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Grace Lynn Gronniger

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**SETTING THE TABLE IN 19th CENTURY ST. LOUIS: THE UTILITY OF
GLASS TABLEWARE ANALYSIS IN THE ARCHAEOLOGY OF
DOMESTICITY AND CONSUMERISM**

A Masters Thesis

Presented To

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Applied Anthropology

By

Grace Lynn Gronniger

May 2016

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GLASS TABLEWARE ANALYSIS IN THE ARCHAEOLOGY OF
DOMESTICITY AND CONSUMERISM**

Department of Sociology and Anthropology

Missouri State University, May 2016

Master of Science

Grace Lynn Gronniger

ABSTRACT

The historical archaeology of domesticity and consumption relies heavily on the analysis of ceramic tableware artifacts. Few archaeologists have seriously incorporated analyses of glass tableware into this body of research, even though glass tableware was intensively marketed and is a common and durable domestic artifact class. My research addresses this problem through a study of glass tableware from Victorian Age (1830s – 1900s) residential sites in St. Louis, Missouri. This is done, in part, by adapting methods of historic ceramic artifact analysis to the analysis of historic glassware. Applying it in a historical archaeological study of household consumption in relation to domesticity in Victorian age St. Louis assesses the utility of this method. The results indicate that whether it is used independently or in conjunction with ceramic analysis, glass tableware analysis can contribute significantly to the historical archaeology of domesticity and consumption. Archaeologists can do this painlessly by using the method developed and applied in this study, rather than continue to fail to take advantage of the contributions of glass tableware analysis.

KEYWORDS: historical archaeology, 19th century, St. Louis, glass tableware, domesticity, consumerism

This abstract is approved as to form and content

Elizabeth Sobel, PhD
Chairperson, Advisory Committee
Missouri State University

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Submitted to the Graduate College
Of Missouri State University
In Partial Fulfillment of the Requirements
For the Degree of Master of Science, Applied Anthropology

May 2016

Approved:

Elizabeth Sobel, PhD

Scott Worman, PhD

William Meadows, PhD

Julie Masterson, PhD: Dean, Graduate College

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I dedicate this thesis to my grandmother, Portia Brayfield, who instilled in me a love of
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TABLE OF CONTENTS

Introduction.....	1
History and Archaeology of Glass Tableware in the U.S.....	3
Glass Tableware in the U.S.....	4
Glass Tableware in Historical Archaeology	12
History and Archaeology of Domesticity and Consumption in the U.S.....	23
Domesticity and Consumption in 19 th Century U.S.	23
Historical Archaeology of Domesticity and Consumption in 19 th Century U.S.	34
Study Sites	39
Mississippi River Bridges Project.....	39
Mullanphy Park Site	40
Worthy Women’s Site.....	41
McGuire-Newell Site	42
Methods.....	50
Creating a Glass Tableware Analysis System	51
Archaeological Data Collection.....	64
Archival Data Collection	65
Statistical Methods.....	67
Results.....	76
Correlations Among Variables	78
Mullanphy Park Site	86
Worthy Women’s Site.....	93
McGuire-Newell Site	104
Conclusion	110
Discussion and Conclusions	157
Development of a Method to Investigate Glass Tableware Consumption	157
A Case Study from Historic St. Louis	158
Implications Concerning 19 th Century American Domestic Ideologies	164
Conclusions.....	167
Future Studies	169
Contributions of this Study	170
References.....	174
Appendices	193
Appendix A. Vessel Data.....	193

Appendix B. Census Data	235
Appendix C. City Directory Data	277

LIST OF TABLES

Table 1. Important Glass Manufacture Dates in the United States.....	17
Table 2. Nineteenth Century Gender Ideologies.....	38
Table 3. Overview of HISCLASS (Historical Class Scheme) Ranks.....	70
Table 4. Digitized Glass Tableware Catalogs from Corning Museum of Glass.....	71
Table 5. Feature Information	112
Table 6. Associated Address Information.....	113
Table 7. Family Composition Data for Household Associated with Sampled Features	114
Table 8. Additional Family Composition Data.....	115
Table 9. Head Domestic Woman Data for Households Associated with Sampled Features	116
Table 10. HISCLASS Rankings of Residents Associated with Sampled Features	117
Table 11. Glass Vessel Forms of Artifacts from Sampled Features	118
Table 12. Glass Vessel Functions of Artifacts from Sampled Features	119
Table 13. Glass Vessel Pattern Groups and Time Periods of Artifacts from Sampled Features	120
Table 14. Glass Tableware Sets from Sampled Features.....	121
Table 15. Differences Between Features with Respect to Household Composition Variables	122
Table 16. Differences Between Sites with Respect to Household Composition Variables...	123
Table 17. Differences Between Sites with Respect to Household Composition Variables, Residential Features Only	124
Table 18. Differences Between Features with Respect to Vessel Variables	125
Table 19. Differences Between Sites with Respect to Vessel Variables	126

Table 20. Differences Between Sites with Respect to Vessel Variables, Residential Features Only	127
Table 21. Relationships Between Household Composition Variables, by Feature	128
Table 22. Relationships Between Household Composition Variables, by Site	131
Table 23. Relationships Between Vessel Variables, by Feature.....	134
Table 24. Relationships Between Vessel Variables, by Site	136
Table 25. Relationships Between MNV and Household Composition and Vessel Variables, by Feature	139
Table 26. Relationships Between MNV, Household Composition, and Vessel Variables, by Site	140
Table 27. Relationships Between Household Composition and Vessel Variables, by Feature.....	141
Table 28. Relationships Between Household Composition and Vessel Variables, by Site... ..	143

LIST OF FIGURES

Figure 1. Paneled Tumbler.....	18
Figure 2. Lacy Glass	18
Figure 3. Red Stained Stemware.....	19
Figure 4. Colonial Glass	19
Figure 5. Etched Glass	20
Figure 6. N.P.L. (New Pressed Leaf) Glass	20
Figure 7. Optic Mold Tumbler.....	21
Figure 8. Glass Handles	21
Figure 9. Pleat and Panel Compote.....	22
Figure 10. Bird's Eye View of St. Louis	44
Figure 11. Bird's Eye View of Sites	45
Figure 12. Bird's Eye View of Dwellings Associated with Site Features	46
Figure 13. Meyer's Archaeological Map of the Mullanphy Park Site.....	47
Figure 14. Meyer's Archaeological Map of the Worthy Women's Site.....	48
Figure 15. Meyer's Archaeological Map of the McGuire-Newell Site	49
Figure 16. Vessel Forms	72
Figure 17. Vessel Functions.....	73
Figure 18. Pattern Groups	74
Figure 19. Time Periods.....	75
Figure 20. Relationships Between Feature Use Duration in Decades and Feature Use Start Dates	145

Figure 21. Relationships Between Residential Total and Household Composition Variables	146
Figure 22. Relationships Between Household Composition Variables	147
Figure 23. Relationships Between Socioeconomic Status and Household Composition Variables	148
Figure 24. Relationships Between Vessel Function and Vessel Form	149
Figure 25. Relationships Between Vessel Function/Form and Vessel Pattern Type/Time Period	150
Figure 26. Relationships Between MNV, Household Composition, and Vessel Variables	151
Figure 27. Relationships Between Household Composition and Vessel Variables	152
Figure 28. Thumbprint Pattern Glass	153
Figure 29. Honeycomb Pattern Glass	154
Figure 30. Hoffman Probate Record	154
Figure 31. Huber Pattern Glass	154
Figure 32. Pressed Arch Pattern Glass	155
Figure 33. Barley Pattern Glass	155
Figure 34. Pleat and Panel Pattern Glass	156

INTRODUCTION

The interplay between domesticity and consumption is a longstanding research focus in historical archaeology. This scholarship rests heavily on the analysis of ceramic artifacts, and to a lesser extent other archaeological remains such as faunal remains, glass bottles, personal items, and architecture. However, archaeologists have not incorporated analyses of another common domestic artifact class – glass tableware – into this body of research. This omission is problematic, because glass tableware is common at 19th and early 20th century residential features, and historically it was intensively marketed to the domestic consumer. Therefore, both independently and as a complement to ceramic data, glass tableware is ideally suited to the historical archaeology of domesticity and consumerism.

My research addresses this problem through a study of glass tableware from Gilded Age (1870s – 1900s) residential features in St. Louis, Missouri. The project goals are two-fold. The first goal is to develop a method of quantitatively and qualitatively examining glass tableware consumption. This is partially done by adapting methods of historical ceramic artifact analysis to the analysis of historical glass tableware. The second goal is to use archaeological data gathered through the new method, as well as archival data, to investigate household consumption in relation to domesticity in St. Louis, Missouri historically. This historical archaeological investigation of St. Louis addresses two specific questions about consumption and domesticity: (a) How did variation in household composition relate to variation in the quantity and quality of glass tableware consumed?; (b) How did variation in household socioeconomic status relate to variation in the quantity and quality of glass

tableware consumed? This research results in a method of studying glass tableware artifact assemblages and an example that shows the application of said method.

These outcomes make methodological and cultural historical contributions to anthropological archaeology. The project contributes methodologically by producing an artifact analysis system - the first such system - for incorporating glass tableware into the historical archaeology of domesticity and consumption. Additionally, through the case study, this project contributes to our understanding of culture history in St. Louis, Missouri. These contributions are significant not only intellectually, but also in the applied sphere, as all of the study sites were excavated in the context of cultural resource management projects carried out by the Missouri Department of Transportation (MoDOT). My work will therefore help MoDOT meet the data recovery goals that motivated the projects. In particular, my analysis of the St. Louis study sites will contribute to the MoDOT archaeological reports written for the New Mississippi River Bridge Project (MRB).

HISTORY AND ARCHAEOLOGY OF GLASS TABLEWARE IN THE U.S.

Glass tableware has a long history in the U.S., but a short history in historical archaeological analyses. In comparison, ceramics have a long history in the U.S. and a long history of use in archaeological analysis. Thus, the field of historical archaeology is characterized by a marked gap between ceramic tableware analysis and glass tableware analysis. The following paragraphs demonstrate this gap by explaining the two histories of glass tableware. The discussion of the history of glass tableware in the U.S. is split into two sections. First, I provide an outline of the history of glass tableware from the first glasshouses in the 16th century to factories of the 20th century. Second, I describe how these glasshouses and factories manufactured glass tableware, with an emphasis on vessel forms and decorative patterns (Table 1). The subsequent section on glass tableware in historical archaeology summarizes when and how historical archaeologists have incorporated glass tableware into their analyses.

Before describing the history of glass tableware research in historical archaeology, a definition of glass tableware is in order. Archaeologists divide glass artifacts into several categories, including curved and flat glass. For the most part, curved glass refers to vessel glass and flat glass refers to window glass. Within vessel glass, common subcategories include bottles, jars, and tableware. In this study, use the Parks Canada Glass Glossary definition of glass tableware; according to this source, glass tableware is “a general term for vessels used to serve food and drink, for glassware used on the dining table, such as tumblers, bowls, and pitchers, and for decorative items such as vases” (Jones and Sullivan 1989:9). In archaeological assemblages, tableware is the second most common glass vessel

category, after bottles, and it has a long history of manufacture in the United States (Jones and Sullivan 1989:9; McKearin 1975[1941]).

Glass Tableware in the U.S.

Glasshouses to Glass Industry. Glass manufacture has an early history in the United States, dating as far back as Jamestown in 1608 (Barber 1906:1; Comstock 1965:270; Frank 1982:36; Lehmann and Kennard 1922:192; Madarasz 1998:2; McKearin 1975[1941]:67, 75–76; Moore 1939:209; Northend 1926:12, 13; Reuwsaat 2008:218; Robie 1917:250; Scoville 1944:194; Stelle 2001). The Jamestown glasshouse relocated in 1621 and operated until 1625 and produced mainly glass trade beads, because 17th century American households did not require glass vessels or windows (Barber 1906:1, 2; Davis 1949:21–22; Lehmann and Kennard 1922:192; Northend 1926:14). The delicate wares popular at the time in Europe were out of place in pioneer life (Barber 1906:2; Lehmann and Kennard 1922:192; Northend 1926:95). Even bottles and window glass were too delicate for the hardships faced by early European settlers in America (Barber 1906:2). Instead, glass beads were produced, because they could be traded for more necessary supplies such as food and materials for shelter and clothing.

However, lack of demand for delicate glass products did not stop early glass manufacturers in Jamestown and elsewhere from producing glass vessels on the side, for personal use (Barber 1906:2). These early pieces are described as crude, thin, and delicate (Barber 1906:2). The vessel styles were modeled after the styles preferred in the workers' homelands (Barber 1906:2). For example, much of the glass tableware from later in the 17th century looked Italian and Germanic because most of the laborers came from Italy and

Germany (Barber 1906:2; Scoville 1944:194). Archaeological investigations of Jamestown also yielded examples of these delicate personal works created by Welsh and Polish workers (Barber 1906:1–2).

In the 18th century, the colonies had two main glasshouses, the Wistar glasshouse in New Jersey (1739–1776) and the Stiegel glasshouse in Pennsylvania (1763–1774) (McKearin 1975[1941]:36, 78–92; Moore 1939: 168, 213–214, 218, 220–251; Northend 1926: 23–46; Reuwsaat 2008:219; Scoville 1944:195; Stelle 2001). These two manufacturers started producing bottles, window glass, and even glass tableware for commercial sale (Scoville 1944:195). A German immigrant named Caspar Wistar owned the Wistar glasshouse (Palmer 1993:9). Another German immigrant named Henry Stiegel owned the Stiegel glasshouse (Palmer 1993:9; Reuwsaat 2008:219). They employed workers from all over Europe (Barber 1906:2; Reuwsaat 2008:219). These were the only successfully run glasshouses in 18th century North America (Barber 1906:2; Comstock 1965:271; McKearin 1975[1941]:78–92; Robie 1917:251; Scoville 1944:195).

The first substantial phase of progress in glass manufacture in the United States began in the first half of the 19th century (Davis 1949:27, 65; McKearin 1975[1941]:132–134; Reuwsaat 2008:219; Scoville 1944:343). This progress was due to the blockade of English and French goods in 1807, which gave American consumers no choice but to rely solely on American made glass (McKearin 1975[1941]:133; Reuwsaat 2008:219; Scoville 1944:346–347). This expansion lasted until 1814, when the War of 1812 and the blockade ended (Scoville 1944:346–347). When the blockade was removed, the market was flooded with superior quality European goods once more (Lehmann and Kennard 1922:192; Reuwsaat

2008:218; Scoville 1944:346–347). As a result, half of the American factories built before 1814 failed in the first five years of peace (Scoville 1944:347).

This dip in production did not last long. In the 1820s, mechanical pressing was invented in Europe, and perfected in the United States (Blaszczyk 2000:18; McKearin 1975[1941]:332; Scoville 1944:203). Experimentation with the pressing machine greatly improved the quality of American-made glass tableware (Blaszczyk 2000:22; Lehmann and Kennard 1922:194; Reuwsaat 2008:219; Scoville 1944:203). This revolutionary new machine also cut the cost of manufacture, and subsequently the cost of purchase (Blaszczyk 2000:15; Scoville 1944:204). Twenty-five of the sixty-eight glass factories built between 1820 and 1840 were dedicated solely to glass tableware, elevating this good from a small side business to a major product in the American glass industry (Scoville 1944:197).

The increase in production between 1820 and 1840 was not without hiccups. First, in 1837, a bout of economic depression as well as other setbacks delayed growth in the glass industry (McKearin 1975[1941]:136; Scoville 1944:347). Second, a particularly important setback not related to the depression was the exhaustion of local resources, like timber, used to fuel glasshouses (Lamoreaux and Sokoloff 2000:703). This was one cause of the production shift from the east to the Midwest, where the raw materials and natural gas needed to fuel the factories were more abundant and accessible (Lamoreaux and Sokoloff 2000:703; Steele 1954:229).

Glass production expanded even more in the latter half of the 19th century, in part due to the Civil War (Scoville 1944:200; Steele 1954:229). The Civil War caused the railroad system to grow, and this growth increased manufacturers' access to natural resources in the west and their ability to efficiently transport finished goods to shops throughout the United

States (Lorrain 1968:35; Scoville 1944:340; Steele 1954:229). Also, many of the glasshouses were outside the main areas of battle, and therefore survived the Civil War (Scoville 1944:348).

The expansion of American glass tableware production was also spurred by the depreciation of American currency after the Civil War, which made consumer goods more affordable for the average person (Mullins 1999:22–23; Scoville 1944:345, 348). From 1860 to 1890, growth in the industry and superior pressing techniques allowed United States companies to produce the cheapest and best quality pressed glass tableware on the market in America and Western Europe (Davis 1949:161). Going into the 20th century, the glass industry continued at a steady pace and it is still steady today, as evidenced by the continued production of glass stemware, tumblers, and various types of kitchenware.

Glass Manufacture Patterns and Forms. The early American glass tableware made by Wistar and Steigel in the 18th century was hand blown, delicate, made of lead glass, and produced for the well to do (Barber 1906:3; Comstock 1965:271–272; McKearin 1975[1941]:78–92). Patterns were applied to pieces by hand through techniques such as etching or engraving and manipulating the glass while hot (Barber 1906:3–4; Comstock 1965:271). The technical skill of the glassmaker and high cost of the materials led to high prices for the finished product, which kept most glass tableware out of reach of the middle or lower classes (Reuwsaat 2008:218–219). Not until the 1820s, after the invention of the pressing machines and several years of experimentation, did glass tableware start to gain the great variety and low cost that came to characterize turn-of-the-19th century glass tableware (Comstock 1965:274–276; Lorrain 1968:38–39; Reuwsaat 2008:219). This is when glass gained a reputation for being “a step up from everyday... woodenware and cheap pottery, but

still not as expensive as some...metal ware or imported fine china or porcelain” (Husfloen 1992:9).

Glass historians describe early 19th century pressed glass tableware as either Lacy or Non-Lacy (Comstock 1965:274; Lorrain 1968:43; McKearin 1975[1941]:332). Non-Lacy glass was produced in the early 1820s and 1830s (McKearin 1975[1941]:394). These early Non-Lacy wares were thick, heavy pieces that mimicked thick Irish-Anglo cut glass imported at the time, and that had heavy geometric patterns (McKearin 1975[1941]:394; Rose 1954:14). Small plates, bowls, and furniture knobs were the most common forms produced during the early Non-Lacy period (McKearin 1975[1941]:394; Rose 1954:14).

Lacy glass (1825–1850) is unique because manufacturers were able to achieve a look that could not be duplicated with cut glass (Figure 2) (Comstock 1965:274; Reuwsaat 2008:219). The forms continued to be small bowls, plates, and furniture knobs, as well as salt dishes (Husfloen 1992:10, 14, 17; Rose 1954:17). The distinctive characteristics of Lacy glass result from the manufacturing process (McKearin 1975[1941]:336; Vose 1980:96). When the molten glass comes into contact with the metal mold that gives the glass its shape, it leaves the entire glass surface opaque instead of clear (Comstock 1965:274; Rose 1954:13). Lacy designs that intricately covered the entire surface of a vessel were created to counteract this opaqueness (Comstock 1965:274; McKearin 1975[1941]; Rose 1954:13). These intricate designs extended to the rims, which were often scalloped (McKearin 1975[1941]). Early Lacy glass also had a tendency toward unevenness (Rose 1954:14). The bottoms were thick, and the vessel sides grew thinner closer to the rim (Husfloen 1992:17). The rims were often uneven with small portions missing (Husfloen 1992:17; Rose 1954:11). However, by the 1830s, the invention of a cap ring allowed for uniform thickness of outer rims (Jones

2000:162; Rose 1954:14–15). Soon, this invention, and an increase in skill and judgment by the pressmen allowed for the creation of thinner pieces (Rose 1954:14).

Also in the 1830s and 1840s a new method first used in England became common in the U.S. (McKearin 1975[1941]:394). Called fire polishing, the process removed mold marks and gave glass a glossy shine (McKearin 1975[1941]:394). Lacy glass did not fare well under fire polishing, but simple geometric patterns did, and they looked like cut glass after they underwent this polishing process (McKearin 1975[1941]:394). Because of this introduction of fire polishing, and efforts to encourage buying with new patterns during a time of depression (1836 to 1840), by the 1840s a new form of pressed glass tableware was created by manufacturers (McKearin 1975[1941]:394). This new phase of glass tableware is described as having “simple dignity,” with a reliance on form, and simple and geometric patterns (McKearin 1975[1941]:394). At this time, “nearly every American could afford to own at least a few small plates and bowls for a tea service or to present a special desert” (Husfloen 1992:29). American manufacturers also began making sets, one pattern pressed in many forms, by the mid-1800s (Husfloen 1992:29). By the 1860s, the variety of manufactured pressed glass forms expanded to include dishes of multiple sizes, stemware, and tumblers (Husfloen 1992:30–31; Lee 1960[1931]:9–55). Today this phase is known as the Colonial period of pressed glass tableware and it lasted from the 1830s into the 1860s (Figure 4) (Lee 1960[1931]:9).

In 1864, Soda lime glass was invented (Husfloen 1992:52). Soda-lime glass, though less heavy than lead glass, was more flexible and set faster (Husfloen 1992:52). This allowed manufacturers to produce more intricate patterns and forms (Husfloen 1992:52; Jones 2000:151). Patterns went from simple geometric to more complex geometric, as well as

abstract, naturalistic, and realistic patterns (Figures.6 and 9) (Husfloen 1992:53). The forms produced expanded to the point where a set of glass tableware was made up of as many as thirty different pieces, including various drinking glasses and stemware, bowls, cake stands, celery vases, creamers, pitchers, dishes, decanters, and cruet bottles (Husfloen 1992:55; Lee 1960[1931]:192–194; von Zweck 1983:143). A basic set was made up of four pieces, usually a sugar bowl, creamer, butter dish, and a spooner (Husfloen 1992:55; Lee 1960[1931]:192–194; von Zweck 1983:143).

The cost and intricacy of the molds was balanced by the cheapness of the raw materials (Husfloen 1992:52; Jones 2000:151). Soda lime glass raw materials were cheaper than lead glass raw materials and lowered the overall cost of pressed glass tableware even further (Husfloen 1992:53; Lorrain 1968:39; Reuwsaat 2008:219; Scoville 1944:345). Isolated farmers could now buy glass tableware through mail order and shipped by railway, while urban residents of various classes could buy glass tableware via the corner stores in their neighborhoods (Husfloen 1992:53; Lorrain 1968:39; Reuwsaat 2008:219; Scoville 1944:345).

If a style (pattern and form) produced by one or a few companies became popular enough during the late 19th and early 20th centuries, many other factories quickly followed it, producing glass tableware of a similar style (Blaszczyk 2000:41; Scoville 1972 [1948]:70; Lee 1960 [1931]). This rapid adoption of popular styles made successful glass tableware production a “tricky balancing act, seeking equilibrium among quality, quantity, price, and novelty” (Blaszczyk 2000:21). These design changes were frequent and rapid, and consequently glass tableware production trends reflected changes in consumer buying habits more sensitively than any other branch of the glass industry (Table 1) (Blaszczyk 2000:23–

24; Scoville 1972 [1948]:70). This was especially true at the end of the 19th century, when many popular glass tableware styles followed popular art movements of the time (Reuwsaat 2008).

These mid to late 19th century styles and forms can be divided into three groups, based on manufacture techniques: pressed glass (Figures 2 to 9), Brilliant cut glass (1870s–1914), and Art glass (1850s–1900) (Reuwsaat 2008). Pressed glass was the cheapest, because it was mass produced with machines and made of Soda lime glass (Reuwsaat 2008:219; Scoville 1944:345). The most expensive, Brilliant Cut glass, was made by cutting lead glass on a wheel by hand (Prentiss 1905:136, 139). Also expensive, Art glass was free blown or blown into a mold, a process that encouraged innovation, and designs were often naturalistic (Comstock 1965:279; Reuwsaat 2008:219–220). Brilliant and Art glass were expensive because they were made of higher quality glass and required a high degree of technical skill to make (Lehmann and Kennard 1922: 46, 53, 57). Also, these two types of glass were manufactured by hand, so each piece was considered unique, especially in the case of Art glass such as Tiffany glass tableware (Lehmann and Kennard 1922:102; Reuwsaat 2008:220).

By the 20th century, the more complicated forms invented by Art glass manufacturers were being cheaply imitated by pressed glass manufacturers using machines (Reuwsaat 2008:220). Carnival glass is an example of the imitation of art glass by companies that manufacture pressed glass, through the use of cheaper methods (Reuwsaat 2008:220). Carnival glass is pressed glass covered in an iridescent paint, and was produced from 1900 to 1940 (Stelle 2001). Another example is Depression glass tableware, which was produced in pastel reds, greens, yellows, and blues in a variety of low-relief floral patterns (Stelle 2001).

Major production of Depression glass took place from 1920 to 1940 (Stelle 2001). This appropriation Art glass meant that by the mid-20th century, American manufactures had fallen behind Europe in the production of luxury glass tableware, but held steady with the production of cheap mass-produced glass tableware, such as glass tableware made by Fenton and Pyrex, which remained affordable for lower classes (Reuwsaat 2008:220).

Glass Tableware in Historical Archaeology

Publications dealing with glass tableware artifacts in the historical archaeology of the U.S. are a fairly recent occurrence. Despite such a short history, clear temporal and topical trends are apparent, and these trends mirror developments in the study of domesticity, including studies of relationships among domesticity, gender, class, ethnicity, and consumerism. Published studies also show the ubiquitous nature of glass tableware at historical sites in the United States, as well as a serious lack of attention to this artifact class.

Publications about the archaeology of glass tableware in the United States did not appear until the 1960s (Demmy 1967; Hume 1968; Hume 1969; Lorrain 1968). These early articles concern mostly methodology and culture history. For example, Hume (1968 and 1969) uses glass stemware to develop a chronology of Colonial Williamsburg, Demmy (1967) uses patination to date glass tableware artifacts, and Lorrain (1968) discusses the need for a better methodology of glass tableware artifact analysis. This is the extent of the earliest historical archaeological publications about glass tableware at Euro-American sites, and all of these studies concern Colonial American sites.

Later, starting ca. 1980, with the onset of postprocessualism and rapid growth in American historical archaeology, we see a bit more attention to glass, particularly in relation

to topics such as gender, class, ethnicity, households, and consumerism (Branstner and Martin 1987; Heberling 1987; LeeDecker et al. 1987; McClenaghan 1988; O'Brien and Majewski 1989; Price 1981; Vose 1980). However, glass was rarely the focus of study (McClenaghan 1988; Vose 1980). Instead, it was a minimal line of evidence, authors usually noting just the presence or absence of glass tableware, or providing a shard or vessel count (Branstner and Martin 1987; Heberling 1987; LeeDecker et al. 1987; O'Brien and Majewski 1989; Price 1981). These glass tableware analyses were shallow and did not take advantage of the full potential of these glass artifacts.

It was not until the late 1980s that American historical archaeologists considered the greater information potential of glass tableware analysis, even though there had been indications of its usefulness in the 1960s (Lorrain 1968). This emerging recognition of glass tableware as a potentially valuable line of evidence in historical archaeological analysis was greatly facilitated by the publication of a comprehensive glass-cataloging guide, the *Parks Canada Glass Glossary* (Jones and Sullivan 1989). Many of the historical glass artifact analysis guides used today (e.g., Aultman et al. 2012; Diamond 1996; IMACS 199) are based on this publication. Because of these methodological advances, historical archaeologists were able to incorporate glass artifacts into analysis and theoretical studies by the late 20th and into the early 21st centuries (Fitts 1999; Gilfoyle 1991; Heberling 1987; Praetzelis 2001; Wall 2000; Zierden 1999).

Despite this new resource, the incorporation of glass tableware artifacts into historical archaeology often remains quite shallow. Studies of diverse sites across the country, including boardinghouses, wealthy households, brothels, saloons, and farmsteads, typically mention glass tableware artifacts, but usually only on a presence/absence basis (Bush 2000;

Cheek and Friedlander 1990; Clements 1993; Crass et al. 1999; Dixon 2006; Gilfoyle 1991; Kruczek-Aaron 2002; Lucas 1994; McInnis 1999; Perkins 1991; Praetzellis 2001; Rotman 2007; Rowe and Jeane 2008; Seifert and Balicki 2005; Stewart-Abernathy 1992; Stine 1990; Wettstaed 2003; Zierden 1999). Perhaps archaeologists keep their analyses shallow because they do not think anything more in-depth is worth the effort (Shackel 1998; Stine 1990). More likely, the lack of an established, productive method of analyzing glass tableware is the impediment. Regardless of the cause, most studies continue to rely on in-depth ceramic and faunal analyses, and do not seriously incorporate glassware analysis (Baumann et al. 2008; Branstner and Martin 1987; Cheek and Friedlander 1990; Crass et al. 1999; Heberling 1987; Henry 1987; Kruczek-Aaron 2002; Seifert and Balicki 2005; Wall 1991; Wall 1999).

Moreover, in-depth analyses of glass artifacts tend to focus on bottles, and to a lesser extent stemware (Adams 2003; Baumann et al. 2008; Clements 1993; Cheek and Friedlander 1990; Holm 2008, Hume 1968; Hume 1969; LeeDecker et al. 1987; McClenaghan 1988; Mullins 1999; Rowe and Jeane 2008; Stewart-Abernathy 1992). This focus is highlighted by common archaeological typologies for glass (Aultman et al. 2012; Diamond 1996; IMACS 1992; Jones and Sullivan 1989). These typologies focus on bottles and/or stemware, which are only two of many types of glassware.

Diana DiZerega Wall (2000:110), an historical archaeologist, comments on this neglect: “these goods consist not only of the crockery on which archaeologists have traditionally focused so much analytical attention, but also glassware—the tumblers and wineglasses that women also used to set their tables—which archaeologists have traditionally ignored”. Wall’s (ibid., 120, 131) work includes one of the few historical archaeology studies that actually contains a section on glass tableware analysis and weaves it into the

conclusions. In this study, Wall (*ibid.*, 134–135) proposes that in a middle class household, paneled glass tumblers (Figure 1) complemented gothic paneled ceramic dishware, while more elaborate glass tumblers complemented more neoclassical or Italianate porcelain dishes. This study incorporates the glassware analysis into a discussion of gender, class, and domesticity.

In another of the few studies that pay serious attention to glass tableware, Paul Heberling (1987:201) considers pressed glass alongside ceramics when talking about surface artifacts as indicators of differences between neighborhoods. Heberling (*ibid.*, 210) focuses on class (socioeconomic) status, and mentions glass tableware in the “Artifactual Inventory” section alongside ceramics, though the glass section is about one third as long as the ceramic section. Heberling (*ibid.*, 212) also attempted to create a value index of glass tableware, similar to Miller’s (1980) value index for ceramics, using average price quotes from Mail-Order Catalogs like Sears and Roebuck 1897 and 1902. He “indexed three types: clear pressed glass of eight patterns, pressed milk glass, and cut glass” (*ibid.*). Heberling (*ibid.*) acknowledges that the procedure is “crude” but “may be worth pursuing”.

The general failure to incorporate glass tableware into American historical archaeology is both a methodological and a theoretical issue. The problem results, in part, from the longstanding emphasis on prehistory, which includes the study of indigenous ceramics, in North American archaeology (Diamond 1996:179). This emphasis means that most North American archaeologists know more about ceramics than about glass. As a result, glass has been left out of the development of methodology and theory in North American archaeology (Brighton 2011:40; Diamond 1996:179).

Instead, American historical archaeology has retained a focus on ceramics and faunal remains, despite some recognition of the particular value of glass tableware analysis, the advantages of analyzing glass and ceramics assemblages together, and the benefits of using as many lines of evidence as possible (Adams 2003:46; Brighton 2011; Cheek and Friedlander 1990; Fitts 1999; Lorrain 1968). The lack of attention to glass tableware is especially noteworthy when one considers the similarities with ceramic tableware. Methodologically, the analysis of glass tableware can be similar to the analysis of ceramic tableware, as both can incorporate similar, and in some cases identical, quantitative and qualitative variables. Likewise, theoretically, it is a short jump from our current use of ceramics to a similar use of glass tableware in historical archaeological studies of issues like consumerism, domesticity, class, and ethnicity. Given these parallels, increased attention to glass tableware is not only desirable, but also something that can be accomplished with relative ease, largely through the adaptation of established methodological approaches to ceramic tableware.

Table 1. Important Glass Manufacture Dates in the United States (Hammond 1969; Husfloen 1992; Jones 2000; Jones and Sullivan 1989; Lee 1944; McKearin 1975[1941]; Metz 1978; Pullin 1986; Rose 1954; von Zweck 1983; Williams 1985).

Years	Manufacturing Element
1800-Present	Vertical panels used to decorate tumblers (Fig. 2.1).
1825	Improved method for pressing tableware patented in the United States.
1820s–1850s	Lacy Period (Fig. 2.2).
1830s	Invention of C2p Ring.
1830s–1840s	Stippling was also introduced in the 1830s after cap ring allowed for thinner work with more delicate designs.
1834	Fire polishing to remove mold seams, first used England. Not applicable for stippled lacy glass because it blurs the design.
1840s	Red staining is used as decoration (Fig. 2.3).
1840s–1850s	An economic slump from late 30s early 40s lead to a need for simpler cheaper geometric patterns.
1840s–1860s	Colonial Era: Geometric design (Fig. 2.4).
1845	Pressed glass is a common household item
1850s	Acid etched designs become a common decorative technique (Fig. 2.5).
1864	Soda lime glass (lead free) created by William Leighton
1865	Begin coloring pressed glass regularly.
1865–1870s	Post-Civil War: Glass is transitioning away from lead (Fig. 2.6).
1870s	Optic Mold invented (Fig. 2.7).
1870s	Handles are no longer applied; instead they are pressed with the main body (Fig. 2.8).
1880s–1890s	Golden Age: Pressed glass reaches its peak of production, popularity, and variety.
1880s	Colored glass tableware becomes the most popular. Glass tableware now includes vertical patterns and contrasting textures (Fig. 2.9).
1890s	Merger companies like US Glass and National Glass were reissuing old molds.
1895–1915	Cut glass becomes more affordable.
1900–1915	Twilight of American pressed glass.
1900–1930	Carnival Glass, which was originally given away as prizes at carnivals.
1920–1940	Depression Glass
1940-Present	Depression patterns continue, but older motifs continuously reappear (Thumbprint) as well as a movement toward utilitarian glass like Pyrex.



Figure 1. A paneled tumbler that illustrates a “Gothic” style of tableware.



Figure 2. A glass bowl decorated with a Lacy Period motif.



Figure 3. A small stemware wine glass decorated with red staining.



Figure 4. Colonial glass examples decorated with Excelsior, Huber, and Honeycomb patterns, from left to right. These are all Colonial Age patterns with geometric all-over patterns.



Figure 5. Stemware etched with botanical motif.



Figure 6. Pressed glass bowl decorated with New Pressed Leaf (NPL) motif. This pattern was produced in both lead and non-lead glass. This is both an example of a horizontally oriented pattern with a naturalistic motif.



Figure 7. Optic mold packer tumbler that was used by the Albert Fischer Fruit Canning Company to hold fruit preserves. After the preserves were gone, the container could be used as a regular tumbler.



Figure 8. Glass handles made with different manufacturing techniques. Left to Right: machine pressed and hand-blown/applied.



Figure 9. Compote decorated with a Pleat and Panel motif that has contrasting stippled panels with plain columns.

HISTORY AND ARCHAEOLOGY OF DOMESTICITY AND CONSUMPTION IN THE U.S.

Domesticity and consumption - both the ideologies and behaviors - became deeply intertwined during the mid-to-late 19th century in the U.S. This relationship is expressed through the dominant ideologies of the time, especially in the Northeast and urban areas (Table 2). Ideologies like the Cult of Domesticity came with rules on manners, which included what clothing, curios, dishes, and other domestic goods - including glass and ceramic tableware - one must buy in order to properly present oneself to the rest of society. This chapter discusses the Cult of Domesticity as the dominant ideology related to domesticity and consumption in the 19th century U.S., and the ways in which historical archaeologists have addressed this ideology in their interpretations of the recent past. In examining the Cult of Domesticity, I focus on its relationship to gender, class, and ethnicity. These three themes are central in the historical archaeology of domesticity and consumerism.

Domesticity and Consumption in the 19th Century U.S.

The “Cult of Domesticity” is a contemporary, scholarly label for a widely studied ideology of domesticity popular in 19th century America. This 19th century ideology intersects with ideas about gender separation, including distinctions between masculine and feminine aspects of society. This ideology affected the ways women constructed their identity and the ways we construct past women’s identities today. Finally, this ideology influenced the ways in which class was showcased or negotiated through the consumption of particular goods. These topics - gender, identity, class, consumerism, and agency - are all

popular in contemporary historical archaeology, so it is no surprise that the cult of domesticity has an important part to play in interpretations of the archaeological record of 19th-century America.

Defining the Cult of Domesticity. The cult of domesticity is described as “an idealization of home and family as a space of moral purity protected from the harsher world outside” (Cult of Domesticity 2002). The idea centers on a belief that women are responsible for household morals and for conducting everyday activities that keep the house in order (ibid). This ideology developed in the Victorian age and influenced primarily middle and upper class women who could afford to stay home (ibid). According to the ideology, these women did not “have to work,” so their primary goal was to create a safe haven for their family (ibid).

The cult of domesticity can be viewed as part of a broader 19th century ideology, the “cult of true womanhood.” Welter (1966:151) coined the term in the 1960s to describe the social position of women from 1820 to 1860 in the United States. According to Welter (ibid., 152), women were expected to be pious, pure, submissive, and domestic as a way to make up for men’s increasingly materialistic goals in the wake of the Industrial Revolution. Women were shown the way to True Womanhood through magazines, gifts, and religious literature (ibid., 151). A woman’s duty was to show men back to God by providing a cheerful domestic sphere from which men would not wander (ibid., 162–163).

A Brief History of the Cult of Domesticity. Historically in the United States, gender separation was clearest in the 19th century and portions of the 20th century, but “a comparable dichotomy” existed in the 17th and 18th centuries (Mullins 2012:150). In the 17th and 18th centuries, men and women worked next to each other in the house, but typically at very

different tasks (Rotman 2007:92). The division of labor saw men supplying raw materials and women transforming them, but there was no distinction between housework and other work (Adams 2007; Williams and Saucedo 2007). The word “housework” was not even coined until 1835, around the time the Industrial Revolution made its way to the United States (Merriam-Webster N.d.).

Industrialization facilitated increased separation between gender roles by facilitating contrasting private and public domains (Williams and Saucedo 2007). Production moved outside the home and became masculine, while women were relegated to the domestic area inside the home (Williams and Saucedo 2007). This shift in gender ideology included the development of separate ideal personality characteristics for men and women (Adams 2007). Men were idealized as strong, unemotional breadwinners and women as frail, pure, and living “under the spell of the ‘cult of true womanhood’” where they were “good wives, mothers, and homemakers” (Adams 2007).

After the Industrial Revolution, the cult of domesticity honored the supposed moral influence of women on their families (Mullins 2012:150). Consequently, domesticity was a source of women’s self-esteem (Matthews 1987:6). Compared to the previous era, the ideal woman was more self-controlled, and there was a new stress on the roles of women’s labor and domestic influence in serving a broader social purpose (Mullins 2012:150). So, even while “reaffirm[ing] the traditional roles [of women] as mothers and caretakers, [the cult of domesticity] also opened new avenues of public participation, particularly for elite women” (Miller and Glueck 2008:448). Women became champions of moral reform, and in this capacity founded publications and debated education, temperance, abolition, suffrage, and other political hot-topics that involved children, morals, and women’s rights (Miller and

Glueck 2008:448). In this way the cult of domesticity did not just define the home as the women's place but also moved women into public arenas that were seen as needing a more domestic touch or moral guidance.

These ideological shifts are apparent in the 19th century increase in literature showcasing housewives as positive characters, demonstrating the growing influence of the cult of domesticity, at least on the classes that read such books (Matthews 1987:6). Published in 1835, the novel *Home* by Catharine Sedgwick is an excellent example of this genre (ibid., 25). In her book, meals are particular opportunity to teach "punctuality, order, neatness, temperance, self-denial, kindness, generosity, and hospitality" to the family (ibid.). Advice books such as Frances Parkes' 1829 *Domestic Duties* also placed housewives in a positive light (ibid., 22).

Parkes looks backward in time, particularly in her view that women's work took less mind power than men's (Matthews 1987:23). However, in the 1830s, the poetry of Lydia Sigourney shows a later "evolution" of the cult of domesticity (ibid., 25). Instead of housekeeping involving a narrow range of abilities, "the science of housekeeping" let women exercise judgment, energy, good memory, and patience, which Sigourney sees as "the characteristics of a superior mind" (ibid.). These proponents of the cult of domesticity believed that housewives could benefit from book-learned knowledge of chemistry instead of sticking to the traditional topics of morality or religion (ibid., 23). Through these books, women saw their own domestic value, and the domestic value of their homes, confirmed in popular opinion (ibid., 34).

By the mid-19th century, increasing class differences between mistresses and domestic servants, a.k.a. domestics, and eventually ethnic differences between mistress and

domestic, permeated households that espoused the cult of domesticity (Matthews 1987:32). These increasing differences characterized mainly the Northeast and parts of the Midwest, because domestics were hired mainly in these regions (Schlereth 1991:72). In the South, domestics were more often black slaves, and thus ideological distinctions between mistress and servant were already extreme and of a different origin (Bushman 1993:392). According to Matthews (1987:33), the Cult of Domesticity was also weaker in the South, where female virtue was still mostly defined by chastity instead of domesticity (Matthews 1987:33).

Paid domestic servants were members of the working class, and the extent to which they participated in the ideology of domesticity, or a working class equivalent, is its own book (Matthews 1987:32). While cultural norms precipitated and promoted continuation of the cult of domesticity, in which women were the “arbiter” of morals and in charge of the household, the law gave men greater economic power, as reflected in wills and property rights of the time (Matthews 1987:32). Poorer women and women in less settled areas had a harder time creating the ideal home espoused by the cult of domesticity.

In the last three decades of the 19th century, the cult of domesticity lost its strength, the cause of which is still debated (Matthews 1987:92). It did not resurface until after World War II (Comacchio 2004:679). War affects families through movement and death. Movement separates families and death destroys them (Winter 2004:662). Winter (2004: 662) argues that the revival of the cult of domesticity was due to these upheavals caused by war. Feminist historians see this return as a reaction against wartime deprivations that undermined traditional gender roles (Howarth 2003:1002). During the war, women did a lot of “men’s work”, though they were less likely than men to be recognized for it (Howarth

2003:1002). After the war, they returned, not always willingly, to something that had given recognition in the past, motherhood and the home.

The Cult of Domesticity in Relation to Gender, Class, Ethnicity, and

Consumption. Scholarly views of the cult of domesticity have changed over the years, reflecting broader paradigm shifts in the social sciences and humanities. Early works present the cult of domesticity as a cultural norm, keeping with the culture historical approach of the time (Rotman 2005:2). In the later 20th century, when feminist theory came to the fore, the cult of domesticity was seen as a repressive ideology. More recently, with interest in critical theory and agency came the perspective that not everyone participated uniformly in the cult of domesticity; it was not a national phenomenon, but a social construction that varied in relation to the gender dynamics, geographic region, social classes, and ethnicities influencing any given context. While the most recent studies show the influences of critical theory and agency theory, they also vacillate between a view of people as drones who do whatever the ideology proscribes, and a view of people as agents who negotiate the tenets of this ideology. In other words, contemporary studies seem to either present the cult of domesticity as imposing specific consumer practices on women, or suggest women negotiated the ideology through consumerism.

Gender. Studies of gender in relation to domesticity reflect the evolution of Feminist thought, which is commonly divided into three waves (Hendon 2007:158; Spencer-Wood 2007:36). The first wave came during the Enlightenment to the 19th Century, the second in the 1960s and 70s, and the third in the 1980s (Spencer-Wood 2007:36). The first wave involved women gaining public roles and advocating the idea that domestic roles were important (Spencer-Wood 2007:36–37). The second wave involved women scholars

researching patriarchy to explain how it maintains gender inequality (Spender-Wood 2007:43). Participants in this wave saw women as losing power because their domain was separated from, and encompassed by, men (Hays-Gilpin 2008:341; Hollows 2008:66). The first two waves can be seen as a tug-of-war between trying to validate domesticity as equal to men's work versus decrying domesticity as drudgery and housework, and as not 'real' because it lacked value in society (Hollows 2008: 67–68). The 1980s wave involved a postmodern critique of the first two waves and a movement away from dichotomous paradigms like private/public in favor of more flexible and diverse models that take into account different ideologies from different places (Spender-Wood 2007:46).

Today, in gender studies as well as feminist scholarship, researchers concerned with domesticity stress the permeability between the public and private spheres, instead of domination by one sphere over the other (Mullins 2012:149). This alternative allows for ongoing negotiations as opposed to rigid separations based on gender and wealth (Hays-Gilpin 2008:341). For example, Matthews (1987:36) proposes that the cult of domesticity did not create gender asymmetry, but did create a new respect for the morals encompassed by the private sphere. Public spaces and buildings may have embodied civic ambitions, but moral influence also had a part to play (Fairfield 2011:121). Sewers and parks are a tangible result of the cult of domesticity and the “feminized ideal of Christian nurture” (Fairfield 2001:121).

Another recent focus in studies of gender and domesticity is the questioning of assumptions about 'traditional' gender roles using Critical Theory. Taking this approach, researchers explore how our analyses of domestic cultures are shaped by our own historical contexts (Hollows 2008:15; Rotman 2005). Within our own society, some meanings from the 19th century have persisted, for example association of the home with qualities including

comfort, security, warmth, and family (Hollows 2008:15; Crowley 1999). These are not timeless or natural but ‘modern’ ideas that became dominant in the Victorian era (1837–1901) and continue today (Hollows 2008:15). Critical archaeologists emphasize the need to be aware of these continuities, and of how these continuities and also discontinuities color our perceptions of the past (Hollows 2008:15).

Social Class. Studies of domesticity also displays particular attention to social class, A key aspect of such studies is the critique, by Feminists and Critical Theorists, that researchers tend to project “polite” middle class values onto the archaeological record (Wood 2004:213). Taking this into possible bias account, the separation of public and private spheres is now seen as a “cultural ideal”, not a “historical practice”, especially for marginalized groups (Williams and Saucedo 2007). The powerful impact of this middle class ideal is now the focus of several historical archaeological studies relating to the cult of domesticity (Fitts 1999, 2001; Wall 1991, 1999). Instead of assuming that all households, even within the middle class, followed the cult of domesticity, researchers now contrast middle class ideologies with middle class practices, and with the practices of other classes, as seen through the archaeological record (Kryder-Reid 1994:11; Rotman 2005; Wall 1991, 1999). For example, using the archaeological record to look at the division of labor, Spencer-Wood concludes that the working classes showed more “mixed-gender use of domestic spaces” whereas upper classes showed more gender separation (Spencer-Wood 2007:51).

Proponents of the cult of domesticity used it to portray or judge other classes, just as Darwinism was used to ‘ratify’ existing prejudices such as racism and gender inferiority (Matthews 1987:123). This use of ideology relies on contrasts; the ideal person encompasses certain personality traits and performs certain activities, as opposed to the opposite, who has

the opposite personality traits and acts incorrectly (Fitts 2001:117). One form of contrast was to sensationalize the lower classes, which can be seen in various 19th century pamphlets on the moral horror that was the domain of the lower classes (Fitts 2001:117). For example, if, according to the cult of domesticity, white middle class women were innately more pious, moral, modest, and domestic, then women of lower social status were portrayed as irreligious, immoral, and indecent (Spencer-Wood 2007:48). The unfairness of this portrayal is that women of lower social status could not follow the cult of domesticity ideal because they could not just be mothers taking care of the home; they also had to work outside the home to help support their families (Spencer-Wood 2007:48).

The relationship between servants and their employers is another aspect of how views of the lower classes were distorted to maintain status. Middle class proponents of the cult of domesticity needed the manual labor from the lower classes, but also needed to maintain their class status by being “more” than their hired help (Matthews 1987:95). Young girls were hired as servants and expected to perform tasks perfectly even though they knew little to nothing about what middle class employers expected (ibid). When tasks were bungled, the servants were blamed even though they were not supposed to comprehend middle class ideals in the first place (ibid).

Ethnicity. For the same reasons scholars must be wary of imposing middle class norms on other classes, Anglo-American norms should not be imposed on other ethnicities. Few studies explore the cult of domesticity in relation to non-white ethnicities. In one of the few such studies, Wilkie examines how elite white gender ideologies like the cult of domesticity depended on dichotomous stereotypes (Spencer-Wood 2007:48; Wilkie 2003:84). This dichotomy is similar to the sensationalism of the lower class discussed above.

White ideologies perpetuated stereotypes by characterizing African American, like working class women, as oversexed matriarchs (Fitts 2001; Spencer-Wood 2007:48). Irish women, who made up the majority of the domestic job market, were similarly stereotyped using jokes about “Biddy” or “Bridget”, a domestic who was characterized by her faults, such as walking down stairs backwards because she is more used to a ladder (Schlereth 1991:72–73). By contrast, middle class white women were idealized as the pure guardians of the home sanctuary overseen by a patriarch (Spencer-Wood 2007:48). Paul Mullins (1999) compared practice with the ideal of domestic consumerism and found that African American tableware at Annapolis did not conform to matching sets ideology for ceramic dishware purchases (Spencer-Wood 2007:51).

In the framework of the cult of domesticity, working-class minorities, particularly newly immigrated Europeans and African Americans, were mostly employed as cheap laborers (Hardesty 1994:134–135). They were not practicing the ideology; instead middle and upper class individuals used them as cheap labor to maintain the ideal domestic house (Hardesty 1994:134–135). When individuals of minority ethnicities tried to participate in the cult of domesticity, stereotyping in the name of maintaining status made upward mobility “treacherous” (Bushman 1993:434). For example, free black people in urban settings were able to achieve “a degree of respectability” and create a black elite from the artisan group (Bushman 1993:434–435). They espoused “standard middle class traits” like moral restraint, faith, and manners; however, middle class and elite whites did not respect this “self-improvement” (Bushman 1993:343, 438). Instead whites caricatured and mocked them (Bushman 1993:438–439). Clearly a book on self-improvement could only get you so far, before entrenched prejudice blocked equality (Bushman 1993:438).

Consumption. Consumption also relates to domesticity (Williams and Saucedo 2007). Consumer Theory is particularly important to archaeologists because it ties human behavior, associated with ideologies like the cult of domesticity, to the archaeological record. The 18th century saw a consumer revolution for Anglo-Americans that is known as the culture of comfort by modern researchers (Crowley 1999:780). It synthesized a new physical meaning of comfort with traditional meanings of moral support (Crowley 1999:780). By the early decades of the 19th century, the search for comfort is what drove values, consumption patterns, and behaviors for the middle class (Crowley 1999:780). Houses were sanctuaries of comfort and the level of comfort was “a measure of women’s success at domesticity” (Crowley 1999:780).

