Data Recovery Investigations of the Elizabeth Pfeifer Site (23SL2328) and the West Papin Site (23SL2329):

Insights into an Early 20th Century Working Class Neighborhood, City of St. Louis, Missouri

Prepared for:
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ABSTRACT

The Missouri Department of Transportation has proposed plans to replace the bridges at Newstead and Tower Grove Avenues along Interstate 64/40 in the City of St. Louis, Missouri (MoDOT Job No. J6I1248). Previous archaeological investigations revealed that although the residences that once existed along Papin Street were destroyed during the construction of the interstate, yard features associated with these buildings still existed in the back portions of these properties, which was at the edges of the MoDOT right of way. During the present mitigation operations, a total of 40 features were uncovered. Most of these contained materials dating from 1884 to the 1950s. Although sites dating to the early 1900s are routinely disregarded by many archaeologists, especially those involved in cultural resource investigations, this is a crucial period of American history. It was during this time that Victorian ideas were being replaced by those of the Industrial/Consumer Age. Miasma theory of health was replaced by germ theory, which is reflected in the construction of the privies within the mitigation area. Working class families, similar to those living in this area, struggled to survive as their labor often was exploited by company owners. Changes in government regulation and advances of unions improved the lot of these families during the 1920s only to be again devastated by the economic downturn of the Depression and deprivations in order to support the war effort during World War II. Industrialization, however, made a number of products available to consumers at cheaper prices. This along with advertisements increased people's desire to acquire the growing number of consumer goods, which were touted as being able to improve one's health, hygiene, personal appearance, and décor. Many of these products actually did not improve these conditions and some, especially concerning health care, were more harmful than the disease they were supposed to cure. It also was during this time, after the Spanish-American War, that Americans developed a growing sense of national pride and started competing with other countries on a global basis. Learning about this period of history is crucial for allowing us to gain insights into our own behavior today. Data recovery investigations of the remains within the MoDOT mitigation area has provided a start at better understanding this important part of our history. We would like to thank Michael Meinkoth and Michael Meyer of the Missouri Department of Transportation for so readily sharing information with us and allowing us to conduct these investigations.

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INTRODUCTION

The Missouri Department of Transportation (MoDOT) has proposed plans to replace the bridges over Interstate 64 (Highway 40) at Newstead and Tower Grove Avenues within the west-central portion of the City of St. Louis, Missouri (MoDOT Job No. J6I1248) (Figure 1). Specifically, this project area is located in U.S. Surveys 833 and 2973 of Township 45 North, Range 7 East, as depicted on the Clayton 7.5' USGS quadrangle (Figure 2). Situated on a hill top within the rolling uplands, between the River Des Peres to the west and Mill Creek to the east, historically, the area was covered by tall prairie grasses, known to the early French residents as the Cul de Sac Prairie (Peterson 1993:20).

Previous investigations associated with this project identified two historical sites: 23SL2328 (Elizabeth Pfeifer Site) and 23SL2329 (West Papin Site), south of Interstate 64 (Meyer 2012; Meyer, Daniels, and Dawdy 2012). These sites contained remains of residences and businesses that were constructed as early as the 1880s and continued to be utilized until about 1960, when Interstate 64/40 was placed through this area. At this location, the interstate cut through the hills to produce a more even grade; as a result, the remains of the homes have been destroyed. The backyards of these properties, at the edges of the MoDOT right of way, still contained the remains of various yard features. These features represent a time capsule with discrete artifacts reflecting changes in people's personal taste, consumption pattern, values, and the overall culture over time.

For many years, several archaeologists, especially those involved with cultural resource management studies, have dismissed sites dating to the end of the 19th and early 20th centuries as being too recent and not worthy of providing crucial cultural information. However, historical archaeologists have argued more adamantly that these sites, many of them now over 100 years old, do have the potential of providing unique cultural information (Landberg 1967; Lees and Noble 1990; Mrozowski 2008). These sites have provided insights into a variety of issues including ethnicity (Cheek and Friedlander 1990; Fitts 2002; Mullins 2008; McDavid 2011; Matthews 2011), the socioeconomic plight of working class families (Mrozowski, Ziesing, and Beaudry 1996; Beaudry 1989; LeeDecker 1991; Rotman and Clay 2008; Walker 2008; Chicone 2011; Gadsby 2011; Orser 2011; Spencer-Wood and Matthews 2011), and the study of gender issues (Klein 1991; Wall 1991; Mullins et al. 2011; Spencer-Wood 2011).

An archival review conducted by MoDOT (Michael Meyer 2012:personal communication) and the Archaeological Research Center of St. Louis (ARC) revealed that the homes and businesses within this area were rented or purchased by working class families. Many of the heads of households held low paying jobs employed as general laborers at local factories, construction workers, teamsters/drivers, porters, watchmen, an engineer, telephone operators, laundresses, dress makers, and a teacher. Among the more successful residents were several business owners who operated local stores and butcher/meat processing shops.

Figure 1: Location of the Mitigation Tract Within the City of St. Louis, Missouri (DeLorme 1999)

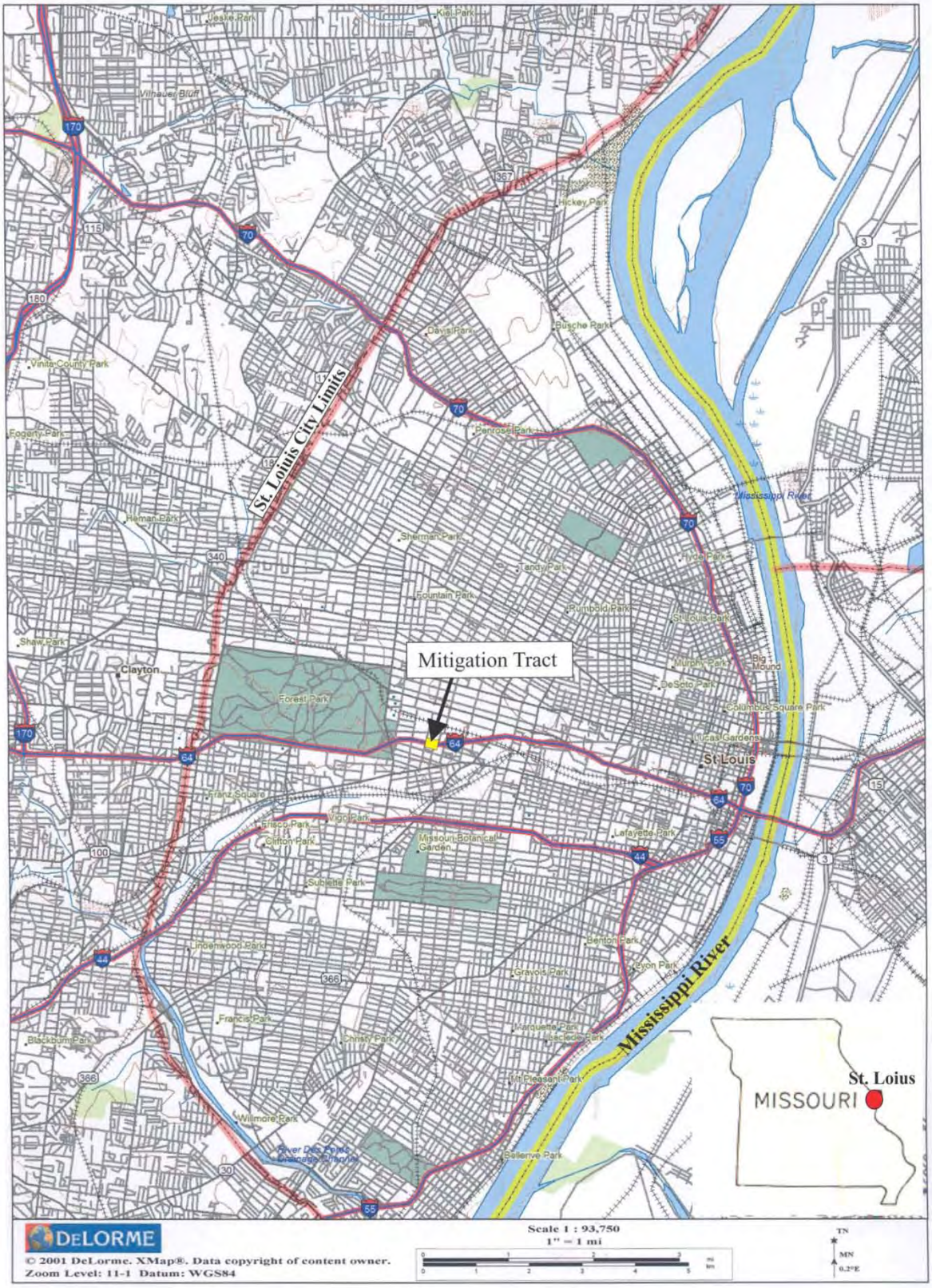
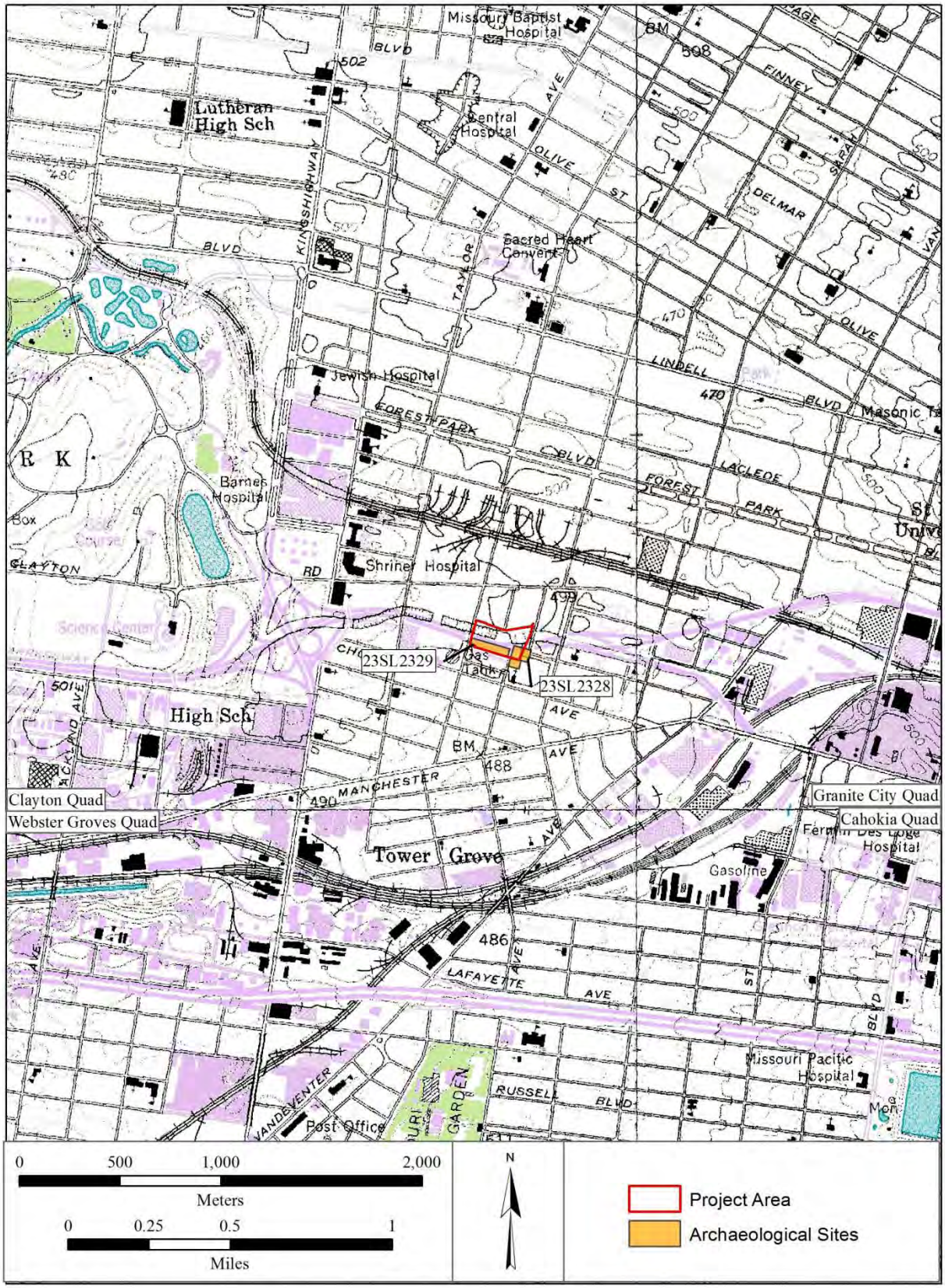


Figure 2: Mitigation Area and Archaeological Sites 23SL2328 and 23SL2329 (Clayton, Webster Groves, Granite City, and Cahokia USGS 7.5' Topographic Quadrangles)



Mitigation of sites 23SL2328 and 23SL2329 provided information on the plight of working class families in St. Louis at the start of the 20th century. Several of these homeowners also represented immigrants from western Europe (Germany and Sweden) and from the British Isles (England, Scotland, and Ireland). However by the 1920s, families from eastern Europe (Italy and Serbia) acquired some of the homes. Thus, these sites also provided the opportunity for understanding how rapidly these immigrant families were acculturated into American society or maintained aspects of their birth culture.

Further, the time that these sites were utilized represented the beginnings of the Consumer/Industrial Age. Understanding the social and cultural developments of this period will provide valuable insights into this crucial historic time as well a better understanding of our own lives today. With little work having been conducted on sites of this age, there is a wide range of potential research questions that could be addressed concerning dining activities, consumption of beverages, health care, personal hygiene, aesthetic and social values reflected by the personal objects and home décor. These would be indicated by the artifacts left in the privies, water closets, and other yard features. While artifacts associated with building remains and general yard debris also may provide this information, these materials tend to be more mixed reflecting the total use of these properties from 1880s to the 1950s instead of discrete periods of times as reflected in the smaller yard features. As a result, the excavations were concentrated on the yard features. However, building remains were mapped and photographed when discovered, and a sample of the yard debris was collected. The excavations produced a number of artifacts reflecting the lives of working and middle class families living in St. Louis at the turn of the 20th century.

CULTURAL BACKGROUND

PREHISTORIC ERA

The mitigation area has a potentially long cultural history. The earliest settlers came to this region during the Prehistoric Era near the end of the Pleistocene glacial age. At that time, the rolling hills within this portion of the uplands supported lush grasslands, which would have attracted large mega fauna herbivores. Supporting the intensive use of this area by these species, a virtual "mastodon graveyard" was exposed, about one mile to the south, approximately 40 feet beneath the surface, during the construction of sewer lines within Rock Spring valley, near the confluence with the River Des Peres (St. Louis Post-Dispatch 1903; Andrew Weil, Director of Landmarks Association 2012: personal communication). As shown by similar mass mega faunal remains near Kimswick (Graham 1980; Graham et al. 1981), these creatures were hunted by the first humans in this area. Although many of their hunting and camp sites were located near waterways, archaeological remains have been recovered within the uplands during the early periods of the Prehistoric Era (Paleoindian, Dalton, and Early Archaic Periods). While Paleoindian (10,000-8600 B.C.) people used a nomadic lifestyle moving across large areas, by the Dalton Period (8600-7900), they began to settle into more confined territories using a seasonal round, moving from place to place within the territory according to where the most resources were available to be exploited and then returning to their original camp site the following year to begin the round again (Koldehoff and Walthall 2004, 2009). This pattern was continued during the following Early Archaic Period (7900-6500 B.C.).

By the Middle Archaic Period (6500-3500 B.C.), the Hypsithermal climatic episode resulted in the climate being warmer and drier than today, with the maximum expansion of the prairies in the uplands and broader portions along the waterways. Although prairies are not devoid of resources (Reid 1977; Risser et al. 1981; Sampson 1921), the forested valleys of the major waterways afforded a greater diversity and number of resources (Asch, Ford, and Asch 1972; Warren 1982; Brown and Vierra 1983; Jeffries and Lynch 1983; Lewis 1983). Bottomland locations not only supported a diversity of wetland resources that could be exploited, but also represented marginal zones between the forest, prairie, and riverine environments, providing a variety of resources easily accessible to inhabitants. One of the results of the drier climate was that the water table dropped, exposing terraces along the rivers and their major tributaries. These terraces were high enough that they were rarely inundated and could be used for habitation. Shallower streams allowed increasing numbers of mussel and fish as well as making these resources easier to collect. Dropping water also would have exposed new lands that would have been conducive to the growth of first line plant species, such as lambsquarter and knotweed, which had a starchy seed similar to corn. As a result, most habitations were placed in the bottomlands, with the interior uplands, like the current project area, used less often.

After the Middle Archaic Period (3500 B.C.), the climate had become wetter, but groups continued to reside near waterways. The upland grasslands were used for only short durations, even after the adaptation of farming about 1500 years ago. During the Mississippian Period (A.D. 900-1400), although most communities still existed near larger drainages, some farming villages and isolated farmsteads were placed within the uplands, but these were typically in areas with fertile soils. It is likely that the project area, continued to be used for short durations. Overall, there only appears to be a slight chance that evidence of a prehistoric occupation would be present with the mitigation area and no prehistoric remains were uncovered.

HISTORICAL ERA

French Colonial Use

When the French settlers came to the St. Louis area during the 18th century, it was not occupied by any indigenous groups. Since the end of the Mississippian Period (A.D. 1400), the St. Louis region and most of eastern Missouri appears to have been mysteriously abandoned and was utilized for only short durations by groups living outside this region, such as the various Illini tribes from the east; Osage from the west; Fox, Sac, and Kickapoo from the north; and even the Ioway and Sioux from far to the northwest. These groups would hunt, gather, and mine the rich resources of this region, and then return to their permanent villages outside of this area. Although a few attempted to live here, such as the Kickapoo near the Portage Des Sioux, and the Cahokia and Peoria near the mouth of the River Des Peres, these groups were soon forced out by other tribes who believed that the local resources were open for all to use. Due to this void, French Colonial settlers had little trouble moving into this region, which was known to them as the Illinois Country (Ekberg 1998; Balesi 2000).

Although the majority of these new settlers were of French Colonial heritage, by the time that St. Louis was established by Pierre Laclede and August Chouteau in 1764, the region was actually under Spanish rule. France had lost large portions of its American colonies, including lands in Canada and east of the Mississippi River, to the British after their defeat during the French and Indian War. A large debt was incurred as a part of this war; as a consequence, the French regime ceded its remaining North American lands to their ally Spain as part of the secret treaty of Fontainebleau in 1762. No attempt was made by Spain to populate the newly acquired territory, because it was viewed as a buffer between the British, who now occupied Canada and the eastern U.S., and Spain's lucrative colonies to the south within the southwestern U.S. and Mexico. They organized this new colony by dividing it into two parts, Upper Louisiana and Lower Louisiana. New Orleans served as the seat of overall government and head of the Lower Louisiana, while St. Louis served as the administrative head of the Upper region. Lands just west of the Mississippi River near St. Louis attracted many French Colonial settlers who were escaping British rule. Captain Thomas Stirling, the British officer who took control of Fort des Chartres just east of the Mississippi River, complained about the movement of French Colonial settlers across the Mississippi River. The exodus depopulated towns and some settlers even dismantled their homes and ferried them across the river (Foley 1989:29; Finiels 1989:81). The flight continued after the acquisition of the lands east of the Mississippi River by the newly established United States government during the 1780s. Now Americans joined the French Colonial settlers in this exodus. The Americans were escaping from what they perceived as an increasingly intrusive U.S. government. In addition, the Spanish promised the settlers free land that was tax free in an effort to populate this buffer zone, even dropping their requirement that newcomers would have to convert to Catholicism. As a result, a number of communities were soon established in this region after St. Louis, including Carondelet (1767), St. Charles (1768), Florissant (1786), Marais Des Lairds (Bridgeton, 1794), Bonhomme (Chesterfield, 1797), and Portage Des Sioux (1799) (Primm 1981).

The French Colonial settlers of the Illinois County utilized a distinct settlement pattern, with homes established in a centralized village that could be more easily defended. Despite being clustered together, the communities were not as compact as American cities, as houses were widely spaced. It was common for visitors to express their surprise at how small the

population of these French Colonial villages actually were, because the dispersed housing pattern made them seem like larger communities (Ekberg 1998). Villages were set up in a grid pattern, with each family owning a quarter block (160 x 160 feet), half block (320 x 160 feet), or a full block. Each house lot was typically surrounded by a palisade, which stood as tall as 6-7 feet and often sharpened on top (Peterson 1993:10). The palisades not only offered privacy and kept out stray animals, but also served as defense in case of attack, with the continuous line of adjacent palisades serving to protect the overall community from Native American raids. In the center of the community was a Catholic Church with an adjacent burial ground, and a *Place d'Armes*, where the local militia would meet and train.

These communities also had a Commons, placed just outside the village, which was shared by everyone as a place to gather wood and graze livestock. St. Louis' Commons were located just to the southwest of the village. Farming took place in the Common Fields. These fields were divided into long contiguous strips that were assigned to individual families, although wealthier families sometimes had more than one strip based on the amount of land that they owned within the community. Each strip crossed various landforms giving everyone equal access. This system was more equable than the British or American land system, where the wealthiest acquired the largest plots of good land, and homes were scattered making them more vulnerable to attack. In the Common Fields, the end of each strip had a fence that was maintained by each family. Combined, this fencing formed a wall around the agricultural fields keeping animals out. Families who did not maintain their fences were often fined and publically ridiculed, for a poor section of fence was a threat to everyone's crops. According to Primm (1981:19):

> In the spring of each year the *habitants* and the slaves of the more affluent traders and artisans rumbled into the fields with their plows, *charettes* (two-wheeled carts), and tools to begin their planting. Once the earth was turned and the seeds in the ground, the Creole, like his Indian neighbors, usually did not bother to combat the weeds, but let nature take its course until harvest time. Despite the practice, the fields produced abundantly. The principal crops grown were corn and wheat, followed usually by tobacco, rye, buck wheat, flax, cotton, oats, barley, and beans.

With the Mississippi River near the western bluffs, the only places capable of supporting St. Louis' Common Fields were the gently rolling prairies just west of the village, for which the Common Fields were named (Figure 3). The first Common Field was Prairie St. Louis, located northwest of the village, but as the population grew additional fields were needed.

The present project area is within one of the smaller Common Fields known as Cul De Sac, which was laid out by 1768 (Peterson 1993:20). After the American government took over the Louisiana Territory in 1803, the Common Fields system was no longer used and the tracts became valuable for future land speculation as St. Louis continued to grow during the 19th century. Some of the wealthier French residents and the newly arriving American citizens acquired property from the original owners of the Common Fields, which were confirmed by the American government. The project area was within two tracts of the Cul De Sac Common Fields consisting of Surveys 833 and 2973 (Figures 4 and 5).

Figure 3: Common Fields Around St. Louis (Hutawa 1847)

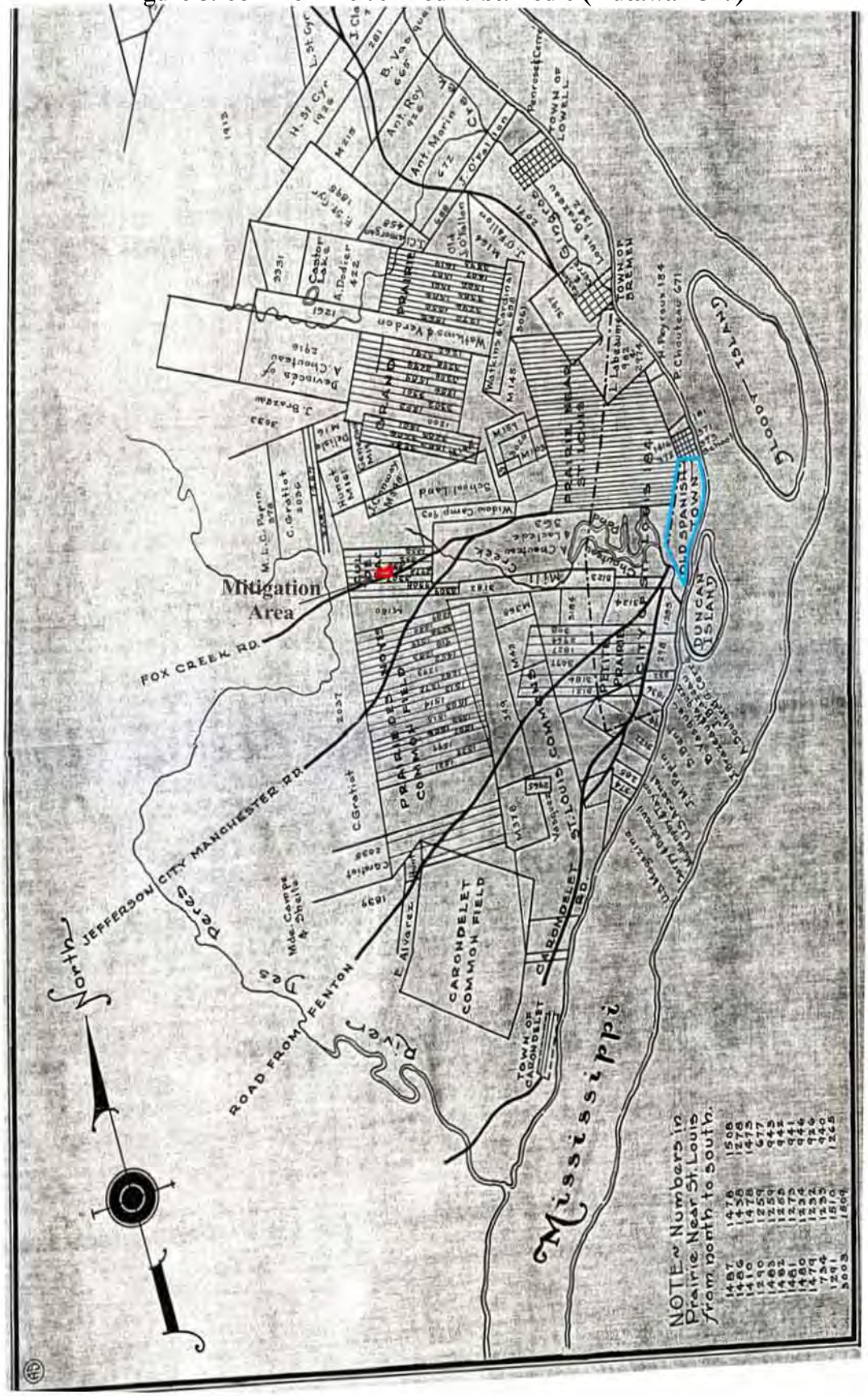


Figure 4: Location of Mitigation Area Within Cul De Sac Common Fields on Dupre (1838) Atlas

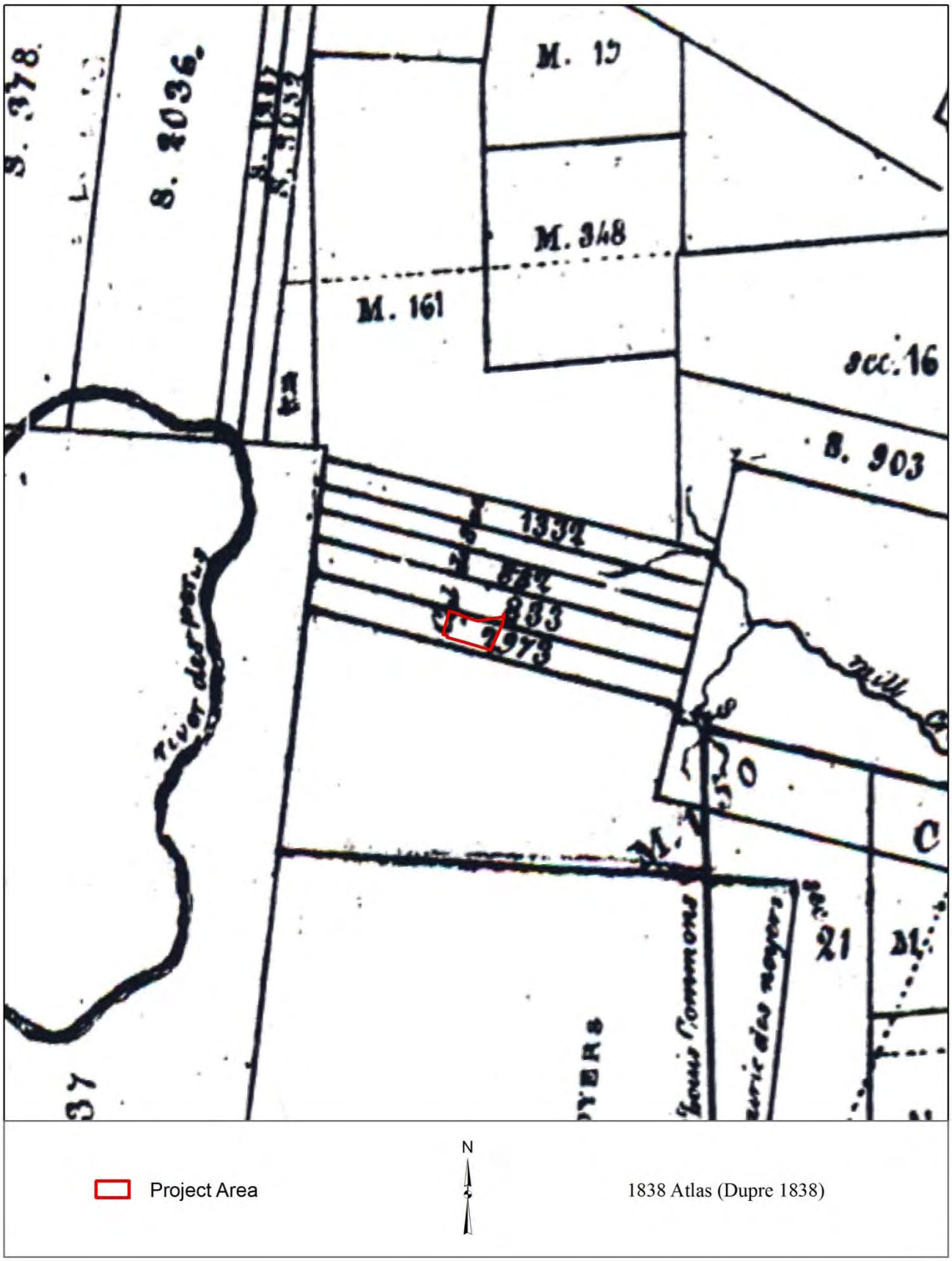
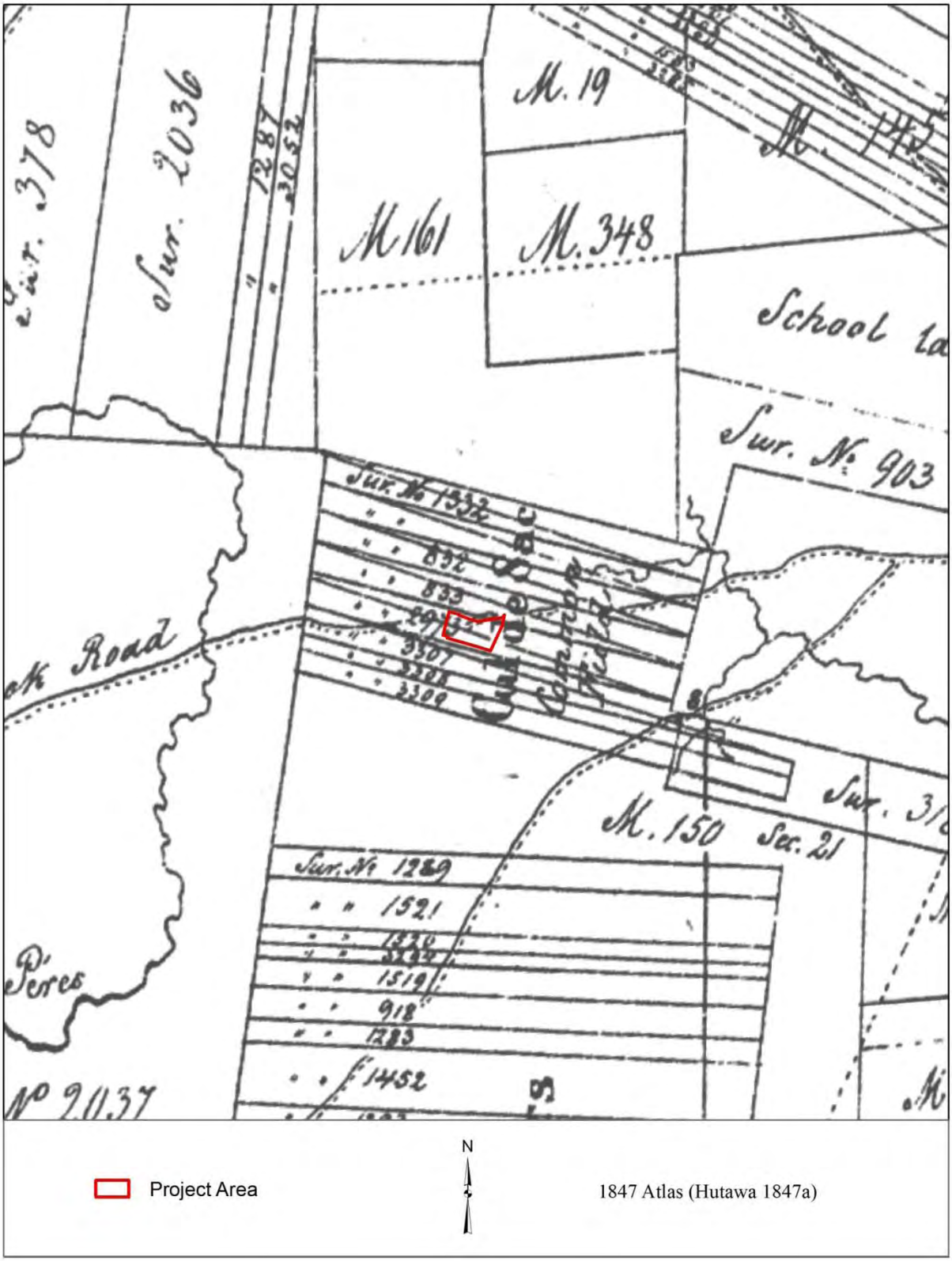


Figure 5: Location of Mitigation Area Within Cul De Sac Common Fields on Hutawa (1847) Atlas

Note: Hutawa shows Fox Creek Road passing through mitigation area, when it probably was located to the north, close to where Clayton Road is today.



The majority of the mitigation tract was within Survey 2973, consisting of 50.37 acres. This tract was confirmed as being owned by Amable Guion (also spelled Guyon) "or the widow of Lecompte's legal representative" (Hutawa 1847). Guion was one of St. Louis' artisans, who worked as a stonemason and constructed some of the buildings in the community. His father was a long time resident of Illinois being born in Fort Des Chartres in 1718. Guion moved his family to St. Louis in June 1764, representing one of the early settlers of this community. Shortly afterwards, his wife had a son, the first French Colonial born in the community. Unlike many of his contemporaries, Guion could read and write (Primm 1981:33, Foley and Rice 1983:17, Hodes 2004:76). However, Guion was one of the 21 settlers (7 of them slaves) killed during the raid on St. Louis in 1780 by the British and their Native American allies (Primm 1981:45). It is possible that Guion was caught tending his far flung fields at the Cul De Sac when the raid occurred. It is unclear if this property remained in his estate or if the land was acquired by a living relative.

The northern edge of the mitigation tract touched Survey 833, which consisted of 68.05 acres. This tract was confirmed as being owned by Susanna Dubreuil, as was the next strip to the north, Survey 832, consisting of 34.02 acres. Susanna was married to one of the early leading merchants of St. Louis, Louis Dubreuil. Similar to many of the other leading families in St. Louis, there was a wide gap of 19 years between their ages. This was primarily due to marriages being arranged in order to establish business relationships between leading families. Their daughter, Clarissa, went on to marry the newly arriving and successful American, Edward Hempstead. This marriage represented attempts by the French Colonial leading families to maintain their positions by tying into the shifting power to the Americans after the purchase of the Louisiana Territory (Hodes 2004). The Dubreuils also held five slaves, two of them adult males, who farmed and assisted the family in maintaining its household. Van Ravenswaay (1991:70, 72) writes about Susanna Dubreuil:

> Cleanliness was the abiding passion of Creole housekeepers, though they sometimes cared too much about it. Susanne Saintoss Dubreuil, wife of merchant Louis Dubreuil, became a legend. She had slaves whose only duty was to polish the furniture, doors, and windowpanes. Her floors (bare according to Creole custom) were kept shining like mirrors by the daily use of wax, dry brushes, and muscular energy. Her parlor referred to as 'Madame Dubreuil's paradise' was so sacred that dust was not permitted--nor any of her eleven children. She was also an incurable tease, and all her friends dreaded her pranks. Her husband, though well-educated and a canny businessman, was also absent-minded and an easy prey for her tricks. Once Madame Dubreuil had her slaves bore holes in an upper floor, lower ropes through them, and secure them to her husband's bed. He retired in the darkened room, and she went to her adjoining bedroom; the candles were snuffed and quiet settled over the house. Soon, however, Monsieur Dubreuil called to his wife that he felt a most peculiar sensation, as his bed was ascending to the ceiling, and then coming down again. 'What nonsense,' she called to him. 'You must be having a nightmare; turn over and go to sleep.' But the poor man's 'nightmare' continued until his wife could not control her laughter and finally allowed him to sleep in peace.

Immediately south of the mitigation tract was Survey 3307 (Figure 5). This 25.52 acre tract was awarded to Joachim Roy. No information could be found on Roy, but he is possibly a relative of Antoine Roy, who was a successful fur trader. At the end of the French Colonial times, he established the second wind mill in St. Louis near its northern edge, which was a long time landmark in the city (Ekberg1998:269; Primm 1981:100; Hodes 2004:165). Since the Common Fields only were used for agriculture and were not occupied, it is unlikely that remains of the French Colonial use of this property will be present within the mitigation area.

Early American Use

Most of the early development within the city extended toward the north and south (see 1841 boundaries of St. Louis on Figure 3), with areas in the west being acquired by wealthier families for land speculation and to establish large farmsteads. As a result, the mitigation area appears to have been unoccupied and used only as farm land into the late 1800s. By 1870, development began to encroach on the surrounding area, but the mitigation area still appears to have remained in farmland. The land on the northern portion was subdivided as part of the D. C. Briggs' tract. Four roads were placed in this area providing access to the newly subdivided areas, including Martin (later Newstead Avenue) on the west, Edmund in the center, and Briggs (later Tower Grove Avenue) to the east. Duncan (later Boyle and presently Klemm Street) also had been constructed further to the east, beyond the mitigation area (Figure 6).

The southern portion of the project area was part of a 14.81 acre tract, constituting the western portion of Survey 2973 that was owned by Nathan D. Allen. The city directories suggested that as of 1876, Allen lived in Webster Groves and operated a real estate office at 16 S 5th Street in St. Louis (City Directories 1876-1882). The 1880 census revealed that Allen was 61. He lived with his wife, Caroline, age 56, two of his daughters and a son, and one servant (U.S. Census 1880). He owned other parcels in St. Louis suggesting that he purchased this property for land speculation (Pitzman 1878). By 1878, the property had been acquired by Anna L. Woodworth (Figure 7). According to the 1880 census, Anna was 36 years old and her husband, G.W. was 50. He worked as a merchant. Living with them were their two daughters; ages 22 and 21; son, age 7; G.W.'s grandmother, L.A. Lyman, age 77, Ella Lyman, age 24; and a house servant. The family, however, lived on McNair Street east of the mitigation area. It is unclear as to how Anna obtained this land. However, she does not appear to have been directly related to Allen as her parents were listed as being born in Connecticut; while Nathan Allen was born in New York and his wife in Pennsylvania (U.S. Census 1880). By 1883, the tract was either sold for development or was lost because at that time it was owned by the Real Estate Savings Bank (Figure 8).

According to the 1870 atlas, the northeastern edge of the tract was owned by Charles Munchow (Figure 6). Although Charles Munchow was not listed on the 1870 census, he apparently had purchased this property consisting of 5 acres at the end of Duncan Road by this time. He established his residence south of the end of Duncan Road, east of the current project area (Figure 8). Living with him was his wife, Mary; and two sons, Reinhard and Frank; and two daughters, Laura and Sara. Charles had been born in Germany, but his children were all born in Missouri, suggesting that Charles had come to the U.S. sometime before 1856 (U.S. Census 1880). Charles died of pneumonia shortly after moving to this area, on January 3, 1879, at the age 57 (St. Louis City Public Health 1879). His family continued to reside in this area.

Figure 6: Mitigation Tract on the 1870 Atlas

Figure 7: Mitigation Tract on the 1878 Atlas

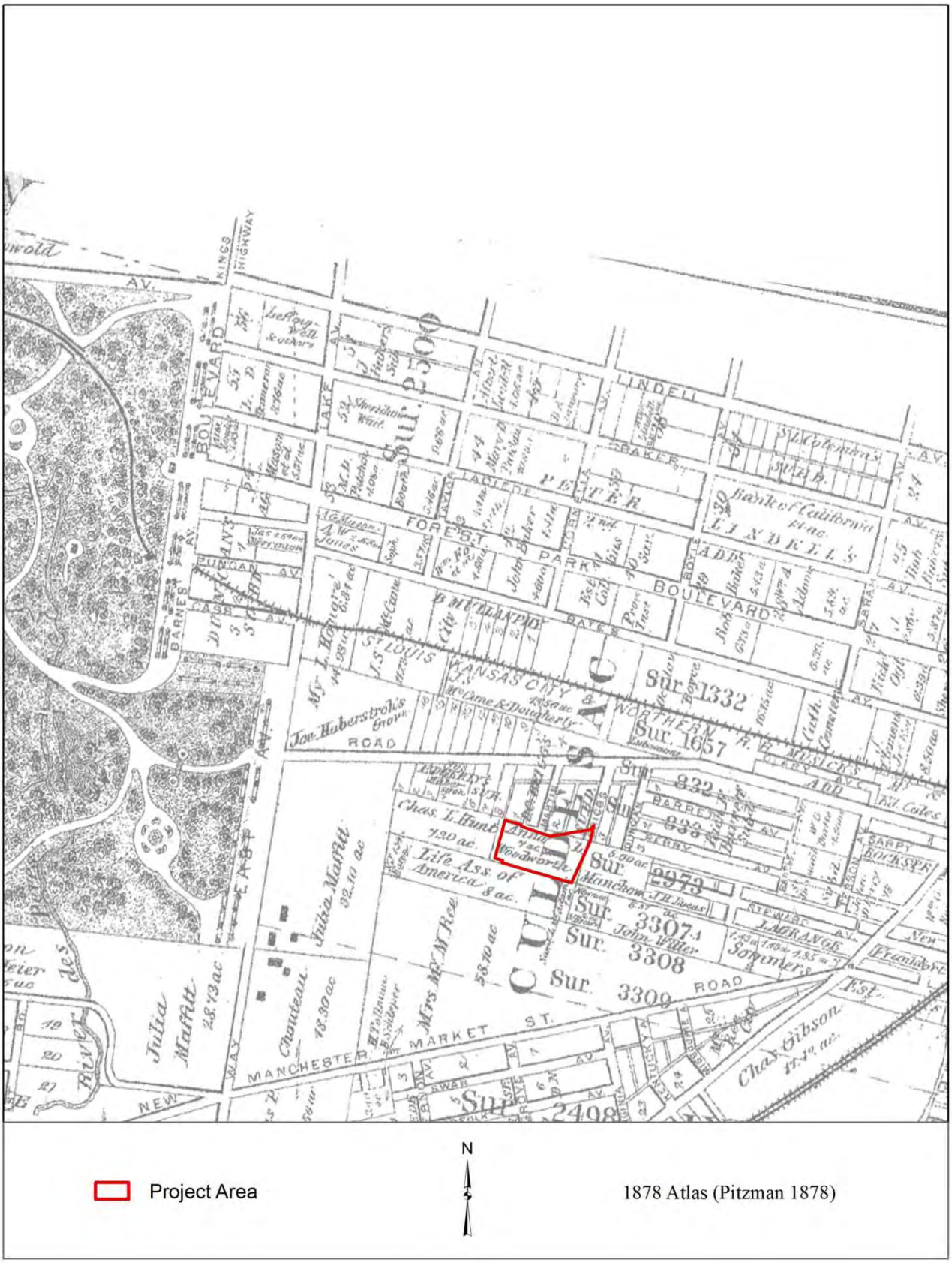
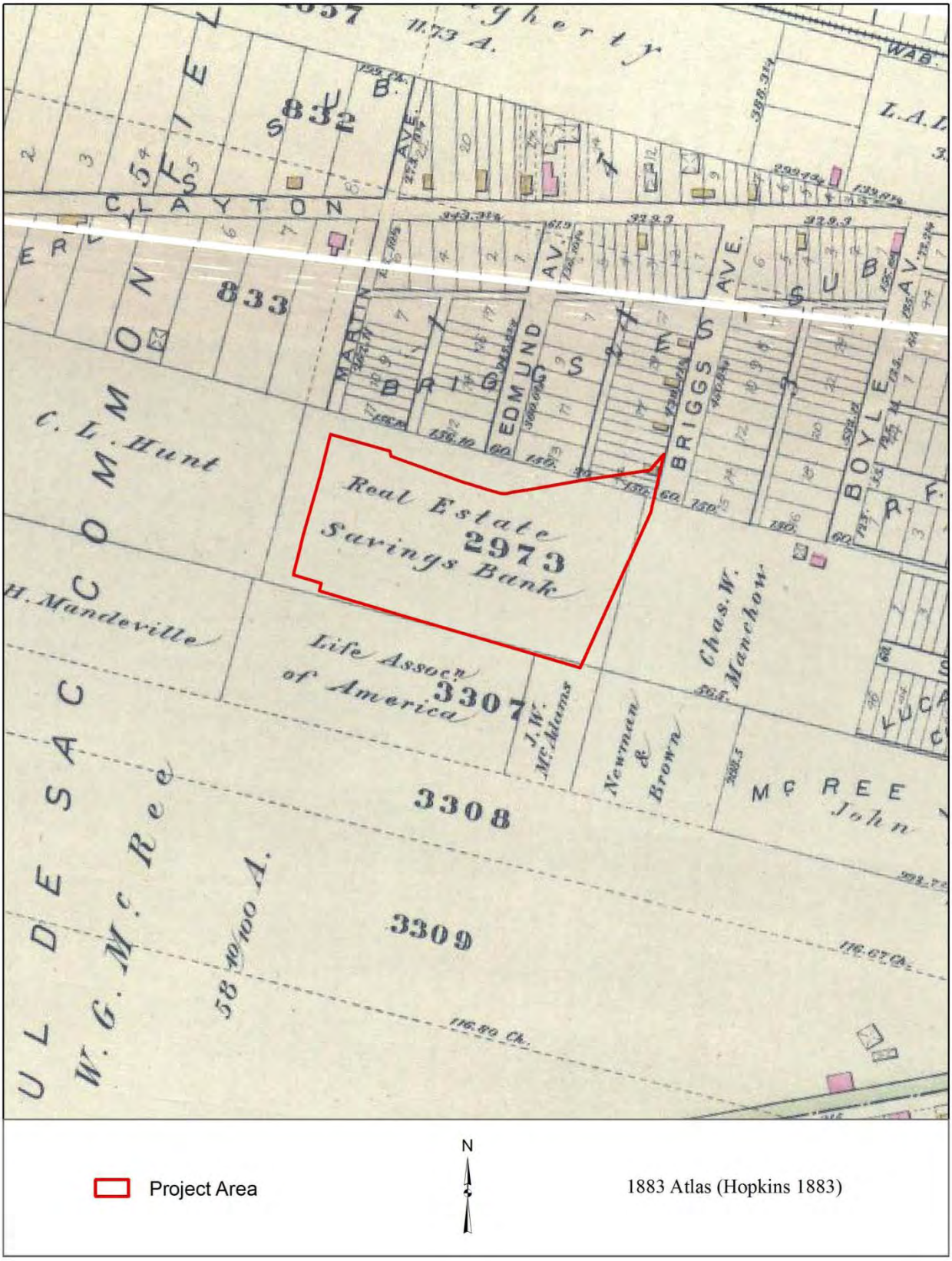


Figure 8: Mitigation Tract on the 1883 Atlas



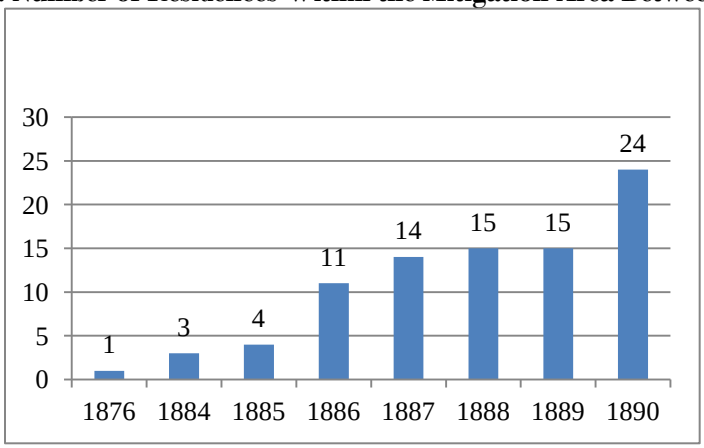
First Landowners Living Within the Mitigation Area

By 1876, the first landowner to live within the mitigation tract was Cornelius McCabe (St. Louis City Directory 1876). He built a residence on the northeastern edge of the area, along Briggs Avenue (Figure 8). Before that time, McCabe had lived in Jersey County, Illinois (U.S. Census 1870). By the 1880 census, Cornelius was 69 years old and lived on the property with his wife, Mary, age 54. They had both emigrated to the U.S. from Ireland. Cornelius worked as a stone cutter, but by 1880 appears to have retired for he was out of work for 12 months of that year (U.S. Census 1880). By 1886, Edward L. McCabe was living with the family, likely their son. He worked as a telephone operator (St. Louis City Directory 1886). Cornelius died on June 30, 1889 due to inflammation of the intestines; he was buried in the Catholic cemetery at Calvary in St. Louis (St. Louis City Public Health 1889). Mary and Edward continued to live at this residence until 1898, when John H. and John T. Ochterbeck moved into the home soon followed by other individuals, most of them residing at this location for only 2-3 years (St. Louis City Directory 1898-1917).

By 1884, the Real Estate Savings Bank property to the south was being subdivided, with Papin Road established between this tract and the Briggs subdivision. Martin and Briggs Roads were extended further to the south becoming part of Newstead and Tower Grove Avenues. At that time, the tract just east of Tower Grove Avenue, (4356 or 4354 Papin) was obtained by Elizabeth Pfeifer, the widow of George F. She supported herself by making dresses out of her home. By 1889, she was assisted by her children, Walter F., who worked as a lather and plasterer; Henry G., who worked as a butcher; and her two daughters, Olivia and Amelia, who made dresses at home. Elizabeth continued to reside at this location until 1904 (St. Louis City Directory 1884-1904). After that time, it appears the home was razed, with no other occupants listed at this location. It is possible that this building was torn down in order to widen Tower Grove Avenue. