by roughly equal Kitchen and Consumer artifacts. This was the case with Grant Hill, Logan Heights, Sherman Heights, and the combined trolley suburb group, which all had a spread of about five percent or less between these two activity groups.

According to Van Wormer’s profile, characteristic rural sites are dominated by the Kitchen activity group, and they feature less than 20 percent of the artifacts in the Consumer group. All neighborhoods and the combined trolley suburb group were well outside these ranges. None of the neighborhoods or the combined trolley suburbs matched the commercial or other profiles. The pharmacy and saloon profiles all had much higher Consumer totals than any neighborhoods in the study. The only exception to this was the small Mission Hills assemblage, which closely matched the saloon/pharmacy profile. The remaining hotel profiles had much lower Kitchen artifact totals than any of the neighborhoods in the study. Likewise, the educational institutions (Theosophical Society and Indian School) were well out of range in Consumer, Garment, and Personal artifacts.
Several resources in the study area were excluded from activity group analysis because of bulk line-item recording of artifact fragments, which affected the ability to determine artifact group and MNI. For several of these sites, only counts were made, with no attempt at MNI calculations and no sorting beyond color or ware type before discard. This included CA-SDI-16,214 (Laurel Bay Apartments), where over 90 percent of the 8,382 recovered artifacts from two features consisted of fragments; CA-SDI-15,737 (Sewer Group 671), where nearly 60 percent of the artifact total was classified as undifferentiated glass fragments or bottle glass; CA-SDI-15,646 (Sewer Group 636), where glass and tableware fragments accounted for over 75 percent of the artifacts recorded; and CA-SDI-18,108 (Atlas Project), where almost 40 percent of the 756 recovered artifacts were treated this way, in addition to a further unquantified amount of discarded material. Additionally, at CA-SDI-19,958 (Merrill Gardens), no counts were made of non-diagnostic artifacts before discard, only weights, which included 25.35 kilograms of undifferentiated glass fragments and 9.34 kilograms of undifferentiated ceramic fragments. Finally, at CA-SDI-17,543 (Renaissance North Park), only relative percentages of non-diagnostic artifacts were recorded, while neither artifact counts nor weights were taken before discard.

This loss of data is unfortunate, not only because the sites cannot be included in this analysis, but also because the available data limits quantitative methods and other types of analysis. If all the sites in the study area had been recorded using the same standards and methods (in other words, no recording variability from different CRM firms), some of these issues may have been reduced or eliminated.

South originally developed his quantification tools (functional artifact profiles) to predict settlement types when historical information was unavailable. In the case of the trolley suburbs in San Diego, extensive historical documentation is available regarding construction and demographics, and many of the houses, though modified, still stand. Instead of using South’s tools for predictive measures, they can be used, especially when combined with other tools as Van Wormer has done, to investigate socioeconomic differences among and between neighborhoods—aspects that are not as easy to ascertain in the historical documentation, but that are more apparent in the archaeological record.

South investigated patterns across all eight of his artifact groups, while Van Wormer looked at a more focused set of activity groups. For example, Van Wormer looked at
Consumer, Kitchen, Household, Garment, Hardware, Personal, and Other for the San Diego City Dump urban profile; Consumer, Kitchen, Hardware, and Household activity groups for the commercial profile; and Consumer, Kitchen, Hardware, and Munitions for rural sites. The majority of Van Wormer reference group comparisons and pattern development come from the Consumer and Kitchen activity groups. This is important since the majority of conversion problems in classification and quantification (discussed above) occur in these two groups.

**BOTTLED PRODUCT ANALYSIS**

A total of 2,479 consumer bottles were classified by bottle type (beverage, culinary, medicinal, household, toiletry, or unidentified). I combined these by both neighborhood and by the *trolley suburbs* as a whole and calculated relative percentages for each type (Figure 6).

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Total Bottles</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Total Bottles</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-All Combined</td>
<td>2479</td>
<td>733</td>
<td>29.76%</td>
<td>418</td>
<td>17.08%</td>
<td>623</td>
<td>24.19%</td>
<td>177</td>
<td>7.02%</td>
<td>268</td>
<td>10.87%</td>
<td>2479</td>
</tr>
<tr>
<td>1-Bankers Hill</td>
<td>1173</td>
<td>813</td>
<td>32.65%</td>
<td>348</td>
<td>13.04%</td>
<td>459</td>
<td>18.52%</td>
<td>79</td>
<td>3.36%</td>
<td>40</td>
<td>1.62%</td>
<td>1173</td>
</tr>
<tr>
<td>2-Golden Hill</td>
<td>56</td>
<td>27</td>
<td>32.65%</td>
<td>12</td>
<td>100.00%</td>
<td>17</td>
<td>100.00%</td>
<td>4</td>
<td>100.00%</td>
<td>0</td>
<td>0.00%</td>
<td>56</td>
</tr>
<tr>
<td>3-Grant Hill</td>
<td>359</td>
<td>91</td>
<td>25.35%</td>
<td>25</td>
<td>100.00%</td>
<td>74</td>
<td>100.00%</td>
<td>15</td>
<td>100.00%</td>
<td>5</td>
<td>100.00%</td>
<td>359</td>
</tr>
<tr>
<td>4-Hillcrest</td>
<td>93</td>
<td>26</td>
<td>27.96%</td>
<td>8</td>
<td>8.60%</td>
<td>46</td>
<td>49.46%</td>
<td>11</td>
<td>11.83%</td>
<td>2</td>
<td>2.15%</td>
<td>93</td>
</tr>
<tr>
<td>5-Logan Heights</td>
<td>246</td>
<td>63</td>
<td>25.61%</td>
<td>44</td>
<td>17.83%</td>
<td>65</td>
<td>26.42%</td>
<td>19</td>
<td>7.72%</td>
<td>55</td>
<td>22.36%</td>
<td>246</td>
</tr>
<tr>
<td>6-Mission Hills</td>
<td>4</td>
<td>5</td>
<td>12.82%</td>
<td>2</td>
<td>5.33%</td>
<td>7</td>
<td>17.95%</td>
<td>6</td>
<td>15.38%</td>
<td>19</td>
<td>48.72%</td>
<td>46</td>
</tr>
<tr>
<td>7-North Park</td>
<td>109</td>
<td>27</td>
<td>24.77%</td>
<td>14</td>
<td>12.84%</td>
<td>15</td>
<td>13.76%</td>
<td>9</td>
<td>8.26%</td>
<td>44</td>
<td>40.37%</td>
<td>109</td>
</tr>
<tr>
<td>8-Sherman Heights</td>
<td>272</td>
<td>105</td>
<td>38.60%</td>
<td>48</td>
<td>17.65%</td>
<td>46</td>
<td>16.93%</td>
<td>7</td>
<td>2.57%</td>
<td>66</td>
<td>24.26%</td>
<td>272</td>
</tr>
<tr>
<td>9-South Park</td>
<td>109</td>
<td>9</td>
<td>8.26%</td>
<td>12</td>
<td>11.01%</td>
<td>23</td>
<td>21.10%</td>
<td>11</td>
<td>10.09%</td>
<td>54</td>
<td>49.54%</td>
<td>109</td>
</tr>
<tr>
<td>10-University Heights</td>
<td>23</td>
<td>4</td>
<td>17.39%</td>
<td>4</td>
<td>17.39%</td>
<td>4</td>
<td>17.39%</td>
<td>0</td>
<td>0.00%</td>
<td>11</td>
<td>47.83%</td>
<td>23</td>
</tr>
</tbody>
</table>

**Figure 6. Bottled product analysis by neighborhood; raw data.**

Bankers Hill accounted for nearly half of the bottles analyzed, while Golden Hill, Hillcrest, Mission Hills, North Park, South Park, and University Heights each represented less than five percent. Beverage bottles were either the most common or second most common bottle type represented in all of the larger collections and the combined *trolley suburbs*.

Next, I added reference groups from Van Wormer 1996 (San Diego City Dump, Santa Ana, Ventura, Hotel Manager, Small Town Merchant, combined rural sites, urban reference, small town reference, rural reference), and Theosophical Society dump (Figure 7).
None of the individual neighborhoods or the combined *trolley suburbs* matched the Urban profile of 40 to 50 percent beverage bottles. Most fell short of the lower 35 percent threshold for Small Town sites. Sherman Heights very closely matched the San Diego City Dump profile. Bankers Hill and the *trolley suburbs* as a whole were also fairly similar to the City Dump profile, although both neighborhoods had a higher percentage of medicinal and household bottles and a lower percentage of beverage bottles than did the City Dump.

### CULINARY BOTTLE ANALYSIS

I analyzed a total of 419 culinary bottles of 20 different varieties for ethnic dietary preferences (Figure 8). Approximately 27 percent (112 of 412) of the bottles analyzed were classified as Unidentified. Since most of Van Wormer’s reference groups included no Unidentified culinary bottles (Van Wormer 1996, Figure 4), recalculations were made after I removed Unidentified bottles (Figure 9).
Anglo-American dietary preferences were indicated by the presence of ketchup, mustard, packer lip, and Worcestershire sauce (also known as club sauce) bottles, as well as by the presence of a wide variety of bottle types. Hispanic or Southern European dietary preferences were indicated by the presence of pepper sauce, spice, and olive oil bottles and by a more limited variety of bottle types overall (Van Wormer 1983a, 1996). I calculated the relative percentages of Anglo-American and Southern European bottles, and then added reference groups from Van Wormer 1996 (San Diego City Dump, Encino Foundation, Santa Ana, Encino Features 1 and 3, Pio Pico Adobe, and Diaz Adobe) (Figure 10).
Artifact categories with high quantities, especially when compared with Van Wormer’s reference groups, were Milk, Condiment, and Marmalade-Jam-Preserves. Milk bottles had the highest count of any identified culinary bottle in the analysis, accounting for approximately 23 percent of all identified culinary bottles. Milk bottles accounted for only a small percentage of culinary bottles in the reference groups (five to seven percent maximum), and were only found in the urban reference sites. Similarly, preserve bottles accounted for approximately 12 percent of all identified culinary bottles. These bottles also only represented a small fraction of the reference sites (two percent maximum), and again were found only in urban reference sites. Finally, the Condiment category represented approximately 17 percent of all identified culinary bottles. Again, these were only found in urban reference groups, and only in small measures (four to five percent maximum).

Percentages for the *trolley suburb* areas were considerably different than both the Anglo-American and Southern European reference groups. Golden Hill was the only neighborhood that closely matched the Anglo-American reference groups. No neighborhoods closely aligned with the Southern European reference groups. Grant Hill was the only neighborhood with a higher Southern European component than Anglo-American component, but the relative percentages were very small.

Two-thirds of the bottles associated with Southern European dietary preferences were spice bottles, which were widely available in urban markets and advertised to Anglo-American consumers during the study period (Strasser 2004). In Van Wormer’s analysis,
spice bottles were only present in Anglo-American sites, which also showed high numbers of salad dressing and malted milk bottles (Van Wormer 1996, Figure 4). I recalculated the Anglo-American bottle group to include Worcestershire, ketchup, mustard, packer, salad dressing, and malted milk bottles, and the Southern European bottle group to include only pepper sauce and olive oil bottles (Figure 11).

<table>
<thead>
<tr>
<th>Reference</th>
<th>Neighborhood/Study</th>
<th>Variety</th>
<th>Total bottles</th>
<th>Worcestershire</th>
<th>Ketchup</th>
<th>Mustard</th>
<th>Packer</th>
<th>Salad dressing</th>
<th>Malted milk</th>
<th>Olive oil</th>
<th>Spice</th>
<th>Quantity</th>
<th>%</th>
<th>Quantity</th>
<th>%</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolley Suburbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Combined</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bankers Hill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant Hill</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillcrest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logan Heights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission Hills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sherman Heights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Park</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Heights</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anglo-American</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Diego city dump</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encino Foundation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Ana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern European</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encino Features 1 and 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pio Pico Adobe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diaz Adobe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 11. Culinary bottle analysis by neighborhood; revised calculations.**

Out of the neighborhoods, only Grant Hill had a higher percentage of Southern European culinary bottles than Anglo-American. The bottle assemblages in Golden Hill and Hillcrest were in the range of Van Wormer’s urban reference groups. The remainder of the neighborhoods and the combined trolley suburbs, while primarily showing an Anglo-American propensity, did not reach the culinary bottle ranges of the urban reference groups. However, the ratio of Anglo-American to Southern European culinary bottles of Bankers Hill and the combined trolley suburbs fell very close to that of the urban reference groups (Figure 10).

The culinary bottle analysis was not affected by classification and MNI counts, but was likely still affected by variable recordation. This would have been influenced by the experience and ability of the person who performed the glass analysis.

Recording variability and glass analysis experience of the archaeologist may also influence data in the Condiment category. Most categories in the Culinary Bottle Analysis refer to very specific bottle contents (for example, ketchup, salad dressing, or flavoring.
extract). However, Condiment may in some cases be used as a catch-all category when specific condiment type cannot be determined due to either the material present or the knowledge of the glass analyst.

**CERAMIC ECONOMIC SCALING**

My analysis for economic scaling included a total of 401 ceramic tableware artifacts. This resulted in 21 viable samples from 14 resources (for details, see Appendix G: Ceramic Economic Scaling). Because so few artifacts met the criteria for ceramic economic scaling, I combined them into a collective *trolley suburb* group. I assigned a ceramic price index to each artifact based on its form, decoration, and manufacture date using Susan Henry’s revised tables for late 19th– and early 20th– century ceramics (Henry 1987, Figure 1). I summed the index values for the *trolley suburbs* as a whole and then divided this number by the total number of ceramics in the analysis to arrive at a mean economic index (Figure 12).

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Form (Index)</th>
<th>Decoration (Value)</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Cup &amp; Saucer (1895/1897)</td>
<td>Transfer (1.35)</td>
<td>2.70</td>
</tr>
<tr>
<td>5</td>
<td>Cup &amp; Saucer (1895/1897)</td>
<td>Transfer, gilt (1.57)</td>
<td>7.85</td>
</tr>
<tr>
<td>1</td>
<td>Cup &amp; Saucer (1895/1897)</td>
<td>Porcelain (4.12)</td>
<td>4.12</td>
</tr>
<tr>
<td>2</td>
<td>Plate (1895/1897)</td>
<td>Transfer (1.47)</td>
<td>2.94</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1895/1897)</td>
<td>Transfer, gilt (1.94)</td>
<td>1.94</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1895/1897)</td>
<td>Porcelain (3.75)</td>
<td>3.75</td>
</tr>
<tr>
<td>1</td>
<td>Cup &amp; Saucer (1900/1902/1909)</td>
<td>Color, gilt (2.50)</td>
<td>2.50</td>
</tr>
<tr>
<td>2</td>
<td>Cup &amp; Saucer (1900/1902/1909)</td>
<td>Porcelain (4.15)</td>
<td>8.30</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1900/1902/1909)</td>
<td>Color, gilt (2.54)</td>
<td>2.54</td>
</tr>
<tr>
<td>1</td>
<td>Cup &amp; Saucer (1922/1927)</td>
<td>Undecorated (1.00)</td>
<td>1.00</td>
</tr>
<tr>
<td>2</td>
<td>Cup &amp; Saucer (1922/1927)</td>
<td>Porcelain (2.76)</td>
<td>5.52</td>
</tr>
<tr>
<td>2</td>
<td>Plate (1922/1927)</td>
<td>Decal (1.57)</td>
<td>3.14</td>
</tr>
</tbody>
</table>

**Figure 12. Ceramic economic scaling; all neighborhoods.**

The index value for the trolley neighborhoods as a whole was 2.20. The majority of viable ceramic samples originated in the Bankers Hill neighborhood, allowing me to calculate that neighborhood separately (Figure 13). The index value for Bankers Hill was 2.01.
Henry and Mean Ceramic Dating

As mentioned above, ceramic economic scaling requires MNI, form, decoration, and a determination of which index to use (based on date range of purchase or manufacture). Regarding MNI, the same problems that exist in fragmentary artifacts apply to ceramic economic scaling. Determining form is a problem with ceramic fragments, as it may not be possible to tell whether a rim sherd belongs to a cup or a bowl, or whether a flat body sherd belongs to a plate or a saucer. In addition, any of the above may actually be serving ware or household ceramics like bedpans and should be excluded from a tableware analysis entirely. This is important since index values are highly variable by vessel form. Decoration is also a problem with ceramic fragments. An undecorated body sherd may belong to an undecorated (low-index) vessel, or it may be part of a (high-index) gilt and decal-trimmed vessel, the determination of which may not be possible.

Index determination has its own complications. In her 1987 extension of Miller’s indices, Henry used the mean ceramic date (MCD) process developed by Stanley South (1971) to determine the date of the features in her study area. All ceramics in the feature were then assigned a single index (1895/1897, 1900/1902/1909, or 1922/1927) based on this mean date, regardless of the manufacture date of the individual ceramics (Henry 1987).

While this would allow the inclusion of more individual ceramics, MCD is problematic for several reasons according to Majewski and O’Brien (1987). First, it assumes that specific ceramic ware types and decorative techniques are contemporary across all sites where they are found, which discounts for time lag in the spread of techniques or in differential market access. Second, it ignores variable breakage rates and secondary acquisition by trade or gift. Third, it assumes that the midrange manufacture date is equal to

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Form (Index)</th>
<th>Decoration (Value)</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cup &amp; Saucer (1895/1897)</td>
<td>Transfer (1.35)</td>
<td>1.35</td>
</tr>
<tr>
<td>5</td>
<td>Cup &amp; Saucer (1895/1897)</td>
<td>Transfer, gilt (1.57)</td>
<td>7.85</td>
</tr>
<tr>
<td>2</td>
<td>Plate (1895/1897)</td>
<td>Transfer (1.47)</td>
<td>2.94</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1895/1897)</td>
<td>Transfer, gilt (1.94)</td>
<td>1.94</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1895/1897)</td>
<td>Porcelain (3.75)</td>
<td>3.75</td>
</tr>
<tr>
<td>2</td>
<td>Cup &amp; Saucer (1900/1902/1909)</td>
<td>Porcelain (4.15)</td>
<td>8.30</td>
</tr>
<tr>
<td>1</td>
<td>Plate (1900/1902/1909)</td>
<td>Color, gilt (2.54)</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>Sum</td>
<td></td>
<td>26.13</td>
</tr>
</tbody>
</table>

Economic Scale 2.01
the peak popularity date. The combination of these factors has led to uneven results, including many instances where mean ceramic date has not matched documentary evidence. Majewski and O’Brien (1987) suggested that using peak popularity date instead of mean ceramic date gives more reliable results. Ultimately, though, even Henry (1987) admitted that MCD does not work well on late 19th– and 20th–century sites (Majewski and O’Brien 1987).

Mean ceramic date is also affected by assemblage size. In Henry’s study of turn of the 20th–century Phoenix, in which she modified and brought forward Miller’s ceramic economic scaling system, total assemblage sizes were fairly large. Henry (1987) analyzed 12 privy pits and three refuse lenses with total artifact assemblages ranging from 880 to 16,768. Even with large sample sizes, the result was still only a small qualifiable set. By the time ceramic price indexes were calculated for individual pieces, half of her categories were populated by only one or two pieces (Henry 1987, Table 1). Total number of artifacts over 14 categories was only 58.

The mean is more reliable if many artifacts are contributing (Drennan 2010). This project was composed mostly of small sites, with small amounts of ceramics, and only a few sites equaled the scale of the sites that Henry (1987) had available. With small numbers of ceramic sherds, outliers become difficult to notice. Because of small site sizes and in order to minimize the effect of outliers, I chose not to use MCD to determine index. Instead, I included only artifacts where the manufacture date was narrow enough to attribute the artifact to an index on its own. Admittedly, the result was a low number of included pieces, but the benefit was that this method avoided assumptions inherent in studies like Henry’s. Using the narrow manufacture date as a guideline for artifact selection results in higher reliability.

**Previous CES in the Study Area**

Full ceramic economic scaling analyses were conducted on two sites in the study area: CA-SDI-20,672, the Florence Hotel in Bankers Hill, and CA-SDI-15,144, the Central Area Police Substation in Logan Heights. Neither study precisely followed the methods laid out by Henry (1987).
The Central Area Police Substation (CAPS) indexed 11 ceramics, resulting in a 2.52 value index. However, the analysis deviated from Henry’s guidelines (Henry 1987). No tight date ranges were available on any of the 11 ceramics. The report stated that Henry’s 1900 to 1909 table was used to calculate the index, though no discussion was made as to why this particular index was chosen (the date of the deposit was 1910 to 1920). There was no discussion of MCD, and no MCD calculations in the report. Without the tight date range on ceramics, none of these pieces were indexed for the current study.

It is possible that at least some of the CAPS ceramics were manufactured in the 1890s. If the 1895/1897 index is used, the calculated value of the CAPS collection is 2.03. This is not to say that the value should be 2.03; it demonstrates how crucial the scale is. All 11 of the CAPS ceramics could have been manufactured or purchased between 1900 and 1909. However, a variation in index value of 30 plus percent (+1.52 to +1.03) based on the assumption of one data variable may change the results of the analysis to a notable degree.

The report for the Florence Hotel project in Bankers Hill (CA-SDI-20,672) included a full ceramic economic scaling analysis (Ní Ghabhláin et al. 2012). However, the Florence Hotel analysis also varied from the methods used by Henry. Most of the 22 ceramics indexed in the Florence Hotel report do not meet the criteria for inclusion laid out by Henry (Henry 1987). Most dramatically, hotel ware was included, accounting for 13 of the 15 MNI indexed for Cistern 2 (almost 60 percent of the total pieces indexed for the Florence Hotel). Hotel ware was specifically excluded from Henry’s analysis, presumably because the indices were developed based on individual retail purchases and not bulk commercial sales (Henry 1987). Additionally, serving ware accounted for 4 MNI in the Florence Hotel analysis (18 percent of the total), along with vessels whose form was unknown (7 MNI, or 32 percent of total). Only the five cups from the Bottle Dump feature and the matching plate from the General Surface Collection meet the requirements for form, decoration, and date required for CES (Henry 1987; G. L. Miller, 1980) and are included in the ceramic economic scaling analysis for this thesis.

**Critique**

Ceramic economic scaling has been critiqued most extensively by Majewski and O’Brien (1987) and most recently by VanderVeen (2007).
Early ceramic analysis systems were based on ware type. These worked well on 18th–century ceramics but not later ceramics. Miller developed a decoration-based system that was more effective for 19th–century ceramics. His indices covered up to 1870. Henry extended Miller’s decoration-based system with modifications to account for changes in decorative techniques in the early 20th century. However, Majewski and O’Brien insisted that for the system to be used accurately, an extensive knowledge of glaze and paste techniques is needed to differentiate among undecorated whitewares after 1850. They suggested a hybrid system for post-1850 ceramics, based on manufacturing decisions related to vessel decoration. This system differentiates between no decoration, relief decoration, underglaze decoration (transfer print and hand painting), glaze decoration (color), and overglaze decoration (decals, gilding, and hand painting) (Majewski and O’Brien 1987). They also argued that better results have been obtained by looking solely at teaware (cups and saucers), which appear to be better tied to socioeconomic status (Majewski and O’Brien 1987).

VanderVeen (2007) insisted that ceramic economic scaling reveals the socioeconomic status of the ceramic assemblage. The socioeconomic status is then mistakenly applied to the people who owned and used the ceramics, rather than applying the people’s socioeconomic status to the ceramics. Further, ceramic economic scaling ignores issues of consumer choice. It also applies the calculated socioeconomic status to all members of a household, which may or may not be accurate. Gender roles, also ignored by CES, indicate that while socioeconomic status is usually based on the male head of household, ceramic tableware selection and purchase was generally a female duty. Unincorporated in CES are intangibles such as what the ceramics meant to their owners, perceived social class versus assigned social class, and individual agency or motivation in the acquisition of consumer goods (VanderVeen 2007).

**Functional Artifact Profiles**

Next, I combined specific parts of the activity group, bottled product analysis, culinary bottle analysis, and ceramic economic scaling results for each neighborhood and the trolley suburbs as a whole and compared them against functional artifact profiles referenced

South’s functional artifact profiles were based on the relative percentages of artifacts across activity groups. Van Wormer’s functional artifact profiles combined activity group analysis, bottled product analysis, and ceramic economic scaling for the purpose of investigating socioeconomic patterns. Van Wormer’s profiles applied culinary bottle analysis toward the purpose of identifying ethnic differences, and were not included in the formation of his functional artifact patterns.

*Middle to upper middle class urban* sites had the following characteristics (Van Wormer 1996):

- The Consumer activity group accounted for 40 to 60 percent of the total assemblage
- Beverage bottles made up 40 to 50 percent of the bottled consumer products
- Ceramic index was 2.1 or greater

*Small town working class* sites had the following characteristics:

- Artifacts from the Consumer and Kitchen activity groups made up roughly equal amounts of the assemblage, each accounting for 15 to 35 percent of the total
- Beverage bottles made up 35 to 50 percent of the bottled consumer products
- Ceramic index was 1.5

*Rural* sites have the following characteristics:

- Kitchen items accounted for 20 to 50 percent of the artifacts, and were equal to or greater than Consumer Items, which accounted for 20 percent at most of the assemblage
- Beverage bottles made up less than 30 percent of the bottled consumer products
- Ceramic index was about 1.5

These data were taken from the sub-analyses and compared against the above profiles as well as reference sites from Van Wormer 1996 (San Diego City Dump, Phoenix, Santa Ana, Ventura, Hotel Manager, and Merchant) (Figure 14).
The individual neighborhoods and the combined trolley suburb group fell somewhere between the middle to upper middle class urban and the small town working class profiles. The individual neighborhoods and the combined trolley suburb group tended to match the middle to upper middle class urban profile with Consumer Item percentages ranging higher than Kitchen Item percentages, and also because of their high ceramic indices. However, individual neighborhoods and the combined trolley suburb group better matched the small town working class profile because they had a generally high Kitchen Item percentage and because the Kitchen percentage was similar to the Consumer percentage. The trolley neighborhoods, whether looked at individually or combined, had much lower beverage bottle counts than both the small town working class and middle to upper middle class urban profiles, with only Sherman Heights reaching the level of small town working class sites (Figure 15).

Figure 14 also shows that the San Diego City Dump site did not meet the Consumer Item, Kitchen Item, or Bottled Product metrics of the middle to upper middle class urban profile, though it exceeded the urban profile in ceramic index. Also of note is that the combined trolley suburb group and most of the neighborhoods with larger assemblages were as far from the metrics of urban Phoenix and Santa Ana as they were from the rural profile.
When considering the larger neighborhood assemblages, the combined *trolley suburb* group, and the San Diego City Dump, the following characteristics was true of them all:

- Consumer Items made up 40 to 50 percent of activity group totals, with Kitchen slightly less at 30 to 45 percent
- Beverage bottles made up 25 to 40 percent of the bottled consumer products
- Ceramic index was 2.0 or greater

---

**Figure 15. Functional artifact profiles sorted by consumer activity group.**

![Activity Group Highlights](image)

![Additional Analyses](image)
CHAPTER 7

CONCLUSIONS

HYPOTHESES AND RESEARCH QUESTIONS ADDRESSED

Having applied quantitative methods to the trolley suburb data, I revisit the central research questions of the thesis. First, did the trolley suburb profile match the existing middle and upper-middle class urban profile? My research demonstrated that the profile of the trolley suburb sites did not match that of the existing middle and upper-middle class urban profile. The trolley suburb profile fell between the Urban and Small Town reference profiles. This was not surprising, since the trolley suburbs were outside of the urban core, yet they were near and economically connected to the core.

Second, did some individual neighborhood profiles match the existing middle and upper-middle class urban or small town working class profiles? Only the neighborhoods of Golden Hill and North Park matched the existing middle and upper-middle class urban profile, while the Hillcrest neighborhood came closest to the existing small town working class profile. All of the neighborhoods with a substantial artifact assemblage fell in between the middle and upper-middle class urban profile and the small town working class profile. These neighborhoods and the combined trolley suburbs were more similar to the San Diego City Dump (1908-1913) than they were to either the middle and upper-middle class urban profile or the Phoenix or Santa Ana reference groups. This could be expected, since many of the households in these neighborhoods would have contributed to the dump.

Third, did some neighborhoods exhibit a new upper class urban profile? No separate upper class profile was evident, likely because there were very few or no resources recorded within the exclusive areas of Mission Hills or Burlingame, where such a pattern would be expected. No other neighborhood profiles matched the hypothesized characteristics of an upper class urban profile.
A pattern was observed, however, that supports a new suburban San Diego profile. Considering the larger neighborhood assemblages, the combined trolley suburb group, and the San Diego City Dump, a new pattern was apparent with the following metrics: Consumer Items made up 40 to 50 percent of activity group totals, with Kitchen slightly less at 30 to 45 percent; beverage bottles made up 25 to 40 percent of the bottled consumer products; and ceramic index was 2.0 or greater.

My goal of expanding the comparative database of historical archaeological sites in San Diego was accomplished. For the future, this database can be used by researchers and CRM practitioners to test whether any new sites match the neighborhood profile, enabling them to query why sites match or do not match. This process will be easiest if the sites are recorded using Van Wormer’s classification system.

My goal of allowing previously-ignored small isolated refuse deposits to contribute to a greater understanding of the San Diego trolley neighborhoods was accomplished. This is best seen in the neighborhood of Sherman Heights, where very little other archaeological data was available. This demonstrates that small historical deposits should not be overlooked, because they can contribute important data. They should be recorded with the assumption that they have future analytical potential.

My goal of a large-scale cross-site comparison test of Van Wormer’s classification system and suite of analytical tools was accomplished. I applied, with minor modifications, Van Wormer’s classification system and bottled product analysis to a large set of suburban sites, despite issues of recording variability. Although the culinary bottle analysis required refinement, it was also capable of returning useful results when sample size was large enough. Ceramic economic scaling suffered from theoretical and methodological concerns; however, the analysis still returned results when strictly applied.

My goal of analyzing the effects of current cultural resource management practices on larger-scale research was accomplished. This research illuminated problems with variable recording and reliance on significance determination that can be addressed by cultural resource management firms or managing agencies.
LIMITATIONS

The inability to properly classify bulk glass fragments and ceramic sherds resulted in the exclusion of several sites from activity group analysis and bottled product analysis. The lack of MNI counts also prevented activity group analysis and ceramic economic scaling from being conducted on several sites. Additionally, I was unable to obtain some project reports through the South Coastal Information Center. Time constraints, deaccessioned materials, and privately-held collections prevented the reclassification of artifacts.

Further research on sites in the study area may refine or revise my results. This would include the application of mean ceramic date to collections with a ceramic component, the refinement of site or feature dates based on reanalysis of glass and ceramic artifacts, and obtaining access to privately-held artifact assemblages to attempt re-classification. Reanalysis of individual artifacts may provide more comprehensive artifact data than was obtained during field recording. Revision of site dates would allow neighborhood socioeconomic changes to be tracked over time, leading to a more nuanced description of the project area.

RELATION TO CURRENT THEORY

Previous researchers have highlighted deficiencies of quantitative frameworks, especially with regard to identity construction and individual usage variation (Majewski and O’Brien 1987; Mullins 2011). Paul Mullins (2011:2-3) points out in The Archaeology of Consumer Culture that “A challenging archaeological picture of consumption requires us to push beyond the facile archaeological presumption that the past has been peopled by economically rational consumers whose materiality reflects orderly circumscribed identities projected onto symbolically static things. Instead, archaeologists are compelled to wrestle with somewhat messy dimensions of desire, identity fluidity, and symbolic multivalence.” Desire, identity, and symbolism are difficult, if not impossible, to quantify, yet they continue to dominate scholarship as major themes of inquiry.

This body of research is informed by my perspective of human beings and their relationships to things. Material culture studies have shown that people increasingly use the symbolic meanings of material things to construct their identities, whereas in the past, identities tended to be constructed around family, geography, or religion (Mullins 2011).
Identity construction is not solely the domain of academic social sciences. The paradigm shifts in the social science fields mentioned above are not merely important because of academic contributions. These shifts were parts of larger cultural movements, and so are important beyond academia, and are more widely relevant. This continues today. Best-selling author Marie Kondo exemplifies this wider cultural trend. One of the most popular non-fiction bestsellers of the past few years is Kondo’s “The Life-Changing Magic of Tidying Up: The Japanese Art of Decluttering and Organizing.” Kondo does not just advise on how to “tidy up” our space, but advocates an entirely new way of relating to our possessions. She asserts, “It’s important to understand your ownership pattern because it’s an expression of the values that guide your life. The question of what you want to own is actually the question of how you want to live your life” (Kondo 2014:182).

Quantitative paradigms assume that everyone relates to their belongings in the same way. In actuality, our relationships to our possessions is more intimate and individualized than that. On a shelf above my dresser I have two Virgin of Guadeloupe votive candles, and I have a similar etching above my desk. Were these to be excavated by an archaeologist, it might be assumed that I was Mexican and Catholic. I am neither. I appreciate the items as art objects, and that is why I have collected them. Quantitative methods struggle with uncovering this individual usage variation.

Even with the inherent deficiencies of quantification, quantitative methods are still useful in addressing theoretical issues. Quantitative methods are excellent tools for helping to discern patterns, which may then assist us in asking higher order questions concerning identity construction, agency, and individual meaning in the past (South 2002). Ultimately, this can provide a more nuanced description of people’s relationships to their possessions.

An example of the importance of specific data-driven results can be seen in this study. A quantitative framework was instrumental in revealing perhaps the most noteworthy result of this research: that of the regional aspect of functional artifact profiles. A distinct division between San Diego’s urban artifact pattern and those of Santa Ana and Phoenix deserves to be examined further. Is this variation the result of true differences between these urban areas, perhaps related to their historically different connections to transportation networks? Or, is this simply urban variation within an acceptable range?
APPLICABILITY

The insights into quantitative frameworks developed in this project have direct application to real-world archaeology. While archaeological and material culture theory have moved past a quantitative-heavy phase (Mullins 2011), cultural resource management has not. The quantitative perspective drives the CRM archaeologist at the point of contact with the site. Especially when faced with cultures or materials in which they lack expertise, archaeologists default to quantitative recording methods. They count and measure everything, without knowing whether that particular data is useful or appropriate. While this practice is better than nothing, especially if there is a bulldozer on the way, it likely makes future cross-site analysis more difficult.

Additionally, CRM’s focus on site significance evaluation criteria (outlined above) has a considerable impact on the recording quality of sites. A site that clearly falls short of significance requirements is often less rigorously recorded than one that is likely to be recommended as significant. But even when the Office of Historic Preservation significance guidelines indicate that a site is not significant, this does not mean that the site cannot contribute to our understanding of the past. Our ethical obligation as CRM archaeologists is to record non-significant sites with as much rigor and care as those we know to be significant. The Standards of Research Performance of the Register of Professional Archaeologists, under whose aegis most CRM archaeology in California takes place, states that “Insofar as possible, the interests of other researchers should be considered” (Register of Professional Archaeologists n.d.). This applies to areas of the site that may be of lesser interest to the investigator, as well as site components that might not be of interest until much later.

Similarly, the Ethics Principles of the Society for Historical Archaeology state that “Historical archaeologists have a duty to collect data accurately during investigations so that reliable data sets and site documentation are produced, and to see that these materials are appropriately curated for future generations.” (Society for Historical Archaeology 2015). Our default assumption is that our archaeological data may be used by other researchers accessing the reports and field notes long after the site has been destroyed and is no longer available for field analysis. This should result in a recording standard that overrides...
significance determination. An unprotected site should still be able to contribute, perhaps significantly.

**Future Research**

Units of analysis beyond the household should continue to be investigated. Different scales—micro versus macro, household versus neighborhood—may require not just different methods, but different bodies of theory for proper analysis. The study area would benefit from occupational ranking analysis as outlined by Henry (1987). Applied on a neighborhood scale, such analysis may help to explain variances in activity group profiles. Additionally, methods of dealing with fragmented artifacts would benefit from further development. In the same way that managing agencies address small historical deposits or prehistoric lithic workshops, perhaps some of the recording variability highlighted by this study may be alleviated. Finally, further investigation into the difference between San Diego’s urban functional artifact pattern and those of Santa Ana and Phoenix is warranted. Beyond confirming the pattern, other types of analyses should focus on determining the reasons for differences.
REFERENCES

Aguilar, Jose “Pepe”  

Allen, Rebecca, Scott Baxter, Jerry Schaefer, Sinéad Ní Ghabhláin, and Drew Pallette  

Alter, Ruth C.  

Amero, Richard W. with Mike Kelly and Welton Jones  

Bain, David Haward  

Balboa Park Online Collaborative.  

Binford, Lewis  

Blanford, John  

Bokovoy, Matthew  

Bourdieu, Pierre  
California Office of Historic Preservation

Canada, Linda A.

Case, Robert P.
2004a DPR 523A Primary Record for P-37-025990 (CA-SDI-17,283). Primary Record. Sacramento, California: Department of Parks and Recreation, State of California.

Case, Robert P., and Carol J. Serr
2005a Cultural Resources Mitigation Monitoring Report for the Sewer Group 640 Project (LDR No. 41-0338), South Park, City of San Diego, California. Mitigation Monitoring Report. San Diego, California: Mooney, Jones, & Stokes for Ortiz Corporation.


Case, Robert P., Carol J. Serr, and Nathaniel Yerka

Case, Robert P., and Kristen E. Walker

Case, Robert P., Nathaniel Yerka, and Carol J. Serr

City of San Diego

City of San Diego, Environmental Services Department

City of San Diego, Public Utilities Department

Clowery-Moreno, Sara, and Brian F. Smith

County of San Diego, Land Use and Environment Group

Covington, Donald
Davidson, Elizabeth
2007 DPR 523A Primary Record for P-37-032656 (CA-SDI-20,694). Primary Record.
Sacramento, California: Department of Parks and Recreation, State of California.

Davis, Kathleen E., David L. Felton, and Emerson D. Mills
1997 Old Town San Diego State Historic Park Entrance Redevelopment Project; Historic
Archaeological Survey and Historic Architectural Survey. Sacramento, California:
California Department of Parks and Recreation.

Deetz, James J. F.
1982 Households A Structural Key to Archaeological Explanation. The American

Deetz, James, and Edwin Dethlefsen
1965 The Doppler Effect and Archaeology: A Consideration of the Spatial Aspects of

Dodge, Richard V.
1960 Rails of the Silver Gate: The Spreckels San Diego Empire. San Marino, California:
Pacific Railway Journal.

Douglas, Mary, and Baron Isherwood

Drennan, Robert D.
Springer.

Dyke, Bill
1956 Seventy-Five Years of Light. Journal of San Diego History 2(3).

Engstrand, Iris Wilson
1980 San Diego, California’s Cornerstone. American Portrait Series. Tulsa, Oklahoma:
Continental Heritage Press.

Federal Writers’ Project
Berkeley, California: University Of California Press.

Felton, David L.
1995 Reconstruction Archeology at the McCoy House Site, Old Town San Diego SHP: A
Sacramento, California: California Department of Parks and Recreation.

Gross, G. Timothy, Stephen R. Van Wormer, and Mary Robbins-Wade
1991 The Sludge Management Facility, Twelve-Inch Force Main, Accelerated Phase, San
Diego Water Utilities, San Diego, California, Part II: Non-Navy Property, Sunset Cliffs
Shoreline Park to the San Diego River (DEP No. 90-0209). El Cajon, California:
Affinis and RECON for the City of San Diego Clean Water Program.
Harrington, J. C.

Harris, Nina M., Steve Van Wormer, and Dennis R. Gallegos

Hennessey, Gregg R.

Hayden, Dolores

Henry, Susan L.


Jackson, Kenneth T.

Jamieson, Jon R.

Jensen, Joan

Kondo, Marie

Kraft, Jennifer
2011 DPR 523A Primary Record for P-37-031982 (CA-SDI-20,244). Primary Record. Sacramento, California: Department of Parks and Recreation, State of California.

Kraft, Jennifer R., and Brian F. Smith
Krosch, Jeanne
1999 Mitigated Negative Declaration, LDR No. 98-0995 (Sewer Group Job 636). Mitigated Negative Declaration. San Diego, California: Development Services Department, City of San Diego.

LeeDecker, Charles H.

Lowell, Douglas L.

Macchio, Melanie

Majewski, Teresita, and Michael T. O’Brien

Mallios, Seth, Hillary Sweeney, David Caterino, and Jaime Lennox, Destiny Larberg, Scott Mattingly, and David Lewis

Mallios, Seth, Jaime Lennox, Hillary Sweeney, Kimberly Scott, Matthew Maxfeldt, David Caterino, and David Lewis


Mallios, Seth, Hillary Sweeney, Jaime Lennox, Nick Doose, and David Caterino

Martin, John
May, Ronald V.

McClain, Molly

McGinnis, Patrick, and Michael G. Baksh

Miller, Daniel

Miller, George L.

Montes, Gregory E.

Mullins, Paul R.

Ni Ghabhláin, Sinéad, Shelby Castells, and Scott Wolf

Ni Ghabhláin, Sinéad, Jerry Schaefer, and Ken Moslak

Norris, Frank

Phillips, Roxana, and Stephen R. Van Wormer
1991 Results of a Monitoring Program for the East Mesa Detention Facility The Schott Farmstead (SDi-10,668-H), San Diego County, California. ERC Environmental and Energy Services Co. (ERCE), San Diego. Submitted to County of San Diego, Department of Planning and Land Use. Report on file, South Coastal Information Center.

Pierson, Larry


Pigniolo, Andrew R.


Pigniolo, Andrew R., and Elizabeth E. Davidson
Pourade, Richard F.

Register of Professional Archaeologists

Rosenberg, Seth A., and Brian F. Smith

Roth, Linda
1991 Cultural Resources Survey and Historical Archaeological Testing Program, Sherman Heights Community Center, Site SDI-12,253, 2232/2254/2260 Island Avenue, West ½ of Lot #11, Lot #12 and Lot #13, Block #10 of Sherman’s Addition, San Diego, California (Dep No. 89-1205). Data Recovery Report. San Diego, California: Roth and Associates for Rob Wellington Quigley, AIA.

Schaefer, Jerry

Schaefer, Jerry

Schaefer, Jerry, and Sinéad Ní Ghabhláin

Schaefer, Jerry, and Collin O’Neill

Schaefer, Jerry, and Scott Wolf

Schaefer, Jerry, Sinéad Ní Ghabhláin, and Walter Enterprises
2009 Labor and Lifestyles Among San Diego’s Working Class: Historical Archaeology on Block 112 (CA-SDI-19,435). Report prepared for Centre City Development Corporation.
Schaefer, Jerry, Scott Wolf, Stephen Van Wormer, Susan Walter, and Susan Arter

Schlereth, Thomas J., ed.
1982 Material Culture Studies in America: An Anthology. Walnut Creek, California: AltaMira Press.

Serr, Carol

Sholders, Mike

Shragge, Abraham J.

Smith, Brian F.

Smith, Brian F. and Associates

Smith, Brian F., and Larry J. Pierson

Smythe, William E.

Society for Historical Archaeology
South, Stanley
1971 Evolution and Horizon as Revealed in Ceramic Analysis in Historical Archeology. South Carolina Institute of Archaeology and Anthropology, Research Manuscript Series Book 15.


Spencer-Wood, Suzanne M., ed.

Starr, Raymond G.


Strasser, Susan

Stropes, Tracy A., and Brian F. Smith


United States Bureau of the Census

VanderVeen, James M.

Van Wormer, Stephen R.


1991a Even the Kitchen Sink: Archaeological Investigations of SDi-10258: The 1908 to 1913 San Diego City Dump. Report prepared for City of San Diego Development and Environmental Planning Division by RECON, San Diego.


Van Wormer, Stephen R., and Dayle M. Cheever

Van Wormer, Stephen R., and G. Timothy Gross

Van Wormer, Stephen R., and William R. Manley

Van Wormer, Stephen R., and Jerry Schaefer

Van Wormer, Stephen R., Sue Wade, Susan D. Walter, and Susan Arter
2012 An Isolated Frontier Outpost: Historical and Archaeological Investigations of the Carrizo Creek Stage Station. Publications in Cultural Heritage, No. 29. Sacramento, Calif: California Department of Parks and Recreation, Archaeology, History and Museums Division.
Van Wormer, Stephen R., and Susan D. Walter
2011 Two Forks in the Road: Test Excavations of the Ranch House at Warner’s Ranch
(Warner-Carillo Ranch House) and Site of Jonathan T. Warner’s House and Store. Data
District.

2012 A Mexican Californio Kitchen: Archaeological Investigation of Room 105 in the
Casa de Bandini, San Diego, California. Proceedings of the Society for California

Van Wormer, Steve, Susan Walter, and Dennis Gallegos
2005 Monitoring and Data Recovery Program for Casa de Aguirre and St. Anthony’s
Industrial School for Indians (CA-SDI-14527H): 1853-1914, Old Town, San Diego,
California. Monitoring and data recovery, 96-7903. San Diego, CA: Gallegos &
Associates for Historic Tours of America.

VanPool, Todd L., and Robert D. Leonard

Vezina, Meredith R., and Marine Corps Recruit Depot Museum Historical Society
MCRD Museum Historical Society, and Escondido: Heritage Press & Productions,
1997.

Voss, Barbara L.
2008 Between the Household and the World System: Social Collectivity and Community
Agency in Overseas Chinese Archaeology. Historical Archaeology 42(3):37–52.

Zepeda-Herman, Carmen, and Harry Price
2013 Results of the Archaeological Monitoring Program for the K Street District Phase 2
(20A), Project No. 84358, I.O. N/a, San Diego, California. Monitoring Report. San
Diego, California: RECON Environmental, Inc. for City of San Diego.
APPENDIX A

SITE LOCATION MAPS
Appendix A Map 1. Map of Bankers Hill showing sites included in thesis.
Appendix A Map 3. Map of Grant Hill showing sites included in thesis.
Appendix A Map 4. Map of Hillcrest showing sites included in thesis.
Appendix A Map 5. Map of Logan Heights showing sites included in thesis.
Appendix A Map 7. Map of North Park showing sites included in thesis.
Appendix A Map 8. Map of Sherman Heights showing sites included in thesis.
Appendix A Map 10. Map of University Heights showing sites included in thesis.
APPENDIX B

MASTER SITE TABLE
<table>
<thead>
<tr>
<th>Primary</th>
<th>Unknown</th>
<th>Attributes</th>
<th>Other</th>
<th>Neighborhood</th>
<th>Date Range</th>
<th>Manifestation</th>
<th>Report Number</th>
<th>Report Object</th>
<th>Report Author(s)</th>
<th>Report Company</th>
<th>Whole Size</th>
<th>Composition</th>
<th>Initial Size</th>
<th>Size</th>
<th>Source Location</th>
<th>Source Quality</th>
<th>Source Code</th>
<th>Source Type</th>
<th>Source Collection</th>
<th>Geocoded</th>
<th>Geocoded X</th>
<th>Geocoded Y</th>
<th>Collection Code</th>
<th>Collection Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;primary_field1&quot;</td>
<td>&quot;unknown1&quot;</td>
<td>&quot;attribute1&quot;</td>
<td>&quot;other1&quot;</td>
<td>&quot;neighborhood1&quot;</td>
<td>&quot;date_range1&quot;</td>
<td>&quot;manifestation1&quot;</td>
<td>&quot;report_number1&quot;</td>
<td>&quot;report_object1&quot;</td>
<td>&quot;report_author(s)1&quot;</td>
<td>&quot;report_company1&quot;</td>
<td>&quot;whole_size1&quot;</td>
<td>&quot;composition1&quot;</td>
<td>&quot;initial_size1&quot;</td>
<td>&quot;size1&quot;</td>
<td>&quot;source_location1&quot;</td>
<td>&quot;source_quality1&quot;</td>
<td>&quot;source_code1&quot;</td>
<td>&quot;source_type1&quot;</td>
<td>&quot;source_collection1&quot;</td>
<td>&quot;geocoded1&quot;</td>
<td>&quot;geocoded_x1&quot;</td>
<td>&quot;geocoded_y1&quot;</td>
<td>&quot;collection_code1&quot;</td>
<td>&quot;collection_location1&quot;</td>
</tr>
<tr>
<td>&quot;primary_field2&quot;</td>
<td>&quot;unknown2&quot;</td>
<td>&quot;attribute2&quot;</td>
<td>&quot;other2&quot;</td>
<td>&quot;neighborhood2&quot;</td>
<td>&quot;date_range2&quot;</td>
<td>&quot;manifestation2&quot;</td>
<td>&quot;report_number2&quot;</td>
<td>&quot;report_object2&quot;</td>
<td>&quot;report_author(s)2&quot;</td>
<td>&quot;report_company2&quot;</td>
<td>&quot;whole_size2&quot;</td>
<td>&quot;composition2&quot;</td>
<td>&quot;initial_size2&quot;</td>
<td>&quot;size2&quot;</td>
<td>&quot;source_location2&quot;</td>
<td>&quot;source_quality2&quot;</td>
<td>&quot;source_code2&quot;</td>
<td>&quot;source_type2&quot;</td>
<td>&quot;source_collection2&quot;</td>
<td>&quot;geocoded2&quot;</td>
<td>&quot;geocoded_x2&quot;</td>
<td>&quot;geocoded_y2&quot;</td>
<td>&quot;collection_code2&quot;</td>
<td>&quot;collection_location2&quot;</td>
</tr>
<tr>
<td>&quot;primary_field3&quot;</td>
<td>&quot;unknown3&quot;</td>
<td>&quot;attribute3&quot;</td>
<td>&quot;other3&quot;</td>
<td>&quot;neighborhood3&quot;</td>
<td>&quot;date_range3&quot;</td>
<td>&quot;manifestation3&quot;</td>
<td>&quot;report_number3&quot;</td>
<td>&quot;report_object3&quot;</td>
<td>&quot;report_author(s)3&quot;</td>
<td>&quot;report_company3&quot;</td>
<td>&quot;whole_size3&quot;</td>
<td>&quot;composition3&quot;</td>
<td>&quot;initial_size3&quot;</td>
<td>&quot;size3&quot;</td>
<td>&quot;source_location3&quot;</td>
<td>&quot;source_quality3&quot;</td>
<td>&quot;source_code3&quot;</td>
<td>&quot;source_type3&quot;</td>
<td>&quot;source_collection3&quot;</td>
<td>&quot;geocoded3&quot;</td>
<td>&quot;geocoded_x3&quot;</td>
<td>&quot;geocoded_y3&quot;</td>
<td>&quot;collection_code3&quot;</td>
<td>&quot;collection_location3&quot;</td>
</tr>
</tbody>
</table>
APPENDIX C

ANALYSES BY RESOURCE TABLE
<table>
<thead>
<tr>
<th>Site Number</th>
<th>Resource</th>
<th>Neighborhood</th>
<th>Project</th>
<th>AG</th>
<th>BPA</th>
<th>CBA</th>
<th>CES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDI-16224</td>
<td>Cistern 1</td>
<td></td>
<td>Laurel Bay Apartments</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16689</td>
<td>Cistern 2</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16926</td>
<td>Feature 3</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16927</td>
<td>Feature 1</td>
<td></td>
<td>Sewer Group 680</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16952</td>
<td>Feature 2</td>
<td></td>
<td>Park Laurel Condominiums</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16952</td>
<td>Feature 3</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16952</td>
<td>Feature 5</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16952</td>
<td>Feature 6</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16952</td>
<td>Isolates</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-17551</td>
<td>Feature 1</td>
<td>Bankers Hill</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-17553</td>
<td>Feature 2</td>
<td></td>
<td>Sewer Group 681</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-17554</td>
<td>Feature 3</td>
<td></td>
<td>Merrill Gardens</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-19398</td>
<td>Feature 5</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20452</td>
<td>Feature 6</td>
<td></td>
<td>Sewer Group 682M</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20470</td>
<td>Isolates</td>
<td></td>
<td>Sewer Group 682</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20672</td>
<td>Locus A</td>
<td></td>
<td>Florence Hotel</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20672</td>
<td>Locus B</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-14797</td>
<td>Locus C</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20366</td>
<td>Locus D</td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20689</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20594</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16436</td>
<td>Combined</td>
<td>Golden Hill</td>
<td>Sewer Group 650</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-18580</td>
<td>Locus A</td>
<td></td>
<td>B &amp; C St Undergrounding 25th-30th</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20302</td>
<td>Locus B</td>
<td></td>
<td>B &amp; C St Undergrounding 19th-24th</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20304</td>
<td></td>
<td></td>
<td>30th St. Transmission Undergrounding</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20307</td>
<td></td>
<td>Combined</td>
<td>Sewer Group 697</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20307</td>
<td></td>
<td>Grant Hill</td>
<td>Grant Hill Substation</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20312</td>
<td></td>
<td>Sherman Heights Block 8F Undergrounding</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDI-20312</td>
<td></td>
<td>Job 2</td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20312</td>
<td></td>
<td>K St. Undergrounding Phase 2A</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDI-20335</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20336</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20337</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-15379</td>
<td></td>
<td>Hilcrest</td>
<td>Marston House Northwest Corner</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-18108</td>
<td></td>
<td></td>
<td>Atlas Project</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16476</td>
<td></td>
<td></td>
<td>Paseo de Mission Hills</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-16444</td>
<td></td>
<td></td>
<td>Central Area Police Substation</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-17204</td>
<td></td>
<td></td>
<td>Sewer Group 744</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-17204</td>
<td></td>
<td></td>
<td>Sewer Group 745</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20335</td>
<td></td>
<td></td>
<td>Sherman Heights Block 8F Undergrounding</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20335</td>
<td></td>
<td></td>
<td>Job 2</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20336</td>
<td></td>
<td></td>
<td>Sherman Heights Block 8F Undergrounding</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20448</td>
<td></td>
<td></td>
<td>Job 2</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20449</td>
<td></td>
<td></td>
<td></td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Site Number</td>
<td>Resource</td>
<td>Neighborhood</td>
<td>Project</td>
<td>AG</td>
<td>BPA</td>
<td>CBA</td>
<td>CES</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>--------------</td>
<td>---------</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>SDI-20796</td>
<td></td>
<td>Logan Heights</td>
<td>Sewer Group 698</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-15737</td>
<td>Locus A</td>
<td>Mission Hills</td>
<td>Sewer Group 671</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-15738</td>
<td></td>
<td>North Park</td>
<td>Sewer &amp; Water Group 636</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-15546</td>
<td>Deposit A</td>
<td>Renaissance North Park</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDI-17543</td>
<td>Deposit B</td>
<td>Florida Street Apartments</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDI-20671</td>
<td>Isolates</td>
<td>Feature C</td>
<td>Sherman Heights Community Center</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-12243</td>
<td></td>
<td>Sherman Heights</td>
<td>Sherman Heights Block 8G Undergrounding Job 1</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20245</td>
<td></td>
<td>Sherman Heights</td>
<td>Sherman Heights Block 8G Undergrounding Job 2</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20246</td>
<td></td>
<td>Above</td>
<td>Sherman Heights Block 8G Undergrounding Job 1</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20247</td>
<td></td>
<td>Below</td>
<td>Sherman Heights Block 8G Undergrounding Job 2</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20248</td>
<td></td>
<td>South Park</td>
<td>Sewer Group 640</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>SDI-20249</td>
<td></td>
<td>University Heights</td>
<td>Sewer Group 68g</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D

ACTIVITY GROUP ANALYSIS TABLE
APPENDIX E

BOTTLED PRODUCT ANALYSIS
<table>
<thead>
<tr>
<th>Sites</th>
<th>Functional</th>
<th>Modeled</th>
<th>Neighborhood</th>
<th>Project</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Quantity</th>
<th>Percent</th>
<th>Total</th>
<th>Percent</th>
<th>Unclassified</th>
<th>Total</th>
<th>Percent</th>
<th>Rows</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>Resources</td>
<td>Neighborhood</td>
<td>Project</td>
<td>Quantity</td>
<td>Percent</td>
<td>Quantity</td>
<td>Percent</td>
<td>Quantity</td>
<td>Percent</td>
<td>Quantity</td>
<td>Percent</td>
<td>Quantity</td>
<td>Percent</td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>---------------</td>
<td>------------------------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>----------</td>
<td>---------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDH-L154</td>
<td>Civilian</td>
<td>Sherman Heights</td>
<td>Black 95 Undergrounding Job 1</td>
<td>1</td>
<td>100.0</td>
<td>1</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>100.0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDH-L155</td>
<td>Civilian</td>
<td>Sherman Heights</td>
<td>Black 95 Undergrounding Job 2</td>
<td>2</td>
<td>100.0</td>
<td>1</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>100.0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDH-L156</td>
<td>Civilian</td>
<td>South Park</td>
<td>Sewer Group 644</td>
<td>4</td>
<td>100.0</td>
<td>1</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
<td>100.0</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDH-L157</td>
<td>Civilian</td>
<td>University Heights</td>
<td>Sewer Group 649</td>
<td>2</td>
<td>100.0</td>
<td>1</td>
<td>100.0</td>
<td>0</td>
<td>0.0</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>100.0</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total: 13

Note: The table represents data related to different terminals, resources, neighborhoods, and projects, with quantities and percentages.
APPENDIX F

CULINARY BOTTLE ANALYSIS
<table>
<thead>
<tr>
<th>Transaction</th>
<th>Resource</th>
<th>Neighborhood</th>
<th>Project (Adverts)</th>
<th>Cumulative Park &amp; Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

- Table containing detailed information about various transactions, resources, and neighborhoods.
- Cumulative analysis for park and other relevant data.
<table>
<thead>
<tr>
<th>Timecode</th>
<th>Resource</th>
<th>Neighborhood</th>
<th>Project (Repairs)</th>
<th>Site</th>
<th>Project</th>
<th>Notes</th>
<th>Affected</th>
<th>Impact</th>
<th>Gfs</th>
<th>Cost</th>
<th>Gfs</th>
<th>Attention</th>
<th>Public</th>
<th>Total</th>
<th>Variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/11/92</td>
<td></td>
<td></td>
<td>Block #1 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/14/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/24/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/25/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/26/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/27/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/28/92</td>
<td></td>
<td></td>
<td>Block #6 Undergrounding Job 1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/29/92</td>
<td></td>
<td>South Park</td>
<td>Second Group Job</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/30/92</td>
<td></td>
<td>South Park</td>
<td>Second Group Job</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>10/31/92</td>
<td></td>
<td>South Park</td>
<td>Second Group Job</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>11/01/92</td>
<td></td>
<td>South Park</td>
<td>Second Group Job</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>11/02/92</td>
<td></td>
<td>University Heights</td>
<td>Second Group Job</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td>1</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX G

CERAMIC ECONOMIC SCALING
<table>
<thead>
<tr>
<th>Site</th>
<th>Neighborhood</th>
<th>Report Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCI-15685</td>
<td>Bankers Hill</td>
<td>Sewer Group 680</td>
<td>3</td>
</tr>
<tr>
<td>SCI-15939</td>
<td>Bankers Hill</td>
<td>Sewer Group 690</td>
<td>3</td>
</tr>
<tr>
<td>SCI-15945</td>
<td>Bankers Hill</td>
<td>Merritt Gardens - Tg</td>
<td>1</td>
</tr>
<tr>
<td>SCI-15950</td>
<td>Bankers Hill</td>
<td>Florence Hotel - GSC</td>
<td>1</td>
</tr>
<tr>
<td>SCI-15955</td>
<td>Grant Hill</td>
<td>Florence Hotel - BD</td>
<td>5</td>
</tr>
<tr>
<td>SCI-16263</td>
<td>Grant Hill</td>
<td>Grant Hill Substation</td>
<td>3</td>
</tr>
<tr>
<td>SCI-16264</td>
<td>Logan Heights</td>
<td>Block BF Undergrounding Job 2</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16265</td>
<td>Logan Heights</td>
<td>Block BF Undergrounding Job 3</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16267</td>
<td>Logan Heights</td>
<td>Block BF Undergrounding Job 4</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16273</td>
<td>Mission Hills</td>
<td>Block BF Undergrounding Job 2</td>
<td>3</td>
</tr>
<tr>
<td>SCI-16277</td>
<td>Mission Hills</td>
<td>Sewer Group 692</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16283</td>
<td>Mission Hills</td>
<td>Block BF Undergrounding Job 3</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16302</td>
<td>Sherman Heights</td>
<td>Block BF Undergrounding Job 3</td>
<td>1</td>
</tr>
<tr>
<td>SCI-16303</td>
<td>Sherman Heights</td>
<td>Block BF Undergrounding Job 4</td>
<td>1</td>
</tr>
</tbody>
</table>

**Totals:**

<table>
<thead>
<tr>
<th></th>
<th>U</th>
<th>M</th>
<th>T</th>
<th>G</th>
<th>P</th>
<th>U</th>
<th>M</th>
<th>T</th>
<th>G</th>
<th>P</th>
<th>U</th>
<th>M</th>
<th>T</th>
<th>G</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The table contains detailed information about resource allocation and usage across different neighborhoods and sites, with specific quantities for each category.