One topic in consumerism that relates to domesticity, is explaining the massive discard of “consumable goods” like ceramics and glass tableware on the East Coast in urban households around 1825 (Shackel 1998:2). Explanations include a change in the head of house and a change in style preference in an effort to redecorate a household to match outside ideals (ibid). This means a new head of house brings in new styles and tastes, and discards the old (ibid). Another explanation for the massive dumping was posited by James Deetz as “a fundamental change in the consciousness of American Society; American culture stops being an extension of English culture, and dumping is a form of Americanization” (ibid). Shackel sees it as a shift from classical to liberal Republicanism (ibid). The 1820s to 1830s brought a rise of romantic ideals, which encouraged consumerism and capitalism, and were reinforced by liberal Republicanism and together became “the dominant American ideology” (ibid).

A further example of the interplay between domesticity and consumerism, also tied to a search for comfort, is the Cinderella story paradigm popular in the late 19th and early 20th centuries (Blaszczyk 2000:14). This paradigm offers girls and women a way to find “emotional fulfillment and financial security through marriage and domesticity” (ibid). “As guardians of the home, women constituted the primary audience for the inexpensive pressed glass tableware used every day in domestic life” (ibid., 16). “To shop for fabrics, dishes, and other objects of personal and domestic adornment signified mature womanhood; and to teach a girl to consume, joined tutoring in sewing, embroidering, and cooking as a serious maternal duty” (ibid., 21).

Historical Archaeology of Domesticity and Consumption in the 19th Century U.S.

Many historical archaeological studies address domesticity (Branstner and Martin 1987; Brighton 2011; Cheek and Friedlander 1990; Clark 1976; Clements 1993; Crass, et al. 1999; Dixon 2006; Fitts 1999, 2001; Gilfoyle 1991; Hays-Gilpin 2008; Heberling 1987; Henry 1987; Klein 1991; Kruczek-Aaron 2002; LeeDecker et al. 1987; Lucas 1994; McInnis 1999; Mrozowski et al. 1989; Mullins 2012; O’Brein and Majewski 1989; Otto and Gilbert 1982; Praetzellis 2001; Pavao-Zuckerman and Loren 2012; Perkins 1991; Price 1981; Pogue 2001; Rotman 2005, 2007; Spencer-Wood 2007; Stewart-Abernathy 1992; Wall 1991; Wall 1999; Wilkie 2000; Wood 2004; Zierden 1999). Within this body of work, social class, gender, ethnicity, and consumption are common themes. Researchers use various combinations of themes to discuss domesticity and explore it through the archaeological record.

Historical archaeological studies of the intersection between domesticity and social class in the 19th century U.S. argue that domestic ideology was rooted in a particular class, the middle class, which in turn drew ideas from the upper class (Fitts 2001; Rotman 2005; Wall 1991; also, see *Domesticity and Consumption in the 19th Century United States*, above). Researchers further assert that middle class respectability was expressed through domesticity, in turn manifest through the accumulation of goods reflecting prosperity, affluence, and citizenship (Brighton 2011:40). Thus consumption is influenced by the interplay between class and domestic ideology (Bourdieu 1984). For example, families with outdated tableware may have been more concerned with formal family meals, reflecting a middle class domestic ideology, whereas families with stylish tableware may have been more concerned with “social dining events,” reflecting an upper class domestic ideology. For example, archaeologist Paul Mullins (2011:93) classified some artifacts discarded by families in 1890s as stylish and some as outdated, which “paints a picture of a household that ate following rather formal dining codes every day as well as in their more ostentation social dining events (Mullins 2011:93).

Gender is also an important aspect of domesticity studies (Clements 1993; Klein 1991). Relevant historical archaeological works argue that women were the arbiters of status displays of domestic consumption, for example using sets of matching tableware, because women were in control of the domestic sphere (Clements 1993; Klein 1991). Ideally, the mother was responsible for maintaining a safe home, accomplished in part by maintaining symbols of the cult of domesticity, making the home the safe private sphere (Fitts 2001:116). For example, elaborate meals show off a woman’s managerial skills and taste because preparation and presentation requires a staff of servants and the selection of food and food

serving vessels (Spencer-Wood 2004). Because of this connection between women and domesticity through consumerism, changes in the consumption of domestic goods are linked to changes in gender ideology, particularly ideology concerning the roles of women (Klein 1991).

A key element of the historical archaeology of consumerism is influence of dominant ideologies, expressed through marketing, on consumers (Mullins 2011:175). A number of studies argue that ethnic minorities sometimes ‘resisted’ the dominant culture by not complying with the consumption behaviors encouraged by marketing (Mullins 2011). Alternatively, in one archaeological study, Praetzellis (2001) considers how members of an ethnic minority resisted the dominant culture by adopting the table settings of the dominant group. Mid-19th Century Chinese merchants (a middle class occupation) were known in Sacramento for their “ordinary tables” (Praetzellis 2001:649). Ordinary tables in this case are Victorian style tables with knives, forks, napkins and a celery glass, as opposed to chopsticks and other ethnically Chinese dining utensils and decorations (Praetzellis 2001:649). The same study also indicates that similar to the Chinese merchants, an African American household headed by a railroad porter in the mid-1890s used Victorian dishware (Praetzellis 2001:650). Railroad porters were considered “the aristocracy of African American railroad workers.” The archaeological record of this African American household indicates the family purchased many ceramic and glass vessels associated with formal dining, such as serving vessels, stemware, and tumblers, as well as two matching blue glass bud vases (Praetzellis 2001:650). In both cases, ethnic minorities with relatively high status jobs were acquiring consumer goods that conform to the dominant groups’ ideals.

Finally, consumption plays a role in nearly every historical archaeological discussion of domesticity. This emphasis on consumption is not surprising, since ideologies (including domestic ideologies) are value systems, and consumption (including domestic consumption) is a behavior highly shaped by values (Levy 1973:410). Thus, archaeological variation in the type, variety, function, and decoration of recovered goods like ceramic and glass tableware reflect, in part, variation in consumption, which in turn can shed light on domestic practices and ideology (Fitts 2001; Rotman 2005; Wall 1991).

Overall, the many historical archaeological studies that focus on domesticity while addressing social class, gender, ethnicity, and consumerism, also discuss dining as a key aspect of domesticity. Social class is connected to how much money a family can spend on tableware as well as what types of tableware they will buy (Brighton 2011; Bourdieu 1984; Mullins 2011). Gender is important because it is the women of the house who buy the tableware in congruence with class ideals (Clements 1993; Klein 1991; Fitts 2001; Spencer-Wood 2004). Ethnicity, like social class also affects a family's ideological leanings (Mullins 2011). Finally, consumerism is the act of buying these goods and can reflect acceptance or resistance of dominant ideologies by different social classes, genders, and ethnicities (Mullins 2011; Praetzelis 2001). What are missing are methods for interpreting glass tableware that are equal to methods for interpreting ceramic tableware. This is a problem because the use of these two types of tableware is deeply intertwined in dining practices associated with domesticity.

Table 2. Comparison of Cult of Domesticity with Other 19th Century Gender Ideologies (Suzanne Spencer-Wood 2007:47–50).

Ideology	Class Affiliation	Race Affiliation	Ideas and Ideals	Purpose	Associated Artifacts
Cult of Female Invalidism	Elite and Middle	White	Women are inherently physically weaker.	Way to control sexual relationships with husbands.	Patent medicines for “delicate white women”.
Cult of Republican Motherhood	Middle	White	Emphasizes importance of women’s child rearing skills and morality.	Instill correct morality into the future generation of male leaders; child rearing became a science and required tools for learning behaviors.	Advice books, frozen charlottes, and similar morality tools for teaching children correct behavior.
Cult of Domesticity	Elite and Middle	White	White middle class and elite women are innately more pious, moral, modest, and domestic than men (and by assumption African American women).	Used to elaborate and increase the significance of women’s domestic role as a source of power	Gothic white paneled ceramics.
Cult of Home Religion	Middle	White	Women’s housework is equivalent in status to male ministry because women sacrifice for their family flock like a minister for their religious flock.	Further effort to elaborate and increase the significance of women’s domestic role as a source of power.	Gothic architecture, ceramics, glass tableware, and furniture; round table, bible, cut flowers, and potted plants.
Cult of Gentility	Middle	White	Gentility represented by fashionable material culture acquisitions.	Competitive status Displays	Gilt and floral tea sets and tableware.

STUDY SITES

A primary goal of this study is to conduct a case study that investigates relationships between household composition and socioeconomic status on the one hand, and quantity and quality of glassware consumed on the other. To achieve this goal, I sought artifact assemblages that were accessible, rich in glassware, dated to the mid-19th –early 20th centuries, and deposited by households of varying composition and socioeconomic status. I identified suitable archaeological assemblages from four sites that were excavated as part of the New Mississippi River Bridge (MRB) Project in St. Louis, Missouri: the Mullanphy Park Site (23SL2274); the Worthy Woman’s Site (23SL2316); and the McGuire-Newell Site (23SL2318) (Figures 10 to 12). Below, I first describe the MRB project. Then, I describe each of the four sites, summarizing its archaeology and history.

The New Mississippi River Bridge Project

The project and site information presented here was collected from the Missouri Department of Transportation (MoDOT) report on the MRB Project written by Michael Meyer (N.d.). MoDOT conducted excavations across the entire 19-block area of the MRB Project because a 4-lane bridge was being built there, and the area contained more than 170 historical properties requiring evaluation (*ibid.*).

The project area is in an area that became part of St. Louis’ industrial center during the first quarter of the 19th century. This area experienced rapid growth that started in the 1840s and peaked in the 1880s and 1890s (*ibid.*). During this period of growth the area was mostly industrial, but it also contained residences for factory workers and owners, as well as

stores, churches, schools and civic properties (ibid). Most of these buildings were demolished or vacated in the late 1950s when I-70 was constructed (ibid). However, in 1960, much of the area was sealed by asphalt, which preserved deep features like basements, privies, and cisterns from the 19th century (ibid). Due to this preservation, the excavations focused on features, which yielded a large, rich artifact assemblage.

Mullanphy Park Site: 23SL2774, City Block 602

Four streets bound the Mullanphy Park site: North 10th and 11th Streets, Mullanphy Street, and Cass Avenue (Meyer N.d.) (Figures 11 and 13). The site contains remains of residential and retail properties on the south and a lumberyard turned Community Park on the north, with the north and south areas separated by an alley (Meyer N.d.). My study focuses on the residential side of the site. These residences were mostly two to three story brick buildings with shingle roofs, wood frame porches on the back, and brick water closets and wood frame sheds in the back yard (Whipple 1876; 1892; 1897). Some buildings had rear housing next to the alley (Whipple 1876). By 1909 the buildings all contained stores and flats (Sanborn 1909). The water closet features where the assemblages were excavated are not on the 1909 Sanborn map, so were most likely not in use by this time (Sanborn Map Company 1909). City Directory listings reveal that these buildings continued as stores and apartments from the 1870s through the 1960s (Gould Directory Company 1870–1960; Meyer N.d.). Overall, stores and apartments continued to characterize the residential part of this site until it was razed in the 1970s.

I chose to sample two features, Features 18 and 24, from this site (Figures 12 and 13). Both features are privies, which were later converted to water closets. in the back yards of

dwelling used for residential and commercial purposes. These features were chosen for their discrete and datable deposits, the large quantity of glass tableware that they yielded, and their association with apartment (flat) style dwellings with multiple renters and boarders.

Worthy Woman's Site: 23SL2316, City Block 649

The Worthy Woman's site is bound by North 10th Street, North 11th Street, Howard Street, and an I-70 exit ramp (Meyer N.d.) (Figures 11 and 14). The site is composed of the remnants of residential, industrial, and commercial properties in use from the 1800s to the 1950s (ibid). The areas sampled for my study were part of a residential neighborhood that grew in the mid-19th century and then suffered economic decline in the last quarter of 19th century (ibid). The first houses built on this site date to the 1840s according to deeds, maps, probate records, and city directories (ibid). The men who undertook this development were prominent property and business owners (ibid). The families that owned the houses lived in some of them, rented others out to families, and in some cases had individual boarders (ibid). A few of the original families even stayed after the economic decline (ibid). This site also contains remains of the Worthy Woman's Aid and Hospital, a 19th century women's shelter established prior to 1877 by wives of prominent St. Louis men (ibid). The hospital was originally on Howard Street, but was moved several times (ibid). Women in need and their children lived at the hospital, reflecting the 19th century trend of philanthropic work directed by middle class white women in the city (ibid).

My sample from this site consists of remains from Features 28, 42, and 79 (Figures 12 and 14). All three features were privies, later converted to water closets. Two of the features (28 and 42) were located in residential backyards and one (79) was attached to the

rear of a residential house. Whipple (1876; 1892) represents 79 and 28 as brick structures, and 42 as a wood frame structure. I chose these features chosen for their discrete datable deposits, high quantity of glass tableware, and association with two different household types. Features 28 and 79 are both associated with houses belonging to well-to-do business and property owners. The house associated with Feature 79 is also a double house where the second area was rented out to other families. Both houses also took boarders. In contrast with Features 28 and 79, Feature 42 is associated with the Worthy Woman's Hospital and Aid and played host to a number of women and their children as well as female nurses, matrons, housekeepers, solicitors, and cooks (Meyer 2011b.).

McGuire-Newell Site: 23SL2318, City Block 650

The McGuire-Newell site is bounded by Howard Street, North 10th Street, I-70, and is adjacent to the Worthy Women's site (Meyer N.d.) (Figures 11 and 15). The site contains the remains of residences used as rental homes for families (Meyer N.d.). Thomas B. Graham owned the property until he sold it to Mathew McKeon in 1856 (St. Louis City Recorder of Deeds 1856a). McKeon divided the property into two lots, each with three houses (Meyer N.d.). One lot was sold to Elizabeth McGuire, who in turn sold it to Robert Boyle in 1874 (St. Louis City Recorder of Deeds 1874). McKeon sold the other lot to John and Ann Newell, also in 1856 (St. Louis City Recorder of Deeds 1856b). The Newells lived there from 1860 to 1884 (Meyer N.d.). The Newells sold the entire property to Thomas Manning in 1884 (Meyer N.d.). Manning died in 1898 and his property went into probate (Missouri State Archives 1898). Like the Worthy Woman's site, the houses on this site were razed and the area was paved over when I-70 was constructed in the 1950s (Meyer N.d.).

My sample from this site consists of remains from two features, Features 8 and 10 (Figures 12 and 15). Feature 8 was an unmodified privy in a backyard, and Feature 10 was a cistern located in the back of two dwellings; both features are associated with residential buildings. I selected these features for their discrete and datable deposits, relatively high quantity of glass tableware, and association with middle class renting families. The middle class renters provide an excellent contrast with the residents represented by features from the other sites, thus suiting the aims of my study.



Figure 10. Bird's eye view of St. Louis with the study site blocks outlined. From *Pictorial St. Louis: A Topographical Survey Drawn in Perspective A.D. 1875* (Compton and Camille 1876).

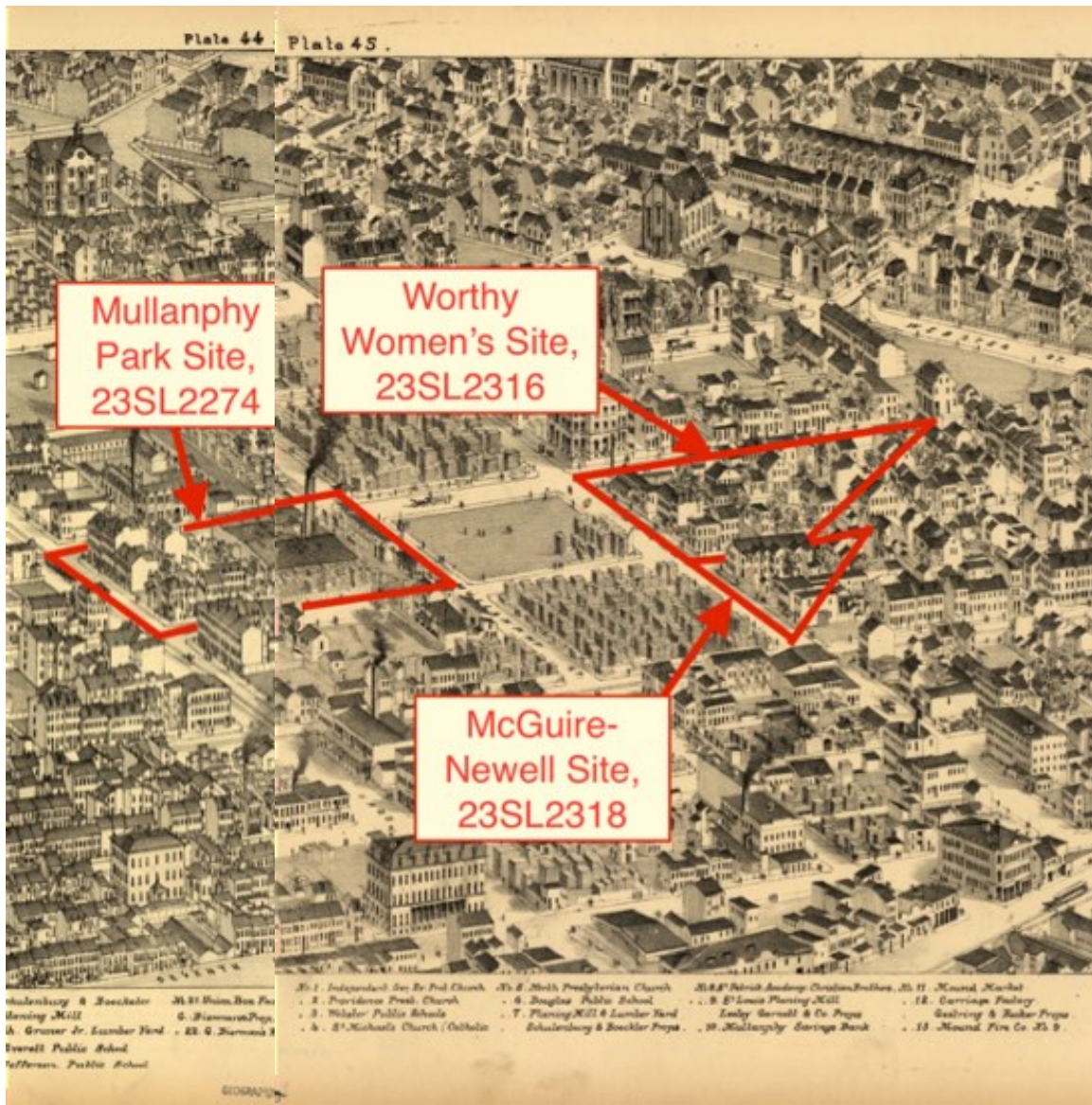


Figure 11. Bird's eye view of the sites outlined and labeled. Plate 44 and 45 of *Pictorial St. Louis: A Topographical Survey Drawn in Perspective A.D. 1875* (Compton and Camille 1876).

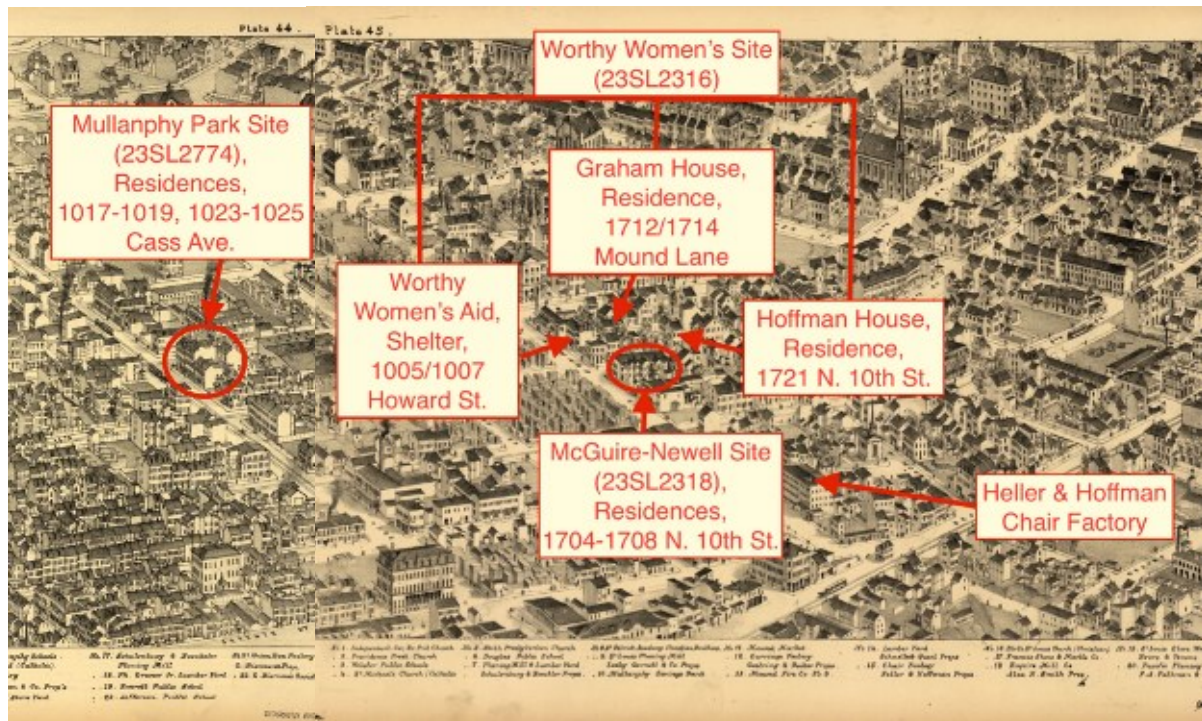


Figure 12. Bird's eye view of dwellings associated with site features outlined and labeled. Plate 44 and 45 *Pictorial St. Louis: A Topographical Survey Drawn in Perspective A.D. 1875* (Compton and Camille 1876).

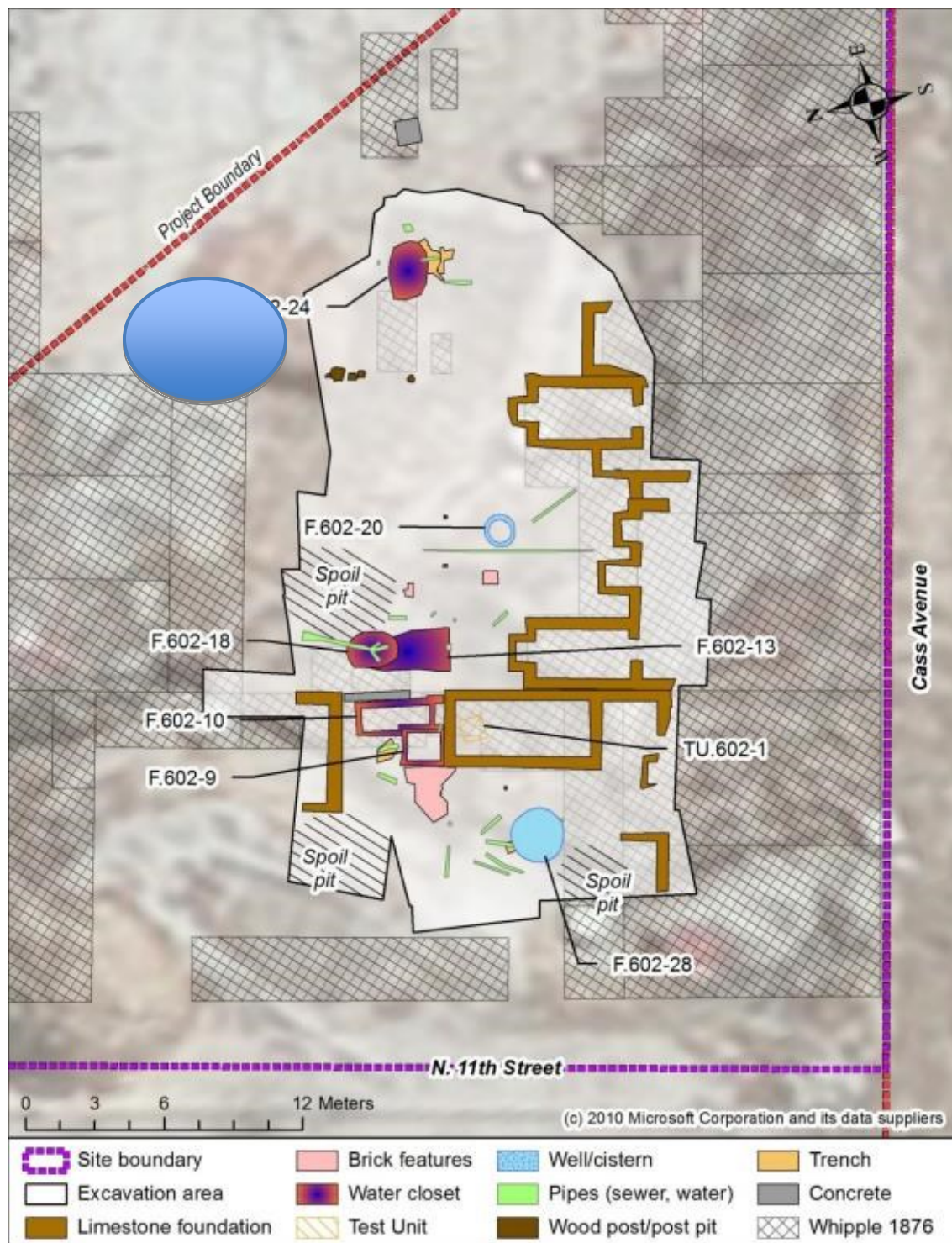


Figure 13. Archaeology site map created by Michael Meyer of the Mullanphy Park Site (23SL2274). Superimposed on a 2012 aerial photograph and a digitized copy of an 1876 fire insurance map (Whipple 1876).

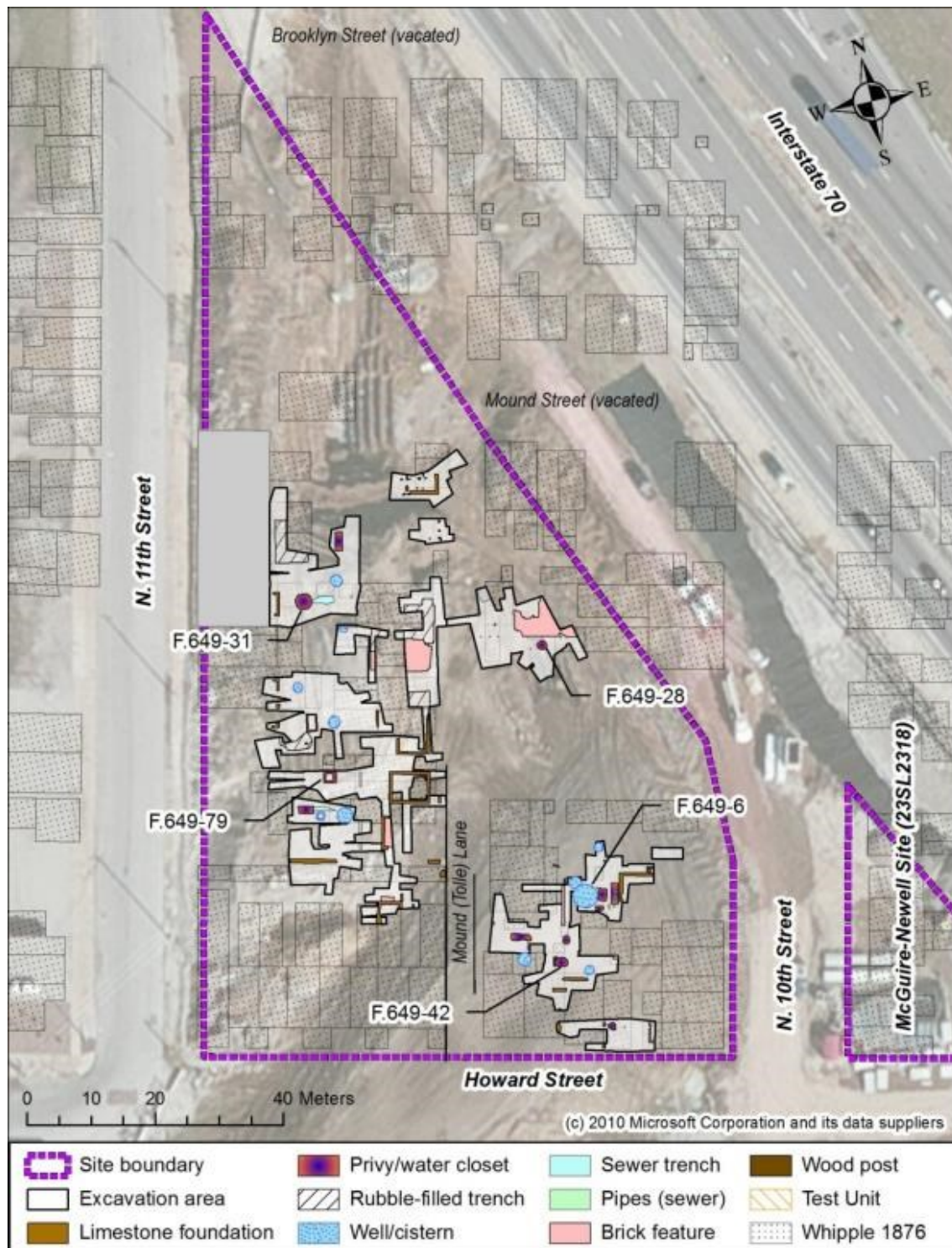


Figure 14. Archaeology site map created by Michael Meyer of the Worthy Woman's Site (23SL2316). Superimposed on a 2012 aerial photograph and a digitized copy of an 1876 fire insurance map of the block (Whipple 1876).

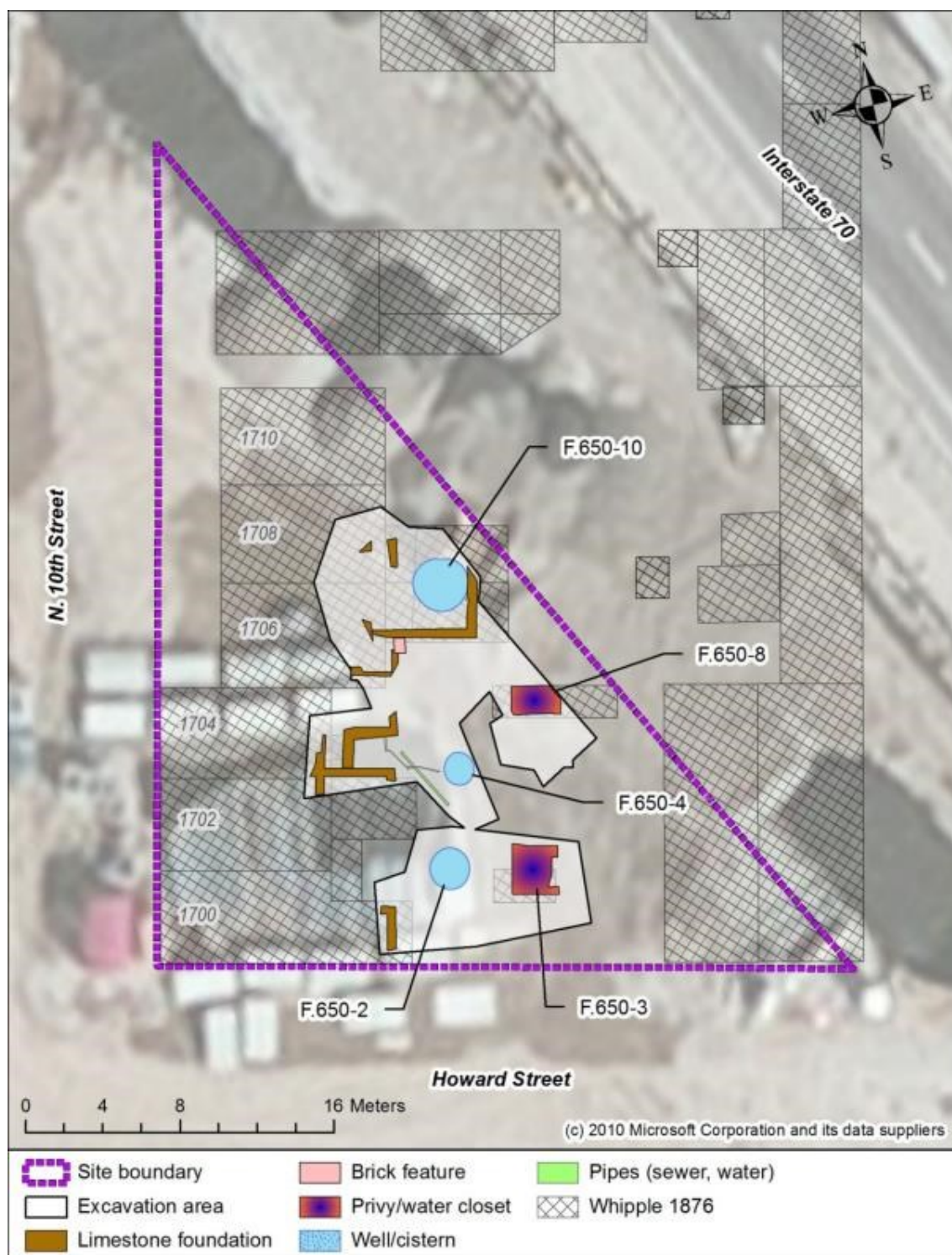


Figure 15. Archaeology site map created by Michael Meyer of the McGuire-Newell Site (23SL2318). Superimposed on a 2012 aerial photograph and a digitized copy of an 1876 fire insurance map of the block (Whipple 1876).

METHODS

It is quite clear that archaeologists studying domesticity and consumerism have focused, and continue to focus on, ceramic tableware as a primary line of evidence, while few archaeologists have seriously incorporated analyses of glass tableware. This omission is problematic because glass tableware is common at turn of the century residential sites, and was intensively marketed to the domestic consumer at the time. Glass tableware data therefore have the potential to be extremely useful as a stand-alone line of evidence, but even more so as a complement to ceramic data in the historical archaeology of domesticity and consumerism, and in historical archaeology generally.

My research addresses this problem through a study of glass tableware from Gilded Age (1870s – 1900s) residential features in St. Louis, Missouri. The project goals are two-fold. The first goal is to develop a method of quantitatively and qualitatively examining glass tableware consumption. The second goal is to use archaeological data gathered through the new method, as well as archival data, to investigate household consumption in relation to domesticity in St. Louis, Missouri historically. The St. Louis case study addresses two questions about consumption and domesticity: (a) How did variation in household composition relate to variation in the quantity and quality of glass tableware consumed?; (b) How did variation in household socioeconomic status relate to variation in the quantity and quality of glass tableware consumed?

This chapter presents the methods used to achieve these goals. Below, the first section explains how I created a glass tableware analysis system. The second section outlines my archaeological data collection methods, including permissions, consultations, sample

selection, and transport of the sample to the lab in which I applied the new glass tableware analysis system. The third section presents my archival data collection methods. A final section of this chapter describes the statistical methods used to analyze the collected archaeological and archival data.

Creating a Glass Tableware Analysis System

Approach and Sources. The first goal of this study is to develop a system of glass tableware artifact analysis. I developed this system by combining elements of existing works on historical glass tableware with elements of existing works on historical ceramics. The extant studies include publications by archaeologists, historians, and collectors. In order to combine elements of extant works, I first creating a skeleton of a classification system based on Olive Jones' Parks Canada Glass Glossary (Jones is also cited by Aultman in the DAACS Glass Lab Manual). I then built on that skeleton by adding variables derived from collectors' and historians' studies of glass tableware, and archaeologists' studies of historical ceramics.

Olive Jones and Catherine Sullivan (1989) created the seminal guide for identifying all categories of North American historical glass. This guide describes the history, composition, form, manufacturing, and decorations of containers (including bottles), tableware, flat glass (windows), and closures. In a later article, Jones (2000) also provides specific instructions for identifying glass tableware produced between 1800 and 1940. Both of her works are very detailed, and the article presents several archival sources useful for glass identification, including glass manufacturers' catalogs from the 19th century. One indicator of the usefulness of these sources is the partial reliance on these works in the DAACS Glass Manual (cite).

The only drawback to using these two sources (Jones 2000; Jones and Sullivan 1989) is the very detail that recommends them; the sheer number of variables becomes confusing and tangled when applied during data collection work in the lab and subsequent data analysis. A consequence of this high number and diversity of variables is that researchers do not uniformly apply these guides. Rather, due to the many categories of glass, and the many variables for each category, researchers have applied these guides in a wide variety of ways, making future comparisons across studies difficult. My work incorporates only select variables from the previous works to create a guide simpler than the Parks Canada Glass Glossary, but more comprehensive than the Digital Archaeological Archive of Comparative Slavery (DAACS) glass guide.

In developing my analysis system, I adopted some variables used by glass tableware collectors, who have been researching glass tableware manufacturers and patterns since the 1930s (Lee 1960[1931]). The collector sources were particularly useful for finding variables relating to vessel date and pattern (Husfloen 1992). More specifically, in developing my glass tableware analysis system, I developed two variables - Pattern Type Group and Pattern Time Period - based on collector sources. Each of these variables enabled me to condense hundreds of vessel patterns styles and pattern time periods into just a handful of types, enabling a more manageable, but still accurate, classification system. The use of these variables is particularly useful for statistical analysis, as it allows for larger sample sizes by condensing what are potentially hundreds of types into a few types. I also found the Pattern Type and Time Period categories to be immensely helpful when comparing vessel information with archival information, because they allowed me to compare what was happening at the site to historically recorded trends in pattern popularity.

Another important component in the development of my analysis system was incorporating variables based on ceramic equivalents. Extant works on analysis of historical glass tableware do not explicitly cite ceramic equivalents or parallels to the variables employed. However, historical glass tableware and historical ceramic tableware have many obvious similarities in terms of manufacture technologies, product functions, product marketing, cultural meaning, and archaeological assemblage characteristics. Given these parallels, ceramic analysis methods can be readily adapted for historical glass tableware analysis. For example, historical glass and ceramic tableware display many of the same vessel forms, functions, and decorative styles (Aultman et al. 2003; Rice 2005[1987]:207, 244).

In summary, I developed a glass tableware artifact analysis system by selectively incorporating variables from extant guides to the archaeological analysis of historical glass tableware artifacts, books aimed at glass tableware collectors, and guides for the archaeological analysis of historic ceramic tableware artifacts. In addition, I modified some of the variables to make them more useful within the context of the larger classification system. The resulting glass tableware artifact classification system is presented below.

Archaeological Data Collection Variables. The approaches and sources outlined above were used to produce the classification system presented here. As presented here, variables are grouped into themed categories. However, the reader should keep in mind that these groupings are not fixed. Rather, some variables can be grouped under multiple themes. For example, the Style Variables are related to both Manufacturing Technology and Time Period. The variable groupings presented here reflect, in part, an effort to most clearly define each variable for the reader.

Spatial Information. Spatial information is information related to the provenience of an artifact:

- “Site Number”: The site number is the number allocated to the site by the National Register of Historic Places. Archaeological sites are assigned a SHPO number representing the state, the county initial and a number representing which site it is. For example: Missouri is 23 and St. Louis County is SL, so the McGuire-Newell site is 23SL2318. The 2318 means that it was the 2,318th site to be recorded in St. Louis County.
- “Block Number”: The location of the site. Block refers to the city block the site is located on.
- “Feature Number/Unit Number/Level Number”: The location of the sample within the site.
- “Catalog Number”: The number given to an artifact in the field to keep track of what has been collected from each level from each feature or unit. The number is a combination of the city block and bag number, i.e. 650-30 denotes an artifact(s) from the thirtieth bag collected from city block 650. Each bag is collected from one level from one feature or unit.
- “Artifact Number”: The number assigned to an artifact that relates it back to all of its provenance information. In this case the number is placed after a decimal point after the Catalog Number to differentiate between groups of artifacts collected at the same block, feature or unit, and level. 650-30.01 represents one artifact collected from city block 650, Feature 10, unit A, level 4 (bag 30).

Analyst Information. Analyst information is related when and who analyzed the artifact and any remarks they would like to make about said artifact:

- “Analysis by”: The person who analyzed the artifact.
- “Analysis date”: The date the artifact was analyzed.
- “Remarks”: Any comments about the artifact by the analyst.
- “References”: References used to identify the artifact.
- “Pulled”: This field indicates usually whether someone outside of MoDOT pulled the lot out of the collection to allow for further analysis. For instance, all of the marbles were pulled to allow a student in St. Louis to do additional analysis.

Photograph Number. This is the number given to the artifact photograph when a

picture is taken. The number is taken from the image file assigned by the camera.

MNV. Minimum Number of Vessels is a variable taken from ceramic analysis (Orton 1993) and refers to the minimum number of glass tableware vessels represented by artifacts from a given analytical unit. For example, there are 15 shards of glass from a feature. Using refitting, pattern style, and body form, 7 shards refit together and the other 8 do not. However, 2 of the 8 shards that do not refit have the same pattern and body form as the 7 shards that refit. Three other shards have the same pattern and form as each other even though they do not refit and the final 3 shards are plain with no defining characteristics. The MNV would be 3 because we know that one vessel is definitely represented by the 7 refit shards and 3 shards with a pattern matching them. The 3 other matching shards represent another vessel with a different pattern. The final 3 shards that do not refit with anything and are plain may come from one or more other vessels when cataloging and analyzing artifacts.

Vessel ID. Vessel ID is a number representing each individual vessel identified by the MNV analysis (MoDOT 2014). Continuing the above example, there are Vessels 1 and 2. The plain shards are not assigned a number; instead they are labeled as an unidentifiable fragment and not included in the analysis. Only eight percent of the shards were labeled as unidentifiable fragments. All of the fragments like this I encountered were Unidentified Plain Rim Fragments and Unidentified Plain Foot Fragments.

Shard Count. The number of fragments present from each identified vessel (Aultman et al. 2003:5; MoDOT 2014). Vessels can be made up of several shards or just one if it has a distinct pattern style that does not match any other shard.

Vessel and Shard Size Variables. Vessel and shard and size variables include all quantitative measurements made with scales and tape measurers:

- “Weight”: The weight of each shard in grams (Aultman et al. 2003:20; Aultman et al. 2012:16; MoDOT 2014).
- “Rim Circumference”: The length of the rim in millimeters, technically it will only be the actual circumference if the rim is whole (Aultman et al. 2003:21; Aultman et al. 2012:16).
- “Base Circumference”: The length of the base in millimeters, technically it will only be the actual circumference if the rim is whole (Aultman et al. 2012:17).
- “Rim Thickness”: Rim thickness is only measured when the rim is intact, in millimeters (Aultman et al. 2012:16).
- “Rim Diameter (round rim only, fragments must be greater than 20mm)”: The diameter of the rim, in millimeters (Aultman et al. 2003:21; Aultman et al. 2012:16).
- “Base Diameter (round base only, fragments must be greater than 20mm)”: The diameter of the base, in millimeters (Aultman et al. 2012:17).
- “Maximum Shard Measurement (shards only)”: Maximum dimension of shard (Aultman et al. 2012:16) (Aultman et al. 2003:20; Aultman et al. 2012:16).

Condition Variables. Variables related to the physical condition of the artifact, in particular, how it is part of a larger vessel:

- “Completeness”: fragment; whole (MoDOT 2014).
- “Cover/Lid”: Yes, No
- “Portion”: base; rim; body; whole; or any combination of these (Aultman et al. 2003:9; Aultman et al. 2012:6; MoDOT 2014).
- “Condition”: good; poor (degraded/crumbling) (MoDOT 2014).
- “Modifier”: burned; solarized; patinated; weathered; eroded in color (Aultman et al. 2012:19; Jones and Sullivan 1981:14–15; MoDOT 2014).
- “Cross-mend”: yes; no. This indicates whether the artifact has been fit back together from separate pieces. An individual yes means all of the pieces have the same artifact number, a yes with a catalog number means there are also refit pieces with a different artifact number (Aultman et al. 2003:9; MoDOT 2014).

Raw Material Type Variables. Variables related to the material of the artifact. In this case all of the material information is some form of glass:

- “Material 1”: For all artifacts included in the study, the state of this variable is "glass" (Aultman et al. 2003:5; Aultman et al. 2012:5; Jones and Sullivan 1981:10–12; MoDOT 2014).
- “Material 2”: non-glass material composing part of the object, such as metal for a lid (MoDOT 2014).
- “Glass Composition”: Lead Absent (Soda lime-Pb ppm 0); Lead Present (Pb ppm > 1) (Aultman et al. 2012:5; Jones and Sullivan 1981:10–12; Rice 2005[1987]:393–395). Lead content (Pb ppm) was determined through x-ray fluorescence analysis (XRF).

Glass composition is difficult to determine without a laboratory measurement of lead content. Non-laboratory methods involve subjective descriptions. For example, Flint (lead) glass is heavier, has a brighter shine with a grey blue sheen, and a bell tone when struck, and Soda lime glass is lighter and less clear in shine and tone (Jones and Sullivan 1981:11–12). Ultra violet light is another subjective way to distinguish between these two types of glass (ibid). Flint glass has an “ice-blue” or “ice-purple” color when subjected to short-wave ultra-violet light; however, different UV lights work differently and the way people perceive color is subjective as well (ibid). Finally, in general, cut glass and early pressed glass were made from Flint glass, and mass-produced pressed glass after 1864 was made from Soda lime glass (ibid). However, the only way to be completely sure of glass artifact composition is through molecular composition testing. X-ray fluorescence is the form of molecular composition testing used in this study.

To test the lead content of my glass tableware I collaborated with Missouri State University Ozarks Environmental and Water Resources Institute’s (OWERI) directors, Drs. Bob Povlowsky and Marc Own, and three lab technicians, A. Mulling, K. Zelzer, and R. Hill. OEWR used the X-MET 3000TXSt portable XRF machine from the Geography, Geology, and Planning Department to test for the presence of lead. The XRF machine was calibrated using glass standards with known lead concentrations. Lead Absent indicated a result of 0 parts per million (ppm) of lead or ‘No Detect’ and means the glass tested is Soda lime and was manufactured after 1864. Lead Present indicated by a ppm value of 1 or greater indicates that the glass tested is possibly lead glass and was manufactured before the 1870s. The result is only ‘possible’ Flint glass because determining the percentage of lead present based on ppm is subjective with the current method.

Two hundred and sixty glass tableware shards were tested. Of the 260, 137 were Lead Present and 123 were Lead Absent. The Lead Present had a ppm range of 13 to 968,224. This means that almost half of the tested shards were Soda lime glass and made after 1864. This dramatically adjusted the estimated feature date ranges I had previously calculated. The mean Manufacture Start Date estimate changed from 1835 to 1853. This change is due to a shift from a majority of vessels having a broad Manufacture Start Dates estimate 1800s (1800–1899) to a more refined estimate of 1864.

The conclusion is that XRF is useful for finding Soda lime glass (Lead Absent) and refining the estimated Manufacture Start Dates. On the other hand, Lead

Present results only indicate *possible* Flint glass and an indeterminate Manufacture Start Date. Future testing could help improve the Lead Present results and make XRF testing an even better tool for refining Manufacture Start and End Dates.

- “Glass Color”: amber, amethyst, aqua, brown, cobalt, colorless, green, and white (Aultman et al. 2012:5; Jones and Sullivan 1981:12–14; MoDOT 2014).
- “Applied Color”: red, orange, yellow, green, blue, purple (Aultman et al. 2003:13; Aultman et al. 2012:20; Jones and Sullivan 1981:57–58).
- “Applied Color 2”: applied color according to manufacturer.

Manufacture Technology. The following variables refer to how the artifact was manufactured and who the manufacturing company was:

- “Manufacturing Method”: mouth blown; contact mold; pattern mold; optic mold; press mold (Aultman et al. 2003:6; Aultman et al. 2012:7; Jones and Sullivan 1981:17–49; MoDOT 2014). The differences between these methods are described in detail in The Park’s Canada Glass Glossary and are easily determined on vessels with patterns (Jones and Sullivan 1981). Plain vessels are either mouth blown or press molded. Manufacture method is also used as an indicator of glass vessel quality. Certain manufacturing techniques were considered higher quality than others in the 19th century. Hand-made was viewed as highest in quality, and that category includes hand cut glass and hand blown art glass (Comstock 1965:279; McKearin 1975[1941]:36). Similarly, machine made glass was considered lower quality, partly because it was made through techniques requiring less-skilled laborers, which made the finished glass less expensive (Scoville 1944:203–204).
- “Manufacturing Mark”: yes (include a transcription); no (Aultman et al. 2003:18–19; Jones and Sullivan 1981:16–17; MoDOT 2014).
- “Manufacturer”: company name (Table 4). This is determined by comparing the artifacts to vessels known to have been produced by specific manufacturers as documented in reference books and websites. If the manufacturer could not be found it is unknown, if the pattern was produced by multiple companies it is unidentifiable (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Gillinder and Sons N.d.; Kaiser 2009; Lee 1960[1931]; McCain 2009; McKee and Brothers 1868, 1882; McKee Glass Company 1923; Metz 1978, 2000; Mile and Miller 1986; MoDOT 2014; National Glass Company N.d.; National Network Solutions LLC 2015; O’Hara Glass Co. N.d.; patternglass.com; Pitkin and Brooks 1897; Revi 1967[1964]; United States Glass Company 1904; Welker 1985).
- “Manufacturer Reputation”: Another indicator of quality is the manufacturer. Certain manufacturers had - and in some cases still have - reputations for higher quality glass

tableware than others (Nutting 2003:449–450). For example, Tiffany glass has long been viewed as higher quality than Fenton glass tableware, but Fenton glass tableware in turn is viewed as higher quality than Indian Tumbler, Goblet, and Co. even if all companies used the same type of glass. Just as with Pattern Defects, quality of manufacturer is related to a consumer’s spending capabilities and socioeconomic status.

Use Sphere Variables. The following variables refer to the ascribed use of the artifact starting with general use and ending with specific use:

- “Vessel Form General”: drinkware; tableware. Drinkware includes drinking vessels and stemware. Tableware consists of all other vessels including dishes, bowls, pitchers, and other food related vessels. This variable is used to infer variation in the relative importance of drinkware versus tableware in the consumer behavior of households represented by the sampled features and sites. In general, if a household had glass tableware, it was mostly drinkware and tableware was mostly ceramics.
- “Vessel Form Specific”: tableware; drinking vessels; stemware (Figure 16). Drinking vessels include tumblers and mugs (Jones and Sullivan 1981:9). Stemware includes goblets, wine glasses, cordials, and other stemmed drinking vessels (ibid). Tableware consists of all other vessels including dishes, bowls, pitchers, and other food related vessels (ibid). Vessel Form data are used to help determine the MNV for each sampled feature and site. This in turn is used to infer variation in the total quantity of vessels, quantity of each vessel form, and diversity of vessel form types represented by the sample from each feature and site. Vessel form data are also considered when determining states of other variables including vessel functional type, number of represented glass tableware sets, manufacturer, and manufacture date for each shard and vessel in the sample.
- “Functional Type”: This variable refers to the intended functions of the vessel according to conventions of the time (Figure 17). Nine functional types of vessels are used, though more could be added if needed: Caster (holds condiments such as vinegar), Cordial, Cover, Dish (bowls, compotes, celery vases, butter dishes and various other food related vessels), Goblet/Wine, Mug, Packer Tumbler, Pourer (creamers, pitchers, and molasses cans), and Tumbler. These nine types are based on functional typologies widely used in both collector and professional studies of glass tableware (Table 4) (Gillinder and Sons N.d.; Jones and Sullivan 1981:125–146; McKee and Brothers 1868, 1882; McKee Glass Company 1923; MoDOT 2014; National Glass Company N.d.; O’Hara Glass Co. N.d.; Pitkin and Brooks 1897; United States Glass Company 1904; von Zweck 1983). Vessel Function data are also used to help determine the MNV for each sampled feature and site. This in turn is used to infer variation in the total quantity of vessels, quantity of each vessel functional type, and diversity of vessel functional types represented by the sample from each feature and site. Vessel functional type data are also considered when

determining states of other variables including number of represented glass tableware sets, manufacturer, and manufacture date for each shard and vessel in the sample, as well as consumer preferences.

- “Tumbler Type”: Based on function and design elements, tumblers are divided into four types: Gothic, characterized by paneled or fluted design (Clark 1976:35, 37, 42; Wall 2000:134–135); Plain, characterized by no paneling, fluting, or other ornamentation; Packer, sold as a jar for jam or some other food item, and intended for re-use as a tumbler; and Patterned, tumblers that have the same decoration as other Tablewares such as Arabesque or Argus. Patterned tumblers are parts of sets, particularly sets that include a pitcher and three to six tumblers with a matching design.

Historical archaeologists have previously discussed tumbler type in relation to social class ideology. Clark (1976) and Wall (2000) viewed paneled (fluted) tumblers as “gothic” in pattern, connected to the 19th century middle class movement that equates the home with a sacred space, like a church (Clark 1976:35, 37, 42; Wall 2000:134–135). In contrast, Wall associates more elaborate tumblers with entertaining of guests, an activity pursued by higher socioeconomic status families, and plain tumblers are associated with general everyday use (Wall 2000:135–136). The hypothesis is that women who used gothic tumblers were asserting their commitment to home, whereas more elaborate tumblers were one way of “negotiating” a family’s “position in the class structure,” and plain tumblers were functional with no distinct ideology (Wall 2000:134–135).

An interesting category of tumbler is the packer tumbler. This type of tumbler was sold as a container, but marketed for reuse as a tumbler (Davis 1949:206; Scoville 1972[1948]:261). Food manufacturers bought the empty tumblers from glass manufacturing companies then filled them with jelly, peanut butter, preserves, baking soda, or any other semi-liquid foodstuff (Shaw 2009; United States Glass Company 1904:25–26). The consumer then bought the glass tableware for the food content and then had the option of reusing it as a tumbler - a drinking glass. Many such tumblers were marketed as parts of promotional sales, and bore the embossed name of the food company selling the food (Shaw 2009).

- “Set Presence/Absence”: I define a set as two or more vessels with a different function and the same pattern. This variable refers to the presence or absence of one or more sets. I use the presence and number of sets represented by each sampled feature as a measure of the extent to which social class status or aspirations influenced household glass tableware consumption. Sets became widely available in the United States after the Civil War (Scoon 1965:277; Scoville 1944:375). Set ownership was an element of middle class popular etiquette, as dictated by contemporary etiquette books (Beecher 1846, 1977[1841]; Leslie 1840). Both set ownership and the number of pieces in a set could communicate social status to diners. Sets ranged from two to forty pieces (Lee 1960[1931]). The more money you had, the more pieces you could afford. And, the more people you wished to entertain, the more pieces you needed (Wall 1991:79). Finally, matching sets also suggest an effort to achieve middle class ideals of order and symmetry (Williams 1985:90)

Style Variables. The following variables refer to the decorative style of the artifact:

- “Stemware Body Shape”: cup; ovoid; round funnel; conical; trumpet; waisted; bell; bucket; incurved bucket; ogee (Aultman et al. 2012:30; Jones and Sullivan 1981:139).
- “Stemware Foot Shape”: conical folded; plain conical; domed and folded; firing; lemon-squeezer (Aultman et al. 2012:30; Jones and Sullivan 1981:140).
- “Stemware Stem Shape”: true balaster; inverted balaster; annular knop; bladed knop; annulated knop; ball knop; angular knop; doubly cushioned knop; straight stem; quatrefoil stem (Aultman et al. 2012:30; Jones and Sullivan 1981:140).
- “Decoration Technique Main”: acid etched; air bubbles; air twist; casing; copper wheel engraving; cut; diamond point engraving; enamel twist; enameled; engraved; gilded; mixed twist; molded; painted; sand blasted; silveria; tooled (Aultman et al. 2003:13; Aultman et al. 2012:19–20; Jones and Sullivan 1981:50–58, 130–131; MoDOT 2014).
- “Decoration Technique Other”: some vessels have multiple decorative techniques (Jones and Sullivan 1981:130–131). This variable consists of names of decorative techniques other than the "Main" technique.
- “Stylistic Elements”: band; botanical; cartouche; cordoned; cross-hatching; double wavy; diamonds; dogtooth band; dots; facets; fan; flutes; hobnails; lettering; mitre; notches; other; panels; prunt; ribs; scallop band; scallop/sawtooth edge; solid; star; stippled; sun/starburst; swag; teardrop; twisted; unidentifiable; wavy band; wrythen (Aultman et al. 2003:14; Aultman et al. 2012: 21, 24–29; Jones and Sullivan 1981:50–67; MoDOT 2014).
- “Original Manufacture Name (OMN)”: the name the pattern was given by the manufacturers (Table 4) (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Gillinder and Sons N.d.; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931]; McCain 2009; McKee and Brothers 1868, 1882; McKee Glass Company 1923; Metz 1978, 2000; Mile and Miller 1986; National Glass Company N.d.; National Network Solutions LLC 2015; O’Hara Glass Co. N.d.; patternglass.com; Pitkin and Brooks 1897; Revi 1967[1964]; United States Glass Company 1904; von Zweck 1983; Welker 1985). The OMN is not always available. Sometimes the paperwork associated with the OMN was lost, other times the popular collector’s name has replaced the OMN.
- “Pattern name 2”: any additional pattern names given to the decoration. Many times collectors choose a name for a pattern that then becomes the common name for referring to it (Aultman et al. 2003:17,18; Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931];

McCain 2009; Metz 1978, 2000; Mile and Miller 1986; National Network Solutions LLC 2015; patternglass.com; Revi 1967[1964]; von Zweck 1983; Welker 1985).

- “Pattern name 3”: any additional pattern names given to the decoration (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931]; McCain 2009; Metz 1978, 2000; Mile and Miller 1986; National Network Solutions LLC 2015; patternglass.com; Revi 1967[1964]; von Zweck 1983; Welker 1985). As many of these columns can be created as needed since some patterns have up to five different names.
- “Patent #”: the number assigned to the pattern by the patent office (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931]; McCain 2009; Metz 1978, 2000; Mile and Miller 1986; National Network Solutions LLC 2015; patternglass.com; Revi 1967[1964]; von Zweck 1983; Welker 1985).
- “Pattern Type Group”: Based on a variety of sources (Aultman et al. 2003:18; Husfloen 1992:79; Jones 2000), five pattern group types are recognized: Geometric; Abstract; Naturalistic; Realistic; Plain (Figure 18). Historians and collectors mention pattern types in their works (Husfloen 1992:79,104; Lee 1960[1931]:xxi, xxii; McKearin 1975[1941]:262, 332), but one collector in particular, Kyle Husfloen, condensed the many varieties into a few concise types. In two chapters devoted to a pattern styles, he defined four pattern types: Geometric, Abstract, Naturalistic, and Realistic (Husfloen 1992:70, 104). Husfloen's work comes closer than that of any other historian or collector to a classification system similar to the DAACS ceramic genre appendix (Bates and Cooper 2014).

My method takes Husfloen’s categories and brings them all together resulting in five main categories in Pattern Type Group: Geometric; Abstract; Naturalistic; Realistic; Plain (Husfloen 1992:79, 104). Each pattern group condenses several separate types into one unified type. For example, Arabesque and Pleat and Panel are different patterns, but both can be combined under the umbrella term of Abstract.
- “Pattern Defects”: Pattern defects include: Bubble; Inclusions; Striations; Mold Seams (Jones and Sullivan 1981:15). The presence of defects is used as a measure of glass tableware quality; vessels with one or more defects are deemed lower in quality than vessels with no defects. Quality is in turn related to a consumer’s spending capabilities of socioeconomic status.

Time Period. The following variables refer to the time period in which the artifact

was manufactured:

- “Pattern Time Period Group”: The time period group is based on the time period in which the pattern was introduced. Based on Husfloen (1992) and Jones (2000), there are four possible time period groups: All (“timeless” patterns produced through all time periods); Lacy (1825 to 1840s); Colonial (1840s to 1860s); Antebellum (1864 to

1870s); Golden Age (1880s to 1890s) (Figure 19). These categories come from a mixture of pattern type; pattern name; manufacture date; glass composition; and trends in popularity of pattern styles (refer to background section on Glass Manufacture Patterns and Methods section on Glass Composition). Lacy glass refers to 1825 to 1840s, when Lacy glass was what was produced. Next are Colonial (1840s to 1860s), then Antebellum (1864 to 1870s), and finally, Golden Age (1880s to 1890s). This variable is used to infer variation among represented households and communities in preference for stylistic periods. For example, a household may be dated to the 1880s but have several pieces from the Lacy periods, which could indicate that they prefer older pieces, acquired them as heirlooms, or purchased them second hand. Time Period Group is also used to refine the dates of features. A feature may be dated to a few decades, but a preponderance of Golden Age vessels may indicate that the feature was most heavily used during a more restricted period of time.

- “Temporal Begin”: The vessel type’s manufacture start date (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931]; McCain 2009; Metz 1978, 2000; Mile and Miller 1986; MoDOT 2014; National Network Solutions LLC 2015; patternglass.com; Revi 1967[1964]; von Zweck 1983; Welker 1985).
- “Temporal End”: The vessel type’s manufacture end date (Bredehoft 2003; Carwile 2009; Corning Museum of Glass 2002; Husfloen 1992; Jones 2000; Kaiser 2009; Lee 1960[1931]; McCain 2009; Metz 1978, 2000; Mile and Miller 1986; MoDOT 2014; National Network Solutions LLC 2015; patternglass.com; Revi 1967[1964]; von Zweck 1983; Welker 1985).
- “Temporal Begin Decade”: The decade of the vessel type manufacture start date.
- “Temporal End Decade”: The decade of the vessel type manufacture end date.

Probate Records. A disclaimer for the analysis of glass tableware is that multiple avenues exist for the acquisition of glass tableware beyond purchasing it. Tableware could have been a gift, salvaged, part of a charity donation, or purchased at a discount. However, as a gift, salvage, or discount purchase, it is just as interesting to know what type of glass decoration people favor no matter how they acquired it. Either way, probate records are useful in determining if an item was an heirloom (Bedell 2000; Crass et al. 1999:16; McInnis 1999; Perkins 1991:488).

Archaeological Data Collection

Permissions and Consultations. This study required permission from and consultation with the Missouri Department of Transportation (MoDOT). MoDOT surveyed the area, excavated the sites, and collected and curates the artifacts. After completing an internship with them in 2014, I inquired about using some of their collections for thesis research. Ensuing consultation involved deciding which collections were the most promising and where I would conduct my analysis.

Sample Selection. The sampling strategy for this research has three levels: site selection; feature selection; and artifact selection. As explained in Chapter 3: Study Sites, the sites were chosen based on several variables including: collection availability; represented time period; size of glass tableware artifact assemblage; availability of relevant documentary data; and the composition and socioeconomic status of represented households. The sites I have selected are, as previously stated, the Mullanphy Park, the Worthy Women, and the McGuire-Newell Sites in St. Louis, Missouri.

Within each site, feature selection was based on the following: size of glass tableware assemblage; feature fill dates; and feature integrity. All features with sizable glass tableware assemblages dating to the study period (between ca. 1860 and 1930) and undisturbed deposits were included in the sample. The features I have selected are one cistern and six privies.

The artifact sample selection strategy is straightforward. All glass tableware artifacts from each feature were analyzed, regardless of size, condition, or other variables. Based on the sampling criteria, the study involved the analysis of a total of 677 glass shards from various tableware artifacts. My artifact sampling was inclusive to ensure that vessel refitting for vessel identification would be as complete as possible.

Analysis Location. The four previously mentioned sites, part of the Mississippi River Bridge (MRB) project excavations, were chosen because they had rich glass tableware assemblages and because the report was in progress and my research could be used as part of the official report. MoDOT sent me paperwork that was signed by myself, my advisor Dr. Sobel, and Michael Meyer of MoDOT to allow for the temporary transfer of the artifacts from Jefferson City to the Missouri State University Anthropology lab.

Archival Data Collection

Approach and Sources. Archival data gleaned from federal and state censuses, as well as city directories were used to determine the composition and socioeconomic status of each household included in this study. Much of the needed archival data has already been collected by other researchers (Harl 2006; Meyer 2014, N.d.), and was available for my use. I sorted this information into applicable variables. The variables I recorded first were collection variables. These variables were then used to create the analysis variables. The variables are split because the collection variables come directly from the census and city directory records and the analysis variables come from the collection variables.

Variables Based on Archival Data. The variables presented in the previous sections are all related to artifact data. The following variables are one possible way to gather archival data using public information from the Census and City Directories.

Household Composition. As used here, “household composition” refers to the number and proportions of individuals of each biological sex, age, marital status group, and relation to head of household group within a given household. A household is “a domestic residential group, consisting of the inhabitants of a dwelling or a set of premises and who

appear as a discrete group in the documents (e.g., city directory, census, or tax records)” (Henry 1987:360). I collected household composition data using archival sources for each household examined in the study. I collected archival data for the following household composition variables, using the listed variable states:

- “Relation to household head”: self, wife, daughter, son, mother, father, uncle, aunt, nephew, niece, boarder, or servant
- “Marital Status”: Married, single, widowed, divorced, separated.
- “Age”: 0, 1, 2, 3...100.
- “Biological Sex”: Male, female
- “Ascribed Race”: White, Black (Heneghan 2003).
- “Ancestry”: refers to country of origin or country where parents were from. If a family has only United States for birth or parents’ birth they are considered a second or more generation American.
- “Home Ownership”: Rent, Own
- “Family Type”: Family type has four possible states: nuclear; extended; widowed/single parent; and other. Nuclear families are a husband and wife with children. Extended families are a husband and wife with children, or stepchildren, and various relatives such as In-Laws, grandparents, and cousins. Widowed/single parent families are families with a head-of-house that is a widower, widow, or an unwed mother. The latter is in reference to the Worthy Women’s Aid, where whether the women with children are widows is not indicated. Finally, Other families are childless couples, siblings, or single individuals.
- “Boarders”: Boarders refer to how many of the families associated with the site/feature have taken on boarders.
- “Servants”: Servants refer to how many of the families associated with the site/feature employ servants.
- “Family Age”: Family Age is split into three categories: Old, Middle, and Young. Old families refer to families with adults older than or equal to 40 or parents who are 40 or older with children who are 20 or older and/or employed but still living at home. Middle families refer to families with adults between 25 and 39 or parents between 25 and 39 with children between 6 and 19. Young families refer to families with adults younger than 25 or parents younger than 25 with children 5 and younger.

- “Ancestry”: Ancestry is split into five main categories; German, Irish, English, Other European, and United States Born.
- “Head Woman’s Status”: This category was created for a closer examination of the women who would have been in charge of domestic purchases. This variable is split into four categories: Wife, Head, Daughter, and Sister. Wife refers to women who are the wives of the male head of a family. Head refers to a woman who is the head of a family, usually because they are widows. Daughter refers to a woman who is the daughter of the male head of a family; usually the man is a widower. Finally, sister refers to a woman who is the sister of the male head of the family.

Household Socioeconomic Status. As used here, household socioeconomic status is based on the occupation and presumed wealth of the residents. The relevant data were gathered from city directory, census, probate, and will archival records (Henry 1987):

- “Occupation”: specific occupation of each adult household member
- “Occupational Ranking”: Rank of the occupation of each adult household member based on Van Leeuwen and Maas’s (2011) Historical International Social Class (HISCLASS) scheme (Table 3). Occupational Rank is an ordinal variable that ranges from one to 10, with 10 representing occupations that only involve manual labor and one representing occupations that involve ownership of land and/or a large business.
- “Socioeconomic Class”: Using HISCLASS, each site and each feature was given one of three socioeconomic classes: lower, middle, or upper. Lower class is associated with HISCLASS rankings from eight to 10. Middle class is associated with HISCLASS rankings from four to seven. Upper class is associated with HISCLASS rankings of one to three.

Statistical Methods

Statistical analyses are used to investigate variation in assemblages between sites and between features. Statistical methods are also used to analyze relationships among variables. Conventional statistical analyses are conducted using JMP statistical software, manufactured by SAS. This software is used for statistical comparison of means, correlation, and regression analyses. Two additional analyses were used that are not conventional: Contingency table analyses and Diversity analyses.

These analyses are conducted using ACTUS2 software. ACTUS2 (Analysis of Contingency Tables Using Simulation) allows researchers to “analyze sparse co-occurrence tables” (Estabrook 2002:21, 31). Traditional contingency table analysis, using chi-square, cannot be applied reliably when more than a few cells have low counts. In contrast, ACTUS2 can be used in such cases, to determine whether observed values are significantly different than one would expect due to the vagaries of sampling if two nominal variables were independent (have no relationship).

ACTUS2 also produces significance values for each individual cell, rather than only for the table as a whole. Actus2 does this by producing 10,000 simulated tables for comparison with a table of observed data. The program then compares observed to simulated values, to reveal whether the table, and whether each cell, is significantly different than expected if the rows and columns were independent (Estabrook 2002:22). For example, I know that Feature A has proportionally more drinkware than tableware in comparison with Feature B, but ACTUS allow me to determine if there is *significantly* more than expected drinkware in Feature A (ibid., 25–26). It is important to keep in mind that these analyses do not indicate why Feature A has more drinkware, which leads one to question why, in this context, it is highly likely that Feature A users discarded proportionately more drinkware than did Feature B users (ibid., 26). This is where ideology and household composition are introduced and used to interpret the statistical results.

It is important to keep in mind that the analysis discussed here treats the glass vessels from each feature and site as a sample of a broader population; that population consists of all glass tableware consumed and discarded by the households that produced these deposits. Consequently, variation between samples in the relative abundance of vessel types is

interpreted as evidence of variation between households in glass tableware consumption and discard.

Table 3. Overview of HISCLASS (Historical Class Scheme) Ranks. From van Leeuwen and Maas 2011:56, 131–181.

Rank	Manual Labor	Skill Level	Supervise Others	Sector	Example Occupations
1	No	High	Yes	Varies	Higher Managers, Nobility, Government Administrator/Legislator, Military Official, Proprietor, Estate Owner ¹
2	No	High	No	Varies	Higher professionals: Lawyer, Judge, Notary, Engineer, Pharmacist, Physician, Teacher (Secondary or Higher), Religious Leader
3	No	Med	Yes	Varies	Lower managers: Editor, Journalist, Supervisor, Inspector, Postmaster, Head Waiter, Head Clerk Building Contractor
4	No	Med	No	Varies	Lower professionals and Higher clerical and Sales personnel, Technician, Artist, Nurse, Working Proprietor
5	No	Low	No	Varies	Lower clerical and Sales personnel, Stenographer, Clerk (General), Cashier, Bookkeeper, Teacher (Primary), Companion, Janitor, Guard/Watchman
6	Yes	Med	Yes	Varies	Foreman, Housekeeper/Butler, Steward, Matron, Farm Supervisor
7	Yes	Med	No	Varies	Artisans and Craftsmen: Baker, Blacksmith, Carpenter, Jeweler
8	Yes	Med	No	Primary	Small Farmer (rent/own farm), Fisherman (rent/own boat), Logger
9	Yes	Low	No	Varies	Semi-skilled Urban Labor: Conductor, Postman, Operator, Domestic Servant, Valet, Waiter/Bartender, Laundress, Barber, Miner, Driver (chauffer or teamster), Quarryman, and general production positions (e.g. Brick, Textile, Woodwork, Tobacco, Stone-Carving, Construction)
10	Yes	Low	No	Primary	Semi-skilled Rural Labor: farming, logging, fishing, hunting, or trapping
11	Yes	None	No	Varies	Unskilled Urban Laborer: Well-Digger, Street Vendor, Waste Collector, Chambermaid, Porter, Factory Worker, Day Laborer, Prostitute
12	Yes	None	No	Primary	Unskilled Rural Laborer: farming-day labor, tending animals

¹ Some occupations reported in the federal census rolls were not listed in the HISCLASS, usually because they are not technically occupations; however, following van Leeuwen and Maas' overall approach, I assigned these pseudo-occupations to Rank 1. These include: the independently wealthy ("Own Means" or "Own Account"), those living off income from investments ("Capitalist" and "Landlord"), and board members for public companies ("President," "Sec/Treas," etc.).

Table 4. Digitized Glass Tableware Catalogs from Corning Museum of Glass.

Date	Type	Title
1868	Manufacturer Price List and Ware Catalog	Prices of Glass Ware Manufactured by M’Kee and Brothers
1875	Manufacturer Ware Catalog	Grierson and Co. Manufacturers
1875–1890	Manufacturer Ware Catalog	O’Hara Glass Company Limited
1881–1889	Manufacturer Ware Catalog	Gillinder and Sons Glass Ware Manufacturers
1882	Manufacturer Ware Catalog	1882 Illustrated Catalogue M’Kee and Brothers No. 29
1885	Manufacturer Ware Catalog	O’Hara Glass Company Limited
1886?	Manufacturer Ware Catalog	Catalogue of Blown and Rich Cut Glassware Manufactured by the New England Glass Works
1897	Store Catalog	Our Catalog for 1897 Pitkin and Brooks Glassware
1899–1904	Manufacturer Ware Catalog	Catalog of Table Glass Ware, Lamps, and Containers. Manufactured by National Glass Company Pittsburgh, PA., U.S.A Operating McKee and Bros. Glass Works, Jeannette
1904	Manufacturer Ware Catalog	Illustrated Catalog United States Glass Company



Figure 16. The three main vessel forms, pictured from left to right Drinkware, Stemware, and Tableware.



Figure 17. The nine vessel functions pictured from left to right, top to bottom: carter, cordial, lid, dish, goblet, mug, packer tumbler, pour, and tumbler.



Figure 18. The five pattern groups illustrated from left to right, top to bottom: Abstract, Geometric, Naturalistic, Plain, and Realistic.



Figure 19. The four Time Periods pictured from left to right, top to bottom: Lacy, Colonial, Post Civil War, and Golden Age. Unlike with Pattern Groups, time periods have a tendency to overlap in patterns. However, the Lacy is rougher in pattern and form than the others and the Colonial is thicker and heavier. It is the Antebellum and Golden Age that are impossible to distinguish unless you find the exact pattern with its manufacture start date.

RESULTS

The previous chapter presents a method for systematically analyzing glass tableware artifact assemblages in order to investigate glass tableware consumption in the U.S. In this chapter, I report the results of my application of this method to artifact assemblages from seven features from three separate study sites in St. Louis, Missouri. More specifically, this chapter reports the results of my analysis of archaeological data gathered through this new method, as well as an analysis of archival data, to investigate household glassware consumption in relation to domesticity in St. Louis, Missouri historically. The St. Louis case study addresses two questions about consumption and domesticity: (a) How did variation in household composition relate to variation in the quantity and quality of glass tableware consumed?; (b) How did variation in household socioeconomic status relate to variation in the quantity and quality of glass tableware consumed? In order to answer these questions, I analyzed a total of 649 shards of glass, which were refit into 245 complete and partial glass tableware vessels. These artifacts were collected from 24.21 m³ of fill excavated from a total of seven features from the three sites.

This chapter presents the outcomes of this investigation in four sections. The first section reports the results of an analysis of correlations among variables, including correlations among archaeological variables, correlations among archival variables, and correlations between archaeological and archival variables. This inter-variable analysis is a necessary pre-cursor to the subsequent sections, which report the results by site, starting with the Mullanphy Park site, followed by the Worthy Women's site, and ending with the

McGuire-Newell site. The results of all analyses are also presented in Tables 5 to 8 and Appendices A to C.

A word on the interpretation of statistics is in order. The reader should keep in mind that the analyses discussed here treat the glass vessels from each feature and site as a sample of a broader population; that population consists of all glass tableware consumed and discarded by the households that produced these deposits. Consequently, variation between samples in the relative abundance of certain vessel types is interpreted as evidence of variation between households in the consumption and discard of those types of glass tableware. By ‘variation’, I mean statistically significant variation. As shown in Tables 7 to 28, probability values of 0.05 or less are treated as statistically significant. Therefore, when I state that the proportion of tableware is significantly different in feature “X” than in feature “Y,” I mean that we can be highly confident that this variation results from consumption and discard differences between households, rather than sampling biases.

Another issue to keep in mind is the role of glass tableware as a sub-set of the tableware likely used by the represented households. Historically, among the upper classes, tableware as a whole typically included ceramic, porcelain, silver plate, and glass vessels. However, in lower class households, tableware typically included ceramics, glass tumblers, tin, and wood, while other glass was supplementary. A family buys ceramic plates, glass tumblers, and other necessities, and stemware, particularly goblets, for middle or upper classes, as basic table settings and any additional glass tableware is for aesthetic reasons. For example, a glass berry bowl to accent a desert tray or a pitcher to show off a special drink. Glass tableware is usually colorless, and used to “show off” colorful foods and drinks (Williams 1985:85). A ceramic pitcher can be easily bought, but a glass pitcher is chosen

instead because of personal preference. Given the supplementary nature of glass tableware, these results are not about tableware in general. Instead, these results are about the relative abundance of some types of glass tableware relative to other types of glass tableware, in the event that a household chose to spend extra to buy glass vessels like pitchers and bowls.

Finally, after examining the results at the feature and site levels, I determined that the most productive analyses were at the feature level. This was mostly due to the issue of one feature influencing the site results or the features being too disparate to represent a single site (Tables 15 to 20). For example, the Mullanphy Park site results were heavily influenced by feature 18. The three features from the Worthy Women site differ more among themselves, than when compared to features from the other study sites and lost significance at the site level. Only the McGuire-Newell site features display intra-site homogeneity. However, since this is the only sight that was homogenous, it was still more productive to keep the majority of the analysis at the feature level.

Correlations Among Variables

Correlations Among Archival Variables. Several relationships are exhibited among household composition variables when the entire data set from all sites is considered, each feature composing a separate case (Table 12 and Figures 20 to 23). First, we see positive correlations among the proportion of young families and proportion of households with boarders. Then we see a positive correlation between proportion of boarders and the head woman's mean age. These relationships confirm patterns documented across the country at the time (Schlereth 1992:104–105; Sutherland 2000:48). The patterns include a tendency for young families to have limited incomes, and therefore to live as boarders. Households headed

by widows tend to also have low incomes, and cope by taking in boarders (usually young couples) (ibid).

Ancestry also correlates with other variables. The proportion of German families shows a negative correlation with the proportion of childless families, but a positive correlation with proportions of extended and middle age families. This observation suggests that on the whole, German families in the sample were more likely to live in extended family households and were more established, relative to families with the other represented ancestries (Irish, English, Other European, and U.S. born).

Mean family size exhibits a negative correlation with total number of residents, but a positive correlation with socioeconomic status. The relationship between mean family size and resident total is a manifestation of a tendency for young, low-income families to be relatively small and to move frequently. Given the positive correlation between mean family size and socioeconomic status, the observations suggest that in the represented communities, wealthier households were larger and more stationary, while poorer households were smaller and less stationary (more transient).

Some relationships among household composition variables differ when each site (rather than each feature) composes a separate case (Table 13 and Figures 20 to 23). Three of these differences are notable. First, the site-level correlations suggest that immigrant German families are older (in later stages) than immigrant Irish families. This inference is supported by positive correlations of the proportion of German families with the proportion of older families. In contrast, the proportion of Irish families correlates positively with the proportion of young families per site. These ancestry relationships suggest that compared to immigrant

German families, immigrant Irish families were relatively young when they arrive in the U.S.

Second, the site level correlations shed light on the conditions under which women become household heads. The data show positive correlations among the proportion of head women who are daughters (their fathers are widowers), proportion of extended families, and family socioeconomic status. This result suggests that extended families tend to have relatively high socioeconomic status, and that both the size and wealth enable continuation of the household across generations; when the founding male (father) dies, the mother takes over as household head and domestic head. When the father survives but the mother dies, the daughter takes over as domestic head.

Third, the site-level regression analysis shows a positive relationship between family socioeconomic status and deposit end date. This result implies that the later a community was occupied, the higher the residents' socioeconomic status became. This in turn supports the widespread assertion that in the late 19th century, household socioeconomic status generally increased in the U.S. (Schlereth 1992:74, 141–142).

Correlations Among Archaeological Variables. Relationships among archaeological variables were examined at both the feature level (each feature sample composing a separate case, for a total of eight cases) and site level (each site sample composing a separate case, for a total of three cases) (Tables 13 and 16). Many observed relationships bear out historians' and collectors' inferences concerning glass tableware trends. One such relationship is a correspondence between vessel pattern and time group. For example, at the feature level of analysis, we see a positive correlation between the proportions of Colonial Period glass tableware and geometric pattern glass tableware. We

also see a positive correlation between the proportion of Golden Age period glass tableware and abstract pattern glass tableware. These relationships support historian and collector's inferences that geometric patterns were prevalent before the Civil War whereas abstract patterns were prevalent afterwards, during the very late 19th century. This inference is also supported by the site-level analysis, which shows a negative relationship between the proportion of glass tableware with Geometric patterns and the proportion with Abstract patterns; as older Geometric patterns waned in popularity, newer Abstract patterns became more popular, suggesting a restricted period of deposition at each site.

In addition, the analysis of relationships among archaeological variables supports historian and collector beliefs that during the 19th century, as glass tableware became more available or popular, it was consumed at proportionally higher quantities than was glass drinkware. At the feature and site levels of analysis, the proportion of Colonial Period glass tableware has a negative correlation with the proportion of glass tableware and positive correlation with proportion of drinkware. The proportion of subsequent Post Civil War Period glass tableware shows a negative correlation with the proportion of drinkware. The proportion of Golden Age Period glass tableware, produced during the very late 19th century, has a negative correlation with the proportion of drinkware but a positive correlation with the proportion of tableware. These trends support the widespread assumption that before the Civil War, glass tableware had not yet become a common household product, and instead drinkware was the main type of household glass tableware. The shift began during and just after the Civil War. Later, by the 1890s, tableware rather than drinkware was the more common type of household glass tableware.

Correlations between archaeological variables may also reflect distinctions between formal versus informal table setting standards. At the feature level of analysis, cordials (specialized drinkware) show positive relationships with goblets (specialized drinkware) and castors (tableware), but a negative relationship with tumblers (common drinkware). These relationships may reflect changing standards according to which more elaborate settings included cordials, goblets, and castors, whereas simpler settings involved just tumblers.

Correlations Between Archaeological and Archival Variables. Two main categories were the most useful when investigating correlations between archaeological and archival variables. The first is correlations with MNV. The second is correlations with vessel type.

Minimum Number of Vessels (MNV). MNV is positively correlated with number of families, resident total, number of plain vessels, decades of use, and deposit end date (Table 25). These relationships suggest that the more users, the more decades of use, and the later the feature was in use, the more vessels an assemblage contains. Also, the more vessels overall, the more plain vessels make their way into the assemblage. The latter correlation is particularly interesting in that it reaffirms the historical evidence for a growing popularity of glass tableware in later decades of the 19th century. The inference that number of people is a driver of MNV is supported by multiple regression indicating resident total accounts for over 95% of variation in MNV ($p=0.0075$, $r>0.99$).

The only negative relationship between MNV and an archival variable is between MNV and proportion of stemware within each assemblage. This outcome relates to the negative relationship between drinkware (which includes stemware) and tableware discussed earlier. Both observations show a decline in the relative amount of stemware as the total

amount of glass tableware increases. This relationship could indicate that families able to afford a relatively high quantity of vessels could also afford (and chose to purchase) crystal stemware, which in turn did not make it into the archaeological record because it was treated delicately and heirloomed. Another possible explanation for the negative relationship between glass tableware MNV and proportion of stemware is the temperance movement that started in the 19th century. Stemware was produced to hold alcoholic drinks, and if a household followed the temperance movement, then presumably it would have acquired little or no stemware.

Variables that do not correlate (positively or negatively) with MNV include feature volume; despite the variation in the volume of deposits excavated from each feature, excavated volume did not affect the total number of glass vessels recovered. The conclusion is that MNV was most affected by the length of time a feature was used and the total number of people that used the feature over its lifetime.

Vessel Type. The analysis reveals several meaningful relationships between vessel type variables and archival variables (Table 27). To begin with, several correlations between vessel pattern group and socioeconomic status are noteworthy. First, socioeconomic status correlates positively with proportion of naturalistic pattern vessels, negatively with proportion of abstract pattern vessels and not at all with geometric vessels. These relationships suggest that naturalistic patterns were more popular with higher classes, whereas abstract were more popular with middle or lower classes. Geometric patterns were a basic pattern used by everyone.

The proportion of abstract pattern vessels also has a positive correlation with the proportion of Irish families. This observation likely reflects, at least in part, a prevalence of

Irish among lower socioeconomic status families. Moreover, the proportion of German families correlates negatively with proportion of plain pattern vessels, which may reflect ethnically linked stylistic preferences.

When examining function, in particular drinking vessels, the proportion of immigrants as a whole correlates negatively with proportions of pitchers and tumblers (both related to drinking). However, in general, the proportion of tumblers correlates positively with resident total. This could mean that glass tumblers as basic drinking vessels were related to American ideals of dining. Also, the proportion of childless families correlates positively with proportion of drinking vessels and negatively with proportion of dishes, which could mean that childless families were less concerned with dining ideals concerning place settings, and had more time and money for drinking. Younger families are also positively correlated with tumblers and negatively correlated with “frilly” abstract/Post Civil War vessels, which could reflect inability to afford more popular patterns. Duration of feature use and vessel manufacture dates are also linked to popularity trends; the analysis indicates that over time, geometric patterns and stemware declined as abstract patterns and tableware increased.

Additional relationships emerge when each site (rather than each feature) composes a separate case (Table 28). One set of relationships has implications concerning frugality. MNV correlates negatively with the mean age of the head woman, suggesting that as the head woman grew older, she was more frugal in regard to glass tableware expenditure. Moreover, the proportion of boarders positively correlates with the proportion of Plain Pattern vessels, suggesting households generally preferred cheap vessels when serving boarders.

Another aspect of expenditure is socioeconomic status, which is negatively correlated with drinkware and Colonial period pattern vessels, and positively associated with the later time periods and naturalistic patterns. Similar to feature-level analysis, this illustrates an association of higher classes with newer patterns from later periods, and an association of lower classes with traditional patterns from older time periods.

The second set of notable relationship is related to the total number of people associated with each site. A positive correlation between resident total and gothic tumblers suggests gothic tumblers were a basic drinking vessel. Therefore, the more people in your household, the more gothic tumblers you need. Number of families is also positively correlated with drinking vessels in general, which illustrates the same point.

Finally, household age seems to relate to glass consumption. "Older" households (excluding those headed by widows) are positively associated with drinkware and drink-related tableware like pitchers (pour). Conversely, households at earlier stages are negatively associated with pouring vessels. Also, families headed by widows, who are usually older, are positively associated with dishes and negatively associated with drinkware. In contrast, families with a married male head show the opposite correlation, suggesting a connection between men and drink related glass tableware.

A final interesting relationship is suggested by data relating to widowers with a daughter old enough to take over the domestic duties. These households show higher than expected proportions of goblets and wine glasses, and an abundance of newer time period glass, but a negative correlation with the frequency of drinking vessels like tumblers and mugs. This is the opposite of what wives and widows were apparently buying. Hence,

perhaps daughters who took on the role of head woman asserted their tastes by buying popular items (dishes and newer patterns).

Mullanphy Park Site: 23SL2274, Block 602.

Two privy features, 602-18 and 602-24, compose the archaeological sample from Mullanphy Park. Feature 18 was associated with dwellings at 1023 and 1025 Cass Avenue (Table 6). These dwellings were in a three-story building split into two addresses that shared the privy (Whipple 1876). The privy, Feature 18, was located in the back yard near the western property line. At various times, one or more businesses were located in the building (Sanborn Map Company 1909). Feature 24 is associated with dwellings at 1017 and 1019 Cass Avenue (Table 6). Dwellings 1017 and 1019 Cass Avenue are built on two separate foundations, each two stories, with a shared porch on the back and a privy in the western part of the back yard. Unlike their neighbors, these addresses did not have businesses listed until the late 1800s (Gould Directory Company 1890–1900).

Feature 602-18. Approximately 1.28 m³ of fill was excavated from Feature 18, which was partially intersected by a spoil pit from the early 1970s. The spoil pit was mechanically removed until it resolved into two distinct features (13 and 18). Feature 18 was partially excavated to a depth of 60 cm. Sewer permit records reveal that this feature was converted from a brick privy vault into a water closet in 1868. Artifact collection began below the sewer pipe; however, because no floor (brick lining the ground below the pipe) was installed when the pipe was installed, there are newer artifacts mixed in with the old and some of the older deposits could have been removed when the privy was excavated for the

pipe. Taking this into consideration, the estimated dates for this feature are approximately 1860s to the 1880s (Table 5 and 6).

Archival Data. Twenty-six families (households) lived in the 1023/1025 Cass Avenue residences during the two decades the associated privy feature was in use (Appendix B and C). These families had a mean size of four individuals and were made up of a total of 99 individuals. A majority of the families (65.4%) were nuclear, while widowed parents headed 7.7%, and 26.9% had other compositions (childless couples, siblings, or single individuals). Fifteen percent of these families took on boarders and none had servants (Table 7). About half (42%) of the households were at an intermediate stage, while 23% were at a late stage and 35% were at an early stage. With regard to ancestry, 52% of the residents were of German ancestry. The other 48% was distributed more or less evenly between three groups: Irish; English; and Other European groups, including second (or more) generation U.S.A. residents (Tables 8). Finally, the gender composition of the households associated with feature 18 is almost 50/50; the proportion of women (46%) is slightly less than that of men (54%). Nearly all women who were presumably in charge of household domestic purchases, which would have included glass tableware purchases, were the wives of household heads (90%). Over half of these women (60%) were of German ancestry (Table 9).

Occupational status rankings indicate most residents were semi-skilled urban laborers; they regularly performed manual labor requiring a low skill level (van Leeuwen and Maas 2011:56, 131–181; Table 10). These people worked as porters, general laborers, machinists, and factory workers (Appendix B and C). A smaller proportion of residents performed manual or non-manual labor requiring a medium skill level, working, for example, as a storekeeper, notion salesman, clerk, and wall paperer. The neighborhood included a few

shops and their owners, and these resident owners had higher occupational rankings. For example, in the mid-1800s, the block also had at least two businesses with middle class clientele: a wallpaper shop and a dentist's office (Gould Directory Company 1885, 1889). This accounts for the storekeeper, notion salesman, clerk, and wall paperer recorded in the census for residents associated with the sample features. However, it is highly unlikely that these businesses' patrons and owners contributed to the contents of the privies represented by the study sample, since these toilets were communally used by the working-class residents and located behind the shops; whereas, the business owners and patrons lived elsewhere (Appendix B and C).

Archaeological Data. The Feature 18 artifact sample is made up of 53 shards refit into 12 vessels (Table 5; Appendix A). Of those 12 vessels, 11 have an identifiable form. Feature 18 contains more drinkware (82%) than tableware (18%) (Table 11). More specifically, this feature has mostly drinking vessels (64%) and to a lesser extent stemware (36%). All of the drinking vessels are tumblers and the stemware is mostly cordials (50%), followed by goblets/wine glasses (25%), and finally unidentified stemware types (25%) (Table 11). The tableware consists of two dishes, specifically, one oval dish and one unidentified type of dish (Table 11 and 12, Appendix A).

Vessel Pattern Type and Time Period Group data are also noteworthy (Table 13; Appendix A). Nearly all (92%) of the vessels displayed a Geometric pattern, and those with an identifiable Time Period all fit into the Colonial Time Period group (Table 13). The pattern data indicate that the Feature 18 assemblage has vessels from two possible sets. Two stemware vessels with a Thumbprint pattern represent one set (Figure 28). Five goblets and two dishes with a Honeycomb pattern represent the other set (Table 14; Figure 29). Both

Thumbprint and Honeycomb patterns are Geometric Pattern Types that first occurred in the Colonial Period but continued to be manufactured into the Depression Era. The overall appearance is one of simple patterns that were popular in the 1840s to 1860s but continued to be made in the 1870s and beyond.

Comparison with other features. Comparisons of Feature 18 with the other six features in this study leads to two sets of meaningful relationships. First, feature 18 was associated with a high resident total but low MNV. This negative relationship between resident total and MNV is unusual, because the remaining features display a positive relationship between total number of residents and MNV (Table 25). Thus, Feature 18 is an outlier in this regard. I believe this outcome relates to the low socioeconomic status and significantly high proportion of nuclear families in the households associated with Feature 18. Nuclear families have children, which cost money. Given their low incomes and costly children, these families were unlikely to purchase extraneous glass tableware. These considerations would account for Feature 18's low MNV, despite the high total number of associated residents. In support of this inference, a regression analysis of data from all seven features shows that lower class household heads tend to have nuclear families (Table 21).

Inter-feature comparisons also indicate that the Feature 18 sample contains a significantly high proportion of tumblers and a low proportion of dishes. The high proportion of tumblers fits with the high resident total associated with Feature 18. Tumblers are a basic type of glass tableware, something everyone bought in an urban setting. Each person needed their own tumbler for dining, and hence the more people living somewhere, the more tumblers were needed.

This assumption is supported the positive relationship between resident total and proportion of tumblers that emerges when data from all seven features are considered (Table 27). While residents associated with Feature 18 were more likely to spend money on basic tableware, which included glass tumblers and ceramic plates, they were apparently less likely to spend money on extra glass tableware, like berry bowls and other glass dishes. These lower class nuclear families did not prioritize the purchase of supplementary glass tableware.

Feature 602-24. Approximately 1.81 m³ of fill was excavated from Feature 24, which appeared to be largely intact before excavation. First, the upper portion was mechanically excavated to get to the 19th century deposits. Next, the feature was excavated to the depth of a sewer pipe, 1.25 meters below the surface. Finally, the feature was partially excavated to a depth of 1.1 meters on the west half. The date of conversion from a brick privy vault to a water closet is unknown because it was installed without a permit; however, surrounding sewer permits indicate that it probably happened between 1868 and 1876. All artifacts were collected from below this sewer pipe and are associated with its use from the 1860s (house construction) to the 1870s (feature conversion). Additionally, my analysis of glass from this feature reveals that one recovered vessel could have been produced in the 1880s. Hence, the analyzed deposits from this feature likely date from the 1860s to the 1880s.

Archival data. Twelve households lived in the two residences associated with Feature 24 during the three decades the privy feature was in use (Appendix B and C). These families had a mean size of five individuals and a total of 32 individuals. A majority (66.7%) of the families had “other” compositions (childless couples, siblings, or single individuals), while the remaining 33.3% were nuclear. Some households (17%) included boarders and one

household associated with Feature 24 included a servant (Table 7). About half (42%) of the households were at an intermediate stage while 33% were at a late stage and 25% were at an early stage. With regard to ancestry, a majority (86%) of the residents were second or more generation U.S.A. residents. The rest (14%) were from various western European countries (Table 8). The proportion of women (58%) is slightly higher than that of men (42%). All of the women were the wives of household heads. Seventy-five percent of these women were second generation or more USA born citizens (Table 9).

Occupational status rankings indicate most residents were artisans and craftsmen: they regularly performed manual labor requiring a medium skill level (van Leeuwen and Maas 2011:56, 131–181; Table 10). These people worked as artists, schoolteachers, engineers, clerks, and one factory superintendent (Appendix B and C).

Archaeological data. The Feature 24 artifact sample is made up of 57 shards refit into 24 vessels (Table 5; Appendix A). Of those 24 vessels, 23 have an identifiable form. Feature 24 has more drinkware (87%) than tableware (13%) (Table 11). Specifically, this feature has mostly drinking vessels (57%) and to a lesser extent stemware (30%). A majority (54%) of the drinking vessels are tumblers, while the rest are mugs (23%) or unidentified drinking vessels (23%). A majority of the stemware are goblet/wine glasses (71%), and the rest are cordials (29%) (Table 12). The tableware includes one molasses can, one dish, and one caster (Table 12).

Vessel Pattern Type and Time Period Group are also noteworthy (Table 13; Appendix A). Nearly all of the vessels have Geometric (83%) pattern types. Smaller portions of the vessels have Abstract pattern types (13%), and the smallest portion has a Plain (4%) pattern. Nearly all of these vessels fit into the Colonial Period group (82%). The rest fit in the Post-

Civil War Period group (18%) (Table 13). The pattern data indicate that the Feature 24 assemblage contains vessels from one possible set. One goblet, one tumbler, and one unknown drinking vessel represent a Thumbprint pattern set (Table 14; Figure 28). Overall, the patterns here are mostly early (Colonial) in style, with a scattering of later patterns from the 1870s.

Comparison with other features. A comparison with data from the other six features in this study reveals the characteristic aspects of Feature 24. The households associated with Feature 24 were middle class and include significantly high proportions of families with “other” compositions (siblings, childless couples, or single individuals), servants (this is the only site with a servant), and second or more generation U.S.A. born individuals, when compared to the proportions for the other six features (Table 8). Also, compared to the other features, Feature 24 was associated with the fourth highest total number of residents and a middling (equivalent to the median and mode) MNV (Table 5). In addition, Feature 24 yielded significantly high proportions of drinkware (especially drinking vessels), mugs, and Colonial Period vessels (Table 13).

These results point to a meaningful relationship between vessel form and family type. Feature 24 yielded a significantly high proportion of drinkware, both drinking vessels and stemware. This feature is also associated with a high proportion of middle class and childless families. Unlike the lower class nuclear families associated with Feature 18, the many middle-class, childless families associated with Feature 24 would have had income to purchase “extra” goods, like glass stemware. Additionally, the feature 24 households were likely less concerned with ‘nurturing the future generation,’ than the other middle class

features with families (79 and 10) and could be more concerned with expanding their drinkware collection for social parties with other young childless couples.

Worthy Women's Site: 23SL2316, Block 649.

Three privy features, 649-28, 42, and 79, compose the sample from the Worthy Women's Site. These features were associated with diverse residential groups. Feature 28 was associated with dwelling 1721 North 10th Street (Table 6), which was a two-story brick structure with a privy attached to the rear of the house (Whipple 1876, 1892). Feature 42 was associated with dwelling 1007 Howard Street (Table 6), a two-story brick structure with a privy in the backyard (Whipple 1876, 1892). Feature 79 was associated with dwellings 1712 and 1714 Mound Lane (Table 6), which were located in the same two-story brick structure with a brick privy attached to the back and a wood frame back porch (Whipple 1876, 1892).

Feature 649-28. Approximately 1.84 m³ of fill was excavated from the north portion of Feature 28. This privy feature was largely intact and undisturbed before archaeological excavation. The upper zones of this feature date to the early 20th century (ca. 1930s) and, due to this later date, are excluded from my analysis. The lower zones (>200cmbd) of the feature date to the 1880s, and were located below a brick floor that was installed when a pipe was inserted to connect the privy to the city sewer system in 1886. Taking this into consideration, the estimated dates for this feature are approximately the 1880s (Table 5).

Archival data. These lower deposits are definitely associated with the Sebastian Hoffman (1832–1899) family of 1721 North 10th Street (Table 6; Appendix B and C). This family was extended, did not take on boarders, and was headed by a prominent businessman,

Sebastian Hoffman, of Heller and Hoffman Chair Manufacturing (Bureau of the Census 1880; Gould Directory Company 1889, 1895). Sebastian Hoffman was the co-founder of Heller and Hoffman Chair Manufacturing, established in 1855 (Leonard 1901:114). This was a large manufacturing business that distributed across the United States (Leonard 1901:114). One woman, the wife of the house head Sebastian Hoffman, was likely in charge of the domestic purchases.

A brief description of the family during the 1880s reveals that Sebastian (46) was married to Elenora (43) and had five children: Francisca 17; Lena 15; Matilda 13; Henry 11; and Joseph R. 7 (Bureau of the Census 1880). Also living with Sebastian and Elenora were a niece, Anna Herr 18, and an unidentified relative, George Hoffman 14 (Bureau of the Census 1880). All of the children were at school except for George who was a chair maker, presumably working for Sebastian. The entire Hoffman family (husband and wife) is of German descent (Bureau of the Census 1880). Occupational status ranking indicates that Sebastian Hoffman was of high socioeconomic status, being a proprietor, high-level business manager, and property owner (van Leeuwen and Maas 2011:56, 131–181; Table 10).

Archaeological data. The Feature 28 artifact sample is made up of 35 shards refit into 14 vessels (Table 5; Appendix A). Of those 14 vessels, 14 have an identifiable form. The majority (79%) are drinkware and rest are tableware (21%) (Table 11). Specifically, this feature sample consists of mostly stemware (50%), then drinkware (29%) and tableware (21%) (Table 11). A majority of the drinking vessels are tumblers (40%). The rest of the drinking vessels are mugs (20%), packer tumblers (20%), and unidentified drinking vessels (20%). A majority of the stemware vessels are cordials (57%); the remainder consists of goblet/wine glasses (14%) and unidentified stemware (29%) (Table 12).

Vessel Pattern Type and Time Period Group are also noteworthy (Table 13; Appendix A). Half of the vessels are Geometric. The rest of the vessels are mostly Naturalistic (21%) and Plain (21%) with a few Abstract. Half of the identified vessels' Time Periods are Colonial. The next most frequent time periods are Post Civil War (33%) and then Golden Age (17%) (Table 13). Pattern data usually indicates the presence of a set, but this was not the case for Feature 28. The absence of evidence for a set may result from heirlooming of sets. An examination of Sebastian Hoffman's probate records reveals that the household had one lot of ceramic and glass tableware worth \$200 at the time of his death (Missouri Probate Record 1899). This mention of glass tableware in the probate records may indicate that if the household possessed a glass tableware set, the set was nice enough that the family took care of it, and therefore pieces generally were not discarded (Table 14; Figure 30).

Comparison with other features. A comparison of data for the other six features in this study highlights meaningful aspects of the Feature 28 sample. The comparisons show that compared to households associated with other features, the Hoffman household included a significantly high proportion of extended families; the house was lived in by one extended family for a number of years (Table 7). Also, compared to the other features, Feature 28 is associated with the lowest number of total residents (Table 7), and with residents of the highest socioeconomic class (Table 10). Feature 28 is also associated with a relatively low MNV and yielded a significantly high proportion of cordials (Table 12).

These results point to at least one meaningful relationship between socioeconomic status and vessel form. The findings suggest that Feature 28 yielded a high proportion of cordials and vessels with newer patterns because the associated Hoffman household was of high socioeconomic status, and hence could afford to buy specialized drinkware (cordials)

and pieces with newer pattern styles. Also, the reference to glass tableware in Sebastian Hoffman's probate suggests the family owned a glassware set of high enough quality that the family took care of it and passed it down to future generations (Missouri Probate Record 1899).

Feature 649-42. Approximately 7.36 m³ of fill was excavated from Feature 42 (Meyer N.d.). The feature was fully excavated. The vault privy was converted to a water closet in 1884 (ibid). The conversion involved the feature being partially cleaned out in order to add the sewer pipes then partially encased in a false floor (ibid). Archaeologists collected the deposits below this floor, and initially dated them from the late 1870s to the early 1880s, a time period that corresponds with the lifespan of the Worthy Woman's Aid in that location; however, dates of recovered glass artifacts push the feature end-date even later, into the 1890s (ibid). During the 1870s and 1880s, Mrs. Dr. Yost was president, and the wives of two Army captains were vice-president and secretary of the Worthy Woman's Aid (ibid).

Archival data. Twenty-one families lived in the associated residence during the three decades the feature was in use (Appendix B and C). These families had a mean size of three individuals and a total of 53 individuals. Widows or single mothers headed several of the families (42.9%) and 81% percent of these individuals were boarders (Tables 7, 8, and 9). The high proportion of households that were headed by women who boarded is due to the fact that during the late 1870s to mid-1880s this feature corresponded with the Worthy Women's Hospital and Aid at 1005/1007 Howard Street, a shelter for women in need and their children. These women were labeled "inmates" or "boarders" in census records (Appendix B and C). With regard to ancestry, these women were mainly of Irish, German, English, and Scottish descent, which makes sense since the neighborhood was primarily

Irish, German, and English, though it is odd that none of the other European countries (14% of the neighborhood) were represented (Bureau of the Census 1880). However, three of the 21 families were not associated with the Aid. From the mid or late 1880s to the 1890s, 1005/1007 Howard Street was a boarding house owned by a family not living at the property (Appendix B). In the 1880s, the Powers, an extended family, and the Collins, a nuclear family with three boarders, lived at 1005/1007 Howard Street. In the 1890s, the McLaughlins, an extended family, lived there. The gender composition of the families associated with this feature was varied (Table 9). When the address was used as a shelter, the majority of the residents were women (77%), which makes sense since it was a shelter specifically for women. As a boarding house, the proportions were almost opposite - 14% women and 86% men. A closer examination reveals that the women who were in charge of the households' domestic purchases when the address was used as a boarding house, were mostly the wives of the head of household (66.7%), with 33.3% as widowed heads of house. Sixty-seven percent of these women were second or more generation Americans.

Occupational status rankings indicate most residents were semi-skilled urban laborers; they regularly performed manual labor requiring a low skill level (van Leeuwen and Maas 2011:56, 131–181; Table 10). For example, many of these people worked as machinists and servants. At the Aid in particular, many of the inmates became employees of the Aid, such as nurses, solicitors, or general help (Appendix B and C). Others found employment as servants elsewhere. Overseeing all the inmates was a Matron. One inmate, Mary Livingston, went from being an inmate, to a servant, to solicitor, and finally became the house Matron after it moved to a new location (Bureau of the Census 1880). Also living with the women was a baker and his family; his wife worked as a solicitor for the Aid (Appendix B and C).

Archaeological data. The Feature 42 artifact sample is made up of 198 shards refit into 79 vessels (Table 5; Appendix A). Of those 79 vessels, 73 have an identifiable form. Feature 42 yielded more drinkware (63%) than tableware (37%) (Table 11). The drinkware included slightly more drinking vessels (34 %) than stemware (29%) (Table 11). A majority of the drinking vessels are tumblers (60%), then unidentified drinking vessels (24%) and packer tumblers (16%) (Table 12). A majority of the stemware vessels are goblet/wine glasses (76%), then cordials (19%), and finally unidentified stemware (5%) (Table 12). Of the tableware, a majority consists of unidentified vessels (59%) and the rest are dishes (15%), casters (11%), covered dishes (11%), and a single molasses can (4%) (Table 12).

Vessel Pattern Type and Time Period Group are also noteworthy (Table 13). Feature 42 yielded vessels with patterns in each of the five pattern types, but most of the Pattern Types are Geometric (78%). The rest are evenly distributed between Plain, Abstract, and Naturalistic, and 2% of the vessels have Realistic patterns. The pattern Time Periods are almost evenly distributed between Colonial (39%), Post Civil War (28%), and Golden Age (33%) (Table 13). The pattern data indicate that the Feature 42 assemblage has vessels from two sets. An unidentified vessel and a dish with a Thumbprint pattern represent one set (Figure 28). A goblet and two tumblers with a Huber pattern represent the other set (Table 14; Figure 31). Both Huber and Thumbprint are Colonial Period patterns that continued in later times.

Comparison with other features. A comparison with data from the other six features in this study reveals the most relevant aspects of Feature 42. Compared to households associated with other features, the households associated with Feature 42 include significantly high proportions of households headed by single parents, lived in by boarders,

in an early life stage, and of Irish ancestry (Table 8). Also, compared with most other features, Feature 42 was associated with a higher number of residents (Table 7) and with lower class residents (Table 10). Also, the Feature 42 sample has the highest MNV, and a significantly high proportion of glass tumblers, and a low proportion of glass dishes (Table 12).

These results do not simply reflect the lower socioeconomic status of households associated with Feature 42; Feature 18 is also associated with low status households, but shows some very different patterns from those of Feature 42. Rather, the Feature 42 results undoubtedly reflect the irregular, institutional residential setting of the Worthy Women's Aid. The function of the Aid was to care for disadvantaged women, and hence the institution must have generally provided tableware for the inmates. What is similar to the other lower class feature, is the high proportion of tumblers in Feature 42 is therefore expected; the high number of residents would have resulted in a high number of tumblers, given the apparent practice, even in low income settings, of striving to provide one tumbler for each individual (also indicated by Feature 18). What is different is the tableware, though generally low in proportion, are higher in proportion than the other lower-class feature's tableware. These extra tableware may be from the middle-class influence of the Aid's patrons. The patrons would have had the money to buy new tableware for the Aid, or donate their old tableware and buy themselves new tableware. This tableware was able to accumulate dramatically because instead of having new families taking their tableware with them as they moved on to new lodgings (like what happened at Feature 18- with its high turnover of renting families), the tableware at the Aid belonged to the Aid and had time to accumulate.

Feature 649-79. Approximately 1.58 m³ of fill was excavated from feature 79. This feature originated as a limestone vault privy, and was later converted to a water closet. During archaeological excavation, the feature was truncated and the remaining 1.2 meters were excavated. The privy feature was most likely built in 1848, when the property was purchased and the house was built. In 1885, the owners applied for a permit to convert the privy to a water closet. All of the excavated material is from a limestone vault privy, and therefore the excavated deposits should date between the late 1840s and mid-1880s; however, my analysis identified a glass vessel manufactured in the 1890s. These later vessels suggest that that deposits were mixed during the conversion.

Archival data. The dwelling associated with this feature was a double house, 1712/1714 Mound Lane (Appendix B and C). Probate records indicate the property belonged Robert S. Graham, a farmer and a carpenter, who also owned other properties (Bureau of the Census 1850, 1860). Robert died in 1866 in Chester, Illinois (Bureau of the Census 1850, 1860; Missouri Probate Court 1866). Harriet B. Graham, Robert's sister, was a dressmaker who lived at the Mound Lane property in 1880 and was also the estate administrator (Bureau of the Census 1880; Gould Directory Company 1880; Missouri Probate Court 1866). Probate records name Mary Jane Graham as Robert's widow and Cyrus, Josephine, Lillie, George, and Aley as his children (Missouri State Archives 1866). However, his children did not all live in the St. Louis home, as the 1860 census places them at the family farm in Chester, Randolph County, Illinois, where several of them were born (Bureau of the Census 1860; Missouri Probate Court 1866). Mary Graham continued to live in one half, 1714 Mound Lane, of the house while renting the other half, 1712 Mound Lane.

The Census provides confusing information about the Graham family history (Appendix B). Earlier census records indicate a Robert Graham living in Ward 6 of St. Louis with his wife Elizabeth (not Mary) and his children Cyrus and Josephine (Bureau of the Census 1850). Ward 6 in 1850 encompassed 1712/1714 Mound Lane (Map of US 2015[1856]). However, in 1860, the family had returned to their home in Illinois (Bureau of the Census 1860). By 1880, the Census shows Mary as Graham's widow and living at the Mound Lane address with her son Clarence; although, the City Directory indicates she was his widow as early as 1867. Clarence's father is a mystery since he has two different surnames, Graham and Frazier (Bureau of the Census 1870; Missouri Probate Court 1866). Also a mystery is when, or if, Robert married Mary and divorced Elizabeth, since there are no marriage or divorce certificates available.

In total, 10 families, including the Grahams, lived in the two associated residences during the six decades the privy feature was in use. These families had a mean size of five individuals and were made up of a total of 52 individuals. Half of the families were nuclear, a widowed parent headed 20%, and 30% had other compositions. Some households (10%) included boarders and none had recorded servants (Table 7). Forty percent of the families were in a late stage of the family life cycle, another 40% were in an intermediate stage, and the remaining 20% were in an early stage. With regard to ancestry, 50% of the residents were second or more generation American. The remaining residents were born in Ireland (16%), England (11%), and other western European countries (22%) (Table 8). Finally, the gender composition was almost 50/50; the proportion of women (46%) was slightly less than that of men (54%). A closer examination reveals that the women likely in charge of domestic purchases were mostly the wives of the household head (71.4%), but some were widows who

themselves headed households (14.3%) and others (14.3%) were daughters living with their widowed father (Table 9).

Occupational status ranking indicate most residents were artisans and craftsmen; they regularly performed manual labor requiring a medium skill level (van Leeuwen and Maas 2011:56, 131–181; Table 10). Graham family occupations included a blacksmith (Clarence Graham/Frazier) and a dressmaker (Harriet). Robert Graham was listed as a carpenter in the 1850 St. Louis Census, and as a farmer in the 1860 Chester, Illinois Census. However, he was also a property owner. Upon his death, his widow Mary became the landlord/owner of one property, but as a woman had lower status than a male property owner. Another occupation of individuals associated with feature 79 was saddler; all working members of the Apperson family were saddlers (Appendix B and C).

Archaeological data. The Feature 79 artifact sample is made up of 225 shards refit into 61 vessels (Table 5; Appendix A). Of those 61 vessels, 61 have an identifiable form. The sample has more tableware (52%) than drinkware (48%) (Table 11). The drinkware consists mainly of drinking vessels with some stemware (Table 11). A majority of the drinking vessels are tumblers (79%), then packer tumblers (11%) and unidentified drinking vessels (10%). Of the stemware vessels, 40% are goblet/wine glasses, another 40% are unidentified drinkware types, and the rest are cordials (20%) (Table 12). Of the tableware vessels, 53% are unidentified, 31% are dishes, 13% casters, and 3% pourers (a creamer and a pitcher) (Table 12).

Vessel Pattern Type and Time Period Group are also noteworthy (Table 13). The vessels represent each of the five every pattern types, with Geometric most common and Realistic least common. The vessels also represent all of the time periods. Almost half of the

vessel time periods are Golden Age, then Colonial (25%), Post Civil War (17%), and Lacy (13%). The pattern data indicate that Feature 79 has vessels from three possible sets. A compote and two footed tumblers with a Thumbprint pattern represent one set (Figure 28). One tumbler and three drinking vessels with a Pressed Arch pattern represent another set (Figure 32). A bowl and one fragment of unidentified tableware with a Barley pattern represent a third set (Table 14; Figure 33).

Comparison with other features. A comparison with data from the other six features reveals three noteworthy results. First, this feature has a very high MNV compared to the other middle-class associated features (Table 5). This difference could result from the relatively high number of residents associated with Feature 79 (Table 7), given the overall positive correlation between resident total and MNV (see Correlations Among Variables). Another possible reason is that one family used this feature for decades (more so than the other features), which allowed time to accumulate a significant amount of trash (Table 5). The positive relationship between MNV and decades of feature use are confirmed by regression (Table 25).

Second, the Feature 79 sample has an unusually diverse assortment of Pattern Types and Time Periods compared to the other features. Early vessels (Lacy Time Period) (Table 13) are in this feature because the feature was in use far earlier than the other features and the Lacy Period is the earliest period of pressed glass tableware (Table 5). The high proportion of tableware, even proportions of stemware and drinking vessels, and variation in Pattern Type and Time Period could be due to the feature's associated households' middle class status combined with an upper class family. These households could afford newer patterns, more supplementary glass tableware, as opposed to the lower class residents from Feature 18.

Third, Feature 79 is also positively associated with families with children. These households could have wanted an ideal middle-class setting for their children. Middle-class families may have followed the ideals of the Cult of Domesticity and True Motherhood more closely than lower and upper class families. However, as shown with Feature 24, middle class families without children did not have as much tableware as the middle class families with children either.

McGuire-Newell Site: 23SL2318, Block 650.

One privy and one cistern, Features 650-8 and 10 respectively, compose the sample from the McGuire-Newell Site. Feature 650-8 was located directly behind 1704 North 10th Street and may have been used exclusively by the tenants at that address (Table 6). Of the many households that used this privy, the family of Frank B. Klock, a wagon maker and shop owner with a partner at 1112 Cass Ave, lived there the longest, between 1888 and 1898 (Gould Directory Company). Frank was widowed just before he moved his family to 1704 North 10th Street (Meyer N.d.). He had seven children, and six still lived with him when he moved to North 10th Street (Meyer N.d.). Frank Klock was a business owner, but did not own his home (Gould Directory Company).

Feature 650-8. Approximately 4.57 m³ of fill were excavated from Feature 8. This privy feature was fully excavated and dates to the late 19th century according to the materials collected from it. The feature was abandoned when a second privy on the site was converted to a water closet. This conversion occurred after the property owner Robert Boyle died in 1893. The associated structure was built in the mid-1800s, but the privy conversion and artifacts date the feature to the mid to late 1880s.

Archival data. The associated address contained one residence in which three families lived during the decade the privy feature was in use (Appendix B and C). These families had a mean size of six individuals and were made up of a total of 17 individuals. Widowed parents headed all (100%) of the families and none of the families included boarders or servants (Table 7). Also, all of the families were at a late stage, and all residents were of German ancestry (Table 8). Finally, the proportion of women (65%) was more than that of men (35%). A closer examination reveals that a majority (66.7%) of the women, who were presumably in charge of domestic purchases, were the widowed heads of house, and 33.3% were daughters of widowed fathers (Table 9).

Occupational status ranking indicate most residents were artisans and craftsmen; that regularly performed manual labor requiring a medium skill level, for example they worked as wagon makers, cabinetmakers, and seamstresses (van Leeuwen and Maas 2011:56, 131–181; Table 10). In the mid-1880s, Mary Tobin produced dresses and cloaks, and in the late 1890s, Joseph Faupel taught music out of 1704 North 10th Street. Dwelling 1704 North 10th Street was also home to the Klock family from 1888 to 1898 (Appendix B and C).

Archaeological data. The Feature 8 artifact sample is made up of 39 shards refit into 24 vessels (Table 5; Appendix A). Of those 24 vessels, 22 have an identifiable form. The Feature 8 sample has slightly more drinkware (55%) than tableware (45%) (Table 11). Most of the drinkware consists of stemware (36%) while a minority consists of drinking vessels (X%) (Table 11). A majority of the stemware are goblet/wine glasses (63%), and the rest are cordials (25%) and unidentified stemware (12%) (Table 12). All of the drinking vessels are tumblers. Of the tableware vessels, 50% have an unidentified tableware form, 40% are dishes, and 10% are casters (Table 11 and 12). Overall, this feature has even proportions of

tableware and drinkware, but the tableware includes more dishes than other types of tableware and the drinkware includes much more stemware than drinking vessels.

With regard to Pattern Type, nearly all of the vessels have Geometric patterns (89%), while the rest have Naturalistic patterns. In terms of pattern time period, the majority of the vessels are Colonial (70%) and the remaining vessels are Post Civil War (Table 13). Pattern data indicate that the Feature 8 assemblage may have vessels from three sets. A footed bowl and a pitcher with a Pleat and Panel pattern represent one set (Figure 34). A goblet and an eggcup with a Honeycomb pattern represents another set (Figure 29). A tumbler and a goblet with a Huber pattern represent a third set (Table 14; Figure 31). Overall, the patterns for this feature are diverse. Honeycomb and Huber are simple Geometric Colonial patterns, but Pleat and Panel is an Abstract Golden Age pattern.

Comparison with other features. A comparison with data from the other six features in this study reveals the characteristic aspects of Feature 8. Compared to the other six features, Feature 8 was associated with a significantly high proportion of households headed by widows in a later stage of life, and a high proportion of individuals with German ancestry (Table 8). Also, compared to the other features, Feature 8 was associated with a relatively low number of residents (Table 7) from middle class households (Table 10). Feature 8 also has a middling MNV (like feature 24), a 50/50 ratio of tableware to drinkware, and a significantly low proportion of Golden Age vessels (Table 13).

These results further illustrate the connection between children and glass tableware forms, particularly in middle class homes. The families associated with Feature 8 were in a late stage of life, with their children mostly grown and out of the house (Tables 5 and 8). This rendered them effectively childless. Like Feature 79, also associated with middle class

households but with children, Feature 8 has tableware and drinkware at an almost 50/50 ratio and vessels of a variety of patterns types and time periods (Tables 11 to 13). Unlike Feature 79 but like Feature 24, Feature 8 has a high proportion of stemware (Table 12). This could relate to the idea of how children affect glass tableware consumption, mentioned with Feature 24. The families associated with Feature 8 had adult children and the high proportion of stemware could mean that with the children out of the house, the parents had the extra income to buy fancier stemware instead of extra non-alcohol related glassware such as dishes.

Feature 650-10. Approximately 5.77 m³ of fill was excavated from Feature 10, a cistern feature located within the foundation of the rear portion of the two houses on the property. Only the west half of the feature was excavated; the Northwest quarter was excavated to a depth of 2.1 meters below ground surface and the Southwest quarter was excavated to a depth of 3 meters below ground surface. A conservative estimate for the timing of the use of this feature is the mid-1880s through the 1890s. The prevalence of late 19th century artifacts may be connected to the death of the property owner, Thomas Manning, in 1898. The death of a resident sometimes leads to the dumping of possessions unwanted by heirs, and cisterns were the preferred sites used for these mass dumping events (Meyer N.d.).

Archival data. The associated address contained two residences in which three families lived during the 15-year period the privy feature was in use (Appendix B and C). These families had a mean size of eight individuals and a total of 24 individuals. The families' composition types were evenly distributed between nuclear, extended, and widowed parent (33.3% each) (Table 7). All of the families were of middling age. With regard to ancestry, a majority (83%) of the residents were of German ancestry and the other 17% were

of Irish ancestry (Table 8). Finally, the proportion of women (65%) was more than that of men (35%). A closer examination reveals that each head woman who was likely in charge of domestic purchases was the wife of the household head. Eighty-three percent of these head women were of German ancestry and the rest were of Irish ancestry (Table 9).

Occupational status ranking indicate most residents were artisans and craftsmen; they regularly performed manual labor requiring a medium skill level (van Leeuwen and Maas 2011:56, 131–181; Table 10). For example, one household head was a wagon mechanic, possibly working for the Klocks, who lived next door. An apparel fabric dealer headed another family. Mixed in with these artisans were general laborers, and one servant (Appendix B and C).

Archaeological data. The Feature 10 artifact sample is made up of 87 shards refit into 31 vessels (Table 5; Appendix A). Of those 31 vessels, 30 have a form that can be determined. Feature 10 has more tableware (60%) than drinkware (40%) (Table 11). Of the drinkware, most consists of stemware (30%), the remainder are drinking vessels (10%) (Table 11). All stemware vessels are goblet/wine glasses (Table 12). The tableware vessels are highly diverse and include dishes (50%), including an eggcup and oval dish, casters (17%), pitchers (17%), dishes of unidentifiable functional type (10%), and covered dishes (6%) (Table 12).

Vessel Pattern Type and Time Period Group are also noteworthy (Table 13; Appendix A). A little over half of the vessels display Geometric patterns, while the remainder display Abstract, Naturalistic, and Plain patterns. Over half of the vessel Time Periods are Golden Age (56%), while the others are Colonial (25%) and Post Civil War (19%) (Table 13). The pattern data indicate that the Feature 10 assemblage has vessels from one possible set,

represented by a cordial and tableware vessel with a Honeycomb pattern, which is a Geometric pattern type (Table 13; Figure 29). Overall, the patterns for this feature are diverse, and slightly more than half are from a later time period, the Golden Age (1880s and 1890s).

Comparison with other features. A comparison with data from the other six features in this study leads to several noteworthy inferences. First, compared to some of the other features, Feature 10 contains a significantly high proportion of tableware, not just a 50/50 ratio with drinkware. This high value arguably relates to the intermediate life stage, when most children are living at home, of the associated families. Perhaps the high proportion of tableware reflects a particular effort by these families to foster the ideal of a 'proper' table laid out by the Cult of Domesticity with a specific dish for every type of food. In this respect, Feature 10 is similar to Features 79. Though, Feature 79 also had an upper class family, which could have raised the drinkware ratio making them more even.

The relatively high proportion of non-drinkware relative to drinkware in the Feature 10 sample likely also relates to the fact this feature is a cistern, as opposed to a privy. Cisterns typically are filled with refuse through mass dumping, whereas privies are often filled with trash over a period of years. It is possible that the Feature 10 vessels were from a mass dumping of old Geometric pattern glass tableware to make room for newer pattern glass tableware vessels. This could also explain why this feature sample had significantly lower than expected proportions of relatively "modern" Golden Age vessels, compared with the other feature samples; you do not discard your new glass tableware. Also, as mentioned earlier, a major event can affect the discard pattern of a household and the property owner associated with Feature 10 had died.

Conclusion

The analysis of data from all three sites leads to two general conclusions about the relationships between glassware assemblage characteristics and the socioeconomic statuses of associated households. First, the data produced here strongly support the inference that the total number of vessels in a feature is determined largely by resident total, mediated to some extent by the socioeconomic status of associated households. The analysis shows that the features with the highest numbers of residents tend to have the highest MNVs. The exception is feature 18, which is associated mainly with lower class households, which did not apparently buy a lot of glass tableware in general.

Second, the analysis strongly suggests that other inter-feature differences in glass tableware assemblage characteristics stem mainly from the socioeconomic class and composition of associated households. Specifically, the analysis suggests that lower class households buy primarily basic tableware, such as tumblers, regardless of whether or not they have children. The exception occurs when lower class households are in an institutional setting and provided for by the middle class. Compared to lower class families living in private dwellings, lower class families in the institution tended to have higher proportions of tableware (vs. the other lower class families), had vessels displaying a greater variety of patterns, and have vessels from a greater variety of time periods, possibly because middle class patrons donated the wares. Next, unlike lower class households, middle class households tended to buy relatively equal proportions of tableware and drinkware, unless they had no children. In the latter case, middle class households tended to buy higher proportions of drinkware than of tableware, but their drinkware displayed a greater variety of forms, patterns, and time periods than the drinkware used by lower class households. Finally,

compared to lower and middle class households, upper class households tended to buy more specialized stemware, and much of their glass tableware was of high quality and therefore maintained so it could be saved in probate and passed down to heirs.

Table 5. Feature Information.

Site Number	Site Name	Block Number	Site Type	Feature	Feature Type	Later Use	Deposit Dates	Shards (N)	MNV (N)
23SL2774	Mullanphy Park	602	Residential/ Shops	602-18	Brick Privy Vault	WC	1870s - 1880s	53	12
				602-24	Brick Privy Vault	WC	1860s - 1880s	57	24
23SL2316	Worthy Women's	649	Residential/ Hospital	649-28	Privy		1880s	35	14
				649-42	Privy	WC	1870s - 1890s	198	79
				649-79	Privy	WC	1840s - 1890s	225	61
23SL2318	McGuire-Newell	650	Residential	650-8	Privy		1880s	39	24
				650-10	Cistern		1880s - 1890s	87	31

Table 6. Associated Address Information.

Site Number	Site Name	Feature	Address	Construction/ Demolition Dates	Use	Property Owner
23SL2774	Mullanphy Park Site	602-18	1023/1025 Cass Ave	1860s-1970s	Residential/ Shops	Elizabeth Meyer
		602-24	1017/1019 Cass Ave		Residential/ Shops	Robert P. Hall
23SL2316	Worthy Women's Site	649-28	1721 N 10th St	1870s-1950s	Residential	Sebastian Hoffman
		649-42	1005/1007 Howard St.		Residential/ Hospital	Phillip Boyle
		649-79	1712/1714 Mound Lane	1840s-1950s	Residential	Robert S. Graham
23SL2318	McGuire-Newell Site	650-8	1704 N 10th St	1850s-1950s	Residential	Robert Boyle
		650-10	1706/1708 N 10th St		Residential/ Home Business	Thomas Manning

Table 7. Family Composition Data for Households Associated with Sampled Features

Feature	Occupation Duration (Decades)	N %										
		Total Residents	Family Members	Mean Family Size	Families	Nuclear Families	Extended Families	Single Parent Families	Other	Families with no Boarders	Families with Servants	Families with Boarders ²
602-18	2	99 100	91 92	4	26 100	17+ 65.4	0 0	2- 7.7	7 26.9	22 84.6	0 0	4 15.4
602-24	3	32 100	24 75	5	12 100	4 33.3	0 0	0- 0	8+ 66.7	8 66.7	2+ 16.7	2 16.7
Site Total	3	131 100	115 100	4	38 100	21+ 55.3	0 0	2- 5.3	15 39.5	30 78.9	2 5.3	6- 15.8
649-28	1	9 100	9 100	9	1 100	0 0	1+ 100	0 0	0 0	1 100	0 0	0 0
649-42	3	53 100	44 83	3	21 100	2- 9.5	2 9.5	9+ 42.9	8 38.1	4- 19.0	0 0	17+ 81.0
649-79	6	52 100	50 96	5	10 100	5 50.0	0 0	2 20.0	3 30.0	9 90.0	0 0	1 10.0
Site Total	6	114 100	103 100	4	32 100	7- 21.9	3 9.4	11 34.4	11 34.4	14- 43.8	0 0	18+ 56.3
28+79	6	61 100	59 100	5	11 100	5 45.5	1 9.1	2 18.2	3 27.3	10 90.9	0 0	1 9.1
650-8	1	17 100	17 100	6	3 100	0 0	0 0	3+ 100	0 0	3 100	0 0	0 0
650-10	2	24 100	24 100	8	3 100	1 33.3	1 33.3	1 33.3	0 0	3 100	0 0	0 0
Site Total	2	41 100	41 100	7	6 100	1 16.7	1 16.7	4+ 66.7	0 0	6 100	0 0	0 0

Childless couples, siblings, single individuals

² Boarders are a transient population, so census and city directories could have missed boarders who did not live at the residence for more than+ Significantly High, $p \leq 0.05$, based on ACTUS

- Significantly Lower

Table 8. Additional Family Composition Data

Feature	Occupation Duration (Decades)	Head of House Mean Age	Head of House Median Age	Head of House Min/Max Age	N %			Ancestry
					Late Stage Families	Intermediate Stage Families ²	Early Stage Families ³	
602-18	2	39	38	23/62	6 23.1	11 42.3	9 34.6	German+ (52%); Irish (18%); English (12%); Other European/USA- (18%)
602-24	3	45	43	42/52	4 33.3	5 41.7	3 25.0	USA+ (86%); Other European (14%)
Site Totals	3	40	42	23/62	10 26.3	16 42.1	12 31.6	German (36%); USA- (30%); Irish (15%); English (11%); Other European (8%)
649-28	1	44	44	44	0 0	1 100	0 0	German (100%)
649-42	3	44	38.5	33/66	1- 4.8	8 38.1	12+ 57.1	Irish+ (33%); USA (24%); German (19%); English (14%); Scottish (10%)
649-79	6	43	40	26/65	4 40.0	4 40.0	2 20.0	USA+ ⁵ (50%); Irish (17%); English (11%); Other European (22%)
Site Total	6	44	42	26/66	5 15.6	13 40.6	14 43.8	USA (35%); Irish (25%); German- (15%); English+ (13%); Other European (14%)
28+79	6	43	40	26/65	4 36.4	5 45.5	2 18.2	USA+ (47%); Irish (16%); German- (11%); English (11%); Other European (15%)
650-8	1	54	53	50/60	3+ 100	0 0	0 0	German+ (100%)
650-10	2	44	40	39/54	0 0	3 100	0 0	German (67%); Irish (33%)
Site Totals	2	49	51.5	39/60	3 50.0	3 50.0	0 0	German+ (83%); Irish (17%)

People over 40 or with Children over 20

² *People 26-39 or with Children 6-19*

³ *People under 25 or with Children 0-5*

+ *Significantly High, $p \leq 0.05$, based on ACTUS*

- *Significantly Lower*

Table 9. Head Domestic Woman Data for Households Associated with Sampled Features.

				N %						
Feature	Mean Age	HISCLAS S Median	Estate	Ancestry	Total Head Women	Wife	Head	Daughter	Sister	
602-18	33	9	0	German+ (60%), Irish (25%), USA- (10%)	20 100	18 90	0- 0	1 5	1 5	
602-24	30	n/a	0	USA (75%), Irish (25%)	4 100	4 100	0 0	0 0	0 0	
Site Total	32	9	0	German (50%), Irish (25%), USA (21%), Scottish (4%)	24 100	22+ 91.6	0- 0	1 4.2	1 4.2	
649-28	25	n/a	0	German (100%)	1 100	1 100	0 0	0 0	0 0	
649-42	38	6	0	USA (67%), English+ (33%)	3 100	2 66.7	1 33.3	0 0	0 0	
649-79	31	4	11,100	USA (57%), Irish (43%)	7 100	5 71.4	1 14.3	1 14.3	0 0	
Site Total	32	5	11,100	USA+ (55%), Irish (27%), German- (9%), English (9%)	11 100	8 72.7	2 18.2	1 9.1	0 0	
649-28+79	30	4	11,100	USA (50%), Irish (37%), German- (13%)	8 100	6 75	1 12.5	1 12.5	0 0	
650-8	31	7	0	German (100%)	3 100	0- 0	2+ 66.7	1 33.3	0 0	
650-10	30	n/a	0	German (67%), Irish (33%)	3 100	3 100	0 0	0 0	0 0	
Site Total	31	7	0	German (83%), Irish (17%)	6 100	3- ¹ 50	2 33.3	1 16.7	0 0	

+ Significantly High, $p \leq 0.05$, based on ACTUS

- Significantly Low

¹ This cell is only significant when the comparison only includes residential sites.

Table 10. HISCLASS¹ Rankings of Residents Associated with Sampled Features²

Feature	Occupation in Decades	Working Adults (N)	Min HISCLASS	Max HISCLASS	Mean HISCLASS Head	Median HISCLASS Head	Mean HISCLASS Dwelling	Median HISCLASS Dwelling
602-18	2	53	2	11	7.43	9	8.19	9
602-24	3	49	2	11	5.75	5	6.55	7
Site Total	3	102	2	11	7.16	9	7.40	9
649-28	1	2	1	2	3	3	1.5	1.5
649-42	3	82	2	11	7.25	7.5	7.94	9
649-79	6	44	2	11	6.67	7	7.77	7
Site Total	6	128	1	11	6.15	7	7.57	7
28+79	6	46	1	11	6.30	7	7.62	7
650-8	1	19	3	9	3	3	6.68	7
650-10	2	36	4	11	7.67	7	7.53	7
Site Total	2	55	3	11	6.50	6	7.23	7

¹ Higher number indicates a lower socioeconomic status.

² Based on census and city directory data.

Table 11. Vessel Forms of Sampled Features

Feature#	N						
	%						
	MNV total	MNV Form Determined	MNV Drinkware	MNV Tableware	MNV drinking vessel	MNV stemware	MNV tableware
602-18	12 100	11 100	9 82	2 18	5 45	4 36	2 18
602-24	24 100	23 100	20+ 87	3- 13	13+ 57	7 30	3- 13
Site Total	36 100	34 100	29+ 85	5- 15	18+ 53	11 32	5- 15
649-28	14 100	14 100	11 79	3 21	4 29	7 50	3 21
649-42	79 100	73 100	46 63	27 37	25 34	21 29	27 37
649-79	61 100	61 100	29 48	32 52	19 31	10- 16	32 52
Site Total	154 100	148 100	86 58	62 42	48 32	38 26	62 42
79+28	75 100	75 100	40 53	35 47	23 31	17 23	35 47
650-8	24 100	22 100	12 55	10 45	4 18	8 36	10 45
650-10	31 100	30 100	12 40	18+ 60	3- 10	9 30	18+ 60
Site Total	55 100	52 100	24 46	28+ ² 54	7- 13	17 33	28 54

Drinkware is a combination of Drinking Vessels and Stemware. Drinkware + Tableware = Form Determined or drinking vessels + stemware + tableware = Form Determined.

² This cell is only significant when the comparison only includes residential sites.

³ This cell is only significant when the comparison only includes drinkware.

+ Significantly High, $p \leq 0.05$, based on ACTUS

- Significantly Low

Table 12. Vessel Functions of Sampled Features

Feature#	MN function Determined	MN caster	MN cordial	MN cover	MN dish	MN goblet/ wine	MN mug	MN packer	MN pour	MN tumbler
602-18	8 100	0 0	2 25	0 0	1 13	1 13	0 0	0 0	0 0	4 50
602-24	20 100	1 5	2 10	0 0	1 5	5 25	3+ 15	0 0	1 5	7 35
Site Total	28 100	1 4	4 14	0 0	2- ² 7	6 21	3+ 11	0 0	1 4	11 39
649-28	9 100	0 0	4+ 44	0 0	0 0	1 11	1 11	1 11	0 0	2 22
649-42	50 100	3 6	4 8	3 6	4- 8	16 32	0 0	4 8	1 2	15+ ³ 30
649-79	38 100	4 11	2 5	0 0	10 26	4- 11	0 0	2 5	1 3	15 39
Site Total	75 100	8 9	10 13	3 4	14 19	21 28	1 1	7 9	2 3	32 43
79+ 28	37 100	4 11	6 16	0 0	10 27	5- 14	1 3	3 8	1 3	17 46
650-8	16 100	1 6	2 13	0 0	4 25	5 31	0 0	0 0	0 0	4 25
650-10	28 100	3 11	0 0	1 4	9+ 32	12+ 43	0 0	0 0	3 11	0- 0
Site Total	44 100	4 9	2 5	1 2	13 30	17+ 39	0 0	0 0	3 7	4- 9

² This cell is only significant when the comparison only includes residential sites.

³ This cell is only significant when the comparison only includes drinkware.

+ Significantly High, $p \leq 0.05$, based on ACTUS

- Significantly Low

Table 13. Pattern Groups and Time Periods of Sampled Features

N %													
Feature#	MNV total	MNV Gothic Tumblers	MNV Pattern Determined	MNV Abstract	MNV Geometric	MNV Naturalistic	MNV Plain	MNV Realistic	MNV Time Determined	MNV Lacy	MNV Colonial	MNV Golden Age	MNV Post Civil War
602-18	12 100	2 17	12 100	1 8	11 92	0 0	0 0	0 0	4 100	0 0	4 100	0 0	0 0
602-24	24 100	3 13	23 100	3 13	19 83	0- 0	1 4	0 0	11 100	0 0	9+ 82	0- 0	2 18
Site Total	36 100	5 14	35 100	4 11	30 86	0 0	1 3	0 0	15 100	0 0	13+ 87	0- 0	2 13
649-28	14 100	0 0	14 100	1 7	7 50	3 21	3 21	0 0	6 100	0 0	3 50	1 17	2 33
649-42	79 100	7 9	67 100	4 6	52 78	4 6	6 9	1 2	18 100	0 0	7 39	6 33	5 28
649-79	61 100	7 12	54 100	11 20	31 57	6 11	5 9	1 2	24 100	3+ 13	6 25	11 46	4 17
Site Total	154 100	14 9	135 100	16 12	90 67	13 10	14 10	2 2	48 100	3 6	16 33	18 38	11 23
79+28	75 100	7 9	16 100	12 51	38 12	9 11	8 1	1 6	30 100	3 10	9 30	12 40	6 20
650-8	24 100	4 17	18 100	0 0	16 89	2 11	0 0	0 0	10 100	0 0	7 70	0- 0	3 30
650-10	31 100	0 0	29 100	8 28	16- 55	4+ 14	1 4	0 0	16 100	0 0	4 25	9+ 56	3 19
Site Total	55 100	4 7	47 100	8 17	32 68	6 13	1 2	0 0	26 100	0 0	11 11	9 34	6 23

+ Significantly High, $p \leq 0.05$, based on ACTUS

- Significantly Low

Table 10. Glass Tableware Sets of Sampled Features

Feature	Number of Sets	Patterns	Vessel Functions
602-18	2	Thumbprint, Honeycomb	cordial, unknown stemware, goblet, Dish
602-24	1	Thumbprint	goblet, tumbler, unknown drinking vessel
649-28	0	n/a	n/a
649-42	2	Thumbprint, Huber	unknown vessel, dish, goblet, Tumbler
649-79	3	Thumbprint, Pressed Arch	compote, footed tumbler, tumbler, unknown drinking vessel
650-8	3	Pleat and Panel, Honeycomb, Huber	footed bowl, pitcher, goblet, egg cup, Tumbler
650-10	1	Honeycomb	cordial, unknown tableware

Table 15. Differences Between Features with Respect to Household Composition Variables

Site Name	Feature Number	Family Type					Age		Head Woman Type		Family Ancestry			Head Woman Ancestry		
		Nuclear	Extended	Single Parent	Other	Boarders	Old	Young	Wife of Had	Widow/Head	German	Irish	North America	German	English	North America
Mullanphy Park Site	602-18	H ¹		L ²						L	H		L	H		L
	602-24			L ²	H						L		H			
Worthy Women's Site	649-28		H													
	649-42	L ¹		H		H	L	H				H			H ²	
	649-79										L		H	L		
McGuire=Newell Site	650-8			H			H		L	H	H					
	650-10															

¹ Significantly High (H) or Low (L), based on ACTUS count analysis, $p \leq 0.05$

² $p = 0.06$

Table 16. Differences Between Sites with Respect to Household Composition Variables

Site Name	Site Number	Family Type			Head Woman Type		Family Ancestry			Head Woman Ancestry	
		Nuclear	Single Parent	Boarders	Wife of Had	Widow/Head	German	English	North America	German	North America
Mullanphy Park Site	23SL2274	H ¹	L ¹	L	H	L			L		
Worthy Women's Site	23SL2316	L ²		H			L	H		L	H ²
McGuire-Newell Site	23SL2318		H				H ²				

¹ Significantly High or Low, based on ACTUS count analysis, $p \leq 0.05$

² $p = 0.06$

Table 17. Differences Between Sites with Respect to Household Composition Variables, Residential Features Only

Site Name	Residential Features	Family Type	Head Woman Type		Family Ancestry		Head Woman Ancestry	
		Single Parent	Wife of Head	Widow/Head	German	North America	German	North America
Mullanphy Park Site	602-18 and 24		H ¹	L ¹		L		
Worthy Women's Site	649-28 and 79				L	H	L	
McGuire-Newell Site	650-8 and 10	H	L ²		H			

¹ Significantly High or Low, based on ACTUS count analysis, $p \leq 0.05$

² $p = 0.06$

Table 18. Differences Between Features with Respect to Vessel Variables¹

Site Name	Feature Number	Pattern Group		Time Period			Form		Function				
		Geometric	Naturalistic	Lacy	Colonial	Golden Age	Drinkware	Tableware	Cordial	Dish	Goblet/Wine	Mug	Tumbler
Mullanphy Park Site	602-18												
	602-24		L		H ²	L	H ²	L				H	
Worthy Women's Site	649-28								H				
	649-42									L ²			
	649-79			H							L		
McGuire=Newell Site	650-8					L							
	650-10	L	H			H				H	H ²		L

¹ Significantly High or Low, based on ACTUS count analysis, $p \leq 0.05$

² $p = 0.06$

Table 19. Differences Between Sites with Respect to Vessel Variables¹

Site Name	Site Number	Pattern Group	Time Period		Form		Function		
		Naturalistic	Colonial	Golden Age	Drinkware	Tableware	Dish	Mug	Tumbler
Mullanphy Park Site	23SL2274	L	H	L	H	L		H	
Worthy Women's Site	23SL2316								
McGuire-Newell Site	23SL2318					H	H		L

¹ Significantly High or Low, based on ACTUS count analysis, $p \leq 0.05$

Table 20. Differences Between Sites with Respect to Vessel Variables, Residential Features Only¹

Site Name	Residential Features	Pattern	Time Period			Form		Function	
		Naturalistic	Colonial	Golden Age	Drinkware	Tableware	Dish	Goblet/Wine	Tumbler
Mullanphy Park Site	602-18 and 24	L	H	L	H	L	L ²		
Worthy Women's Site	649-28 and 79							L	
McGuire-Newell Site	650-8 and 10							H	L

¹ Significantly High or Low, based on ACTUS count analysis, $p \leq 0.05$

² $p = 0.06$

Table 21. Relationships Between Household Composition Variables by Feature¹

X Variable	Positive Relationships	Negative Relationships
Resident Total	Number of Families p=0.0035, r=0.92 Head Median HISCLASS p=0.0143, r=0.85 Duration (exclude 18) p=0.0362, r=0.84 Young (exclude 18) p=0.0456, r=0.82 Nuclear p=0.0387, r=0.78	German (exclude 18) p=0.0333, r=-0.85 Mean Family Size (exclude 18) p=0.0350, r=-0.84
Number of Families	Resident Total p=0.0035, r=0.92 Median HISCLASS (exclude 28) p=0.0126, r=0.91 Median HISCLASS Head Woman (exclude 8) P=0.0144, r=0.90 Young p=0.0069, r=0.89 Median HISCLASS Head p=0.0397, r=0.78	Mean Family Size p=0.0127, r=-0.86 Head Woman German (exclude 18) P=0.0307, r=-0.85
Mean Family Size		Young p=0.0077, r=-0.89 Head Woman Mean Age p=0.0098, r=-0.88 Number Families p=0.0127, r=-0.86 Resident total (exclude 18) p=0.0350, r=-0.84 Median HISCLASS p=0.0194, 83
Proportion of Nuclear Families	Young (exclude 42) p=0.0386, r=0.83 Resident Total p=0.0387, r=0.78 Head Median HISCLASS p=0.0390, r=0.78	Head Mean Age (exclude 42, 28) p=0.0040, r=-0.98
Proportion of Extended Families	Mean Family Size p=0.0327, r=0.79 Middle p=0.0377, r=0.78	
Proportion of Widowed Families	Head Woman Head p=0.0019, r=0.94 Head Woman Daughter p=0.0308, r=0.80	Head Woman Wife p=0.0028, r=-0.93
Proportion of Other Families	Duration (exclude 79) p=0.0069, r=0.89	German p=0.0290, r=-0.86 Head Women German p=0.0148, r=-0.85

¹ Only significant correlations shown.

Table 21. Continued¹

X Variable	Positive Relationships	Negative Relationships
Proportion of Boarders	Number of Families (exclude 18) p=0.0093, r=0.92 Young p=0.0060, r=0.90	Mean Family Size (exclude 42) p=0.0407, r=-0.83 German (exclude 42) p=0.0493, r=-0.81
Proportion of Old Families	Mean Family Size (exclude 28, 10) P=0.0365, r=0.90	Deposit Start Dates (exclude 8) P=0.0147, r=-0.90 Middle p=0.0250, r=-0.82
X Variable	X Variable	X Variable
Proportion of Middle Families	Head Woman Wife p=0.0413, r=0.77	Old p=0.0250, r=-0.82
Proportion of Young Families	Boarders p=0.0060, r=0.90 Number of Families p=0.0069, r=0.89 Nuclear (exclude 42) p=0.0386, r=0.83 Median HISCLASS (exclude 28) p=0.0451, r=0.82	Mean Family Size p=0.0077, r=-0.89
Women who are Wife of House Head		Head Woman Head p=0.0002, r=-0.98
Women who are House Head	Widowed p=0.0019, r=0.94 Head Woman Median HISCLASS (exclude 18) P=0.0095, r=0.92	Head Woman Wife p=0.0002, r=-0.98
Proportion of German Families	Head Woman German % p<0.0001, r=0.99 Extended (exclude 8) p=0.0298, r=0.86 Middle (exclude 8) p=0.0302, r=0.85 Deposit Date Start p=0.0325, r=0.80	Other p=0.0069, r=-0.89 Resident Total (exclude 18) p=0.0333, r=-0.85 Boarders (exclude 42) p=0.0493, r=-0.81 Duration p=0.0295, r=-0.80

¹ Only significant correlations shown.

Table 21. Continued¹

X Variable	Positive Relationships	Negative Relationships
Proportion of German Head Women	German Families $p<0.0001$, $r=0.99$ Deposit Date Start $p=0.0416$, $r=0.77$	Resident Total (exclude 18) $p=0.0143$, $r=-0.90$ Other $p=0.0148$, $r=-0.85$ Duration $p=0.0265$, $r=-0.81$
Proportion of Irish Head Women	Nuclear $p=0.0193$, $r=0.84$	
House Head Mean Age		Nuclear (no 42 and 28) $p=0.0040$, $r=-0.98$
Woman House Head Mean Age	Young $p=0.0181$, $r=0.84$ Boarders $p=0.0194$, $r=0.84$	Mean Family Size $p=0.0098$, $r=-0.88$
Dwelling Median HISCLASS	Number of Families (exclude 28) $p=0.0126$, $r=0.91$ Head Woman Mean Age $p=0.0104$, $r=0.87$	Mean Family Size $p=0.0194$, $r=-0.83$
House Head Median HISCLASS	Resident Total $p=0.0143$, $r=0.85$ Nuclear $p=0.0390$, $r=0.78$ Number of Families $p=0.0397$, $r=0.78$	
Duration of Use	Other (exclude 79) $p=0.0290$, $r=0.86$ Resident Total (no 18) $p=0.0362$, $r=0.84$ Nuclear (exclude 18) $p=0.0454$, $r=0.82$	Deposit Start Dates $p=0.0008$, $r=-0.96$ German Head Woman $p=0.0265$, $r=-0.81$ German $p=0.0295$, $r=-0.80$
Deposit Date Start	German $p=0.0325$, $r=0.80$ German Head Women $p=0.0416$, $r=0.77$	Other (exclude 79) $p=0.0001$, $r=-0.99$ Duration $p=0.0008$, $r=-0.96$ Old (exclude 8) $p=0.0147$, $r=-0.90$

¹ Only significant correlations shown.

Table 22. Relationship Between Household Composition Variables, by Site¹

X Variable	Positive Relationships	Negative Relationships
Resident Total	Head Median HISCLASS p=0.0082, r>0.99 (exclude shelter) Young p=0.0453, r>0.99	Head Woman Daughter p=0.0262, r>-0.99 (exclude shelter) Immigrant p=0.0403, r>-0.99 Old p=0.0453, r>-0.99
Mean Family Size	Head Mean Age p=0, r=1 (exclude shelter) Woman Head of House p=0.0435, r>0.99 (exclude shelter)	Other p=0.0059, r>-0.99 (exclude shelter) Head Woman German p=0.0397, r>-0.99
Proportion of Nuclear Families		Widowed p=0.0181, r>-0.99 (exclude shelter)
Proportion of Extended Families	Woman Head of House p=0.0118, r>0.99 Middle p=0.0216, r>0.99 (exclude shelter) Widowed p=0.0453, r>0.99	Median HISCLASS p=0.018, R=-0.98
Proportion of Widowed Families	Head Mean Age p=0.0116, r=0.99 Woman Head of House p=0.0204, r=0.98 Extended p=0.0453, r>0.99	Head Woman as Wife p=0.0113, r>-0.99 Nuclear p=0.0181, r>-0.99 (exclude shelter)
Proportion of Other Families		Head Median Age p=0.0008, r>-0.99 (exclude shelter) Mean Family Size p=0.0059, r>-0.99 (exclude shelter) Woman Head of House p=0.0494, r>-0.99 (exclude shelter)
Proportion of Boarders	Young p<0.0001, r=1 (exclude shelter) Head Woman as Wife p=0.0239, r>0.99 (exclude shelter) Duration p=0.0245, r>0.99	Old p=0.0152, r>-0.99 (exclude shelter) Woman Head of House p=0.0317, r>-0.99 (exclude shelter) Middle p=0.0459, r>-0.99 (exclude shelter)

¹ Only significant correlations shown.

Table 22. Continued¹

X Variable	Positive Relationships	Negative Relationships
Proportion of Old Families	Woman Head of House $p=0.0165$, $r>0.99$ (exclude shelter) German $p=0.0251$, $r>0.99$	Young $p<0.0001$, $r>-0.99$ Head Woman as Wife $p=0.0087$, $r>-0.99$ (exclude shelter) Boarders $p=0.0152$, $r>-0.99$ (exclude shelter) Resident Total $p=0.0188$, $r=-0.98$ Irish Head Woman $p=0.0489$, $r>0.99$
Proportion of Middle Families	Extended $p=0.0216$, $r>0.99$ (exclude shelter) Old $p=0.0135$, $r=0.98$	Young $p=0.0132$, $r=-0.99$ Boarders $p=0.0459$, $r>-0.99$ (exclude shelter)
Proportion of Young Families	Boarders $p<0.0001$, $r=1$ (exclude shelter) Resident Total $p=0.0158$, $r=0.98$ Head Woman as Wife $p=0.0239$, $r>0.99$ (exclude shelter)	Old $p=0.0002$, $r>-0.99$ Middle $p=0.0132$, $r=-0.99$ German $p=0.0251$, $r>-0.99$ Woman Head of House $p=0.0317$, $r>-0.99$ (exclude shelter)
Women who are Wife of House Head	Boarders $p=0.0239$, $r>0.99$ (exclude shelter) Young $p=0.0239$, $r>0.99$ (exclude shelter)	Head Mean Age $p=0.0002$, $r\geq 0.99$ Extended $p=0.0069$, $r=-0.99$ Woman Head of House $p=0.0069$, $r=-0.99$ Old $p=0.0087$, $r>-0.99$ (exclude shelter) Widowed $p=0.0272$, $r=-0.97$ Head Woman Daughter $p=0.0494$, $r>-0.99$
Women who are House Head	Head Mean Age $p=0.0071$, $r=0.99$ Extended $p=0.0148$, $r=0.99$ Old $p=0.0165$, $r>0.99$ (exclude shelter) Widowed $p=0.0204$, $r=0.98$ Mean Family Size $p=0.0435$, $r>0.99$ (exclude shelter)	Head Woman as Wife $p=0.0069$, $r>-0.99$ Boarders $p=0.0317$, $r>0.99$ (exclude shelter) Young $p=0.0317$, $r>-0.99$ (exclude shelter) Head Median HISCLASS $p=0.0482$, $r=-0.95$ Other $p=0.0494$, $r>-0.99$ (exclude shelter)

¹ Only significant correlations shown.

Table 22. Continued¹

X Variable	Positive Relationships	Negative Relationships
Head Women who are Daughters of Head of House	Head Mean Age $p=0.0435$, $r>0.99$ Extended $p=0.0442$, $r=0.96$	Resident Total $p=0.0262$, $r>0.99$ (exclude shelter) Number of Families $p=0.0401$, $r=-0.96$ Head Median HISCLASS $p=0.0181$, $r>-0.99$ (exclude shelter) Head Woman as Wife $p=0.0494$, $r>-0.99$
Proportion of German Families	Immigrant $p=0.0104$, $r>0.99$ (exclude shelter) Deposit Start Date $p=0.0174$, $r=0.98$ Old $p=0.0251$, $r>0.99$	Young $p=0.0251$, $r>0.99$
Proportion of German Head Women	Deposit Start Date $p=0.0020$, $r>0.99$	Duration $p=0.0207$, $r=-0.98$ Head Woman Mean Age $p=0.0397$, $r>-0.99$
Proportion of Irish Head Women	Resident Total $p=0.0036$, $r>0.99$ Young $p=0.0489$, $r>0.99$	Immigrant Families $p=0.0367$, $r>-0.99$
House Head Mean Age	Mean Family Size $p<0.0001$, $r=1$ (exclude shelter) Widowed $p=0.0116$, $r=0.99$ Extended $p=0.0253$, $r=0.97$	Head Woman Wife $p=0.0034$, $r>-0.99$ (exclude shelter) Other $p=0.0059$, $r>-0.99$ Woman Head of House $p=0.0435$, $r>-0.99$
Woman House Head Mean Age		Deposit Start Date $p=0$, $r=-1$
House Head Median HISCLASS		Head Woman Daughter $p=0.0181$, $r>-0.99$ (exclude shelter)
Duration of Use		Head Woman German $p=0.0207$, $r=-0.98$ Deposit Start Date $p=0.0289$, $r=-0.97$
Deposit Start Date	Head Woman German $p=0.0020$, $r>0.99$ German $p=0.0174$, $r=0.98$	Head Woman Mean Age $p=0$, $r=-1$ Duration $p=0.0289$, $r=-0.97$
Deposit End Date		Median HSICLASS $p=0$, $r=-1$

¹ Only significant correlations shown.

Table 23. Relationships Between Vessel Variables by Feature¹

X Variable	Positive Relationships	Negative Relationships
Colonial	Cordial (exclude 28) $p=0.0188$, $r=0.89$ Geometric $p=0.0337$, $r=0.79$	Golden Age $p=0.0028$, $r=-0.93$ Caster (exclude 28) $p=0.0105$, $r=-0.92$ Tableware $p=0.0333$, $r=-0.79$
Post-Civil War		Tumbler (exclude 10) $p=0.0003$, $r=-0.99$
Golden Age	Tableware (exclude 8) $p=0.0006$, $r=0.98$	Drinkware (exclude 8) $p=0.0025$, $r=-0.96$ Geometric (exclude 28) $p=0.0048$, $r=-0.94$ Colonial $p=0.0028$, $r=-0.93$
Abstract	Golden Age $p=0.0154$, $r=0.90$ Dish (exclude 8) $p=0.0479$, $r=0.77$	
Geometric	Gothic Tumblers $p=0.0137$, $r=0.86$ Cordial (exclude 28) $p=0.0349$, $r=0.84$ Colonial $p=0.0337$, $r=0.79$	Golden Age (exclude 28) $p=0.0048$, $r=0.94$ Abstract (exclude 28) $p=0.0217$, $r=-0.88$ Naturalistic $p=0.0319$, $p=-0.80$
Naturalistic	Tableware (exclude 28) $p=0.0007$, $r=0.98$ Dish (exclude 28) $p=0.0148$, $r=0.90$ Caster (exclude 28) $p=0.0329$, $r=0.85$	Drinkware (exclude 28) $p=0.0006$, $r=0.98$ Drinking Vessels (exclude 28) $p=0.0119$, $r=-0.91$ Gothic Tumblers (exclude 8) $p=0.0249$, $r=-0.87$ Geometric $p=0.0319$, $r=-0.80$
Plain	Packer $p=0.0027$, $r=0.93$	Gothic Tumblers (exclude 10) $p=0.0004$, $r=-0.998$

¹ Only significant correlations shown.

Table 23. Continued¹

X Variable	Positive Relationships	Negative Relationships
Drinkware	Drinking Vessels $p=0.0258$, $r=0.81$	Naturalistic (exclude 28) $p=0.0006$, $p=-0.98$ Tableware $p=0.0001$, $r=-0.98$ Golden Age (exclude 8) $p=0.0025$, $p=-0.96$ Dish $p=0.0056$, $p=-0.90$ Caster $p=0.0199$, $r=-0.83$
Drinking Vessels	Drinkware $p=0.0258$, $r=0.81$ Tumbler $p=0.0499$, $r=0.75$	Naturalistic (exclude 28) $p=0.0119$, $r=0.91$ Dish (exclude 28) $p=0.0311$, $r=-0.85$ Tableware $p=0.0288$, $r=-0.81$
Stemware	Geometric (exclude 28, 10) $p=0.0002$, $r>0.99$ Cordial $p=0.0125$, $r=0.86$	Caster $p=0.0477$, $p=-0.76$
Tableware	Naturalistic (exclude 28) $p=0.0007$, $r=0.98$ Dish $p=0.0099$, $r=0.88$ Caster $p=0.0135$, $r=0.86$ Golden Age $p=0.0306$, $r=0.80$	Drinkware $p=0.0001$, $r=-0.98$ Post-Civil War (exclude 18, 24) $p=0.0360$, $p=-0.90$ Drinking Vessels $p=0.0288$, $r=-0.81$ Colonial $p=0.0333$, $r=-0.79$

¹ Only significant correlations shown.

Table 24. Relationships Between Vessel Variables, by Site¹

X Variable	Positive Relationships	Negative Relationships
Caster	Goblet/Wine (exclude 79) $p<0.0001$, $r=0.99$ Tableware $p=0.0135$, $r=0.86$ Naturalistic (exclude 28) $p=0.0329$, $r=0.85$ Dish $p=0.0364$, $r=0.79$	Colonial (exclude 28) $p=0.0105$, $r=-0.92$ Cordial $p=0.0092$, $r=-0.88$ Drinkware $p=0.0199$, $r=-0.83$ Stemware $p=0.0477$, $r=-0.76$
Cordial	Colonial (exclude 28) $p=0.0188$, $r=0.89$ Geometric (exclude 28) $p=0.0349$, $r=0.84$	Caster (exclude 28) $p=0.0047$, $r=-0.94$
Dish	Naturalistic (exclude 28) $p=0.0148$, $r=0.90$ Abstract (exclude 8) $p=0.0154$, $r=0.90$ Tableware $p=0.0099$, $r=0.88$ Caster $p=0.0364$, $r=0.79$	Drinkware $p=0.0056$, $r=-0.90$ Drinking Vessels (exclude 28) $p=0.0311$, $r=-0.85$
Goblet/Wine	Caster (exclude 79) $p<0.0001$, $r=0.99$	Tumbler (exclude 28) $p=0.0129$, $r=-0.91$
Tumbler	Gothic Tumblers $p=0.0498$, $r=0.75$ Drinking Vessels $p=0.0499$, $r=0.75$	Post-Civil War (exclude 10) $p=0.0003$, $r=0.99$
Gothic Tumbler	Geometric $p=0.0137$, $r=0.86$ Tumblers $p=0.0498$, $r=0.75$	
Colonial	Gothic Tumblers $p=0.0009$, $r>0.99$ Drinkware $p=0.0039$, $r>0.99$ Drinking Vessels $p=0.0341$, $r=0.97$ Mug $p=0.0260$, $r=0.97$	Tableware $p=0.0039$, $r>0.99$ Naturalistic $p=0.0067$, $r>0.99$ Post-Civil War $p=0.0099$, $r>0.99$ (exclude shelter) Dish $p=0.0416$, $r=-0.96$

¹ Only significant correlations shown.

Table 24. Continued¹

X Variable	Positive Relationships	Negative Relationships
Post-Civil War		Gothic Tumblers $p=0.0099$, $r>-0.99$ (exclude shelter) Mug $p=0.0189$, $r>-0.99$ (exclude shelter) Colonial $p=0.0344$, $r>-0.99$ (exclude shelter)
Geometric		Abstract $p=0.0248$, $r=0.98$
Naturalistic	Tableware $p=0.0004$, $r>0.99$ Dish $p=0.0204$, $r=0.98$	Drinkware $p=0.0004$, $r>-0.99$ Colonial $p=0.0067$, $r>-0.99$ Gothic Tumblers $p=0.0126$, $r=-0.99$ Mug $p=0.0485$, $r=-0.95$
Plain		Stemware $p=0.0111$, $r>-0.99$
Drinkware	Colonial $p=0.0039$, $r>0.99$ Gothic Tumblers $p=0.0086$, $r=0.99$ Drinking vessels $p=0.0473$, $r=0.95$ Mug $p=0.0429$, $r=0.96$	Tableware $p=0$, $r=-1$ Naturalistic $p=0.0004$, $r>-0.99$ Dish $p=0.0235$, $r=-0.98$
Drinking Vessels	Gothic Tumblers $p=0.0293$, $r=0.97$ Colonial $p=0.0341$, $r=0.97$ Drinkware $p=0.0437$, $r=0.95$	Tableware $p=0.0473$, $r=-0.95$
Tableware	Naturalistic $p=0.0004$, $r>0.99$ Colonial $p=0.0039$, $r>0.99$ Dish $p=0.0235$, $r=0.98$	Drinkware $p=0$, $r=-1$ Gothic Tumblers $p=0.0086$, $r=-0.99$ Drinking Vessels $p=0.0437$, $r=-0.95$ Mug $p=0.0429$, $r=-0.96$
Caster	Golden Age $p=0.0293$, $r=0.97$	

¹ Only significant correlations shown.

Table 24. Continued¹

X Variable	Positive Relationships	Negative Relationships
Cordial		Goblet/Wine p=0.0485, r=-0.95 Pour p=0.0452, r>-0.99 (exclude shelter)
Dish	Naturalistic p=0.0204, r=0.98 Tableware p=0.0235, r=0.98	Drinkware p=0.0235, r=-0.98 Colonial p=0.0416, r=-0.96
Goblet/Wine	Pour p=0.0205, r>0.99 (exclude shelter)	Cordial p=0.0485, r=-0.95
Mug	Gothic Tumblers p=0.0216, r=0.98 Colonial p=0.0260, r=0.97 Drinkware p=0.0429, r=0.96 Naturalistic p=0.0485, r=0.95	Post-Civil War p=0.0055, r>-0.99 Tableware p=0.0429, r=-0.96
Tumbler	Cordial p=0.0220, r=0.98	Pour p=0.0074, r=-0.99
Gothic Tumbler	Colonial p=0.0009, r>0.99 Drinkware p=0.0086, r=0.99 Mug p=0.0216, r=0.98 Drinking Vessels p=0.0293, r=0.97	Tableware p=0.0086, r=-0.99 Naturalistic p=0.0126, r=-0.99 Post-Civil War p=0.0475, r=-0.95

¹ Only significant correlations shown.

Table 25. Relationships Between MNV and Household Composition and Vessel Variables, by Feature¹

Y Variable	Positive Relationships	Negative Relationships	No Relationships
MNV	Number of Families (exclude 24, 18) $p=0.0097$, $r=0.96$; Rest Total (exclude 18) $p=0.0076$, $r=0.93$; Plain (exclude 28) $p=0.0112$, $r=0.91$; Duration of Use (exclude 42) $p=0.0195$, $r=0.88$; Deposit End Date $p=0.0260$, $r=0.81$	Stemware (exclude 42) $p=0.0452$, $r=-0.82$	Feature Volume Mean Family Size Socioeconomic Class Proportion of Immigrant Families Proportion of German Families Mean Ages of House Heads Family Type Family Age Boarders/Servants Head Median HISCLASS Time Periods Pattern Groups Drinkware Drinking Vessels Functional Types

¹ Only significant correlations shown.

Table 26. Relationships Between MNV and Household Composition and Vessel Variables, by Site¹

Y Variable	Positive Relationships	Negative Relationships	No Relationships
MNV			Duration
			Deposit Dates
			Feature Volume
			Resident Total
			Number of Families
			Mean Family Size
			Socioeconomic Class
		Head Woman Mean Age p=0.0086, r>0.99 (exclude shelter)	Proportion of Immigrant Families
		Plain p=0.0094, r>-0.99 (exclude shelter)	Proportion of German Families
			Mean Ages of House Head Male
			Family Type
			Family Age
			Boarders/Servants
			HISCLASS
			Time Periods
			Pattern Groups except Plain
			Form Types
			Functional Types

¹ Only significant correlations shown.

Table 27. Relationships Between Household Composition and Vessel Variables, by Feature¹

X Variable	Positive Relationships	Negative Relationships
Resident Total	Plain (exclude 28, 18) p=0.0021, r=0.99; Tumbler (exclude 10) p=0.0087, r=0.92	Naturalistic (exclude 24) p=0.0331, r=-0.91; Stemware (exclude 18) p=0.0359, r=-0.84
Number of Families	Geometric (exclude 8) p=0.0159, r=0.90	Post-Civil War (exclude 42) p=0.0082, r=-0.92; Abstract (exclude 28, 8) p=0.0263, r=-0.92; Pour (exclude 28, 8) p=0.0485, r=-0.88; Naturalistic p=0.0311, r=-0.80
Mean Family Size	Naturalistic p=0.0247, r=0.82	Tumbler (exclude 28, 42) p=0.0002, r=-0.1
Proportion of Nuclear Families	Tumbler (exclude 10) p=0.0008, r=0.98	Post-Civil War p=0.0006, r=-0.96; Goblet/Wine (exclude 28, 10) p=0.0194, r=-0.94
Proportion of Other Families	Drinking Vessel p=0.0110, r=0.87	Dish (exclude 28) p=0.0369, r=-0.84; Naturalistic p=0.0398, r=-0.78
Proportion Middle		Gothic Tumblers p=0.0037, r=-0.92; Geometric p=0.0368, r=-0.78
Proportion of Young Families	Tumbler (exclude 42) p=0.0331, r=0.85; Drinking Vessels (exclude 42) p=0.0495, r=0.81	Abstract (exclude 28, 8) p=0.0194, r=-0.94; Post-Civil War (exclude 42) p=0.0321, r=-0.85
Proportion of Immigrant Families		Pour (exclude 10) p=0.0487, r=0.81; Tumbler (exclude 18) p=0.0087, r=-0.92

¹ Only significant correlations shown.

Table 27. Continued¹

X Variable	Positive Relationships	Negative Relationships
Proportion of Families with German Woman as Domestic Heads		Plain (exclude 28) $p=0.0350$, $r=-0.84$
Proportion of Families with Irish Woman as Domestic Heads	Abstract $p=0.0213$, $r=0.83$	Post-Civil War (exclude 18) $p=0.0050$, $r=-0.94$; Stemware (exclude 42) $p=0.0405$, $r=-0.83$
Head of House's Median HISCLASS	Abstract (exclude 42, 18) $p=0.0162$, $r=0.94$; Tumbler (exclude 10) $p=0.0309$, $r=0.85$	Post-Civil War $p=0.0401$, $r=-0.78$
Head Domestic Woman's Median HISCLASS		Naturalistic (exclude 24) $p=0.0255$, $r=-0.87$
Duration of Feature Use		Geometric (exclude 28, 10) $p=0.0107$, $r=-0.96$; Stemware $p=0.0206$, $r=-0.83$
Deposit Date Start	Naturalistic (exclude 79) $p=0.0351$, $r=0.84$	Abstract (exclude 10) $p=0.0062$, $r=-0.94$; Drinking Vessels (exclude 79) $p=0.0125$, $r=-0.91$
Deposit Date End	Golden Age $p=0.0027$, $r=0.93$; Caster $p=0.0435$, $r=0.77$; Tableware $p=0.0492$, $r=0.76$	Colonial $p=0.0168$, $r=-0.84$

¹ Only significant correlations shown.

Table 28. Relationships Between Household Composition and Vessel Variables, by Site¹

X Variable	Positive Relationships	Negative Relationships
Resident Total	Gothic Tumblers p=0.0416, r>0.99 (exclude shelter)	Post-Civil War p=0.0316, r>-0.99 (exclude shelter)
Number of Families	Drinkware p=0.0149, r>0.99 (exclude shelter) Cordial p=0.0482, r>0.99	Naturalistic p=0.0015, r>-0.99 (exclude shelter) Tableware p=0.0149, r>-0.99 (exclude shelter) Dish p=0.0162, r>-0.99 (exclude shelter)
Head Mean Age	Drinking Vessels p=0.0306, r=-0.97 Goblet/Wine p=0.0405, r>0.99	
Head Woman Mean Age	Plain p<0.0001, r=1 (exclude shelter)	
Proportion of Extended Families		Drinking Vessels p=0.0004, r>-0.99 Gothic Tumblers p=0.0318, r=-0.97 Colonial p=0.0378, r=-0.96
Proportion of Widowed Parent Families	Dish p=0.0397, r>0.99	Drinking Vessels p=0.0421, r>-0.99
Proportion Boarders	Plain p=0.0321, r=0.97	
Proportion of Middle Families		Tumblers p=0.0040, r>-0.99 Drinking Vessels p=0.0323, r>-0.99 (exclude shelter)
Proportion of Old Families	Pour p=0.0155, r>0.99	
Proportion of Young Families		Pour p=0.0155, r>-0.99

¹ Only significant correlations shown.

Table 28. Continued¹

X Variable	Positive Relationships	Negative Relationships
Proportion of German Families	Pour $p=0.0047$, $r>0.99$ Goblet/Wine $p=0.0472$, $r>0.99$ (exclude shelter)	Tumbler $p=0.0167$, $r=-0.98$
Proportion of Immigrant Families	Pour $p=0.0307$, $r=0.97$	Cordials $p=0.0085$, $r=-0.98$ Tumbler $p=0.0097$, $r=-0.98$
Proportion of Head Women as Wives	Drinking Vessels $p=0.0144$, $r=0.99$	Goblet/Wine $p=0.0463$, $r>-0.99$
Proportion of Head Women as Heads	Dish $p=0.0174$, $r>0.99$	Drinking Vessels $p=0.0198$, $r=-0.98$
Proportion of Head Woman as Daughters	Goblet/Wine $p=0.0031$, $r>0.99$ Post-Civil War $p=0.0054$, $r>0.99$ (exclude shelter) Dish $p=0.0213$, $r=0.98$	Mug $p=0.0243$, $r>-0.99$ (exclude shelter) Gothic Tumblers $p=0.0153$, $r>-0.99$ (exclude shelter) Drinking Vessels $p=0.0371$, $r=-0.96$
Median HISCLASS	Mug $p=0.0317$, $r=0.97$ Drinkware $p=0.0425$, $r=0.96$ Colonial $p=0.0455$, $r=0.95$	Golden Age $p=0.0059$, $r=-0.99$ Naturalistic $p=0.0414$, $r=-0.96$ Naturalistic $p=0.0425$, $r=-0.96$ Post-Civil War $p=0.0460$, $r=-0.95$
Head of House's Median HISCLASS	Gothic Tumblers $p=0.0020$, $r>0.99$ Colonial $p=0.0042$, $r>0.99$ Drinkware $p=0.0139$, $r=0.99$ Drinking Vessels $p=0.0162$, $r=0.98$ Mug $p=0.0315$, $r=0.97$	Tableware $p=0.0139$, $r=-0.99$ Naturalistic $p=0.0188$, $r=-0.98$ Post-Civil War $p=0.0235$, $r>-0.99$ (exclude shelter)
Duration of Feature Use		Stemware $p=0.0391$, $r=-0.96$
Deposit Date Start	Pour $p=0.0344$, $r=0.97$	
Deposit Date End	Golden Age $p=0.0059$, $r=0.99$ Naturalistic $p=0.0414$, $r=0.96$ Tableware $p=0.0425$, $r=0.96$ Post-Civil War $p=0.0460$, $r=0.95$	Mug $p=0.0317$, $r=-0.97$ Colonial $p=0.0455$, $r=-0.95$ Drinkware $p=0.0425$, $r=-0.96$

¹ Only significant correlations shown.

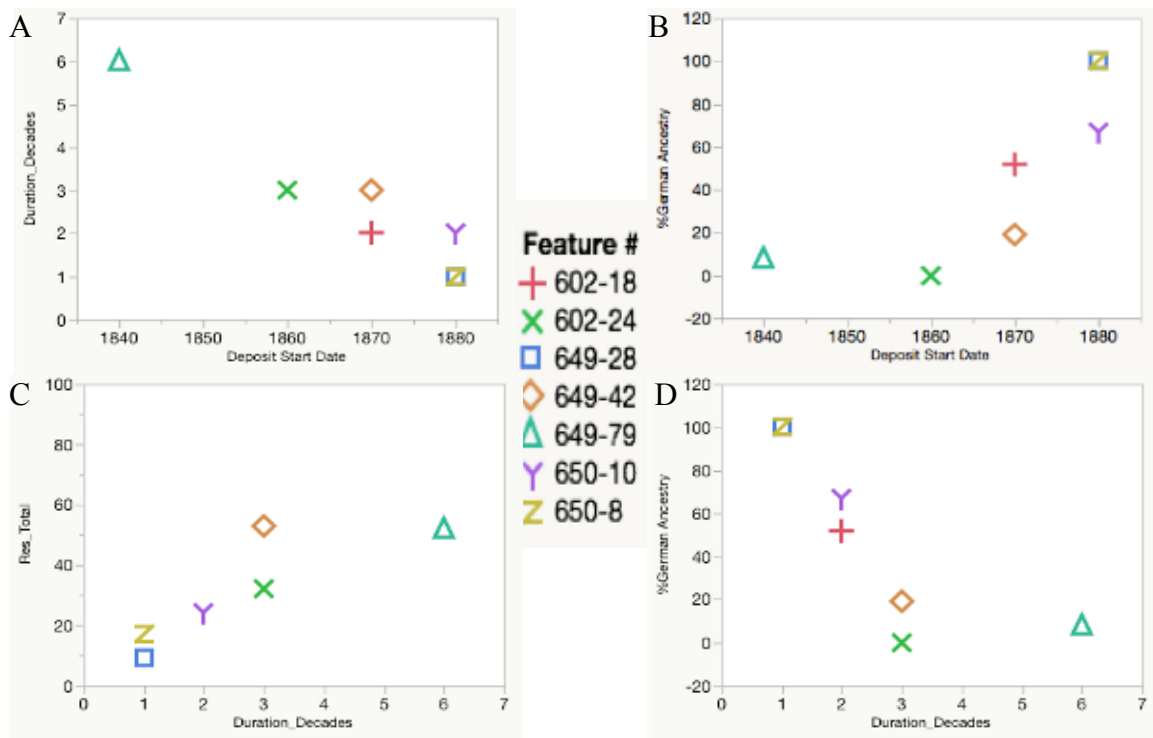


Figure 20. Relationships Between Feature Use Duration in Decades and Feature Use Start Dates.

A. Start Date vs. Duration: $p=0.0008$, $r=-0.95$

B. Start Date vs. Percent of Families with German Ancestry: $p=0.0325$, $r=0.80$

C. Duration vs. Total Number of Residents: $P=0.0362$, $r=0.80$

D. Duration vs. Percent of Families with German Ancestry: $p=0.0295$, $r=-0.76$

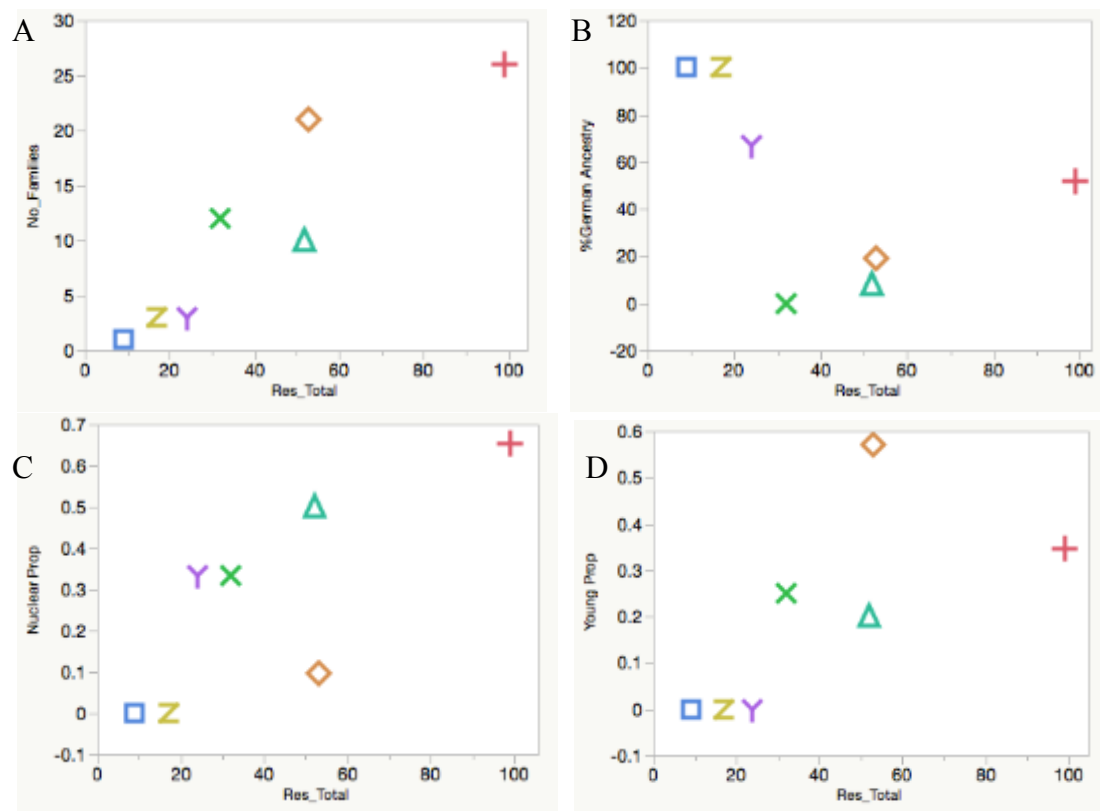


Figure 21. Residential Total and Household Composition Variables.

A. Total Number of Families: $p=0.0035$, $r=0.90$

B. Family Type: $p=0.0387$, $r=0.73$

C. Early Stage Families: $p=0.0456$, $r=0.77$

D. Ancestry: $p=0.0333$, $r=-0.80$

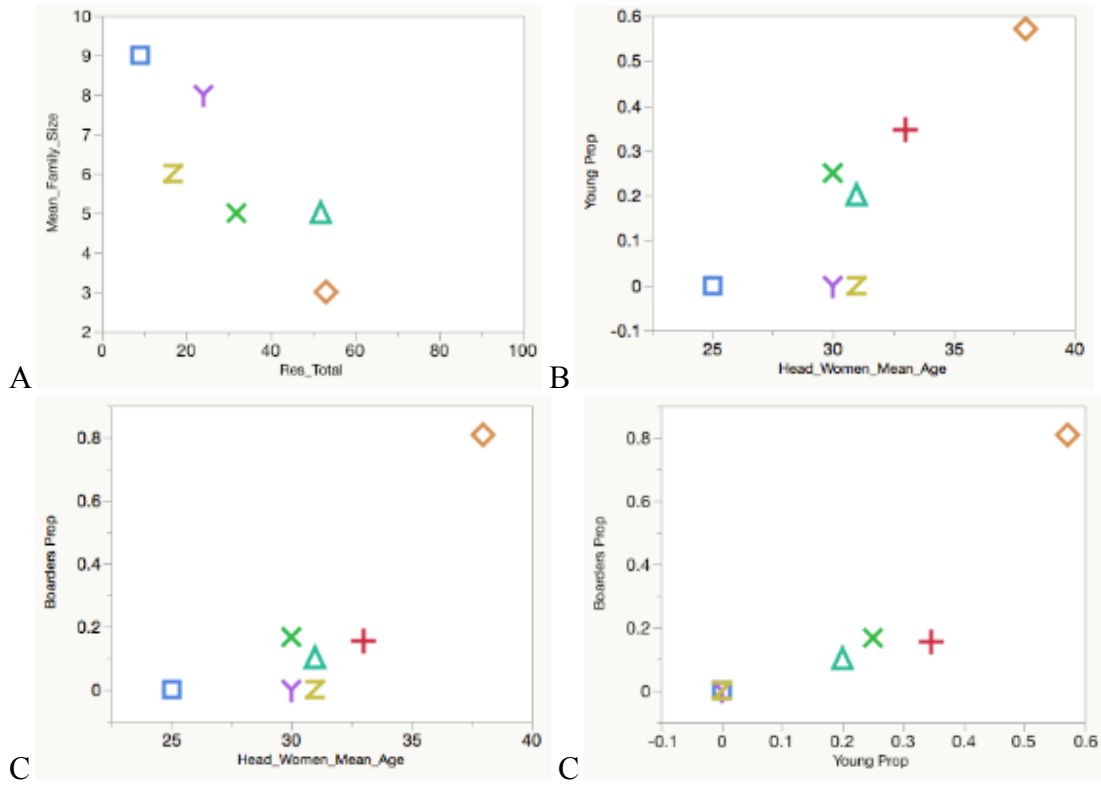


Figure 22. Relationships Between Household Composition Variables

- A. Total Number of Residents vs. Mean Family Size: $p=0.0350$, $r=-0.80$
 B. Mean Age of Head Woman vs. Early Stage Families: $p=0.0181$, $r=0.80$
 C. Mean Age of Head Woman vs. Boarders: $p=0.0194$, $r=0.80$
 D. Early Stage Families vs. Boarders: $p=0.0060$, $r=0.88$

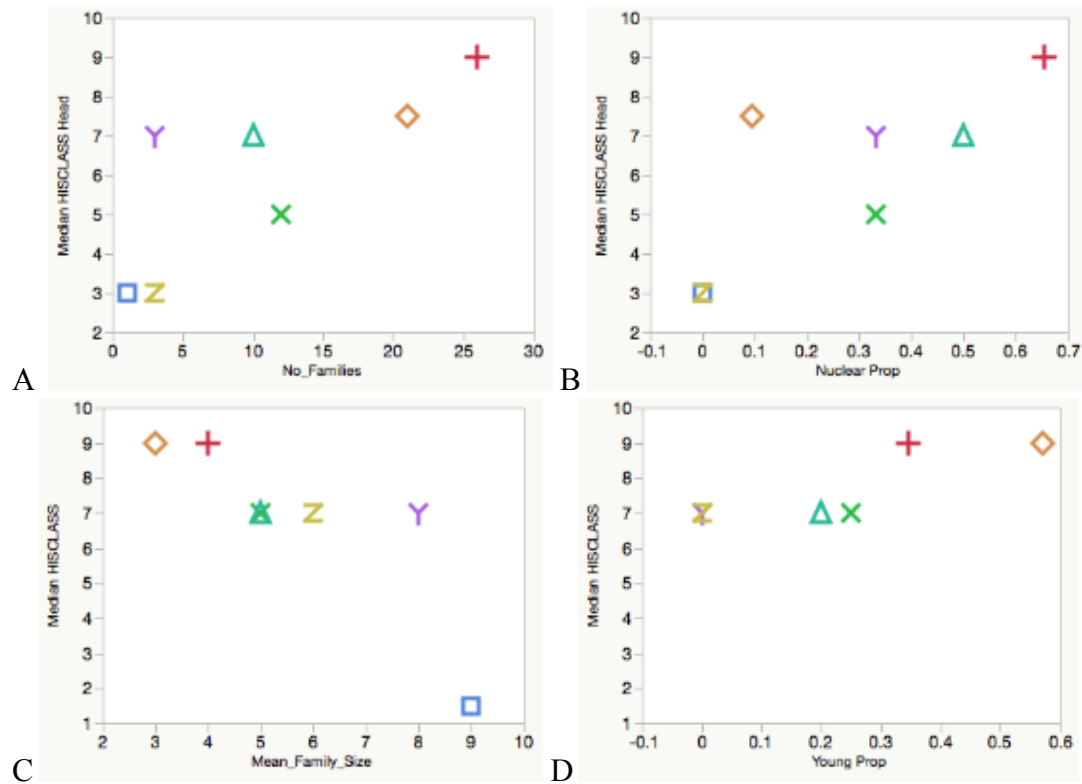


Figure 23. Relationships Between Socioeconomic Status and Household Composition Variables

- A. Total Number of Families vs. Head of House Median HISCLASS rank: $p=0.0397$, $r=0.72$
- B. Mean Family Size vs. Household Median HISCLASS rank: $p=0.0194$, $r=0.80$
- C. Nuclear Families vs. Head of Household Median HISCLASS rank: $p=0.0390$, $r=0.73$
- D. Early Stage Families vs. Household Median HISCLASS: $p=0.0451$, $r=0.77$

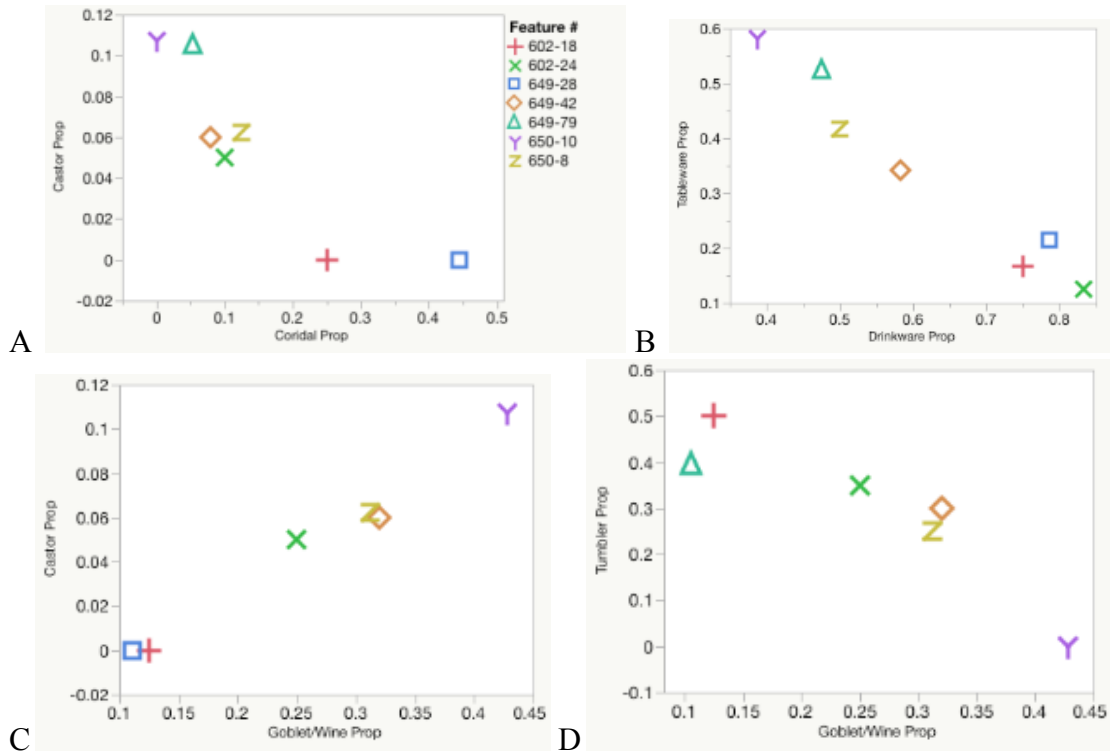


Figure 24. Relationships Between Vessel Function and Vessel Form

- A. Cordial vs. Caster: $p=0.0092$, $r=-0.85$
 B. Tableware vs. Drinkware: $p=0.0001$, $r=-0.97$
 C. Goblet vs. Caster: $p<0.0001$, $r=0.99$
 D. Goblet vs. Tumblers: $p=0.0129$, $r=-0.88$

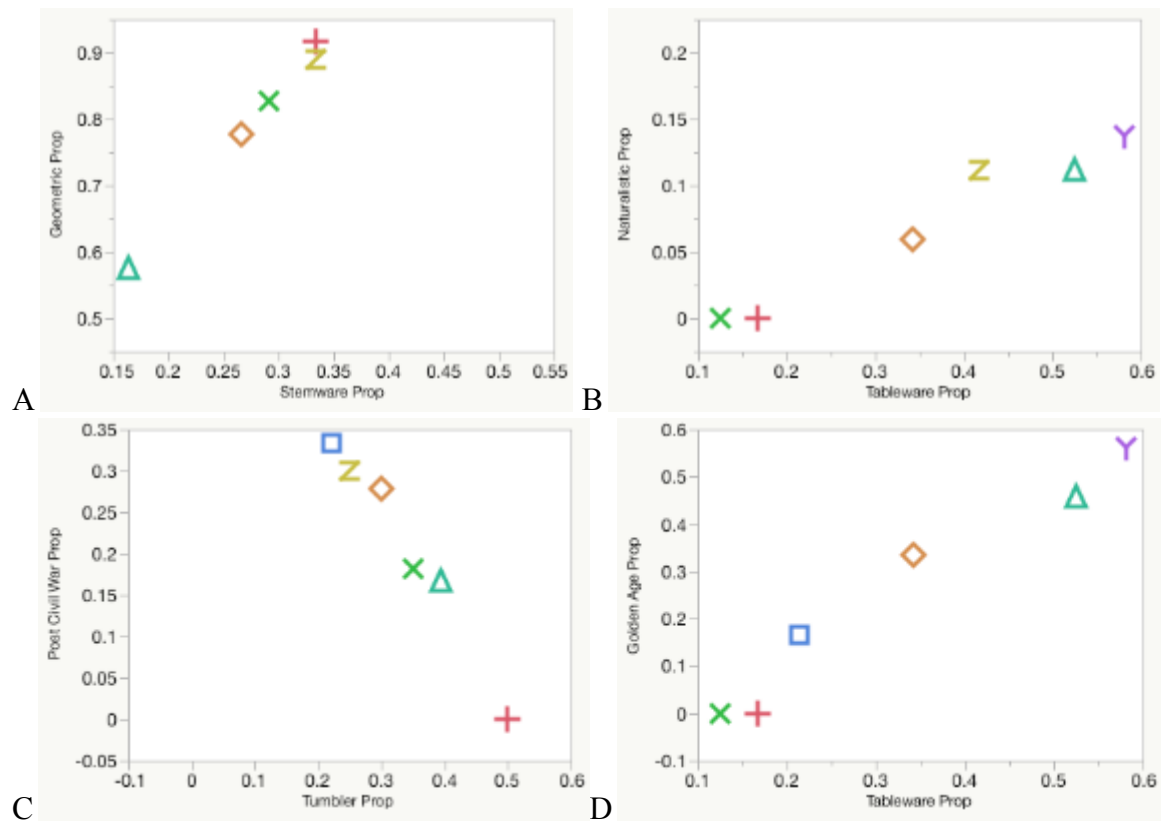


Figure 25. Relationships Between Vessel Function/Form and Vessel Pattern Types/Time Period

A. Stemware vs. Geometric Pattern: $p=0.0002$, $r=0.1$

B. Dishes-Tableware vs. Naturalistic Pattern: $p=0.0007$, $r=0.97$

C. Tumblers vs. Post-Civil War Period: $p=0.0003$, $r=-0.98$

D. Tableware vs. Golden Age/ Colonial: $p=0.0006$, $r=0.97$

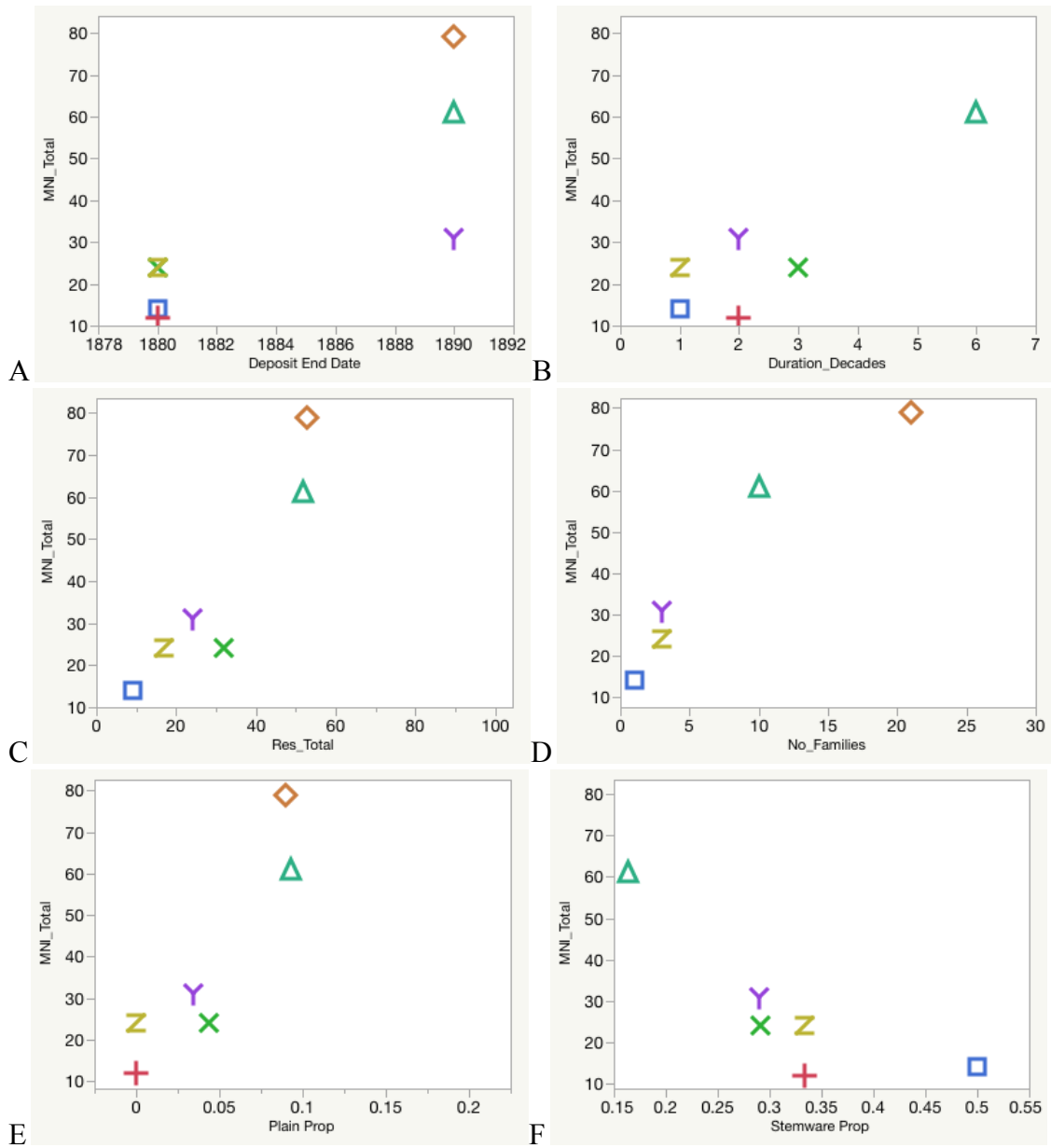


Figure 26. Relationships Between MNV and Household Composition and Vessel Variables
A. Total Number of Families (exclude 24, 18) $p=0.0097$, $r=0.96$
B. Total Number of Residents (exclude 18) $p=0.0076$, $r=0.93$
C. Plain Patterns (exclude 28) $p=0.0112$, $r=0.91$
D. Duration of Feature Use in Decades (exclude 42) $p=0.0195$, $r=0.88$
E. Feature Deposit End Date $p=0.0260$, $r=0.81$
F. Stemware (exclude 42) $p=0.0452$, $r=-0.82$

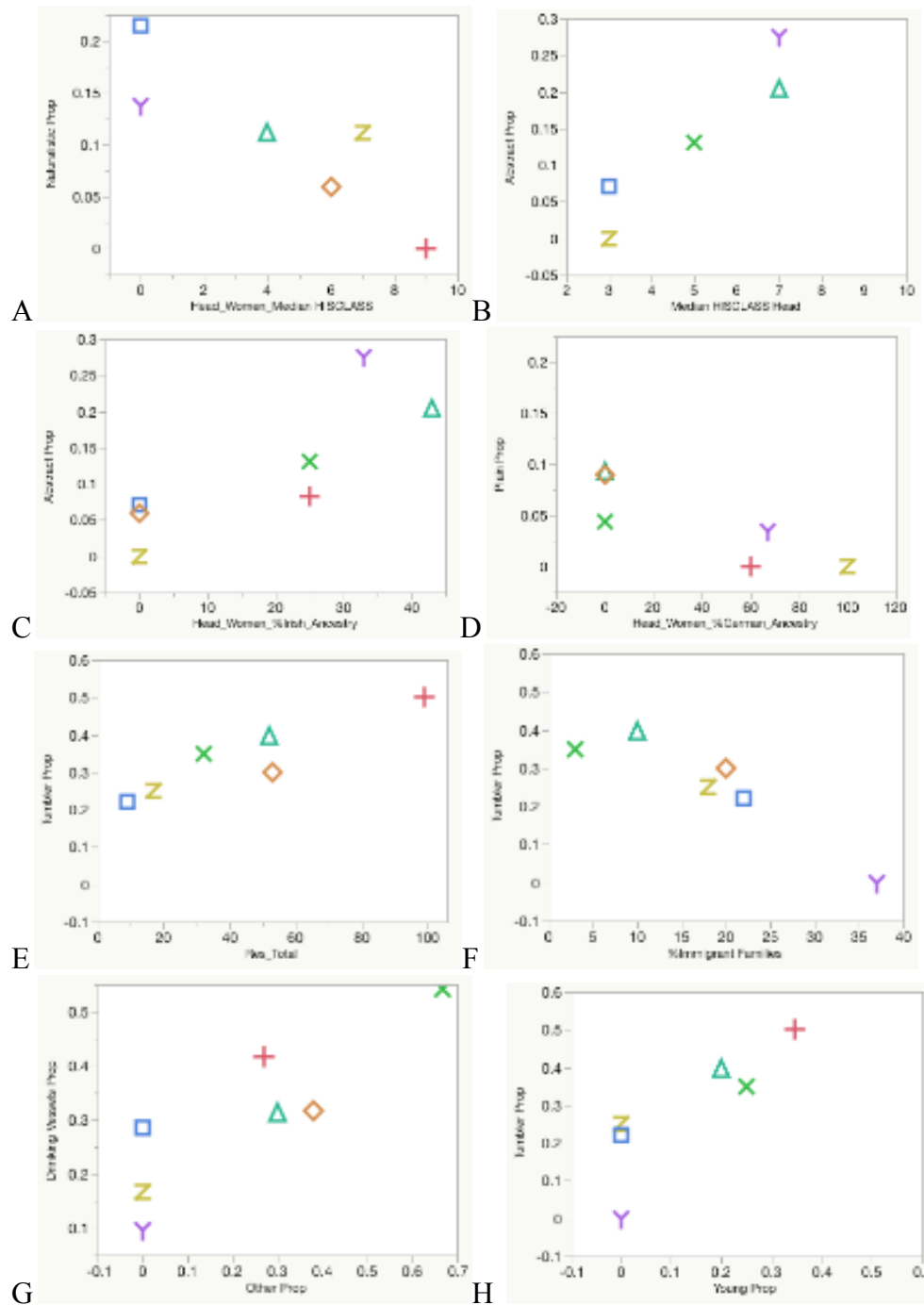


Figure 27. Relationships Between Household Composition and Vessel Variables

- A. Naturalistic Patterns vs. Head Women Median HISCLASS: $p=0.0255$, $r=-0.83$
- B. Abstract Patterns vs. Head Man Median HISCLASS: $p=0.0162$, $r=0.92$ (exclude lower and upper class)
- C. Irish Ancestry vs. Abstract Patterns: $p=0.0213$, $r=0.79$
- D. German Ancestry vs. Plain Patterns: $p=0.0350$, $r=-0.80$
- E. Tumblers vs. Total Number of Residents: $p=0.0087$, $r=0.90$
- F. Immigrants vs. Tumblers: $p=0.0087$, $r=-0.90$
- G. Other Composition Families vs. Drinking vessels/Dish: $p=0.0072$, $r=0.84$
- H. Early Stage Families vs. Tumblers: $p=0.0331$, $r=0.80$



Figure 28. Thumbprint Pattern Glass Compote Oval Dish, Footed Tumbler, and Tumbler



Figure 29 Honeycomb Pattern Glass Oval Dish, Goblet, and Cordial

One Comb. Dish & Bort - Base
 One Lot Glass & China - Ware.
 1 Table - 7 Chairs - 3 Clocks.
 D. Ad. - built Gas Fixtures

Figure 30. Hoffman Probate Record with Set Circled



Figure 31. Huber Pattern Glass Goblets and Cordial

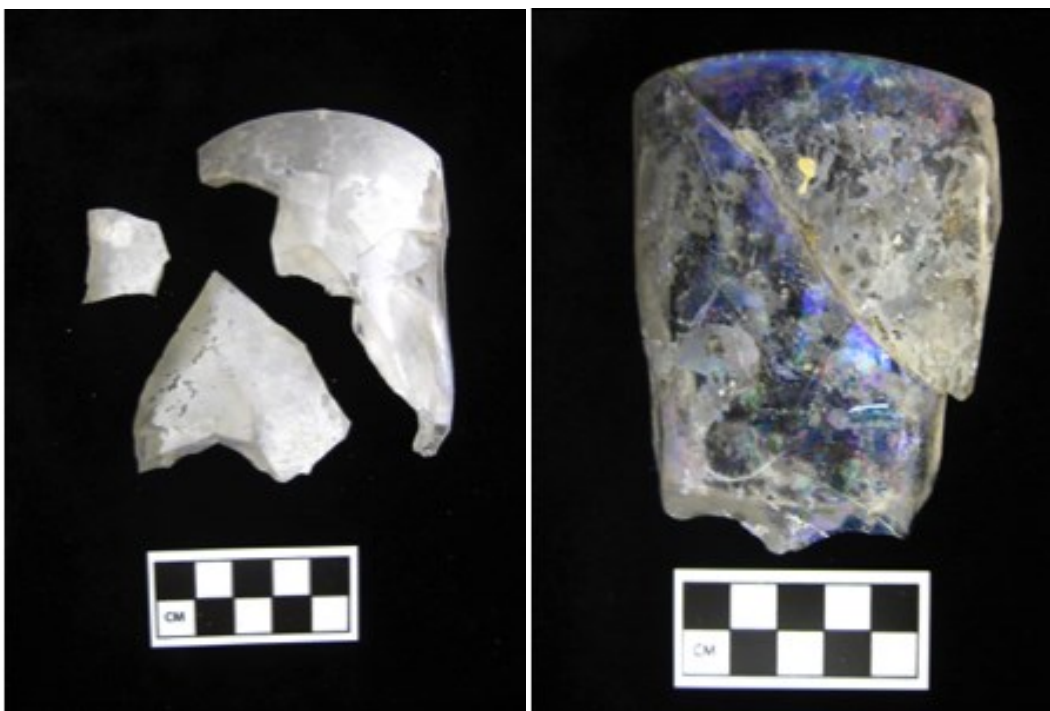


Figure 32. Pressed Arch Pattern Glass Tumblers



Figure 33. Barley Pattern Glass Bowl and Celery Vase

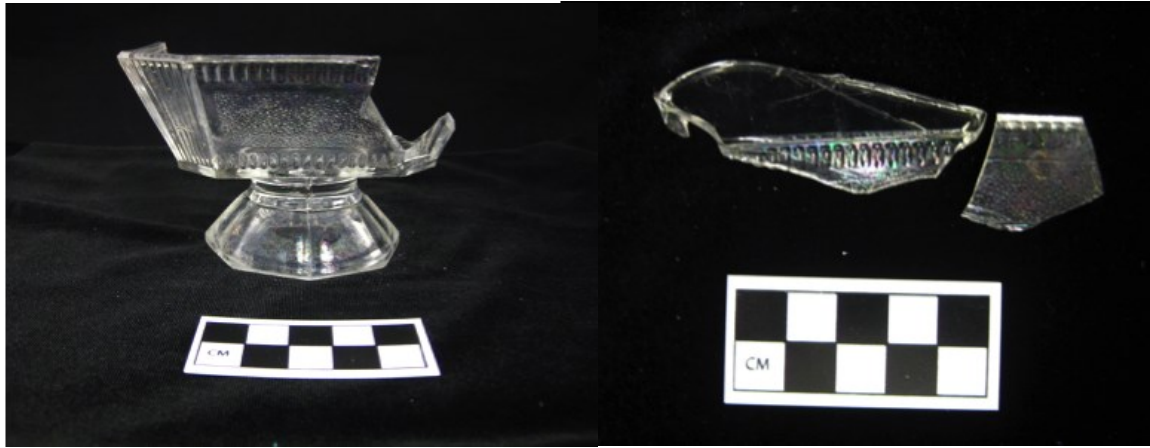


Figure 34. Pleat and Panel Pattern Glass Footed Bowl and Pitcher Fragment

DISCUSSION AND CONCLUSIONS

The purpose of this study was to address the omission of glass tableware from studies of domesticity and consumption in historical archaeology. As shown in Chapters two and three, historical archaeologists have not previously developed a systematic method for analyzing historical glass tableware, despite the ubiquity of this artifact class and despite its significance in 19th and 20th century consumption of mass-produced goods. To help solve this problem, I defined two main goals. The first goal was to develop a systematic method of quantitatively and qualitatively examining glass tableware consumption. The second goal was to apply the new method in a case study of glass tableware consumption in historical St. Louis, Missouri. In this chapter, I summarize and discuss the outcomes of my study in five parts. First, I evaluate my new method of glassware analysis. Second, I consider the results of the St Louis case study. Third, I discuss the implications concerning 19th century American domestic ideologies. I then offer suggestions for future research that can build on the work done here. Finally, I consider the contributions of my research to historical archaeology and to glass tableware studies.

Development of Method to Investigate Glass Tableware Consumption

To create my methodology, I used a skeleton based on Olive Jones and Catherine Sullivan's seminal glass guide, *The Parks Canada Glass Glossary* (1989). I then built on that skeleton by adding variables derived from collectors' and historians' studies of glass tableware, mainly Kyle Husfloen (1992). My inspiration for creating genre-like variables

came from archaeologists' studies of historical ceramics, namely the DAACS ceramic genre manual (Bates and Cooper 2014).

In the process of developing my method, an especially important step was clearly defining the variables and variable states relating to the patterns based on Husfloen's (1992) work. The resulting variables - Pattern Type (Geometric; Abstract; Naturalistic; Realistic; Plain) and Pattern Time Period Group (Lacy; Colonial; Post Civil War; Golden Age; All) - condense hundreds of patterns and dates into just a few valid pattern types time periods. The resulting pattern and time typologies are accurate and manageable.

A Case Study from Historic St. Louis

The Utility of the Method. As noted above, the second goal of my study was to assess the utility of my method by applying it in a study of glass tableware recovered from seven features from three late 19th century historical archaeological sites in St. Louis. At the data collection stage, in a lab setting, I was able to apply my method with relative ease because it includes an explicit classification system of clearly defined variables and variable states.

The utility of my method is further demonstrated by its effectiveness in enabling me to extract useful information from glass tableware assemblages. Through the data analysis, I explored the pros and cons of various types of graphic display and statistical analyses. Ultimately, scatter plots; contingency table analysis, and bivariate regression were the most productive methods. Contingency table analysis identified features and sites with unusually high or low glass tableware counts, which in turn were considered in relation to archival-based information on family composition or documented 19th century ideologies. Bivariate

regression using scatter plots revealed positive and negative relationships between variables, which were interpreted in relation to extant ideas about 19th century glass tableware consumption trends.

My data analyses also indicate that the variables I derived from previous archaeological works and from collector works are extremely useful. For example, Vessel Form and Function variables, derived mainly from the Parks Canada Glass Glossary, were productive. Likewise, as noted above, Pattern Time Period and Pattern Group variables, distilled from collector's books, were quite useful. In particular, the latter variables enabled me to classify hundreds of glass tableware patterns into just a few pattern types. This made my statistical analyses more productive, by reducing the number of pattern types and increasing sample sizes within types. This allowed for a greater likelihood of statistically significant results.

Relationships between Household Composition, Socioeconomic Status, and the Quantity and Quality of Glass Tableware Consumed. Glass tableware quality and quantity intersects with household composition and socioeconomic status First I analyzed relationships among variables, then I examined the variables for each feature, and finally I found which variables were the least productive.

Analysis of relationships among variables. I began my analysis of the St. Louis data set by examining relationships within and among archival and archaeological variables, where data associated with each of the seven archaeological features constitutes a case. These analyses therefore examined relationships among many different variables as exhibited by these seven cases. The results generated several insights. First, the analysis revealed positive relationships among the MNV per feature, total number of residents associated with the

feature, and number of decades the feature was in use. These results suggest that the number of people producing trash, and time span of trash disposal activity, are important determinants of the number of glass tableware vessels recovered from a feature.

In addition, we see that among the households associated with each feature, socioeconomic status has a negative relationship with proportion of nuclear families, and positive relationship with proportion of extended families. Thus, on the whole, extended families were economically better off than nuclear families, although the direction of causality is uncertain. Perhaps extended families provide an economic advantage. Or, perhaps economically advantaged households are better able to support extended family households.

We also see positive relationships among the proportions of tumblers, vessels with geometric patterns, and vessels from the colonial time period. These correlations likely reflect the role of tumblers as one of the earliest forms of pressed glass tableware, produced during the “colonial” time period when ‘gothic’ geometric patterns were most popular.

In addition, several observations point to the role of tumblers as a basic form of glassware, while dishware was more of a luxury. This is suggested by a positive relationship between the proportion of tumblers and number of residents per feature, implying that tumblers are basic tableware; each member of a household needs a tumbler for dining. Moreover, proportions of drinkware as a whole, and tumblers in particular, are positively related to the proportion of families in an early stage, which include childless households. Conversely, the proportion of dishware is positively related to the proportion of families in an intermediate stage, which are at their height in terms of the number of children living at home. These results suggest that larger households had more tumblers, but all other things

being equal, households with children had higher proportions of dishware, perhaps reflecting more concern with modeling moral behavior among those raising children.

Analysis of Individual Features: The analysis of each individual feature further elucidated relationships among household composition, socioeconomic status, and glass tableware consumption. To begin with, Feature 18 stands out for its low MNV. My analysis suggests that this low vessel count stems mainly from the low socioeconomic status of the associated households; Mullanphy Park, is associated with the lowest class of residents in a private (vs. institutional) residential setting.

Feature 24, also from Mullanphy Park, is associated with childless middle-class households. This middle class status appears to drive a mid-level MNV, compared to the lower class status and low MNV of Feature 18. I believe that the middle class and childless status of households associated with Feature 24 also accounts for the significantly high proportion of drinkware, particularly stemware (vs. tumblers), recovered from this feature. Stemware was used at parties whereas tumblers were more typical of basic family dinners.

Feature 28, from the Worthy Women site, is associated with a single extended upper-class family of German ancestry. The glassware from this feature reflects this upper class status, as the assemblage includes a high proportion of drinkware, especially stemware (cordials), and a relatively wide variety of Pattern Types and Time Periods Groups. Feature 28 also yielded a relatively low MNV, apparently reflecting low total number of associated residents.

Feature 42 is associated with the Worthy Women's Aid, and the high glass tableware MNV reflects the high number of individuals residing in this institution. The glassware assemblage also reflects the lower class status of the single parents, young families, and

boarders living there. However, despite the low socioeconomic status of these residents, the glass tableware from this feature is more diverse than the glass tableware from other features (e.g., Feature 18) associated with lower class residents. This high diversity reflects the consumption patterns of the middle class women who managed and supported the institution. Thus, the institutional context generated a glass tableware assemblage that reflects to some extent the socioeconomic status of its patrons, rather than its occupants.

Feature 79, also from the Worthy Women site, is associated with predominately second or more generation US born citizens and an upper class family from Illinois. This feature yielded a high MNV, reflecting not only the relatively high number of associated residents, but also the long period over which this feature was used; this feature had a longest use-period than any other feature included in the study. This long duration, beginning at a relatively early period, also accounts for the significantly high proportion of glass with Lacy period patterns, as this was the earliest period of mass production of pressed glass tableware.

Feature 8, from the McGuire-Newell site, is associated with older middle-class families in a relatively late stage. This late stage likely accounts for the high proportion of stemware in the Feature 8 assemblage; the high quantity of stemware suggests alcohol consumption and entertaining, rather a focus on maintaining a “safe” environment for raising children, since these children were mostly adults.

Finally, Feature 10, also from McGuire-Newell, is associated with middle class families in an intermediate stage. This feature has an MNV comparable to that of other features associated with the middle-class. However, compared to those other features, Feature 10 yielded a significantly high proportion of dishware (vs. drinkware). I concluded that this high proportion of dishware probably relates to the fact that this feature was a

cistern, whereas all other features included in this study were privies. Cisterns were typically filled with refuse during brief mass dumping events, whereas privies were typically filled with trash more gradually, over longer time periods. Hence, the high proportion of dishware in the Feature 10 glass tableware assemblage may indicate that one or more associated households dumped much of their old tableware into the cistern upon purchasing newer tableware.

Least Productive Variables. My discussion so far has centered on quantitative variables, which were relatively productive in revealing patterns and relationships, and thereby generating meaningful insights. Qualitative variables such as manufacturer reputation and quality of glassware were less productive. I believe this unproductiveness reflects the time period represented by the glassware deposits. At the time these features formed, in the late 1800s, glass tableware manufacture was at its height, and was quite affordable. In addition, the technique had been substantially improved, compared to earlier periods. Consequently, pressed glass manufacturing techniques and glass composition were highly uniform across manufacturers. Thus, the glassware assemblages consisted mainly of press molded Soda lime glass. Moreover, mainly middle and lower class households used the sampled features. As a result, I did not find high-end hand-blown glass or cut glass from companies like Tiffany or Libby, which would have made qualitative variables more relevant. Had the sampled glassware been manufactured during earlier time period, and/or belonged to higher-class households, qualitative variables might have been more productive.

Analyses of probate records were also less productive than anticipated because many of the households did not have probate records. When they did, the records contained only vague information on glass tableware. I had hoped that probate records would shed light on

the degree to which glassware assemblages were passed on across generations as heirlooms, and thereby excluded from the archaeological record of the households associated with the sampled features. However, most associated families were renters, and therefore did not have extensive probate records.

Implications Concerning 19th Century American Domestic Ideologies.

Where do the households associated with these features and sites fall with respect to the domestic ideologies elaborated in 19th century texts? The results for certain artifact classes and features lead to some tentative answers. These answers relate to ethnicity, tumblers, the rearing of children, and socioeconomic status.

In my analysis, tumbler abundance correlates positively with resident total; however, immigrant households do not follow this trend. This divergence could mean that the use of glass tumblers as a basic drinking vessel is closely linked with American dining ideals. Moreover, all features but two yielded “gothic” style tumblers, which have been associated with the Cult of Domesticity and other ideologies that equate the home with a safe and sacred space in the United States.

The outliers for gothic tumblers are Features 24 and 10. Feature 24 is one of the residential features from Mullanphy Park and is associated with predominately childless middle class families. Arguably, the Cult of Domesticity had less influence on the residents associated with Feature 24, because the cult is partially about the rearing of children in a safe environment, and a significant majority of Feature 24 residents did not have children. Unlike Feature 10, a residential feature from the McGuire-Newell Site and associated with predominately middle class nuclear families, the primary followers of the Cult of

Domesticity. However, contrary to expectations, the Feature 10 assemblage has a dearth of tumblers and a significantly high number of goblets/wine glasses. I propose that this divergence from the expected archaeological signature of the Cult of Domesticity stems from the fact that Feature 10 was a cistern, whereas all other sampled features were privies. Cisterns were primarily used for mass dumping, as opposed to the incremental buildup of trash associated with privies. Thus, the residents associated with Feature 10 may have dumped all of their unwanted ‘formal’ glass tableware in a type of spring-cleaning event. In contrast, a privy from the same yard might contain gothic tumblers, which would have been used every day and subject to everyday breakage and discard, and would fit with the expected archaeological signature of the Cult of Domesticity.

Additionally, tumblers in general were basic tableware, which lower class households could afford. In contrast, stemware composed part of more structured place settings that followed specialized dining performed at drink-oriented parties featuring alcohol in middle and upper class households. Feature 28 appears to reflect such behavior, as this feature is associated with upper class residents and contained a significantly high proportion of cordials (stemware used for liqueur), suggesting concern with status display. In contrast, Feature 24, associated with working and lower-middle class families, and Feature 42, associated with the women’s shelter, both contained significantly high proportions of non-stemware drinking vessels, such as tumblers and mugs, associated with informal and less expensive drinks such as lemonade and water. Thus, the results of this study support the argument for a relationship between socioeconomic status and drinkware type.

Place setting is also related to middle class ideology. The purpose of a place setting is to create an orderly and therefore “good” table (Beecher 1977 [1841]:353). The more a

family is interested in the dominant middle class ideology, the more they should conform to its ideals by using matching sets of tableware for place settings. Nineteenth century texts tell us that for breakfast or tea one needs saucers, cups, spoons, a slop-bowl, a sugar bowl, a cream-cup, a tea or coffee pot, casters, and a mustard cup (Beecher 1977 [1841]:354). For Dinner one needs casters, salts, plates, tumblers, and a pitcher: “water in glass decanters looks best” (Beecher 1977 [1841]:354). Every plate also needs one or more wine glasses (Leslie 1840:249, 257–258, 276–277, 283). With respect to glass tableware in particular, one needs a “few common glass tumblers”, two sets of castors, and a celery glass (Leslie 1840:249, 257–258, 276–277, 283).

All of the sites have some evidence of sets. I defined a set as two or more pieces of different function with the same pattern. However, even though all of the features have evidence of sets, some of the features only have sets in drinkware. In the end, the middle class features from Worthy Woman and McGuire-Newell (79, 8, 10) all had remains of one or more sets that consisted of drinkware and tableware. Feature 42, the shelter, and Feature 18, the lower class feature, also had remains of sets made up of drinkware and tableware. Feature 24, which had a significantly high proportion of drinkware and low proportion of tableware had remains of a set, but one made up only of drinkware. Interestingly, Feature 28, the only upper class feature, had no evidence of sets. This absence could indicate that the upper class household did not feel the need to follow middle class ideals of a “good” home. Or, the absence of set remains could indicate that the household was able to afford tableware sets made of finer materials (silver or crystal) that were well taken care of and passed on as an heirloom. The probate record from the family that used this feature supports this latter possibility; the probate record did reveal that this family owned sets of glass and chinaware.

Finally, these ideological considerations illustrate an additional point, the connection between archaeological outliers and socioeconomic outliers. In my sample, the features that most often occurred as outliers with respect to archaeological glass tableware variables correspond with households that most often composed outliers in the analysis of socioeconomic variables. Worthy Women's site Feature 42 stands out because of its institutional association, with the Worthy Women's Aid. Because the Aid catered to lower class women but was run by middle class women, the associated glass tableware assemblage does not clearly display either lower or middle class buying patterns. For example, this feature assemblage has a high proportion of drinkware, like lower class Feature 18, but a larger variety of dishes, like middle class Feature 79. Another example is Feature 28 (Hoffman house), which is also an outlier in various analyses, perhaps due to the high socioeconomic status of the users, in comparison with the status of households associated with other sampled features. The fact that archaeological outliers correspond to apparent socioeconomic outliers supports the conclusion that my glass tableware analysis method is effective - it seems to show marked differences in glass tableware consumption that relate to socioeconomic differences.

Conclusions.

My thesis highlights the gap in archaeological research concerning glass in general and glass tableware in particular. Further, my study shows that the glass tableware analysis method I adapted and applied generates useful information.

My results also point to several meaningful connections between household composition, socioeconomic status, and the quantity of glass tableware in archaeological

deposits. First, the findings suggest that lower class households, mostly nuclear, bought relatively high proportions of tumblers, a form of basic glass tableware, instead of supplementary glass tableware, dishes. Middle class households bought relatively high proportions of basic glass tableware, as well as supplementary glass tableware. Upper class households bought relatively high proportions of more specialized stemware, a form of supplementary glass tableware. Second, childless households and families in an early stage of life have relatively high proportions of drinkware, specifically tumblers, whereas families with lots of children, particularly those in an intermediate stage of life, acquired relatively high proportions of dishware. Finally, MNV is determined primarily by the total number of associated residents, but also affected by socioeconomic status.

As interesting as the results for glass tableware are, an exciting venture would be to combine glass tableware with ceramics and other dining related tableware since both have similar variable categories. Together these dining artifacts would provide larger sample sizes, allowing for more productive statistical analyses. And while this study shows the advantages of conducting more rigorous, systematic glass tableware analyses, it also shows the weaknesses of using just a single class of tableware artifacts in analyses. Tableware as a whole includes ceramics, porcelain, silver plate, tin, wood, and glassware. Therefore, as a study of tableware consumption, my analysis is missing a large portion of the equation - ceramic and other non-glass tableware. I look forward to future studies that integrate rigorous analyses of glass tableware remains with analyses of other classes of tableware, particularly ceramic tableware, since that is a focus of historical archaeology in the U.S.

Future Studies

Ruminating on what I found, did not find, and did not have time to find, future avenues of inquiry come to mind, particularly studies of manufacturers and manufacturing processes. Economists have written several histories of glass manufacture; however, these works are vague in regard to glass tableware, particularly on details of the transition from lead glass to soda lime glass. More detailed background on glass composition during the transition from lead to soda lime glass would help explain the results of my XRF analysis. Instead of using XRF to simply identify the Soda lime glass, a researcher could use XRF to gain more detailed knowledge of variations in lead content, which in turn would clarify the sources of variation in glass quality. Glass quality in turn reflects socioeconomic aspects of consumption such as decisions concerning expenditure on domestic goods.

Another avenue is comparing glass tableware data with ceramic tableware data. The use of Pattern Types I have introduced in this study creates a typology that is comparable to ceramic pattern typologies that condense several separate pattern names into genres like transfer printed, hand painted, shell-edge, polychrome, etc. (Bates and Cooper 2014:14–15, 18, 20). Future studies might use my method to productively look for pattern type relationships between glass tableware and ceramic tableware artifacts from the same sites. Such relationships could shed light on ideologies more effectively than separate studies of each material class.

Finally, additional case studies that apply the new method of glass tableware analysis would also be fruitful. Until additional studies are conducted, we can only speculate about the extent to which the results of the present study of Old St. Louis can be extended to communities in other times and places. Comparisons with archaeological deposits from

smaller cities, rural towns, and farmsteads from various time periods could further reveal the degree, causes, and consequences of variation in relationships among glass tableware consumption and its relationship to domestic ideology. A farmer's wife may have cared very little about middle class table manners, or she may have cared even more than urban women because of her isolated position. In the 19th century, through catalogs and local dry goods stores, even far-flung communities had access to goods including glass tableware and the etiquette books that communicated domestic ideologies. When one thinks about the commonness of glass tableware in the late 19th century, and how this class of objects continues in use today, questions about trends in purchasing and traditional tastes linked to gender, class, and ethnicity in the United States.

Contributions of this Study

My study makes a variety of contributions. First, this work contributes to ongoing efforts to improve methods in historical archaeology. The methodology I created synthesized elements of a large comprehensive guide (Park's Canada), multiple books by historians, and various books by collectors into a single streamlined typology useful for analyzing pressed glass artifact assemblages. However, these categories are also more comprehensive than existing archaeological lab manuals for glass, which mainly focus on bottles. For example, the big dictionaries include comprehensive pattern descriptions with labels such as botanical, facet, and swag, which can become never-ending lists when describing the complicated glass patterns of the 19th century but do not present the historical context of each pattern. Other works by glass collectors provide historical contexts, but only for select patterns. I have combined and simplified this information into three main sets of variables - Form/Function,

Pattern Type, and Time Period Group. In the end, my pattern classification system is not only simpler, and hence easier to apply, but arguably more effective for determining artifact manufacture period and symbolic significance because the archaeological artifact variables are connected to documented ideologies and rooted in historical contexts.

Second, my study contributes to the historical archaeology of late 19th century social and economic life by providing new insight into the role of glass tableware in the domestic ideology, household dynamics, and material culture of that era. In particular, this research reveals relationships between household composition and household conformance with cult of domesticity. For example, the analysis implies that generally, compared to households without children, households with children conformed more closely to consumption behaviors believed to create a ‘healthy’ environment, which in turn was a building block of 19th century domestic ideology.

This study also shows the variety of ways in which socioeconomic class mediating relationships among glass tableware consumption and family conformance with domestic ideologies. For example, the analysis shows that although residents of the Worthy Women’s Aid were of low class, their glassware displays characteristics of middle class, due to the role of middle class women in managing the institution. This context is an interesting intersection of the middle and lower classes, the former trying to actively affect the other by providing the material trappings of middle class domesticity. The influence of social class is manifest somewhat differently, in the case of the Hoffman household, a large, extended, upper class family whose head had immigrated from Germany and made his money through an industrial age phenomenon, the factory. This type of upper class family was new, as opposed to older Anglo families with land for farming. Studies like mine can shed light on the ways in which

these newly comfortable families such as the Hoffmans varied from older more established upper class families. For example, the archaeological analysis strongly suggests that the Hoffmans had more specialized stemware than the Grahams. This difference could indicate that the Hoffman's were actively promoting their business by throwing dinner parties that required 'status displays' for other business owners. In contrast, the Graham's money and status were tied up in farmland in Illinois. They had less reason to host local businessmen and their families.

Third, the information gleaned from this study improves our knowledge of culture history and historic everyday life in St. Louis, Missouri. My research contributes to our knowledge of everyday life in late 19th century St. Louis. This is the history of not just the famous or the infamous, but the working class, middle class, and newly rich upper class of St. Louis's industrial areas and their associated neighborhoods. Institutes like the Worthy Women's Aid, as well as smaller shops like those in Mullanphy Park and the Klocks wagon shop at McGuire-Newell, and local landowning families like the Hoffman's and Grahams, are all discussed as individuals and as members of a neighborhood.

Finally, a more tangible outcome is that portions of this work will be incorporated into a report produced by the Missouri Department of Transportation Historic Preservation program for the New Mississippi River Bridge Project. This report will become part of a narrative about Old North St. Louis and will be available through the Missouri State Library in Jefferson City. This study also assists the state of Missouri, by making use of an archaeological collection that had been curated by MoDOT but had not previously been investigated in any detail. The ceramics from many such collections have already been

analyzed and additional glass analysis could be added to it to form more comprehensive histories of dinning practices in the United States.

These contributions show that archaeologists need to stop skimming shallowly over bits and pieces of United States cultural history, and dig more deeply to develop a fuller picture of the cultural context of eating, a universal aspect of home-life. Many historical and archaeological studies focus on ceramic tableware, whereas no previous works center on glass tableware. And, many studies focus on the kitchens where food was prepared, but my study contributes to our understanding of what happened during the actual eating of the food, and the cultural meanings linked with the acquisition and use of the tools, place, and act of food consumption. This study thus sheds light on the ideology - the cultural meanings - of food, and all it entails.

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APPENDICES

Appendix A-1. Vessel Data. See Methods Chapter for definition of categories.

Site	Feature	Shard Count	Weight (g)	Rim Circ. (mm)	Base Circ. (mm)	Rim Thickness (mm)	Rim Diam. for circles (mm)	Percent of Rim	Stem Length (only if whole)
23SL2318	650-8	1	4.6	28	n/a	4.45	130	7.5	28
23SL2318	650-8	1	17.4	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	2	38.8	37	n/a	1.76	50	25	n/a
23SL2318	650-8	1	8.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	1	1	*10	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	1	11.4	n/a	41	n/a	n/a	n/a	n/a
23SL2318	650-8	1	55	n/a	254	n/a	n/a	n/a	n/a
23SL2318	650-8	1	70.6	n/a	193	n/a	n/a	n/a	43.14
23SL2318	650-8	2	117.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	1	278	n/a	95	n/a	n/a	n/a	n/a
23SL2318	650-8	5	626.1	416	323	6.19	170	86.5	n/a
23SL2318	650-8	1	142	n/a	295	n/a	n/a	n/a	n/a
23SL2318	650-8	1	14.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	6	156.8	112	n/a	3.16	90	35	n/a
23SL2318	650-8	1	38.7	89	n/a	3.37	80	30	n/a
23SL2318	650-8	1	38.1	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	1	163.7	n/a	157	n/a	n/a	n/a	n/a
23SL2318	650-8	1	143	n/a	289	n/a	n/a	n/a	n/a
23SL2318	650-8	1	128.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-8	2	148.3	114	189	3.38	80	47	n/a
23SL2318	650-8	3	250.3	134	210	3.39	90	52.5	n/a
23SL2318	650-8	1	117	n/a	221	n/a	n/a	n/a	n/a
23SL2318	650-8	2	142	60	n/a	3.38	100	20	n/a
23SL2318	650-10	4	164	309	n/a	2.75	140	71	n/a

23SL2318	650-10	1	63	n/a	202	n/a	n/a	n/a	n/a
23SL2318	650-10	6	247.9	237	190	2.73	100	74.5	n/a
23SL2318	650-10	3	1111	432	332	6.93	140	98	n/a
23SL2318	650-10	6	151.1	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-10	5	172.9	281	205	4.32	n/a	n/a	n/a
23SL2318	650-10	14	275.7	377	256	5.7	n/a	n/a	n/a
23SL2318	650-10	4	108.9	103	185	2.55	60	56.5	12
23SL2318	650-10	5	278	255	262	3.05	90	92.5	5
23SL2318	650-10	2	65.8	169	n/a	2.46	90	60	n/a
23SL2318	650-10	2	27	29	n/a	3.44	90	11	n/a
23SL2318	650-10	1	46	74	n/a	2.32	90	27	n/a
23SL2318	650-10	1	194	n/a	270	n/a	n/a	n/a	50
23SL2318	650-10	1	164	n/a	115	n/a	n/a	n/a	50
23SL2318	650-10	1	111	n/a	288	n/a	n/a	n/a	50
23SL2318	650-10	7	125.8	110	n/a	3.13	100	31	n/a
23SL2318	650-10	2	192.5	324	194	2.73	110	93.5	n/a
23SL2318	650-10	2	190.4	220	200	3.14	110	69.5	n/a
23SL2318	650-10	6	123.3	n/a	137	n/a	n/a	n/a	n/a
23SL2318	650-10	1	155.6	n/a	137	n/a	n/a	n/a	n/a
23SL2318	650-10	2	193	263	n/a	3.2	90	100	n/a
23SL2318	650-10	1	7.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-10	1	20.8	138	n/a	3.75	n/a	100	n/a
23SL2318	650-10	1	8.5	n/a	36	n/a	n/a	n/a	n/a
23SL2318	650-10	1	7.6	n/a	44	n/a	n/a	n/a	n/a
23SL2318	650-10	1	28.1	n/a	90	n/a	n/a	n/a	n/a
23SL2316	649-42	1	20.2	64.5	n/a	3.96	60	36	n/a
23SL2318	650-10	1	11.2	42	n/a	3.09	160	9	n/a
23SL2318	650-10	2	6.9	38	n/a	2.89	n/a	n/a	n/a
23SL2318	650-10	1	12.8	55	n/a	5.8	180	10	n/a

23SL2318	650-10	1	91	40	33	2.61	140	7.5	n/a
23SL2316	649-79	1	648	90	355	4.96	40	82	n/a
23SL2316	649-79	2	800	165	398	5.3	200	27.5	90
23SL2316	649-79	2	206	34	200	3.88	100	11	n/a
23SL2316	649-79	2	204.5	n/a	170	n/a	n/a	n/a	n/a
23SL2316	649-79	3	270.5	74	200	3.25	90	35	n/a
23SL2316	649-79	3	158.9	27	183	3.31	80	11	n/a
23SL2316	649-79	3	104	170	83	3.11	80	76	n/a
23SL2316	649-79	4	268.6	180	200	3.29	90	65	n/a
23SL2316	649-79	8	251.7	244	95	3.21	90	90.5	n/a
23SL2316	649-79	7	194.3	107	197	3.44	90	40	n/a
23SL2316	649-79	3	136.2	48	190	5.14	100	15	n/a
23SL2316	649-79	6	117.2	10	198	3.08	n/a	n/a	n/a
23SL2316	649-79	4	96.3	145	164	2.93	70	68	n/a
23SL2316	649-79	4	184.6	87	209	3.2	90	32	n/a
23SL2316	649-79	5	225	265	172	3.39	80	100	n/a
23SL2316	649-79	3	106	138	180	3.76	80	60.5	n/a
23SL2316	649-79	1	22.3	n/a	60	n/a	n/a	n/a	n/a
23SL2316	649-79	1	30.3	n/a	82	n/a	n/a	n/a	n/a
23SL2316	649-79	5	106	n/a	131	n/a	n/a	n/a	n/a
23SL2316	649-79	1	78.2	n/a	130	n/a	n/a	n/a	n/a
23SL2316	649-79	3	36.9	27	n/a	2.61	80	10	n/a
23SL2316	649-79	1	94.4	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	46.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	31.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	46.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	2	37.4	37.5	58	6.94	n/a	n/a	n/a
23SL2316	649-79	1	21.7	n/a	n/a	n/a	n/a	n/a	n/a

23SL2316	649-79	5	70.3	43	211	3.61	110	12.5	n/a
23SL2316	649-79	2	24.7	n/a	75	n/a	n/a	n/a	n/a
23SL2316	649-79	4	33.7	n/a	156	n/a	n/a	n/a	n/a
23SL2316	649-79	6	352	471	84	4.65	n/a	n/a	n/a
23SL2316	649-79	6	238	374	100	5.61	n/a	n/a	n/a
23SL2316	649-79	4	277	269	92	4.13	140	63.5	n/a
23SL2316	649-79	14	174	n/a	257	n/a	n/a	n/a	50
23SL2316	649-79	2	5.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	8	155.2	n/a	248	n/a	n/a	n/a	59
23SL2316	649-79	23	234.4	409	192	4.8	170	95	n/a
23SL2316	649-79	2	65.1	57	n/a	3.16	80	26	n/a
23SL2316	649-79	3	266.9	202	87	3.62	80	84	10
23SL2316	649-79	3	163.5	20	205	3.86	80	9	10
23SL2316	649-79	23	583	658	n/a	5.11	250	87.5	n/a
23SL2316	649-79	5	57.6	70	n/a	3.26	90	25.5	n/a
23SL2316	649-79	1	11.9	31.5	n/a	3	90	12	n/a
23SL2316	649-79	1	33	94	n/a	3.18	90	33	n/a
23SL2316	649-79	1	61	n/a	250	n/a	n/a	n/a	n/a
23SL2316	649-79	1	5.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	2	24.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	15.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	3	52.6	n/a	110	n/a	n/a	n/a	n/a
23SL2316	649-79	1	12.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	6.3	16	n/a	3.45	n/a	n/a	n/a
23SL2316	649-79	3	87.3	n/a	90	n/a	n/a	n/a	40
23SL2316	649-79	1	13.9	42	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	4.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	16.3	n/a	56	n/a	n/a	n/a	n/a
23SL2316	649-79	1	19.2	n/a	n/a	n/a	n/a	n/a	n/a

23SL2316	649-79	1	2.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	1	7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	3	50.3	n/a	176	n/a	n/a	n/a	n/a
23SL2316	649-79	2	4.8	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-24	5	518	130	195	5.5	40	100	n/a
23SL2274	602-24	2	83	137	154	5.41	150	30.5	n/a
23SL2274	602-18	16	227	305	165	8.48	n/a	n/a	n/a
23SL2274	602-24	1	179	64	109	3.43	70	32	n/a
23SL2274	602-24	1	57.8	n/a	163	n/a	n/a	n/a	40
23SL2274	602-24	3	253	248	247	3.48	85	97	30
23SL2274	602-18	10	343	84.5	283	3.96	90	29.5	50
23SL2274	602-24	2	283	253	260	3.16	90	93	60
23SL2274	602-24	2	43	41	n/a	3.01	90	15	n/a
23SL2274	602-24	1	120	n/a	260	n/a	n/a	n/a	n/a
23SL2274	602-18	1	21.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-18	5	72.3	65	n/a	3.44	90	23.5	n/a
23SL2274	602-24	4	62.7	107	n/a	4.78	90	39.5	n/a
23SL2274	602-24	5	248.8	45	217	3.66	90	n/a	n/a
23SL2274	602-24	6	225	n/a	129	n/a	n/a	n/a	n/a
23SL2274	602-24	5	220	98	265	2.24	90	37	50
23SL2274	602-24	1	53.4	43	125	3.01	55	25	n/a
23SL2274	602-18	4	145.5	217	183	3.59	80	92	n/a
23SL2274	602-24	2	218.9	57	202	3.89	90	21	n/a
23SL2274	602-18	6	102.9	n/a	165	n/a	n/a	n/a	n/a
23SL2274	602-18	3	58.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-24	3	104	249	n/a	3.54	80	99.5	n/a
23SL2274	602-24	3	57	57	56	3.19	90	21	n/a
23SL2274	602-24	1	79.9	n/a	186	n/a	n/a	n/a	n/a
23SL2274	602-18	3	338.6	264	204	3.8	90	99.5	n/a

23SL2274	602-24	2	267.7	107	180	2.68	80	45	n/a
23SL2274	602-18	1	16	n/a	54	n/a	n/a	n/a	n/a
23SL2274	602-24	1	29.6	n/a	86	n/a	n/a	n/a	n/a
23SL2274	602-24	2	58.4	n/a	97	n/a	n/a	n/a	n/a
23SL2274	602-18	1	24.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	1	86.1	n/a	205	n/a	n/a	n/a	50
23SL2316	649-28	1	80.6	31	170	1.83	50	20	50
23SL2316	649-28	2	101.3	168	175	2.11	55	100	n/a
23SL2316	649-28	2	87.6	150	168	3.38	45	100	n/a
23SL2316	649-28	2	119	168	100	2.73	50	100	n/a
23SL2316	649-28	4	152.3	205	188	3.41	75	91	n/a
23SL2316	649-28	6	128.5	190.5	167	3.24	75	84.5	n/a
23SL2316	649-28	5	72.4	143	n/a	3.5	80	60	n/a
23SL2316	649-28	4	454.8	125	234	2.84	70	63	n/a
23SL2316	649-28	2	52.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	1	15.5	55	n/a	2.12	80	21.5	n/a
23SL2316	649-28	1	1.2	5	n/a	2.23	n/a	n/a	n/a
23SL2316	649-28	2	8.5	45	n/a	2.9	120	13	n/a
23SL2316	649-28	1	3.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	1	7.2	11	n/a	3.44	n/a	n/a	n/a
23SL2316	649-28	1	5.5	43	n/a	4.63	110	13	n/a
23SL2316	649-42	1	3.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	4.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	4.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	3	19	n/a	3.25	n/a	n/a	n/a
23SL2316	649-42	1	29	68	n/a	4.09	70	32.5	n/a
23SL2316	649-42	1	12.4	55	n/a	3.06	90	20	n/a
23SL2316	649-42	1	59.3	83	n/a	3.21	70	38	n/a
23SL2316	649-42	2	7.8	34	n/a	n/a	n/a	n/a	n/a

23SL2316	649-42	1	2.5	23	n/a	6.54	n/a	n/a	n/a
23SL2316	649-42	1	14.8	42	n/a	2.61	80	17.5	n/a
23SL2316	649-42	1	43.2	26	n/a	3.31	n/a	n/a	n/a
23SL2316	649-42	3	6.8	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	12.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	8.3	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	44.3	n/a	177	n/a	n/a	n/a	n/a
23SL2316	649-42	3	27	n/a	130	n/a	n/a	n/a	n/a
23SL2316	649-42	1	24.3	n/a	166	n/a	n/a	n/a	n/a
23SL2316	649-42	1	50	n/a	255	n/a	n/a	n/a	n/a
23SL2316	649-42	2	41	n/a	219	n/a	n/a	n/a	n/a
23SL2316	649-42	4	37.6	n/a	166	n/a	n/a	n/a	n/a
23SL2316	649-42	1	50.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	50.4	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	2	119.2	n/a	207	n/a	n/a	n/a	n/a
23SL2316	649-42	3	94	129	n/a	3.87	90	43	n/a
23SL2316	649-42	7	208	242	n/a	3.14	80	102	55
23SL2316	649-42	5	143.6	91	195	2.95	80	38.5	n/a
23SL2316	649-42	9	150.6	88	195	3.06	80	36	n/a
23SL2316	649-42	6	101.6	75	165	2.71	75	27.5	n/a
23SL2316	649-42	5	130.4	159.5	188	3.1	75	70	n/a
23SL2316	649-42	1	124.9	n/a	200	n/a	n/a	n/a	n/a
23SL2316	649-42	7	81.7	153	88	3.75	80	61.5	n/a
23SL2316	649-42	1	202.7	n/a	225	n/a	n/a	n/a	n/a
23SL2316	649-42	1	137.7	103	150	2.51	70	50	n/a
23SL2316	649-42	1	119	151	29	3.56	95	50	n/a
23SL2316	649-42	3	135.1	55	138	3.26	75	25	n/a
23SL2316	649-42	1	227.6	165	210	3.52	90	62	n/a
23SL2316	649-42	3	316.9	44	180	3.73	80	18	n/a

23SL2316	649-42	1	165.5	n/a	190	n/a	n/a	n/a	n/a
23SL2316	649-42	12	237	177	190	2.52	85	72	n/a
23SL2316	649-42	3	150.7	55.5	190	4.04	90	22	n/a
23SL2316	649-42	3	192.1	158	190	3.74	80	72.5	n/a
23SL2316	649-42	2	232.8	62	185	2.73	85	25	n/a
23SL2316	649-42	4	197.3	216	169	3.76	90	80.5	n/a
23SL2316	649-42	3	54.4	n/a	182.5	n/a	n/a	n/a	n/a
23SL2316	649-42	10	381.4	513	388	8.35	n/a	n/a	n/a
23SL2316	649-42	4	33.6	85	n/a	2.79	90	30	n/a
23SL2316	649-42	7	75.6	195	n/a	5.18	120	56	n/a
23SL2316	649-42	1	128.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	5.1	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	9.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	3.1	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	4	249	89	255	3.08	90	34	5
23SL2316	649-42	2	292.2	245	240	3.56	80	100	5
23SL2316	649-42	4	179.3	91	255	2.7	80	41	5.5
23SL2316	649-42	1	65	n/a	255	n/a	n/a	n/a	5.5
23SL2316	649-42	2	161	147	255	2.33	80	62.5	5.5
23SL2316	649-42	3	180	198.5	255	2.29	80	7.5	5.5
23SL2316	649-42	1	5.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	6	25.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	3	536	n/a	120	n/a	n/a	n/a	n/a
23SL2316	649-42	1	2.1	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	2	138.5	n/a	210	n/a	n/a	n/a	n/a
23SL2316	649-42	1	147.9	n/a	205	n/a	n/a	n/a	n/a
23SL2316	649-42	1	22.5	60	n/a	5.38	80	24	n/a
23SL2316	649-42	1	30.9	n/a	111	n/a	n/a	n/a	n/a
23SL2316	649-42	1	18.2	n/a	107	n/a	n/a	n/a	n/a

23SL2316	649-42	1	10.2	n/a	45	n/a	n/a	n/a	n/a
23SL2316	649-42	1	138.4	n/a	262	n/a	n/a	n/a	n/a
23SL2316	649-42	1	30.8	n/a	59	n/a	n/a	n/a	1.5
23SL2316	649-42	1	72.4	n/a	102	n/a	n/a	n/a	n/a
23SL2318	650-8	1	15.7	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-79	4	22.8	8	n/a	2.52	n/a	n/a	n/a
23SL2274	602-18	1	4.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-24	1	10.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-24	1	34.9	n/a	n/a	n/a	n/a	n/a	n/a
23SL2274	602-24	1	11.5	n/a	11	n/a	n/a	n/a	n/a
23SL2274	602-18	1	10.1	n/a	63	n/a	n/a	70	n/a
23SL2274	602-24	1	5.8	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	2	7.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	1	8	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	7.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	23.5	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	7.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	21.8	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	17	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	9.1	n/a	16	n/a	n/a	n/a	n/a
23SL2316	649-42	1	4.2	n/a	n/a	n/a	n/a	n/a	n/a
23SL2318	650-10	1	36.4	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	2	n/a	18	n/a	n/a	n/a	n/a
23SL2316	649-42	1	3.6	n/a	27	n/a	n/a	n/a	n/a
23SL2316	649-42	1	10	n/a	54	n/a	n/a	n/a	n/a
23SL2316	649-42	1	6.4	n/a	40	n/a	n/a	n/a	n/a
23SL2316	649-42	1	1.9	n/a	20	n/a	n/a	n/a	n/a
23SL2316	649-42	1	3.1	n/a	15	n/a	n/a	n/a	n/a
23SL2316	649-79	1	4.2	n/a	32	n/a	n/a	n/a	n/a

23SL2316	649-79	1	11.5	n/a	43	n/a	n/a	n/a	n/a
23SL2316	649-79	1	0.9	n/a	13	n/a	n/a	n/a	n/a
23SL2316	649-79	4	16.6	n/a	n/a	n/a	n/a	n/a	n/a
23SL2316	649-28	1	8.4	n/a	43	n/a	n/a	n/a	n/a
23SL2274	602-18	1	6.3	60	n/a	3.49	80	25	n/a
23SL2274	602-24	1	7.4	43	n/a	4.29	90	16	n/a
23SL2316	649-28	2	14.9	125	n/a	2.75	80	50	n/a
23SL2316	649-42	3	27.4	151	n/a	n/a	n/a	n/a	n/a
23SL2316	649-42	1	7.2	36	n/a	3.09	100	12	n/a
23SL2316	649-42	1	7.4	26	n/a	3.8	80	11	n/a
23SL2316	649-42	1	12	72	n/a	3.88	80	30	n/a
23SL2316	649-42	1	5.9	22	n/a	3.81	n/a	n/a	n/a

Appendix A-2. Data Variables Continued. See Methods chapter for definitions of categories. Abbreviations: Manu.- Manufacture; Dec.- Decorative; tech.- technique.

Manu. method	Manu. mark	Manufacturer	Main Dec. tech.	Sub. Dec. tech.	Stemware Body Shape	Stemware Foot Shape	Stemware Stem Shape
press mold	none	Hobbs Brockunier	Molded	n/a	n/a	n/a	n/a
press mold	none	Bryce, McGee & Co.	Molded	n/a	cup	Unknown	Unknown
press mold	none	unidentifiable	Molded	n/a	oval	Unknown	Unknown
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co or McKee Bro	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
gathered	none	unidentifiable	Applied	n/a	n/a	n/a	n/a
mold- blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold- blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee Bros	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Doyle & Co and US Glass Co	Molded	n/a	n/a	n/a	n/a

press mold and optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold and optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	George Duncan & Sons	Molded	n/a	n/a	n/a	n/a
press mold	none	Bryce Brothers	Molded	n/a	n/a	n/a	n/a
press mold	none	Bryce Brothers	Molded	n/a	n/a	n/a	n/a
press mold	none	Bryce Walker & Co, Bryce Brothers in Pittsburgh, and US Glass	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee & Bro	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	O'Hara and US Glass	Molded	n/a	bucket	plain conical	annular knop
press mold	none	O'Hara and US Glass	Molded	n/a	bucket	plain conical	annular knop
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	acid etched	molded	n/a	n/a	n/a
press mold	none	unidentifiable	acid etched	molded	n/a	n/a	n/a
press mold	none	King, Son & Co	acid etched	molded	bucket	Unknown	Unknown
press mold	none	King, Son & Co	acid etched	molded	n/a	n/a	n/a
mold- blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold- blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a

mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Campbell, Jones and Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Central Glass Works	Molded	n/a	n/a	n/a	n/a
press mold	none	George Duncan & Sons	Molded	n/a	n/a	n/a	n/a
press mold	none	Belmont Glass Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	angular knop
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a
press mold	none	A. J. Beatty & Sons and US Glass Co	Molded	n/a	n/a	n/a	n/a
optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
contact mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
contact mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
contact mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
contact mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a

press mold	none	Bryce Bros; Doyle & Co; US Glass	Molded	n/a	n/a	n/a	n/a
mouth-blown	none	unidentifiable	Applied	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
mouth-blown	none	unidentifiable	Applied	n/a	n/a	n/a	n/a
mouth-blown	none	unidentifiable	Applied	n/a	n/a	n/a	n/a
mouth-blown	none	unidentifiable	Applied	n/a	n/a	n/a	n/a
press mold	none	Richard & Hartley or Boston & Sandwich	Molded	n/a	oval	Unknown	Unknown
press mold	none	Nickel Plate Glass Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Iowa City Glass Co	Molded	n/a	n/a	n/a	n/a
press mold	none	Iowa City Glass Co	Molded	n/a	n/a	n/a	n/a
press mold	none	Iowa City Glass Co	Molded	n/a	n/a	n/a	n/a
contact mold	none	unidentifiable	Molded	n/a	oval	Unknown	Unknown
press mold	none	Boston Sandwich & Co	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Bryce Brothers, possibly AJ Beatty, and US Glass	Molded	n/a	ovoid	plain conical	straight
press mold	none	Bryce Brothers, possibly AJ Beatty, and US Glass	Molded	n/a	ovoid	plain conical	straight
press mold	none	Bakewell, Pears & Co.	Molded	n/a	ovoid	plain conical	straight
press mold	none	Campbell, Jones and Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Campbell, Jones and Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a

press mold	none	A. J. Beatty & Sons and US Glass Co	Molded	n/a	n/a	n/a	n/a
optic mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	oval	Unknown	Unknown
press mold	none	Bryce Brothers	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	ovoid	plain conical	true balaster
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	acid etched	molded/cut?	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
optic mold	none	unidentifiable	Flashed	molded	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a
press mold	none	Richard & Hartley, Boston & Sandwich, or Portland Glass Co.	Molded	n/a	n/a	n/a	n/a
press mold	none	Central Glass	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee or US Glass	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	stained/gilded	molded	ovoid	plain conical	bladed knop
press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	cup	plain conical	angular knop

press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	straight
press mold	none	Bakewell, Pears & Co.	Molded	n/a	ovoid	Unknown	bladed knop
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	cup	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	cup	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
mold-blown	none	unidentifiable	Molded	n/a	Unknown	plain conical	true balaster
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	ovoid	plain conical	true balaster
mold-blown	none	unidentifiable	Molded	n/a	ovoid	plain conical	inverted balaster
mold-blown	none	unidentifiable	Molded	n/a	ovoid	plain conical	inverted balaster
press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	Bryce Bros and US Glass	Molded	n/a	ovoid	plain conical	knop

optic mold	A. Fischer & Co. CIN. O.	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee or US Glass	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	O'Hara	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	acid etched	stained	n/a	n/a	n/a
mold-blown	none	Unknown	acid etched	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	Unknown	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	Unknown	plain conical	true balaster

press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
mold-blown	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
mold-blown	none	unidentifiable	Molded	n/a	ovoid	Unknown	Unknown
mold-blown	none	unidentifiable	Molded	n/a	Unknown	Unknown	annulated knop
mold-blown	none	unidentifiable	Molded	n/a	Unknown	plain conical	annulated knop
press mold	none	unidentifiable	Molded	n/a	ovoid	Unknown	Unknown
mold-blown	none	unidentifiable	Molded	n/a	ovoid	plain conical	true balaster
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
optic mold	A. Fischer & Co. CIN. O.	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
optic mold	3	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a

mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a
press mold	X. Bazin Philada	Boston & Sandwich	Molded	n/a	n/a	n/a	n/a
press mold	none	Richards & Hartley and Kokomo Manufacturing Dalzell, Gilmore and Leighton	Molded	n/a	n/a	n/a	n/a
press mold	none	Gilmore and Leighton	Molded	n/a	n/a	n/a	n/a
optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Richards and Hartley	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	ovoid	plain conical	straight
press mold	none	McKee	Molded	n/a	ovoid	plain conical	straight
press mold	none	O'Hara and US Glass	Molded	n/a	ovoid	plain conical	straight
press mold	none	O'Hara and US Glass	Molded	n/a	ovoid	plain conical	straight
press mold	none	O'Hara and US Glass	Molded	n/a	ovoid	plain conical	straight
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Gillander & Sons	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Cut	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a

mold-blown	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Molded	n/a	n/a	n/a	n/a
press mold	none	Bakewell, Pears & Co or McKee Bro	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	Unknown	Stained	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	Unknown	Unknown	Unknown
press mold	none	unidentifiable	Molded	n/a	Unknown	Unknown	Unknown
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a
press mold	none	McKee	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
optic mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a
mold-blown	none	Unknown	Molded	n/a	n/a	plain conical	n/a

press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
press mold	none	unidentifiable	Molded	n/a	Unknown	plain conical	Unknown
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a
mold-blown	none	unidentifiable	Molded	n/a	n/a	n/a	n/a

Appendix A-3. Vessel Data Continued. See Methods chapter for definitions of categories.
Abbreviations: Dec.- decorative; OMN- Original Manufacture Name.

Dec. design	OMN	Collector Name	Pattern name 2	Pattern name 3	Patent No.
botanical	Blackberry	Unknown	n/a	n/a	3829
botanical	Unknown	Grape Vine Under	n/a	Grape Band	3716
Facets	Unknown	Honeycomb	n/a	Cincinnati, Vernon	Unknown
Facets	Unknown	Honeycomb	n/a	n/a	Unknown
Lattice	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
prism, flutes, facets	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Prism	Prism	Prism Band	Cartridge Belt	n/a	Unknown
Flutes	Unknown	Unknown	n/a	n/a	Unknown
Facets	Ashburton	Colonial	Bigler	Large Thumbprint	Unknown
Flutes	Unknown	Crystal	Bohemian	n/a	Unknown
scallop band, ribs	Unknown	Unknown	Hairpin	Loop, Oval	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
circle, starburst	Unknown	Argus	Thumbprint	Mirror	Unknown
Flutes	9 Flute	Unknown	n/a	n/a	Unknown
panels	10 Panel	Unknown	n/a	n/a	Unknown
panels	6 Panel	Unknown	n/a	n/a	Unknown
panels	6 Panel	Unknown	n/a	n/a	Unknown
scallops, fans	Comet	Draped Fan	Doyle Comet	U.S. Comet	Unknown
fans, prism	Unknown	Unknown	n/a	n/a	Unknown
lattice, ribs	Unknown	Unknown	n/a	n/a	Unknown
panels,	No. 65?	Paneled	Fluted	Paneled	Unknown

diamonds, flutes, sunburst, cordone		Sawtooth	Diamond Point	Diamond Point	
ribs, stippled	Derby	Pleat and Panel	n/a	n/a	Unknown
ribs, stippled	Derby	Pleat and Panel	n/a	n/a	Unknown
diamond grid, bars, scalloped edge	Imperial	Jacob's Ladder	Maltese	n/a	4778
facets, diamonds	New York	Honeycomb with Diamonds	n/a	n/a	Unknown
Facets	New York	Honeycomb	n/a	n/a	Unknown
Facets	Panel or Flute	Unknown	n/a	n/a	Unknown
Facets	Panel or Flute	Unknown	n/a	n/a	Unknown
Facets	Panel or Flute	Unknown	n/a	n/a	Unknown
panels	Ale Goblet	Unknown	n/a	n/a	Unknown
panels	Ale Goblet	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Crystal	Bohemian	Huber	Unknown
scallop edge, starburst, shell	Unknown	Unknown	n/a	n/a	Unknown
scallop edge, starburst, shell	Unknown	Unknown	n/a	n/a	Unknown
facets, botanical	Unknown	Unknown	n/a	n/a	Unknown
Facets	Unknown	Unknown	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
beads, ribs	Unknown	Paneled Dewdrop	Striped Dewdrop	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Fan	Unknown	Unknown	n/a	n/a	Unknown
beads, bands	Unknown	Cord and Tassel	n/a	n/a	Unknown
beads, diamonds	Duncan #600	Beaded Dart Band	Beaded Diamond Band	n/a	Unknown

botanical, sunburst circles, diamonds, panels	Dewberry	Blackberry Band	Berry	Dewberry	Unknown
circles, scalloped edge, facets, panels, flutes	Excelsior	Unknown	n/a	n/a	Unknown
	Argus	Thumbprint	n/a	n/a	Unknown
Flutes	Unknown	Unknown	9 flute	n/a	Unknown
panels	Unknown	Unknown	10 panel	n/a	Unknown
panels	Unknown	Unknown	8 panel	n/a	Unknown
panels	Unknown	Unknown	9 panel	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	9 flute	n/a	Unknown
Facets	B.V.	Pressed Arch	n/a	n/a	Unknown
flutes, ribs	243 or No 6	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	Pillar	n/a	Unknown
Ribs	Small 1/3 Pt packer, T.T.	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels, stippling, botanical, diamond grid, zig/zag band, dots	Regal	Paneled Forget- me-not	No.29	No. 24	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown

stippling, arches, darts, sunburst	Loop and Dart with Diamond Ornaments	Loop and Dart with Diamond Ornaments	n/a	n/a	Unknown
Octagonal button, bars	Richmond	Bars and Buttons	Block and double Bar	Bar and Block	Unknown
animal, botanical	Unknown	Frosted Stork	Frosted Crane	Frosted Flamingo	Unknown
animal, botanical	Unknown	Frosted Stork	Frosted Crane	Frosted Flamingo	Unknown
animal, botanical	Unknown	Frosted Stork	Frosted Crane	Frosted Flamingo	Unknown
ribs, fan, scroll, scallop	Shell	Unknown	n/a	n/a	Unknown
ribs, drapery, beads, sunburst, scallop edge	Unknown	Beaded Scale and Eye	n/a	n/a	Unknown
scallop edge, ribs, panels, sunburst	Unknown	Unknown	n/a	n/a	Unknown
bulls eye, panels	Filley, #1221, and #4757	Texas Bulls Eye	Bulls Eye Variant	Notched Bulls Eye	Unknown
bulls eye, panels	Filley, #1221, and #4757	Texas Bulls Eye	Bulls Eye Variant	Notched Bulls Eye	Unknown
stippling, beads, diamonds	Arabesque	Arabesque	Arab	n/a	Unknown
botanical, beads, starburst	Unknown	Barley	Indian Sprig	Sprig	associated with #12647
botanical, beads, starburst	Unknown	Barley	Indian Sprig	Sprig	associated with #12647
circles	Argus	Thumbprint	n/a	n/a	Unknown
circles	Argus	Thumbprint	n/a	n/a	Unknown
star/sunburst	Unknown	Unknown	n/a	n/a	Unknown
Facets	B.V.	Pressed Arch	n/a	n/a	Unknown
loops, ribs	Unknown	Beatty #7	#242	n/a	Unknown
rib/swirl	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Facets	Unknown	Honeycomb	n/a	Cincinnati, Vernon	Unknown
ribs, stippled	Derby	Pleat and Panel	n/a	n/a	Unknown
diamonds	Unknown	Unknown	n/a	n/a	Unknown
stipple, scallop edge, diamonds,	Unknown	Peacock Eye	Peacock Feather	n/a	n/a

circles					
Plain	Unknown	O'Hara #13	National Glass National	US Glass #4202	Unknown
panels, diamonds	Unknown	Unknown	n/a	n/a	Unknown
oval facets	Unknown	Unknown	n/a	n/a	Unknown
star/sunburst	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
Cross	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Ovals	Polka Dot	Inverted Thumbprint	Coin Spot	n/a	Unknown
star, circle, panels	No. 14 Mo. Can, Brit. Top	Star and Punt	n/a	n/a	Unknown
loops, stippling, rosette, beads		Loop and Dart with Round Ornaments	Loop and Jewel	n/a	3494
facets, star/sunburst	Royal	Honeycomb Band	141	n/a	Unknown
Facets	Ashburton	n/a	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
Facets	Vernon	Honeycomb	Cincinnati	n/a	Unknown
Facets	Vernon	Honeycomb	Cincinnati	n/a	Unknown
panels	Unknown	Huber	Crystal	Bohemian Hotel	Unknown
panels	Unknown	Huber	Crystal	Bohemian Hotel	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
Ovals	Argus	Thumbprint	n/a	n/a	Unknown
loops, ribs	No. 7	Beatty No. 7	Gaines	n/a	Unknown
loops, ribs	No. 7	Beatty No. 7	Gaines	n/a	Unknown

Ribs	Unknown	Unknown	Pillar	Barney	Unknown
Ribs	Unknown	Unknown	Pillar	Barney	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Charleston	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	6 panel	n/a	Unknown
panels	Unknown	Unknown	9 panel	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Other	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	13	Continental	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Huber	Crystal	Bohemian Hotel	Unknown
diamonds, facets, panels, other	Tulip	Tulip	Tulip with Sawtooth	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
Facets	Ashburton	n/a	n/a	n/a	Unknown
Facets	Miotin	Shortened Loops	No. 10	4013	Unknown
botanical, panels	No. 18	Arched Grape	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
botanical, other	Unknown	Unknown	n/a	n/a	Unknown
zig zag	Unknown	Unknown	n/a	n/a	Unknown
cross, other	Unknown	Unknown	n/a	n/a	Unknown
botanical	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown

panels	Unknown	Unknown	n/a	n/a	Unknown
diamonds	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Facets	Unknown	Unknown	n/a	n/a	Unknown
ribs/flutes	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Flutes	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Flutes	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
scallop band	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Huber	Crystal	Bohemian Hotel	Unknown
Plain	Unknown	Unknown	13	Continental	Unknown
ribs/flutes	Unknown	Unknown	n/a	n/a	Unknown
ribs/flutes	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Small 1/3 Pt packer, T.T.	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
loops, ribs	No. 14	Unknown	No. 235	n/a	Unknown

Ribs	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	6 panel	n/a	Unknown
panels	Unknown	Unknown	6 panel	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	9 panel	n/a	Unknown
panels	Unknown	Unknown	9 panel	n/a	Unknown
panels	Unknown	Unknown	10 panel	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
star/sunburst	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Huber	Crystal	Bohemian Hotel	Unknown
Horseshoe	Unknown	Unknown	n/a	n/a	Unknown
ovals, scalloped edge	Argus	Thumbprint	n/a	n/a	Unknown
bands, lattice	Unknown	Unknown	n/a	n/a	Unknown
botanical	N.P.L.	Pressed Leaf	New Pressed Leaf	n/a	2825
animal	Unknown	Sandwich Bear	n/a	n/a	Unknown
bars, diamonds	#190	Bar and Diamond	Kokomo	R & H Swirl, Swirl Band, Zippered Swirl	Unknown
botanical	#9	Strawberry and Currant	Currant and Strawberry	n/a	Unknown
Circle	Polka Dot	Inverted Thumbprint	Optic Thumbprint	n/a	Unknown
stippling, stars, botanical, diamonds, circles, bands	Pride	Leaf and Dart	Double Leaf and Dart	n/a	Unknown
diamonds, panels, star/sunburst	Unknown	Sawtooth	n/a	n/a	Unknown
stippled, diamond, circle, fan	Shell	Fan with Diamond	McKee #3	Fans with Diamond	Unknown
Flutes	No. 10	Short Loops	#4013	n/a	Unknown

Flutes	No. 10	Short Loops	#4013	n/a	Unknown
Flutes	No. 10	Short Loops	#4013	n/a	Unknown
Flutes	Unknown	Unknown	n/a	n/a	Unknown
Flutes	Unknown	Unknown	n/a	n/a	Unknown
flutes, band	Unknown	Unknown	n/a	n/a	Unknown
beads, ribs	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	6 panel	n/a	n/a	Unknown
panels	Unknown	6 panel	n/a	n/a	Unknown
fan, diamond, mitre	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	12 panel	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
animal	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Flutes	Unknown	Crystal	Bohemian	n/a	Unknown
hexagonal buttons, diamonds	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Facets	Unknown	Honeycomb	Cincinnati	Vernon, New York	Unknown
Facets	Argus	Argus	n/a	n/a	Unknown

Facets	Argus	Argus	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Ribs	Unknown	Unknown	n/a	n/a	Unknown
panels	Unknown	Crystal	Bohemian	Huber	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown
Plain	Unknown	Unknown	n/a	n/a	Unknown

Appendix A-4. Vessel Data Continued. See Methods chapter for definitions of categories.

Color	Applied color	Pattern Type	Time Period Group	Temporal Begin	Temporal Begin Decade	Temporal End (1900s= Present)	Temporal End Decade
White	n/a	Naturalistic	Post-Civil War Period	1870	1870s	1900s	1900s
Colorless	n/a	Naturalistic	Post-Civil War Period	1869	1870s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a			1820s	1820s	1870s	1870s
Colorless	n/a			1864	1860s	1900s	1900s
Colorless	n/a			1820s	1820s	1900s	1900s
Colorless	n/a	Geometric		1820s	1820s	1870s	1870s
Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Post-Civil War Period	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric		1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1840	1840s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1859	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a			1820s	1820s	1870s	1870s
Colorless	n/a			1820s	1820s	1870s	1870s
Colorless	n/a			1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1850s	1850s	1870s	1870s
Colorless	n/a	Geometric	All	1868	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1850s	1850s	1870s	1870s
Colorless	n/a	Geometric	All	1850s	1850s	1870s	1870s
Colorless	n/a	Geometric	All	1850s	1850s	1870s	1870s

Colorless	n/a	Abstract	Golden Age	1880s	1880s	1900s	1900s
Colorless	n/a	Geometric		1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	Golden Age	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	Golden Age	1880	1880s	1900	1900s
Colorless	n/a	Abstract	Golden Age	1870s	1870s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	Post-Civil War Period	1876	1870s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1865	1860s	1871	1870s
Colorless	n/a	Geometric	Colonial Era	1865	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1875	1870s	1900s	1900s
Colorless	n/a	Geometric	All	1875	1870s	1900s	1900s
Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1876-1880	1870s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1876-1880	1870s	1900s	1900s
Colorless	n/a	Naturalistic		1820s	1820s	1900s	1900s
Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a	Naturalistic		1864	1860s	1900s	1900s
Colorless	n/a	Naturalistic		1864	1860s	1900s	1900s
Colorless	n/a	Plain		1820s	1820s	1900s	1900s
Colorless	n/a			1864	1860s	1900s	1900s
Colorless	n/a			1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1878	1870s	1885	1880s
Colorless	n/a		All	1820s	1820s	1900s	1900s

Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1872	1870s	1930s	1930s
Colorless	n/a	Abstract	Golden Age	1882	1880s	1900s	1900s
Colorless	n/a	Naturalistic	Golden Age	1870	1870s	1890	1890s
Colorless	n/a	Geometric	Colonial Era	1859	1860s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1880s	1880s	1900s	1900s
Colorless	n/a	Geometric	All	1899	1890s	1900s	1900s
Colorless	n/a	Plain	All	1864	1860s	1900s	1900s
Colorless	n/a	Plain	All	1800	1800s	1870s	1870s
Colorless	n/a	Plain	All	1800	1800s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Naturalistic	Golden Age	1875	1870s	1890s	1890s
Colorless	n/a		All	1820s	1820s	1870s	1870s
Colorless	n/a	Naturalistic	All	1864	1860s	1900s	1900s
Colorless	n/a		All	1820s	1820s	1870s	1870s

Colorless	n/a		All	1820s	1820s	1870s	1870s
Colorless	n/a		All	1820s	1820s	1870s	1870s
Colorless	n/a	Abstract	Post-Civil War Period	1869	1870s	1918	1910s
Colorless	n/a	Abstract	Golden Age	1890	1890s	1898	1890s
Colorless	n/a	Naturalistic	Golden Age	1880	1880s	1882	1880s
Colorless	n/a	Naturalistic	Golden Age	1880	1880s	1882	1880s
Colorless	n/a	Naturalistic	Golden Age	1880	1880s	1882	1880s
Colorless	n/a	Realistic	All	1820s	1820s	1870s	1870s
Colorless	n/a	Abstract	Lacy Period	1825	1820s	1840s	1840s
Colorless	n/a	Abstract	Lacy Period	1825	1820s	1840s	1840s
Colorless	n/a	Abstract	Post-Civil War Period	1875	1870s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1875	1870s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1870	1870s	1882	1880s
Colorless	n/a	Naturalistic	Golden Age	1870s	1870s	1890s	1890s
Colorless	n/a	Naturalistic	Golden Age	1870s	1870s	1890s	1890s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Abstract	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a		All	1820s	1820s	1900s	1900s
Colorless	n/a	Plain	All	1820s	1820s	1900s	1900s

Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	Golden Age	1890s	1890s	1900s	1900s
Colorless	n/a	Abstract	Lacy Period	1825	1820s	1845	1840s
Colorless	n/a	Plain	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric		1864	1860s	1900s	1900s
Colorless	n/a	Geometric		1820s	1820s	1870s	1870s
Colorless	n/a	Geometric		1820s	1820s	1870s	1870s
Colorless	n/a			1800s	1800s	1870s	1870s
Colorless	n/a	Geometric		1820s	1820s	1900s	1900s
Colorless	n/a	Abstract		1864	1860s	1900s	1900s
Colorless	n/a			1820s	1820s	1870s	1870s
Colorless	pink	Geometric	Golden Age	1880s	1880s	1900s	1900s
Colorless	n/a	Abstract	Colonial Era	1859	1860s	1870s	1870s
Colorless	n/a	Abstract	Post-Civil War Period	1869	1870s	1918	1910s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1939	1930s
Colorless	n/a	Geometric	Colonial Era	1880s	1880s	1900s	1900s
Colorless	red and gold	Abstract	Post-Civil War Period	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1900s	1900s

Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	All	1840s	1840s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Plain	All	1800s	1800s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Abstract	All	1820s	1820s	1900s	1900s
Colorless	n/a	Plain	All	1820s	1820s	1900s	1900s
Colorless	n/a	Plain	All	1800s	1800s	1870s	1870s
Colorless	n/a	Plain	All	1800s	1800s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1860s	1860s	1900s	1900s
Colorless	n/a	Abstract	Colonial Era	1854	1850s	1890s	1890s
Colorless	n/a	Geometric	All	1864	1860s	1884	1880s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1880s	1880s	1900s	1900s
Colorless	n/a	Geometric	Golden Age	1880s	1880s	1900s	1900s
Colorless	n/a	Naturalistic	Post-Civil War Period	1870s	1870s	1891	1890s

Colorless	red	Naturalistic	All	1850s	1850s	1900s	1900s
Colorless	n/a	Naturalistic	All	1850s	1850s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War Period	1864	1860s	1900s	1900s
Colorless	n/a	Naturalistic	Post-Civil War Period	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
White	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a		All	1864	1860s	1900s	1900s
Colorless	n/a	Plain	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a		All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a		All	1800s	1800s	1870s	1870s

Colorless	n/a		All	1820s	1820s	1900s	1900s
Colorless	n/a		All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Plain	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1899	1890s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1884	1880s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Plain	All	1800s	1800s	1870s	1870s
Colorless	n/a	Plain	All	1800s	1800s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Aqua	n/a	Plain	All	1820s	1820s	1900s	1900s
Colorless	n/a	Plain	All	1800s	1800s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Naturalistic	Post-Civil War Period	1867	1860s	1870s	1870s
white opalescent	n/a	Naturalistic	All	1849	1850s	1884	1880s
Colorless	n/a	Geometric	Golden Age	1885	1880s	1918	1910s

Colorless	n/a	Naturalistic	Golden Age	1883	1880s	1902	1900s
Colorless	n/a	Geometric	Golden Age	1880s	1880s	1900s	1900s
Colorless	n/a	Abstract	Post-Civil War	1870s	1870s	1900s	1900s
Colorless	n/a	Geometric	Period Colonial Era	1860s	1860s	1900s	1900s
Colorless	n/a	Abstract	Golden Age	1880s	1880s	1900s	1900s
Colorless	n/a	Geometric	Post-Civil War	1870s	1870s	1870s	1870s
Colorless	n/a	Geometric	Period Post-Civil War	1870s	1870s	1870s	1870s
Colorless	n/a	Geometric	Period Post-Civil War	1870s	1870s	1870s	1870s
Colorless	n/a	Geometric	Period	1870s	1870s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	Colonial Era	1864	1860s	1870s	1870s
Colorless	n/a	Abstract	All	1820s	1820s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
Colorless	n/a		All	1800s	1800s	1870s	1870s
Colorless	n/a	Geometric	All	1820s	1820s	1870s	1870s
White	n/a		All	1864	1860s	1900s	1900s
White	n/a	Naturalistic	Golden Age	1820s	1820s	1900s	1900s
Colorless	n/a		All	1800s	1800s	1870s	1870s
Colorless	n/a	Geometric	Colonial Era	1859	1860s	1900s	1900s
Colorless	n/a	Geometric	Golden Age	1890s	1890s	1900s	1900s
Colorless	n/a	Geometric	All	1864	1860s	1900s	1900s

Colorless	n/a	All	1800s	1800s	1900s	1900s
Colorless	n/a	All	1800s	1800s	1870s	1870s
Colorless	n/a	All	1800s	1800s	1870s	1870s
Colorless	n/a	All	1864	1860s	1900s	1900s
Colorless	n/a	All	1800s	1800s	1870s	1870s

Appendix B-1. Census Data. See Methods chapter for definitions of categories.

Feature	Decade	Date	Address	Dwelling	Family
649-28	1910	4/16/1914	1721 N 10th St	10	24
649-28	1910	4/16/1914	1721 N 10th St	10	24
649-28	1910	4/16/1914	1721 N 10th St	10	24
649-28	1920	1/17/1924	1721 N 10th St	115	174
649-28	1930	1/17/1924	1721 N 10th St	115	174
649-28	1920	1/17/1924	1721 N 10th St	115	174
649-28	1930	1/17/1924	1721 N 10th St	115	174
649-28	1920	1/17/1924	1721 N 10th St	115	174
649-28	1930	1/17/1924	1721 N 10th St	115	174
649-28	1920	1/17/1924	1721 N 10th St	115	174
649-28	1930	1/17/1924	1721 N 10th St	115	174
649-28	1920	1/17/1924	1721 N 10th St	115	175
649-28	1930	1/17/1924	1721 N 10th St	115	175
649-28	1920	1/17/1924	1721 N 10th St	115	175
649-28	1930	1/17/1924	1721 N 10th St	115	175
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1034
649-79	1870	1/1/1870	1714 Mound Ln	708	1035
649-79	1870	1/1/1870	1714 Mound Ln	708	1035
649-79	1870	1/1/1870	1714 Mound Ln	708	1035
649-79	1870	1/1/1870	1714 Mound Ln	708	1035
649-42	1880	11/12/1880	1626 9th St	102	216
649-42	1880	11/12/1880	1626 9th St	102	216
649-42	1880	11/12/1880	1626 9th St	102	216

649-42	1880	11/12/1880	1626 9th St	102	216
602-18	1880	11/8/1880	1023 Cass Ave	2	2
602-18	1880	11/8/1880	1023 Cass Ave	2	2
602-18	1880	11/8/1880	1023 Cass Ave	2	2
602-18	1880	11/8/1880	1023 Cass Ave	2	2
602-18	1880	11/8/1880	1023 Cass Ave	2	2
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1019 Cass Ave	5	5
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-24	1880	11/8/1880	1017 Cass Ave	6	6
602-18	1880	11/8/1880	1023 Cass Ave	12	14
602-18	1880	11/8/1880	1023 Cass Ave	12	14
602-18	1880	11/8/1880	1023 Cass Ave	12	14
602-18	1880	11/8/1880	1023 Cass Ave	12	14
602-18	1880	11/8/1880	1023 Cass Ave	12	14
602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	16

602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	16
602-18	1880	11/8/1880	1023 Cass Ave	12	17
602-18	1880	11/8/1880	1023 Cass Ave	12	17
602-18	1880	11/8/1880	1023 Cass Ave	12	17
602-18	1880	11/8/1880	1023 Cass Ave	12	17
602-18	1880	11/8/1880	1023 Cass Ave	12	18
602-18	1880	11/8/1880	1023 Cass Ave	12	18
602-18	1880	11/8/1880	1023 Cass Ave	12	19
602-18	1880	11/8/1880	1023 Cass Ave	12	19
602-18	1880	11/8/1880	1023 Cass Ave	12	19
602-18	1880	11/8/1880	1023 Cass Ave	12	20
602-18	1880	11/8/1880	1023 Cass Ave	12	20
602-18	1880	11/8/1880	1023 Cass Ave	12	20
602-18	1880	11/8/1880	1023 Cass Ave	12	20
602-18	1880	11/8/1880	1023 Cass Ave	12	20
602-18	1880	11/8/1880	1025 Cass Ave	12	26
602-18	1880	11/8/1880	1025 Cass Ave	12	26
602-18	1880	11/8/1880	1025 Cass Ave	12	26
602-18	1880	11/8/1880	1025 Cass Ave	12	26
602-18	1880	11/8/1880	1025 Cass Ave	12	26
602-18	1880	11/8/1880	1025 Cass Ave	12	27
602-18	1880	11/8/1880	1025 Cass Ave	12	27
602-18	1880	11/8/1880	1025 Cass Ave	12	27
602-18	1880	11/8/1880	1025 Cass Ave	12	27
602-18	1880	11/8/1880	1025 Cass Ave	12	28
602-18	1880	11/8/1880	1025 Cass Ave	12	28

602-18	1880	11/8/1880	1025 Cass Ave	12	28
602-18	1880	11/8/1880	1025 Cass Ave	12	28
602-18	1880	11/8/1880	1025 Cass Ave	12	28
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	29
602-18	1880	11/8/1880	1025 Cass Ave	12	31
602-18	1880	11/8/1880	1025 Cass Ave	12	31
602-18	1880	11/8/1880	1025 Cass Ave	12	31
602-18	1880	11/8/1880	1025 Cass Ave	12	31
602-18	1880	11/8/1880	1025 Cass Ave	12	31
649-42	1880	11/9/1880	2324 Washington St	25	78
649-42	1880	11/9/1880	2324 Washington St	25	78
649-42	1880	11/9/1880	2324 Washington St	25	78
649-42	1880	11/9/1880	2324 Washington St	25	78
649-42	1880	11/9/1880	2324 Washington St	25	78
650-8	1900	6/1/1900	1704 N 10th St	3	5
650-8	1900	6/1/1900	1704 N 10th St	3	5
650-8	1900	6/1/1900	1704 N 10th St	3	5
650-8	1900	6/1/1900	1704 N 10th St	3	5
650-8	1900	6/1/1900	1704 N 10th St	3	6
650-8	1900	6/1/1900	1704 N 10th St	3	6
650-8	1900	6/1/1900	1704 N 10th St	3	6
650-8	1900	6/1/1900	1704 N 10th St	3	6
650-8	1900	6/1/1900	1704 N 10th St	3	6
650-8	1900	6/1/1900	1704 N 10th St	3	6

650-8	1900	6/1/1900	1704 N 10th St	3	6
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1706 N 10th St	4	7
650-10	1900	6/1/1900	1708 N 10th St	5	8
650-10	1900	6/1/1900	1708 N 10th St	5	8
650-10	1900	6/1/1900	1708 N 10th St	5	8
650-10	1900	6/1/1900	1708 N 10th St	5	8
650-10	1900	6/1/1900	1708 N 10th St	5	8
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
650-8	1880	6/10-11/1880	1704 N 10th St	111	372
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	277
602-24	1900	6/11/1900	1017 Cass Ave	137	278
602-24	1900	6/11/1900	1017 Cass Ave	137	278
602-24	1900	6/11/1900	1019 Cass Ave	141	284

602-24	1900	6/11/1900	1019 Cass Ave	141	284
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1023 Cass Ave	144	287
602-18	1900	6/11/1900	1025 Cass Ave	146	290
602-18	1900	6/11/1900	1025 Cass Ave	146	290
602-18	1900	6/11/1900	1025 Cass Ave	146	290
602-18	1900	6/11/1900	1025 Cass Ave	146	290
602-18	1900	6/11/1900	1025 Cass Ave	146	291
602-18	1900	6/11/1900	1025 Cass Ave	146	291
602-18	1900	6/11/1900	1025 Cass Ave	146	291
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
602-18	1900	6/12/1900	1023R Cass Ave	158	309
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601

650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	601
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1708 N 10th St	183	602
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-10	1880	6/15/1880	1706 N 10th St	184	603
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	604
650-8	1880	6/15/1880	1704 N 10th St	185	605

650-8	1880	6/15/1880	1704 N 10th St	185	605
650-8	1880	6/15/1880	1704 N 10th St	185	605
650-8	1880	6/15/1880	1704 N 10th St	185	605
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	204
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-18	1870	6/4/1870	1023 Cass Ave	110	205
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208
602-24	1870	6/4/1870	1019 Cass Ave	112	208

602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
602-24	1870	6/4/1870	1017 Cass Ave	113	209
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-42	1880	6/4/1880	713 Carr St	102	216
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280

649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-28	1880	6/4/1880	1721 N 10th St	180	280
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-42	1880	6/4/1880; 11/2/1880	713 Carr St/ 1626 9th St	102	216
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-79	1880	6/5/1880	1714 Mound Ln	110	162
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1009 Howard St	221	344

649-42	1880	6/5/1880	1009 Howard St	221	344
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1007 Howard St	222	345
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-42	1880	6/5/1880	1005 Howard St	223	346
649-79	1880	6/5/1880	1714 Mound Ln	228	354
649-79	1880	6/5/1880	1714 Mound Ln	228	354
649-79	1880	6/5/1880	1714 Mound Ln	228	354
649-79	1880	6/5/1880	1714 Mound Ln	228	354
649-79	1880	6/5/1880	1714 Mound Ln	228	354
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356

649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
649-79	1880	6/5/1880	1714 Mound Ln	228	356
602-24	1880	6/7/1880	1017 Cass Ave	6	6
602-18	1880	6/7/1880	1025 Cass Ave	241	381
602-18	1880	6/7/1880	1025 Cass Ave	241	381
602-18	1880	6/7/1880	1025 Cass Ave	241	381
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1025 Cass Ave	241	383
602-18	1880	6/7/1880	1023 Cass Ave	242	386
602-18	1880	6/7/1880	1023 Cass Ave	242	386
602-18	1880	6/7/1880	1023 Cass Ave	242	386
602-18	1880	6/7/1880	1023 Cass Ave	242	387
602-18	1880	6/7/1880	1023 Cass Ave	242	387
602-18	1880	6/7/1880	1023 Cass Ave	242	387
602-18	1880	6/7/1880	1023 Cass Ave	242	387
602-18	1880	6/7/1880	1023 Cass Ave	242	387
602-18	1880	6/7/1880	1023 Cass Ave	242	388
602-18	1880	6/7/1880	1023 Cass Ave	242	388
602-18	1880	6/7/1880	1023 Cass Ave	242	388
602-18	1880	6/7/1880	1023 Cass Ave	242	389
602-18	1880	6/7/1880	1023 Cass Ave	242	389
602-18	1880	6/7/1880	1023 Cass Ave	242	390
602-18	1880	6/7/1880	1023 Cass Ave	242	390
602-18	1880	6/7/1880	1023 Cass Ave	242	390
602-18	1880	6/7/1880	1023 Cass Ave	242	390

602-18	1880	6/7/1880	1023 Cass Ave	242	390
649-79	1900	6/7/1900	1712 Mound Ln	93	144
649-79	1900	6/7/1900	1712 Mound Ln	93	144
649-79	1900	6/7/1900	1712 Mound Ln	93	144
649-79	1900	6/7/1900	1712 Mound Ln	93	144
649-79	1900	6/7/1900	1712 Mound Ln	93	144
649-79	1900	6/7/1900	1712 Mound Ln	93	145
649-79	1900	6/7/1900	1712 Mound Ln	93	145
649-79	1900	6/7/1900	1712 Mound Ln	93	146
649-79	1900	6/7/1900	1712 Mound Ln	93	146
649-79	1900	6/7/1900	1712 Mound Ln	93	147
649-79	1900	6/7/1900	1712 Mound Ln	93	147
649-79	1900	6/7/1900	1712 Mound Ln	93	147
649-79	1900	6/7/1900	1712 Mound Ln	93	147
649-79	1900	6/7/1900	1714 Mound Ln	94	148
649-79	1900	6/7/1900	1714 Mound Ln	94	148
649-79	1900	6/7/1900	1714 Mound Ln	94	148
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	149
649-79	1900	6/7/1900	1714 Mound Ln	94	150
649-79	1900	6/7/1900	1714 Mound Ln	94	150
649-79	1900	6/7/1900	1714 Mound Ln	94	150
649-79	1900	6/7/1900	1714 Mound Ln	94	150

649-28	1900	6/8/1900	1721 N 10th St	117	186
649-28	1900	6/8/1900	1721 N 10th St	117	186
649-28	1900	6/8/1900	1721 N 10th St	117	186
649-28	1900	6/8/1900	1721 N 10th St	117	186
650-8	1870	7/20/1870	1704 N 10th St	2569	3709
650-8	1870	7/20/1870	1704 N 10th St	2569	3709
650-10	1870	7/20/1870	1708 N 10th St	2571	3711
650-10	1870	7/20/1870	1708 N 10th St	2571	3711
650-10	1870	7/20/1870	1708 N 10th St	2571	3711
650-10	1870	7/20/1870	1708 N 10th St	2571	3711
649-79	1880	9/11/1880	1714 Mound Ln	33	62
649-79	1880	9/11/1880	1714 Mound Ln	33	62
649-79	1880	9/11/1880	1714 Mound Ln	33	62
649-79	1880	9/11/1880	1714 Mound Ln	33	62
649-79	1880	9/11/1880	1714 Mound Ln	33	62

Appendix B-2. Census Data Continued. See Methods chapter for definitions of categories.

Last Name	First Name	Age	Sex	Color	Relation to Head of House	Marital Status
Allen	Emily	45	F	W	Mother-in-Law	
Koch	Joseph J	26	M	W	Head	
Koch	Mary A	26	F	W	Wife	
McFadden	Francis	50	F	W	Wife	
McFadden	Francis	50	F	W	Wife	
McFadden	John	57	M	W	Head	
McFadden	John	57	M	W	Head	
McFadden	Katherine	13	F	W	Daughter	
McFadden	Katherine	13	F	W	Daughter	
McFadden	Mary V	16	F	W	Daughter	
McFadden	Mary V	16	F	W	Daughter	
Hoffman	Caroline	68	F	W	Head	
Hoffman	Caroline	68	F	W	Head	
Hoehn	Joseph R	43	M	W	Son	
Hoehn	Joseph R	43	M	W	Son	
Walters	Alice	5	F	W	Daughter	
Walters	Fred	3	M	W	Son	
Walters	Fred	31	M	W	Head	
Walters	Jessie	9M	M	W	Son	
Walters	Livera	7	F	W	Daughter	
Walters	Rose	28	F	W	Wife	
Graham	Clarence	19	M	W	Son	
Stephens	Isaac	50	M	W	Boarder? Or Landlord?	
Landis	James	23	M	W	Boarder?	
Graham	Mary	40	F	W	Head	
Staig	George	44	M	W		
Staig	Isabel	7	F	W		
Staig	Maggie	15	F	W		

Staig	Mary	38	F	W	
Stratman	Adelheide	6	F	W	Daughter
Stratman	Adelia	8	F	W	Daughter
Stratman	LA	38	M	W	Head
Stratman	Laura A	4	F	W	Daughter
Stratman	Mary A	36	F	W	Wife
McNamera	Annie	20	F	W	Servant
Reed	Charles A	7	M	W	Son
Reed	George W	18	M	W	Son
Reed	Jennie	12	F	W	Daughter
Reed	John E	9	M	W	Son
Reed	John F	44	M	W	Head
Reed	Mary	38	F	W	Wife
Reed	William F	20	M	W	Son
Carter	Emma	36	F	W	Wife
Carter	Fannie	17	F	W	Daughter
Rankin	George	20	M	W	Boarder
Boas (Beas)	Lue R	20	M	W	Boarder
Carter	Ophelia	15	F	W	Daughter
Carter	William	42	M	W	Head
McCarthy	Clara	3	F	W	Daughter
McCarthy	Dennis	11	M	W	Son
McCarthy	John	7	M	W	Son
McCarthy	Kate	38	F	W	Wife
McCarthy	Timothy	9	M	W	Son
McCarthy	Timothy	46	M	W	Head
McLaughlin	Allie	10	M	W	Son
McLaughlin	Alonzp	16	M	W	Son
McLaughlin	Celeste	13	F	W	Daughter

McLaughlin	Ellen	30	F	W	Wife
McLaughlin	Emory	7	M	W	Son
McLaughlin	Marion	42	M	W	Head
McLaughlin	Montegue?	12	M	W	Son
Heyman	Abraham	26	M	W	Head
Heyman	Bertha	29	F	W	Wife
Heyman	Henry	1	M	W	Son
Heyman	Joseph	3	M	W	Son
Croman	Elizabeth	55	F	W	Wife
Croman	William	53	M	W	Head
Schwenderger	Charles	27	M	W	Head
Schwenderger	Josephine	23	F	W	Wife
Schwenderger	Richard	2	M	W	Son
Rusch	Ann M	60	F	W	Boarder
Roberts	Charlotte	35	F	W	Wife
Roberts	Emanuel	45	M	W	Head
Roberts	Jessie	4	F	W	Daughter
Roberts	Willie	40644	M	W	Son
Hardering	Annie	10	F	W	Daughter
Hardering	Bernard	48	M	W	Head
Hardering	Joseph	6	M	W	Son
Hardering	Louisa	15	F	W	Daughter
Hardering	Mary	47	F	W	Wife
Miles	Blanch	1	F	W	Daughter
Miles	Clara	5	F	W	Daughter
Miles	Mary	35	F	W	Wife
Miles	Simeon D	41	M	W	Head
Steffens	Fred	50	M	W	Head
Steffens	Lizzie	23	F	W	Daughter

Steffens	Sophia	65	F	W	Wife
Steffens	Steven	19	M	W	Son
Shaw	William	25	M	W	Boarder
Battles	August	23	M	W	Son
Battles	Fernon	25	M	W	Son
Battles	Frank	52	M	W	Head
Battles	Henry	10	M	W	Son
Battles	Sophia	18	F	W	Daughter
Battles	Vernon	12	M	W	Son
Kammann	August	24	M	W	Son
Kammann	Catherine	58	F	W	Wife
Kammann	Dietrich	62	M	W	Head
Kammann	Edward	21	M	W	Son
Lasche	Henry	21	M	W	Boarder
Hopper	Charles H	11	M	W	Son
Hopper	Charles W	41	M	W	Head
Hopper	M?? F	14	M	W	Son
Hopper	Nannie E	36	F	W	Wife
Hopper	Ruth e	8	F	W	Daughter
Schaffner	Adeline	5	F	W	Daughter
Schaffner	Clementine	3	F	W	Daughter
Schaffner	Henrietta	26	F	W	Wife
Schaffner	Scott	34	M	W	Head
McClelan	Charles	12	M	W	Son
McClelan	Charles	55	M	W	Head
McClelan	Earl	4	M	W	Son
McClelan	Grace	6	F	W	Daughter
McClelan	Lizzie	38	F	W	Wife
McClelan	Mable	9	F	W	Daughter

McClelan	William	19	M	W	Son
Ehrlich	Agnes	17	F	W	Daughter
Bengel	Edward	38	M	W	Boarder
Ehrlich	Jennie	36	F	W	Wife
Ehrlich	Louis	48	M	W	Head
Ehrlich	Nellie	13	F	W	Daughter
Donhue	Thomas	32	M	W	Boarder
Wittmord	Amelia	8	F	W	Stepdaughter
Pryor	John	55	M	W	Head
Wittmord	Joseph	13	M	W	Stepson
Pryor	Lizzie	34	F	W	Wife
Wittmord	William	8	M	W	Stepson
Klock	Clara	10	F	W	Daughter
Klock	Frank	53	M	W	Head
Klock	Henry	8	M	W	Son
Klock	John	22	M	W	Son
Klock	Joseph	6	M	W	Son
Klock	Matilda	23	F	W	Daughter
Klock	Minnie	24	F	W	Daughter
Potts	Clyde	19	M	W	Son
Potts	Ethel	10	F	W	Daughter
Potts	Eva	8	F	W	Daughter
Potts	Leroy	13	M	W	Son
Potts	Martha	41	F	W	Wife
Potts	Tillie	2	F	W	Daughter
Potts	William E	41	M	W	Head
Keller	Annie	36	F	W	Head
Ellias	Joseph	28	M	W	Boarder
Biller	Augusta	33	F	W	Housekeeper

Baecker	Ewal	37	M	W	Head
Eckstein	Allie	2	F	W	Daughter
Eckstein	Charles F	15	M	W	Son
Eckstein	Edward	13	M	W	Son
Eckstein	George	22	M	W	Son
Eckstein	Harry	5M	M	W	Son
Eckstein	Lizzie	7	F	W	Daughter
Eckstein	Louis	20	M	W	Son
Eckstein	Mary	39	F	W	Wife
Eckstein	William	10	M	W	Son
Eckstein	William F?	49	M	W	Head
McInerny	Catherine	37	F	W	Wife
McInerny	John	33	M	W	Head
McInerny	John	4	M	W	Son
McInerny	Martin	2	M	W	Son
Sands	Annie	24	F	W	Sister
Sands	Christina	45	F	W	Mother
Sands	Joseph	17	M	W	Head
Lukazewski	Alexander	2	M	W	Son
Marragh	Augusta	72	F	W	Mother-in-law
Lukazewski	Celia	7M	F	W	Daughter
Lukazewski	Frank	4	M	W	Son
Marragh	Frank	30	M	W	Brother-in-law
Lukazewski	Martha	35	F	W	Wife
Lukazewski	Sophie	9	F	W	Daughter
Lukazewski	Thomas	7	M	W	Son
Lukazewski	Thomas	40	M	W	Head
Casparay	Charles	19	M	W	Nephew
Schattgen	Christine	37	F	W	Wife

Schattgen	Edward	5	M	W	Son
Schattgen	Lizzie	2	F	W	Daughter
Schattgen	Lora	19	F	W	Daughter
Schattgen	Louisa	21	F	W	Daughter
Schattgen	Margaret	3	F	W	Daughter
Schattgen	Mary	16	F	W	Daughter
Schattgen	Peter	54	M	W	Head
Schattgen	Peter	23	M	W	Son
Schattgen	Sophia	14	F	W	Daughter
Schattgen	William	11	M	W	Son
Straper	August	18	M	W	Stepson
Duecker	Caroline	52	F	W	Wife
Duecker	Conrad	39	M	W	Head
Duecker	Frank	12	M	W	Son
Duecker	George	9	M	W	Son
Straper	Henry	15	M	W	Stepson
McCamley	Catherine	33	F	W	Wife
McCamley	John	40	M	W	Head
McCamley	Joseph	5	M	W	Son
McCamley	Julia	12	F	W	Daughter
McCamley	Kattie	7	F	W	Daughter
McCamley	Mary	9M	F	W	Daughter
Gluecker	Annie	12	F	W	Daughter
Gluecker	Barbara	14	F	W	Daughter
Gluecker	Catherine	50	F	W	Head
Gluecker	Emmy	20	F	W	Daughter
Gluecker	George	30	M	W	Son
Gluecker	Katy	23	F	W	Daughter
Heckels	Barabara	25	F	W	Daughter

Heckels	George	23	M	W	Son
Heckels	Margaret	60	F	W	Head
Heckels	Mary	24	F	W	Daughter
McSweeney	A	3	F	W	Daughter
McSweeney	B	27	F	W	Wife
McSweeney	E	6	M	W	Son
McSweeney	K	9	F	W	Daughter
McSweeney	M	8	F	W	Daughter
McSweeney	R	1	M	W	Son
McSweeney	R	38	M	W	Head
Matthews	H	5M	F	W	Daughter
Craten	J	3	M	W	
Matthews	J	5	M	W	Son
Craten	K	27	F	W	Boarder (Wife)
Lynch	Kate	17	F	W	Boarder
Craten	M	1	F	W	Boarder (Daughter)
Matthews	M	4	F	W	Daughter
Matthews	M	3	F	W	Daughter
Craten	P	30	M	W	Boarder (Father)
Matthews	P	28	M	W	Head
Fisher	C B	15	M	W	Son
Fisher	E S	1	F	W	Daughter
Fisher	E S	36	F	W	Wife
Fisher	G W	5	M	W	Son
Fisher	G W	42	M	W	Head
Allen	Hattie	21	F	W	Daughter
Higgins	J	60	M	W	Boarder? (husband)
Fisher	J F	7	F	W	Daughter
Higgins	Jane	71	F	W	Boarder? (wife)

Parkhurst	C	9	F	W	Daughter	
Parkhurst	E	42	F	W	Wife	
Parkhurst	E	22	F	W	Daughter	
Parkhurst	G	52	M	W	Head	
Worthley	J P	26	F	W	Boarder?	
Parkhurst	M	12	F	W	Daughter	
Jackson	R	14	F	B	Servant	
Rackeby	S A	28	F	W	Boarder?	
Rackeby	T	16	F	W	Boarder?	
Lyons	Adelia	26	F	W	Boarder (Inmate)	
Gibson	Albert W	4M	M	W	Boarder (Inmate)	
Huston	Annie	2	F	W	Boarder (Inmate)	
Montgomery	Catherine	35	F	W	Boarder (Inmate)	Married
Graham	Daisy	2	F	W	Boarder (Inmate)	
Graham	Eliza	23	F	W	Boarder (Inmate)	Married
Cochran	Elizabeth	33	F	W	Boarder (Inmate)	Married
Greely	Ella	20	F	W	Boarder (Inmate)	
Howard	Georgia	6M	F	W	Boarder (Inmate)	
Monroe	Henry	1	M	W	Boarder (Inmate)	
Brown	Linda	23	F	W	Boarder (Inmate)	Widowed
Monroe	Mary	30	F	W	Boarder (Inmate)	Married
Brennan	Mary A	4M	F	W	Boarder (Inmate)	
Brennan	Mathilda	20	F	W	Boarder (Inmate)	Widowed
Brown	Maude	4M	F	W	Boarder (Inmate)	
Montgomery	Maude	8M	F	W	Boarder (Inmate)	
Howard	Nellie	20	F	W	Boarder (Inmate)	Widowed
Huston	Sarah	32	F	W	Boarder (Inmate)	Widowed
Herr	Anna	18	F	W	Niece	
Hoffman	Eleonora	14	F	W	Daughter	

Hoffman	Eleonora	41	F	W	Wife	
Hoffman	Francisca	17	F	W	Daughter	
Hoffman	George	15	M	W	Son?	
Hoffman	Henry Sebastian	10	M	W	Son	
Hoffman	Joseph	7	M	W	Son	
Hoffman	Mathilda	13	F	W	Daughter	
Hoffman	Seb	44	M	W	Head	
Tiernan	Annie (Mary?)	6	F	W	Boarder (Inmate)	
Livingston	George	3	M	W	Boarder (Inmate)	
Tiernan	John	12	M	W	Boarder (Inmate)	
Gibson	Margaret	44	F	W	Head	Widowed
Livingston	Mary	24	F	W	Boarder (Inmate)/SOLICITOR	Widowed
Livingston	Nettie	1	F	W	Boarder (Inmate)	
Cullen	Anne	39	F	W	Wife	
Cullen	Catherine	19	F	W	Daughter	
Cullen	Daniel	5	M	W	Son	
Cullen	Hugh	11	M	W	Son	
Cullen	James	48	M	W	Head	
Cullen	James	8	M	W	Son	
Cullen	John	16	M	W	Son	
Cullen	William	3	M	W	Son	
Wallace	Ellis E	26	M	W	Boarder	
White	Jno	21	M	W	Boarder	
Yerkes	Jno	23	M	W	Boarder	
Wood	Laura R	9	F	W	Granddaughter	
Hughes	Mary AG	20	F	W	Boarder	
Durek	Milton	18	M	W	Boarder	
Wood	Sanford H	7	M	W	Grandson	
Wood	Susan H	60	F	W	Self	

White	WM	26	M	W	Cousin
West	Day	23	M	W	Boarder
Hatten	Fred	27	M	W	Boarder
Anderson	Jno	30	M	W	Boarder
Burn	Mary	66	F	W	Mother
Collins	Mary M	24	F	W	Wife
Rheinfels	Peter	31	M	W	Boarder
Collins	Rich P	33	M	W	Self
Collins	Willie	2	M	W	Son
Powers	Anna	7	F	W	Daughter
Powers	Anna	32	F	W	Wife
Powers	Ben	2	M	W	Son
Powers	Jno	10	M	W	Son
Powers	Jno	33	M	W	Self
Powers	Lilly	5	F	W	Daughter
Powers	Mary	11	F	W	Daughter
Powers	Minna	13	F	W	Daughter
Powers	Willie	9	M	W	Son
Apperson	Allis	20	F	W	Daughter
Apperson	Charles	22	M	W	Son
Apperson	Edward	18	M	W	Son
Apperson	James	51	M	W	Head
Apperson	Sarah	35	F	W	Wife
Walters	Allis	14	F	W	Daughter
Walters	Fanny	7	F	W	Daughter
Walters	Flora	3	F	W	Daughter
Walters	Fred	13	M	W	Son
Walters	Fred	40	M	W	Head
Walters	George	3M	M	W	Son

Walters	Jessie	10	M	W	Son
Walters	Lillie	4	F	W	Daughter
Walters	Mary	17	F	W	Daughter
Walters	Rosa	38	F	W	Wife
Rashily	David	26	M	W	Other
Grevels	Beno	16	M	W	Brother
Grevels	Mary	20	F	W	Sister
Grevels	Robert	23	M	W	Head
Herdering	Anna	10	F	W	Daughter
Herdering	Bernhard	48	M	W	Head
Herdering	Joseph	5	M	W	Son
Herdering	Louisa	14	F	W	Daughter
Herdering	Mary	47	F	W	Wife
Germann	Carol	21	F	W	Wife
Germann	William H	25	M	W	Head
Germann	William L	11M	M	W	Son
Heimann	Abra	24	M	W	Head
Heimann	Bertha	27	F	W	Wife
Heimann	Henry	9M	M	W	Son
Heimann	Joseph	3	M	W	Son
Reuter	Albertina	11	F	W	Daughter
Reuter	Mary	34	F	W	Wife
Reuter	WM	37	M	W	Head
Davis	Charles H	32	M	W	Head
Davis	Helen	32	F	W	Wife
McDermott	Maggie	5M	F	W	Daughter
McDermott	Mary A	23	F	W	Wife
McDermott	Mary MC	6	F	W	Daughter
McDermott	Thomas	26	M	W	Head

McDermott	Thomas MC	3	M	W	Son
Schriber	Frank	32	M	W	Head
Schriber	Jessie	3	F	W	Daughter
Schriber	John	5M	M	W	Son
Schriber	Louisa	29	F	W	Wife
Schriber	Mary A	6	F	W	Daughter
Murry	Katie	32	F	W	Wife
Murry	Thomas	34	M	W	Head
Williams	Carrie	14	F	W	Daughter
Williams	Dora	35	F	W	Head
Young	Eleanor	29	F	W	Wife
Young	Ella	1	F	W	Daughter
Young	John	33	M	W	Head
Young	Thomas	2	M	W	Son
Henderson	Charles H	22	M	W	Son
Henderson	Rhonda	26	F	W	Daughter
Henderson	Robert	65	M	W	Head
Vilbert	Benjamin	6M	M	W	Son
Dannan	Charles	39	M	W	Boarder
Vilbert	Evalin	9	F	W	Daughter
Vilbert	Frederick	11	M	W	Son
Vilbert	Henry	37	M	W	Head
Vilbert	Mary	32	F	W	Wife
Vilbert	Pearl	7	F	W	Daughter
Vilbert	Vivian	3	F	W	Daughter
Jerome	Almira	2	F	W	Daughter
Jerome	Lizzie	25	F	W	Wife
Jerome	Walter	5	M	W	Son
Jerome	Walter	26	M	W	Head

Hoffman	Carrie	49	F	W	Head
Hoffman	Carrie	14	F	W	Daughter
Hoffman	Joseph	23	M	W	Son
Jokerst	Mary	26	F	W	Servant
Burr	John	46	M	W	Head
Burn	Mary	38	F	W	Wife
McMaster(s)	Elizabeth	28	F	W	Wife
McMaster(s)	John	26	M	W	Head
McMaster(s)	Mary	9	F	W	Daughter
McMaster(s)	Wallace	2	M	W	Son
Fraizer	Clarence J	29	M	W	Son
Graham	Harriet B	65	F	W	Other
Graham	Mary J	51	F	W	Head
Bailey	Minnie	15	F	W	Other
Bailey	Oliver	19	M	W	Other

Appendix B-3. Census Data Continued. See Methods chapter for category definitions.

Occupation	HISCLASS	Real estate	Personal estate	Birth Place	Parents' Birth
				ENG	ENG/ENG
Forman (Stell Co)	6			MO	FRA/ROM
				MO	SCOT/ENG
				MO	IRE/IRE
				MO	IRE/IRE
Peddler (Owns Wagon)	9			MO	IRE/IRE
Peddler (Owns Wagon)	9			MO	IRE/IRE
				MO	MO/MO
				MO	MO/MO
				MO	MO/MO
				MO	MO/MO
Landlady	1			GER	GER/GER
Landlady	1			GER	GER/GER
Clerk (Dry Goods Store)	5			IL	GER/GER
Clerk (Dry Goods Store)	5			IL	GER/GER
		\$0.00	\$0.00	IL	N/A
		\$0.00	\$0.00	IL	N/A
Engine Builder	2	\$0.00	\$100.00	ENG	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	IL	N/A
Keeping House		\$0.00	\$100.00	IRE	N/A
Blacksmith	7	\$0.00	\$200.00	IL	N/A
Blacksmith	7	\$3,000.00	\$200.00	NY	N/A
Laborer	11	\$0.00	\$100.00	IL	N/A
Keeping House	1	\$5,000.00	\$6,000.00	VA	N/A
Baker	7			SCOT	SCOT
				PA	NY

Solicitor	9	TN	NY
Help at Aid	9	NY	NY
At School		MO	GER
At School		MO	GER
Commission	1	GER	GER
		MO	GER
Keeping House		GER	GER
Servant	9	MO	
At School		MO	IRE/MO
Machinist	9	MO	IRE/MO
At School		MO	IRE/MO
At School		MO	IRE/MO
Engineer	2	IRE	IRE
Keeping House		MO	IRE/PA
Clerk	4	MO	IRE/MO
Keeping House		MO	VA/KY
At School		MO	VA/MO
Clerk	4	MO	NY
Artist	7	IL	KY
At School		MO	VA
Bricklayer	7	VA	VA/MO
At Home		MO	IRE
At School		MO	IRE
At School		MO	IRE
Keeping House		IRE	IRE
At School		MO	IRE
Millwright	7	IRE	IRE
At School		MO	OH/MO
Farmer	8	MO	OH/MO

At School		MO	OH/MO
Keeping House		MO	TN/MN?
At School		MO	OH/MO
Machinist	9	OH	SCOT/FRA
At School		MO	OH/MO
Storekeeper	5	GER	GER
Keeping House		GER	GER
		MO	GER
		MO	GER
Keeping House		GER	GER
Real Estate Agent	4	GER	GER
Engineer	2	AUS	AUS
Keeping House		AUS	AUS
		MO	AUS
		AUS	AUS
Keeping House		SCOT	SCOT
Machinist	9	ENG	ENG
		MO	ENG/SCOT
		MO	ENG/SCOT
At School		MO	GER/IRE
Boxmaker	9	GER	GER
At School		MO	GER/IRE
Servant	9	MO	GER
Keeping House		IRE	IRE
At Home		MO	CANADA/GER
At School		MO	CANADA/GER
Keeping House		GER	GER
Foreman	6	CANADA	ENG
Porter	11	GER	GER

		MO	GER
Keeping House		GER	GER
Porter	11	MO	GER
Porter	11	MO	GER
Laborer	11	GER	GER
Laborer	11	GER	GER
Laborer	11	GER	GER
At School		GER	GER
Keeping House		GER	GER
At School		GER	GER
Clerk	4	IL	GER
Keeping House		GER	GER
Laborer	11	GER	GER
Furnace Maker	7	IL	GER
Wall Paperer	9	MO	GER
At School		MO	IN/MO
Sheet Iron Worker	7	IN	MY
At School		MO	IN/MO
Teacher P School	2	MO	KY
At School		MY	IN/MO
		MO	IA/GER
		MO	IA/GER
		GER	GER
Paper Hanger	9	IA	VA
Office Boy		IL	RI/MO
Stationary Engineer	2	RI	IRE
		MO	RI/MO
		MO	RI/MO
		MO	MS

At School		MO	RI/MO
Printing Pressman	9	MO	RI/MO
		MO	ENG/SCOT
Carpenter	7	GER	GER
		SCOT	IRE/SCOT
Second Hand Dealer	5	ENG	GER/ENG
At School		MO	ENG/SCOT
Day Labor	11	IL	IRE
At School		IL	IL
Copyist of Deeds	5	MO	GER
Office Boy		IL	IL
		IL	GER
At School		IL	IL
At School		MO	GER
Wagon Maker	1	GER	GER
At School		MO	GER
Stove Moulder	9	MO	GER
		MO	GER
Dress Maker	7	MO	GER
Dress Maker	7	MO	GER
Machinist	9	IA	IA
At School		IA	IA
At School		MO	IA
Appr Mach	10	IA	IA
		IA	PA/OH
		MO	IA
Private Watchman	5	IA	VA
		IL	UNK
Harness Maker	7	IL	MO/IL

House Keeper		GER	GER
Carpenter	7	GER	GER
		MO	GER/MO
Helper (Boiler Works)	8	MO	GER/MO
At School		MO	GER/MO
Teamster	9	IL	GER/MO
		MO	GER/MO
At School		MO	GER/MO
Horse Shoer	7	IL	GER/MO
		MO	GER/MO
At School		MO	GER/MO
Teamster	9	GER	GER
Wallpaper	9	MO	IRE
		MO	IRE
		MO	MO
		MO	MO
		MO	MO/GER
		GER	GER
Paper Box Maker	9	MO	MO/GER
		MO	POL
		POL	POL
		MO	POL
		MO	POL
Broommaker	9	POL	POL
		POL	POL
At School		MO	POL
At School		MO	POL
Day Labor	11	POL	POL
Painter	9	GER	GER

Keeping House		OH	GER/OH
		MO	GER/OH
		MO	GER/OH
Servant	9	CANADA	GER
Servant	9	CANADA	GER
		MO	GER/OH
Servant	9	CANADA	GER
Laborer	11	GER	GER
Painter	9	GER	GER
At Home		MO	GER/OH
		MO	GER/OH
Wagon Maker	7	GER	GER
Keeping House		GER	GER
Wagon Mechanic	7	GER	GER
		IL	GER
		IL	GER
Painter	9	GER	GER
Keeping House		IRE	IRE
Notion Dealer	5	IRE	IRE
		MO	IRE
At School		MO	IRE
		MO	IRE
		MO	IRE
		IA	GER
		IA	GER
Keeping House		GER	GER
Seamstress	9	IA	GER
Cabinet Maker	7	PA	GER
Seamstress	9	IA	GER

Seamstress	9			IL	GER
Clerking	4			IL	GER
Keeping House				GER	GER
At Home				IL	GER
		\$0.00	\$0.00	IL	N/A
Keeping House		\$0.00	\$0.00	IRE	N/A
		\$0.00	\$0.00	IL	N/A
		\$0.00	\$0.00	IL	N/A
		\$0.00	\$0.00	IL	N/A
		\$0.00	\$0.00	IL	N/A
RR Clerk	5	\$0.00	\$0.00	IRE	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
Keeping House		\$0.00	\$0.00	LA	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
Laborer	11	\$0.00	\$0.00	MO	N/A
Laborer	11	\$0.00	\$0.00	IRE	N/A
At School		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
Keeping House		\$0.00	\$0.00	NJ	N/A
		\$0.00	\$0.00	MO	N/A
Supt in Factory	1	\$0.00	\$200.00	VA	N/A
		\$0.00	\$0.00	CAN	N/A
		\$0.00	\$0.00	NJ	N/A
		\$0.00	\$0.00	MO	N/A

		\$0.00	\$0.00	NJ	N/A
At School		\$0.00	\$0.00	MO	N/A
Keeping House		\$0.00	\$0.00	VT	N/A
School Teacher	2	\$0.00	\$0.00	NY	N/A
Works in Machine Shop	11	\$0.00	\$1,200.00	VT	N/A
School Teacher	2	\$0.00	\$0.00	VT	N/A
At School		\$0.00	\$0.00	MO	N/A
Domestic Servant	9	\$0.00	\$0.00	MI	N/A
School Teacher	2	\$0.00	\$0.00	KY	N/A
At School		\$0.00	\$0.00	KY	N/A
House Servant	11			IA	IRE
				MO	MO
				MO	IRE
House Servant	11			MO	IRE
				MO	KY
House Servant	11			KY	ENG
Servant	9			MN	GER
Check in Dry Goods Store	7			MO	IRE
				MO	IRE
				MO	ENG
Servant	9			IL	IL
				ENG	ENG
				MO	MO
Nurse	9			MO	GER
				MO	IL
				MO	MO
Servant	9			IRE	IRE
Servant	9			IRE	IRE
At Home				StL	GER

At Home		StL	GER
Keeping House		GER	GER
At Home		StL	GER
Chair Maker	2	StL	GER
At School		StL	GER
At School		StL	GER
At School		StL	GER
Chair Maker	1	GER	GER
		KY	IRE
		MO	MO
		KY	IRE
Matron (Woman's Aid)	6	NY	NY
Servant/Solicitor	9	MO	IRE
		MO	MO
Keeping House		CAN	IRE
Sewing Girl	9	MO	IRE/CAN
At School		MO	IRE/CAN
At School		MO	IRE/CAN
Teamster	9	IRE	IRE
At School		MO	IRE/CAN
Tobacco Factory	9	MO	IRE/CAN
		MO	IRE/CAN
At Home		IL	CANADA/PA
Works in Machine Shop	11	US	US
Works in Machine Shop	11	NJ	NJ
At School		MS	IN/SC
Teacher	2	IL	IRE
Iron Moulder	7	NY	NY
At School		MS	IN/SC

Prop Board House	1	IN	MA/VA
Works in Machine Shop	11	US	US
Laborer	11	PA	PA
Blacksmith	7	GER	GER
Blacksmith	7	PA	PA
At Home		MA	MA
Keeps House		StL	US
Chainmaker	7	NJ	GER
Grocery Clerk	5	StL	US
At Home		StL	US
At School		StL	ENG
Keeps House		ENG	ENG
At Home		StL	ENG
At School		IL	ENG
Pattern Maker	9	ENG	ENG
At Home		StL	ENG
At School		ENG	ENG
At Home		ENG	ENG
At School		IL	ENG
At Home		IN	IN/PA
Sattler	7	IN	IN/PA
At Home		IN	IN/PA
Sattler	7	IN	IN
Keeping House		PA	PA
At School		IL	ENG/IRE
At School		StL	ENG/IRE
At Home		StL	ENG/IRE
Caning Chairs	9	IL	ENG/IRE
Works in Machine Shop	11	ENG	ENG

At Home		StL	ENG/IRE
At School		StL	ENG/IRE
At Home		StL	ENG/IRE
Millenery	7	IL	ENG/IRE
Keeping House		IRE	IRE
Boxmaker	9	StL	ENG/KY
Cigar Maker	9	MI	GER
Keeping House		MI	GER
Collar Maker	9	GER	GER
At School		StL	GER/IRE
Boxmaker	9	GER	GER
At Home		StL	GER/IRE
Works Shoe Store	9	StL	GER/IRE
Keeping House		IRE	IRE
Keeping House		StL	GER
Notion Salesman	4	StL	SWIT/ENG
At Home		StL	StL
Lumberman	9	GER	GER
Keeping House		GER	GER
At Home		StL	GER
At Home		StL	GER
At School		StL	GER
Keeping House		GER	GER
Paper Carrier	9	GER	GER
Grain Speculator	4	CANADA	CANADA
Keeping House		IL	LA/KY
At Home		StL	ENG/CANADA
Keeping House		CANADA	IRE
At Home		StL	ENG/CANADA

Teamster	9	ENG	IRE
At Home		StL	ENG/CANADA
Stone Mason	7	IN	GER
		MO	IN/MO
		MO	IN/MO
		MO	IN/GER
		MO	IN/MO
		MO	IRE
Day Labor	11	IL	IRE
Button Hole Maker	9	MO	MO/IL
Seamstress	9	IL	GER
		OH	IRE/OH
		MO	MO/OH
Day Labor	11	MO	IRE
		MO	MO/OH
Day Labor	11	MO	NY/OH
		IA	NY/OH
Teamster	9	NY	SCOT/NY
		MO	MO/IA
Cooper	7	MO	IRE
At School		MO	MO/IA
Appr to Tinner	8	MO	MO/IA
Cooper	7	MO	FRA/GER
		IA	NY/OH
At School		MO	MO/IA
		MO	MO/IA
		MO	KS/MO
		MO	IRE
		MO	KS/MO

Type Setter	7			KS	ENG/KS
				GER	GER
At School				MO	GER
Asst Cashier	6			IL	GER
Servant	9			MO	GER
Painter	9	\$0.00	\$1,000.00	MO	N/A
Keeping House		\$0.00	\$0.00	MO	N/A
Keeping House		\$0.00	\$0.00	MO	N/A
Cashier "Express Office"	5	\$0.00	\$5,000.00	IRE	N/A
		\$0.00	\$0.00	MO	N/A
		\$0.00	\$0.00	MO	N/A
Blacksmith	7			IL	IN/VA
Dress Maker	7			ME	ME
Keeping House				VA	VA
Dress Maker	7			DC	MD/MO
Clerk	4			IL	MD/MO

Appendix C. City Directory Data. See Methods chapter for definitions of categories.
Abbreviations: Occup.- Occupation; Home Own- Home Ownership, r.- rents, bds.- boards.

Feature	Decade	Date	Last Name	First Name	Occup.	HIS CLAS SS	Home Own	Address
650-8	1870	1870	Burr	JD	Foreman	6	r	1704N 10th St
650-10	1870	1871	Petring	Casper			r	1708N 10th St
649-79	1870	1871	Seed	Miles	Photog. Artesian Well- Borer	4	r	1714 N 11th St
650-10	1870	1872	Petring	CH		7	r	1708N 10th St
602-24	1870	1872	Parkhurst	Darius			r	1017 Cass Ave
602-18	1870	1872	McCaghay	Francis	Laborer	11	r	1023 Cass Ave
602-18	1870	1872	Kameille	Frederick	Laborer	11	r	1025 Cass Ave
602-18	1870	1872	Kameille	Frederick	Laborer	11	r	1025 Cass Ave
602-24	1870	1872	Fisher	George W	Superint.	1	r	1019 Cass Ave
650-8	1870	1872	Wahlert	Jennie	Teacher	2	r	1704N 10th St
602-18	1870	1872	DuCoin	Louis	Mach.	9	r	1023 Cass Ave
650-8	1870	1872	Wahlert	Morris E	Mssngr	9	r	1704N 10th St
602-18	1870	1872	Sweeny	Rodger	Cashier	5	r	1023 Cass Ave
649-42	1870	1875	Hoper	CW	Tinsmith	7	r	1009 Howard St
649-42	1870	1875	Rodgers	James A	Saloon	1	r	1007 Howard St
602-24	1870	1875	Rankin	Kate			r	1019 Cass Ave
649-28	1870	1875	Hoffmann	Michael Alexander	Mach.	9	r	1721N 10th St
649-79	1870	1876	Seeger	H	Grainer	7	r	1714 Mound Ln
650-8	1870	1876	Hechten	Bower	Clerk Well	5	r	1704N 10th St
650-10	1870	1876	Petring	Casper H	Boring	9	r	1708N 10th St
650-8	1870	1876	Gluecker	Catherine	Widow		r	1704N 10th St
649-79	1870	1876	Apperson	Charles	Harness	7	r	1714 Mound Ln
649-42	1870	1876	Hopper	Charles W Christian	Iron	9	r	1009 Howard St
649-28	1870	1876	Tranel	H	Salesman	5	r	1721N 10th St
649-79	1870	1876	Frazer	Clarence	Inspector	9	bds	1714 Mound Ln
602-24	1870	1876	Roskilly	David	Carp.	7	r	1017 Cass Ave

649-79	1870	1876	Walters	Frederick	Laborer	11	r	1714 N 11th St
650-8	1870	1876	Gluecker	George	Carp.	7	bds	1704N 10th St
650-8	1870	1876	Hechtel	George	Clerk	5	r	1704N 10th St
650-8	1870	1876	Heckel	George	Clerk	5	bds	1704N 10th St
650-10	1870	1876	Petring	Henry C	Bookkpr	4	r	1708N 10th St
649-79	1870	1876	Apperson	James	Saddler	7	r	1714 Mound Ln
602-24	1870	1876	Morgan	John	Carp.	7	r	1017 Cass Ave
602-24	1870	1876	Reed	John	Engineer	2	r	1019 Cass Ave
602-24	1870	1876	Williams	John	Bricklyr	7	r	1017 Cass Ave
649-79	1870	1876	Dorman	Louis	Measurer	7	r	1714 Mound Ln
650-8	1870	1876	Heckel	Margaret	Widow		r	1704N 10th St
649-28	1870	1876	Hoffman	Michael	Mach.	9	bds	1721N 10th St
649-42	1870	1876	Hopper	Nannie	Teacher	2	r	1009 Howard St
649-42	1870	1876	Hester	Newton H	City Man	5	bds	1005 Howard St
602-18	1870	1876	Tasche	Otto	Wagon	1	r	1023 Cass Ave
602-18	1870	1876	Mahaffey	Sarah	Widow		r	1023 Cass Ave
602-24	1870	1876	Walker	William A	Carp.	7	r	1017 Cass Ave
602-24	1870	1876	Reed	William F	Clerk	5	r	1019 Cass Ave
650-10	1870	1877	Johnson	Aleck Alexander	Carp. Wire	7	r	1708N 10th St
650-10	1870	1877	Johnson	J	Worker	9	bds	1708N 10th St
649-79	1870	1877	Apperson	Charles	Blcksmth	7	r	1714 Mound Ln
650-10	1870	1877	Johnson	Charles	Carp.	7		1708N 10th St
649-42	1870	1877	Hopper	Charles H	Foreman	6	r	1009 Howard St
602-24	1870	1877	Gillaspie	Christy G Clarence	Police	4	r	1017 Cass Ave
649-79	1870	1877	Frazier	L	Blcksmth	7	r	1714 Mound Ln
650-8	1870	1877	Hechtel	George	Clerk	5	bds	1704N 10th St
650-10	1870	1877	Allen	James	Trimmer	9	r	1708N 10th St 1714R N 11th St
649-79	1870	1877	Apperson	James	Saddler	7	r	
650-10	1870	1877	Johnson	John	Carp.	7	r	1708N 10th St

649-79	1870	1877	Graham	Mary J	Widow	1	r	1714 Mound Ln
649-42	1870	1877	Hopper	Nannie E	Teacher	2	r	1009 Howard St
649-79	1870	1877	Lother	Robert	Varnish Manu.	1	r	1714 Mound Ln
649-79	1870	1877	Lother	Robert	Varnish Manu.	1	r	1714 Mound Ln
650-10	1870	1877	Johnson	William	Laborer	11	r	1708N 10th St
602-24	1870	1877	Walker	William	Carp.	7	r	1017 Cass Ave
602-24	1870	1877	Reed	William T	Student		r	1019 Cass Ave
602-24	1870	1877	Carter	William W	Brcklyr	7	r	1017 Cass Ave
650-8	1870	1878	Hechtel	Barbara	Saleslady	5	r	1704N 10th St
649-42	1870	1878	Creasy	Bersheba	Widow		r	1007 Howard St
649-42	1870	1878	Hopper	Charles W	Iron	9	r	1009 Howard St
650-8	1870	1878	Cone	Edward R	Clerk	5	r	1704N 10th St
649-79	1870	1878	Walters	Fred	Mach.	9	r	1714 N 11th St
650-8	1870	1878	Hechtel	George	Clerk	5	r	1704N 10th St
649-42	1870	1878	Flickner	John S	Detective	4	r	1007 Howard St
650-8	1870	1878	Hechtel	Margaret	Widow		r	1704N 10th St
649-42	1870	1878	Flickner	Mattie S	Teacher Matron (Worthy Women's Aid) Varnish Manu.	2	r	1007 Howard St
649-42	1870	1878	Harriort	Mrs SS		6	r	1005 Howard St
649-79	1870	1878	Lother	Robert		1	r	1714 N 11th St
649-42	1870	1878	Harriort	Samuel W	Trav.	9	r	1005 Howard St
602-24	1870	1878	Walker	William A	Carp.	7	r	1017 Cass Ave
602-24	1870	1878	Reed	William F	Clerk	5	r	1019 Cass Ave
602-24	1870	1878	Carter	William W Alexander	Brcklyr	7	r	1017 Cass Ave
649-79	1870	1879	Seeger	H	Grainer	7	r	1714 Mound Ln
602-18	1880	1880	Sherb	Adam	Laborer	11	bds	1023 Cass Ave
602-18	1880	1880	Sherb	Adam	Laborer	11	bds	1023 Cass Ave
602-18	1880	1880	Kimminn	August	Clerk	5	r	1025 Cass Ave
602-18	1880	1880	Kinminn	August	Clerk	5	r	1025 Cass Ave

650-8	1880	1880	Kluecker	Catherine	Widow		r	1704N 10th St
650-8	1880	1880	Kluecker	Catherine Clarence	Widow		r	1704N 10th St
649-79	1880	1880	Frazer	L	Blcksmth	7	r	1714 Mound Ln
602-18	1880	1880	Kimminn	Deidrich			r	1025 Cass Ave
602-18	1880	1880	Kimminn	Deidrich			r	1025 Cass Ave
602-18	1880	1880	Kimminn	Edward	Carp.	7	r	1025 Cass Ave
602-18	1880	1880	Kimminn	Edward	Carp.	7	r	1025 Cass Ave
602-18	1880	1880	Steffens	Frederick	Porter	11	r	1025 Cass Ave
602-18	1880	1880	Steffens	Frederick	Porter	11	r	1025 Cass Ave
649-79	1880	1880	Walter	Frederick	Mach.	9	r	1714 Mound Ln
649-79	1880	1880	Walter	Frederick	Mach.	9	r	1714 Mound Ln
650-8	1880	1880	Hechtel	George	Clerk Cabinet	5	r	1704N 10th St
650-8	1880	1880	Kluecker	George	mkr	7	r	1704N 10th St
602-24	1880	1880	Reed	George W	Clerk Cabinet	5	r	1019 Cass Ave
650-8	1880	1880	Kluecker	George	mkr	7	r	1704N 10th St
649-79	1880	1880	Graham	Harriet B			r	1714 Mound Ln
602-18	1880	1880	Meilink	John	Turner	9	r	1023 Cass Ave
602-18	1880	1880	Meilink	John	Turner	9	r	1023 Cass Ave
602-18	1880	1880	Mendling	John	Turner	9	bds	1023 Cass Ave
602-18	1880	1880	Mendling	John	Turner	9	bds	1023 Cass Ave
602-24	1880	1880	Reed	John	Engineer	2	r	1019 Cass Ave
602-24	1880	1880	Reed	John	Engineer	2	r	1019 Cass Ave
649-42	1880	1880	Flickner	John S	Detective	4	r	1007 Howard St
650-8	1880	1880	Hechtel	Margaret	Widow		r	1704N 10th St
649-79	1880	1880	Graham	Mary J	Widow	1	r	1714 Mound Ln 1023R Cass Ave
602-18	1880	1880	Haley	Peter	Laborer	11	r	
650-10	1880	1880	Schattgen	Peter	Laborer	11	r	1708N 10th St
650-10	1880	1880	Schattgen	Peter	Laborer	11	r	1708N 10th St
650-10	1880	1880	Schattgen	Peter JR	Painter	9	r	1708N 10th St

650-10	1880	1880	Schattgen	Peter JR	Painter	9	r	1708N 10th St
602-18	1880	1880	Steffens	Stephen	Driver	9	r	1025 Cass Ave
602-18	1880	1880	Steffens	Stephen	Driver	9	r	1025 Cass Ave
649-42	1880	1880	Wood	Susan H	Widow		r	1009 Howard St
602-18	1880	1880	McCarthy	Timothy	Carp.	7	r	1023 Cass Ave
602-18	1880	1880	McCarthy	Timothy	Carp.	7	r	1023 Cass Ave
602-18	1880	1880	Beuter	William	Cook	7	r	1023 Cass Ave
602-24	1880	1880	Reed	William	Clerk	5	r	1019 Cass Ave
602-24	1880	1880	Reed	William	Clerk	5	r	1019 Cass Ave
602-18	1880	1880	Reuter	William	Cook	7	r	1023 Cass Ave
602-18	1880	1881	Kammann	August	Clerk	5	r	1025R Cass Ave
602-18	1880	1881	Grevels	Benno	Tinsmith	7	r	1025R Cass Ave
649-42	1880	1881	King	Bertha	Widow	1	r	1009 Howard St
650-8	1880	1881	Krecker	Catherine	Widow		r	1704N 10th St
650-10	1880	1881	Casper	Charles	Painter Chain mkr	9	bds	1708N 10th St
649-42	1880	1881	Hein	Charles	Chain mkr	7	bds	1009 Howard St
602-18	1880	1881	Kammann	Deidrich	Laborer Cabinet mkr	11	r	1025R Cass Ave
602-18	1880	1881	Kammann	Edward	Chain mkr	7	r	1025R Cass Ave
649-42	1880	1881	Wild	Frank	Chain mkr	7	bds	1009 Howard St
602-18	1880	1881	Steavens	Frederick	Porter	11	r	1025R Cass Ave
650-8	1880	1881	Hechtel	George	Cashier	5	r	1704N 10th St
650-8	1880	1881	Krecker	George	Carp.	7	r	1704N 10th St
602-24	1880	1881	Reed	George	Mach.	9	r	1019 Cass Ave
649-42	1880	1881	McDevitt	John	Mach.	9	r	1007 Howard St
602-24	1880	1881	Reed	John	Engineer	2	r	1019 Cass Ave
602-18	1880	1881	McLaughlin	Marion	Mach.	9	r	1023R Cass Ave
649-79	1880	1881	Bailey	Oliver	Clerk Chain mkr	5	r	1714 N 11th St
649-42	1880	1881	Rheinfield	Peter	Chain mkr	7	r	1007 Howard St
650-10	1880	1881	Schattgen	Peter	Laborer	11	r	1708N 10th St

650-10	1880	1881	Schattgen	Peter JR	Painter	9	r	1708N 10th St
602-18	1880	1881	Grevels	Robert	Collar	9	r	1025R Cass Ave
602-18	1880	1881	Steavens	Stephen	Driver	9	r	1025R Cass Ave
602-18	1880	1881	McDermott	Thomas	Driver	9	r	1023R Cass Ave
649-42	1880	1882	Halter	August	Music	2	r	1005 Howard St
602-18	1880	1882	Kammann	August	Clerk	5	r	1025 Cass Ave
602-18	1880	1882	Grevels	Benjamin	Tinsmith	7	r	1025 Cass Ave
649-42	1880	1882	King	Bertha	Boarding			1009 Howard St
649-42	1880	1882	John	CC	Teamster	9	r	1005 Howard St
650-10	1880	1882	McCamley	Catherine	Widow		r	1706N 10th St
649-42	1880	1882	Allen	Charles	Teamster	9	r	1007 Howard St
649-79	1880	1882	Apperson	Charles	Saddler	7	r	1714 Mound Ln
602-24	1880	1882	Brandenburg	Charles	Molder	9	r	1017 Cass Ave
602-18	1880	1882	Kammann	Deidrich			r	1025 Cass Ave
602-18	1880	1882	Kammann	Edward	Furnance	9	r	1025 Cass Ave
650-10	1880	1882	Tobin	Emmet	Porter	11	r	1708N 10th St
602-24	1880	1882	Brandenburg	Ferdinand	Mach.	9	r	1017 Cass Ave
649-42	1880	1882	Henke	Frances	Boarding Chain			1005 Howard St
649-42	1880	1882	Wild	Frank	mkr Carriage	7	r	1005 Howard St
650-8	1880	1882	Thomas	Frank A	mkr	7	r	1704N 10th St
649-42	1880	1882	Flint	Frederick	Teamster	9	r	1009 Howard St
649-42	1880	1882	Fohman	Frederick	Clerk	5	r	1005 Howard St
649-42	1880	1882	Shale	Frederick	Teamster	9	r	1009 Howard St
602-18	1880	1882	Steffens	Frederick	Porter	11	r	1025 Cass Ave
649-79	1880	1882	Walters	Frederick	Mach.	9	r	1714 Mound Ln
649-42	1880	1882	Henke	Henry	Blcksmth		r	1005 Howard St
649-42	1880	1882	Henke	Henry JR	Blcksmth		r	1005 Howard St
602-24	1880	1882	Schlatter	Jacob	Mach.	9	r	1017 Cass Ave
649-79	1880	1882	Apperson	James	Saddler	7	r	1714 Mound Ln

649-79	1880	1882	Cullen	James	Teamster	9	r	1714 Mound Ln
649-42	1880	1882	Watt	James A S	Driver	9	r	1005 Howard St
650-10	1880	1882	Hogan	James H	Clerk	5	bds	1708N 10th St
649-42	1880	1882	Robb	James W	Box Chain mkr		r	1007 Howard St
649-42	1880	1882	Anderson	John		7	r	1007 Howard St
649-42	1880	1882	Gmeinder	John	Mach.	9	r	1005 Howard St
649-42	1880	1882	Haynann	John	Laborer	11	r	1009 Howard St
602-18	1880	1882	Mueller	John	Laborer	11	r	1023 Cass Ave
602-24	1880	1882	Reed	John	Engineer	2	r	1019 Cass Ave
650-10	1880	1882	Tobin	John	Police	4	r	1708N 10th St
649-42	1880	1882	Kelley	Joseph	Wagon	7	r	1005 Howard St
649-79	1880	1882	Graham Brandenburg	Mary J	Widow	1	r	1714 Mound Ln
602-24	1880	1882	g Brandenburg	Max	Molder	9	r	1017 Cass Ave
602-24	1880	1882	g	Otto	Molder	9	r	1017 Cass Ave 1023R Cass Ave
602-18	1880	1882	Healy	Peter	Laborer	11	r	
602-18	1880	1882	Grevels	Robert	Collar	9	r	1025 Cass Ave
649-42	1880	1882	McIntrye	Viola E	Widow		r	1007 Howard St
649-42	1880	1882	Bealer	William	Box		r	1007 Howard St
649-42	1880	1882	Beehler Brandenburg	William	Box		r	1007 Howard St
602-24	1880	1882	g	William	Baker	7	r	1017 Cass Ave
602-18	1880	1882	Scobie	William	Teamster	9	r	1025 Cass Ave
649-42	1880	1882	Behler	William F	Box		r	1007 Howard St
649-42	1880	1882	Garner	Yound D			r	1007 Howard St
649-42	1880	1883	Goldman	Albert	Carp.	7	bds	1009 Howard St
602-18	1880	1883	Gammann	August	Clerk	5	bds	1025 Cass Ave
602-24	1880	1883	Ziegler	Bernhard	Blcksmth	7	r	1017 Cass Ave
649-42	1880	1883	King	Bertha	Widow	1	r	1009 Howard St
649-79	1880	1883	Apperson	Charles	Saddler Chain mkr	7	r	1714 N 11th St
602-24	1880	1883	Heine	Charles		7	bds	1017 Cass Ave

649-42	1880	1883	Goessling	Charles JR	Salesman	5	r	1005 Howard St
602-18	1880	1883	Gammann	Deiderick	Laborer	11	r	1025 Cass Ave
649-79	1880	1883	Apperson	Edward	Saddler	7	r	1714 Mound Ln
602-18	1880	1883	Gammann	Edward	Cabinet mkr	7	bds	1025 Cass Ave
649-42	1880	1883	King	Edward	Com. Mer.	7	bds	1009 Howard St
650-10	1880	1883	Heuer	Elizabeth	Widow		r	1706N 10th St
649-42	1880	1883	Horn	Frederick	Mach.	9	bds	1009 Howard St
649-42	1880	1883	Ring	Frederick	Teamster	9	bds	1009 Howard St
649-42	1880	1883	Fague	George E	Carp.	7	r	1005 Howard St
650-8	1880	1883	Dorrance	Henry	Iron Cabinet	9	r	1704N 10th St
602-24	1880	1883	Haas	Henry	mkr	7	bds	1017 Cass Ave
602-18	1880	1883	Klitzke	Herman	Finisher	9	r	1025 Cass Ave
649-42	1880	1883	Alexander	James	Saddler	7	r	1007 Howard St
649-79	1880	1883	Apperson	James	Saddler	7	bds	1714 N 11th St
649-79	1880	1883	Cullen	James	Teamster	9	r	1714R N 11th St
650-10	1880	1883	Tobin	James A	Molder	9	bds	1708N 10th St
650-10	1880	1883	Tobin	John	Wtchmn.	5	r	1708N 10th St
650-10	1880	1883	Tobin	John F	Undrtrkr	4	bds	1708N 10th St
650-8	1880	1883	Blaetterman	Louis	Bookkpr	4	r	1704N 10th St
650-10	1880	1883	Tobin	Mary	Drssmkr	7		1708N 10th St
650-10	1880	1883	Tobin	Robert E	Packer	11	r	1708N 10th St
649-28	1880	1883	Hoffman	Sebastian	Co. Pres.	1	r	1721N 10th St
649-42	1880	1883	Alexander	Thomas J	Harness	7	r	1007 Howard St
650-10	1880	1883	Heuer	William	Baker	7	bds	1706N 10th St
602-24	1880	1885	Andressen	Anton	Blcksmth	7	bds	1017 Cass Ave
602-24	1880	1885	Botteholf	August	Musician	2	r	1017 Cass Ave
650-8	1880	1885	Kalb	Charles J	Carp.	7	bds	1704N 10th St
602-24	1880	1885	Strossberger	Clemens	Musician	2	bds	1017 Cass Ave
602-18	1880	1885	Kemmen	Deidrich			r	1025 Cass Ave

602-18	1880	1885	Kemmen	Edward	Cabinet mkr	7	r	1025 Cass Ave
602-24	1880	1885	Schaaf	Edward	Grinder Wood Worker	9	bds	1017 Cass Ave
650-10	1880	1885	Cooper	George		9	bds	1708N 10th St
602-24	1880	1885	Silver	George	Engineer Wire Worker	2	bds	1017 Cass Ave
602-24	1880	1885	Hayes	Harry		9	bds	1019 Cass Ave
602-24	1880	1885	Ebbert	Henry	Blcksmth	7	bds	1017 Cass Ave
649-79	1880	1885	Apperson	James	Harness	7	r	1714 Mound Ln
650-10	1880	1885	Tobin	James A	Foundry	7	bds	1708N 10th St
602-18	1880	1885	Hill	James M	Dentist	2		1023 Cass Ave
649-79	1880	1885	Walters	Jesse	Clerk	5	r	1714 N 11th St
650-10	1880	1885	Tobin	John	Wtchmn	5	r	1708N 10th St
602-24	1880	1885	Lindler	Joseph	Fireman	7	r	1017 Cass Ave
602-18	1880	1885	Lasche	Josephine	Widow Travling Saleman		r	1025 Cass Ave
602-24	1880	1885	Zinsheimer	Louis Montgom ery W		9	r	1019 Cass Ave
650-8	1880	1885	Kalb		Carp.	7	r	1704N 10th St
602-24	1880	1885	Brown	Nolan S	Planing	9	bds	1019 Cass Ave
649-79	1880	1885	Bailey	Oliver	Inspector	9	r	1714 N 11th St
650-10	1880	1885	Tobin	Robert E	Undrtrkr	4	bds	1708N 10th St
650-10	1880	1885	Anderson Strossberge r	Robert JR Wilhelmin a	Rivrman Widow	10	bds	1706N 10th St
602-24	1880	1885					r	1017 Cass Ave
602-24	1880	1887	Schroeder	Adolph	Books	4	r	1019 Cass Ave
602-24	1880	1887	Strehl	August G	Clerk	5	r	1019 Cass Ave
650-8	1880	1887	Lunday	Charles H Clarence	Foreman	6	r	1704N 10th St
649-79	1880	1887	Frazier	L	Blcksmth	7	r	1714 Mound Ln
650-8	1880	1887	Sullivan Schumache r	Frank J	Inspector	9		1704N 10th St
602-24	1880	1887		George	Canvasser	11	r	1019 Cass Ave
602-24	1880	1887	Strehle	George	Agent	4	r	1019 Cass Ave
650-10	1880	1887	McMinn	George D	Clerk	5	r	1706N 10th St
650-8	1880	1887	Lunday	Harry E	Trainer	4	bds	1704N 10th St

649-79	1880	1887	Cullen	Hugh	Packer	11	bds	1714 Mound Ln
649-79	1880	1887	Cullen	James	Driver	9	r	1714 Mound Ln
649-79	1880	1887	Cullen	James JR	Packer	11	bds	1714 Mound Ln
650-10	1880	1887	McMinn	John C	Clerk	5	r	1706N 10th St
649-28	1880	1887	Hoffman	Joseph	Teamster	9	bds	1721N 10th St 1023R Cass Ave
602-18	1880	1887	Smith	Mary A	Widow		r	
649-79	1880	1887	Graham	Mary J	Widow	1	r	1714 Mound Ln
649-79	1880	1887	Bailey	Oliver	Clerk	5	bds	1714 Mound Ln
602-24	1880	1887	Sheridan	Peter	Student		r	1017 Cass Ave
602-24	1880	1887	Sheridan	Rose	Widow		r	1017 Cass Ave
602-24	1880	1887	Frenzel	Rudolph	Canvasser	11	r	1019 Cass Ave
649-79	1880	1889	Cullen	Ann	Widow		r	1714 Mound Ln
602-18	1880	1889	Rosenthal	Benjamin	Bottles	9	r	1025 Cass Ave
602-24	1880	1889	Rohrkasse	Frederick	Laborer	11	r	1017 Cass Ave
649-79	1880	1889	Walters	Frederick	Mach.	9	r	1714 Mound Ln
649-79	1880	1889	Walters	Frederick JR	Mach.	9	r	1714 Mound Ln
602-18	1880	1889	Hill	James A	Dentist	2		1023 Cass Ave
602-24	1880	1889	Lloyd	James W	Clerk	5	r	1019 Cass Ave
602-24	1880	1889	Fowler	John W	Clerk	5	bds	1019 Cass Ave
649-79	1880	1889	Poor	Joseph W	Sawyer Chain mkr	9	r	1714 Mound Ln
602-24	1880	1889	Rohrkasse	Louis		7	r	1017 Cass Ave
602-24	1880	1889	Levy	Mary	Widow		r	1019 Cass Ave
649-79	1880	1889	Graham	Mary J	Widow	1	r	1714 Mound Ln
650-10	1880	1889	Burke	Michael	Carrier	9	r	1708N 10th St
602-18	1880	1889	Marks	Morris	Clerk	5	bds	1025 Cass Ave
649-79	1880	1889	Bailey	Oliver	Salesman	5	r	1714 Mound Ln
602-18	1880	1889	Hill	Owen A	Salesman	5	r	1023 Cass Ave
649-28	1880	1889	Hoffman	Sebastian Theodore	Co. Pres.	1	r	1721N 10th St
650-8	1880	1889	Eikenhorst	C	Shoemkr	7	r	1704N 10th St

650-10	1880	1889	Burke	Thomas Andrew	Carrier Post Office	9	r	1708N 10th St
650-10	1890	1891	White	W	Shoemkr	7	r	1706N 10th St
650-8	1890	1891	Klock	Clara	Smstress	9	r	1704N 10th St
650-8	1890	1891	Klock	Frank	Wagon	1	r	1704N 10th St
649-79	1890	1891	Vilbert	Frederick	Cooper	7	r	1714 N 11th St
602-18	1890	1891	Breiding	George	Shoemkr	7	r	1023 Cass Ave
602-18	1890	1891	Breiding	George JR	Wrapper	9	r	1023 Cass Ave
602-18	1890	1891	Breiding	Henry	Clerk	5	r	1023 Cass Ave
602-18	1890	1891	Grace	Henry	Waiter	9	r	1025 Cass Ave
650-8	1890	1891	Klock	Henry	Wagon	1	r	1704N 10th St
650-10	1890	1891	Zork	Henry	Teamster	9	r	1708N 10th St
649-79	1890	1891	Vilbert	Henry J	Cooper	7	r	1714 N 11th St
650-10	1890	1891	White	James F	Shoemkr	7	r	1706N 10th St
650-8	1890	1891	Klock	John	Molder	9	r	1704N 10th St
602-24	1890	1891	White	John A	Driver	9	r	1017 Cass Ave
602-24	1890	1891	White	John H	Saddler	7	r	1017 Cass Ave
650-8	1890	1891	Klock	Joseph	Elevator	7	r	1704N 10th St
650-10	1890	1891	Zork	Matilda	Clerk	5	r	1708N 10th St
649-79	1890	1891	Krug	Michael	Molder	9	r	1714 N 11th St
649-79	1890	1891	Henderosn	Robert B	Laborer	11	r	1714 N 11th St
602-18	1890	1891	Fismer	Samuel	Laborer	11	r	1023 Cass Ave
649-79	1890	1891	King	Sumner F	Shoemkr	7	r	1714 N 11th St
650-8	1890	1891	Klock	Tilly	Drssmkr	7	r	1704N 10th St
649-79	1890	1893	Pfohl	Anton Benjamin	Laborer	11	r	1712 Mound Ln
650-10	1890	1893	Guitteau	F	Carp.	7	r	1706N 10th St
649-79	1890	1893	Vincent	Charles B	Teamster	9	r	1712 Mound Ln
649-79	1890	1893	Wolf	Christoph er	Cooper	7	r	1712 Mound Ln
650-8	1890	1893	Klock	Frank	Wagon	1	r	1704N 10th St
649-79	1890	1893	Steffen	Frederick	Laborer	11	r	1712 Mound Ln

650-8	1890	1893	Greves	George	Boilmkr	7	r	1704N 10th St
650-10	1890	1893	Guitteau	George C	Theatre	4	r	1706N 10th St
650-8	1890	1893	Klock	Henry	Wagon	1	r	1704N 10th St
650-10	1890	1893	Zork	Henry	Teamster Mill wright	9	r	1708N 10th St
602-18	1890	1893	Lefler	Ira		7	r	1023 Cass Ave
649-79	1890	1893	Tayon	Jackson	Laborer	11	r	1714 Mound Ln
650-8	1890	1893	Klock	John	Molder	9	r	1704N 10th St
602-18	1890	1893	Moran	John	Molder	9	bds	1023 Cass Ave
650-8	1890	1893	Klock	Joseph W	Clerk	5	r	1704N 10th St
602-18	1890	1893	Hess	Martha	Widow		r	1025 Cass Ave
650-8	1890	1893	DeCoursey	Mary A			r	1704N 10th St
602-18	1890	1893	Alt	Minnie			r	1023R Cass Ave
650-10	1890	1893	Guitteau	Robert E	Huckster	11	r	1706N 10th St
649-79	1890	1893	Vincent	Theodore	Awining	7	r	1712 Mound Ln
650-8	1890	1893	Klock	Tillie	Drssmkr	7	r	1704N 10th St
649-79	1890	1895	Miller	Alfred	Wtchmn	5	r	1714 N 11th St
602-18	1890	1895	Nolan	Andrew J	Finisher	9	r	1023 Cass Ave
602-24	1890	1895	Wisniewak i	Anthony	Laborer	11	r	1017 Cass Ave
649-79	1890	1895	Wolf	Christian	Cooper	7	r	1714 N 11th St
649-79	1890	1895	Baker	Elmer	Boxmkr	9	r	1714 N 11th St
650-8	1890	1895	Klock	Frank	Wagon	1	r	1704N 10th St
602-24	1890	1895	Wisniewak i	Frank	Laborer	11	r	1017 Cass Ave
649-79	1890	1895	Vilbert	Frederick	Cooper	7	r	1714 N 11th St
649-79	1890	1895	Jelkyl	George M	Laborer	11	r	1714 N 11th St
650-8	1890	1895	Klock	Henry	Wagon	1	r	1704N 10th St
602-18	1890	1895	Sandt	Henry	Cooper	7	r	1025 Cass Ave
602-18	1890	1895	Albers	Henry J	Clerk	5	r	1023 Cass Ave
649-79	1890	1895	Vilbert	Henry J	Cooper	7	r	1714 N 11th St
650-8	1890	1895	Klock	John	Molder	9	r	1704N 10th St

602-24	1890	1895	Smith	John	Sale Stables	5	r	1019 Cass Ave
602-24	1890	1895	Smith	John JR	Trader	5	r	1019 Cass Ave
602-18	1890	1895	Hall	Joseph	Barber	9	r	1025 Cass Ave
650-8	1890	1895	Klock	Joseph	Clerk	5	r	1704N 10th St
602-24	1890	1895	Wisniewak i	Joseph	Broom maker	9	r	1017 Cass Ave
649-79	1890	1895	Randle	Joseph P	Iron Stock	9	r	1714 N 11th St
602-18	1890	1895	Keimann Wisniewak i	Louis	Broker	4	r	1023 Cass Ave
602-24	1890	1895		Mary	Widow		r	1017 Cass Ave 1023R Cass Ave
602-18	1890	1895	Schults	Michael	Laborer	11	r	
650-8	1890	1895	Smith	Minerva	Widow		r	1704N 10th St
602-24	1890	1895	Hennessey	Patrick	Laborer	11	r	1019 Cass Ave
602-24	1890	1895	O'Hara	Peter T	Clerk	5	r	1017 Cass Ave 1023R Cass Ave
602-18	1890	1895	Wehrhahn	Robert			r	
649-79	1890	1895	Henderosn	Robert B	Wtchmn	5	r	1714 Mound Ln
650-8	1890	1895	Cooper	Samuel	Musician	2	r	1704N 10th St
649-28	1890	1895	Hoffman	Sebastian	Co. Pres.	1	r	1721N 10th St 1023R Cass Ave
602-18	1890	1895	Lukowsky	Thomas	Laborer	11	r	
650-8	1890	1895	Klock	Tillie	Drssmkr	7	r	1704N 10th St 1023R Cass Ave
602-18	1890	1895	Wehrhahn	William	Shoemkr	7	r	
650-8	1890	1897	Klock	Frank	Wagon	1	r	1704N 10th St
650-10	1890	1897	Faupel	George A	Mach.	9	r	1708N 10th St
650-10	1890	1897	Faupel	Henry J Henry J	Sawyer	9	r	1708N 10th St
650-10	1890	1897	Faupel	JR	Mach.	9	r	1708N 10th St
650-8	1890	1897	Klock	John	Stove	9	r	1704N 10th St
650-10	1890	1897	Faupel	Joseph	Mach.	9	r	1708N 10th St
650-8	1890	1897	Klock	Joseph	Clerk	5	r	1704N 10th St
649-79	1890	1899	Greenway	Alfred	Painter	9	r	1714 Mound Ln
650-10	1890	1899	Bengel	Edward	Carp.	7	r	1706N 10th St
649-79	1890	1899	Myers	Edward	Pedler	11	r	1712 Mound Ln

649-79	1890	1899	Clemson	Forest	Pedler	11	r	1712 Mound Ln
602-18	1890	1899	Marach	Frank	Broom maker	9	r	1023R Cass Ave
602-18	1890	1899	Eckstein	George E	Porter	11	r	1023 Cass Ave
602-18	1890	1899	Sandt	Henry	Cooper	7	r	1025 Cass Ave
602-18	1890	1899	Albers	Henry J	Clerk	5	r	1023 Cass Ave
649-79	1890	1899	Vilbert	Henry J	Cooper Music	7	r	1714 Mound Ln
650-10	1890	1899	Faupell	Joseph	Teacher Second Hand	2		1708N 10th St
650-10	1890	1899	Ehrlich	Louis	Dealer	5	r	1706N 10th St
649-79	1890	1899	Henderosn	Robert B			r	1714 Mound Ln
649-79	1890	1899	Jerome	Walter E	Printer	7	r	1714 Mound Ln
602-18	1890	1899	Eckstein	William	Teamster	9	r	1023 Cass Ave
602-24	1890	1899	Potts	William A	Wtchmn	5	r	1017 Cass Ave
602-18	1900	1900	Herrin	Wesley	Cook	7		1023 Cass Ave
602-18	1900	1901	Marach	Augusta	Widow		r	1023R Cass Ave
649-28	1900	1901	Hoffman	Caroline	Widow		r	1721N 10th St
602-24	1900	1901	Potts	Clyde B	Mach.	9	r	1017 Cass Ave
602-18	1900	1901	Eckstein	George E	Driver	9	r	1023 Cass Ave
602-18	1900	1901	Eckstein	John L	Shoemkr	7	r	1023 Cass Ave
602-24	1900	1901	Szychowsk i	Joseph	Shoemkr	7	r	1019 Cass Ave
602-24	1900	1901	Szychowsk i	Martin	Wtchmn	5	r	1019 Cass Ave
602-18	1900	1901	Hake	Otto	Bookkpr	4	r	1023 Cass Ave
602-18	1900	1901	Lucas	Thomas	Laborer	11	r	1023R Cass Ave
602-18	1900	1901	Eckstein	William	Driver	9	r	1023 Cass Ave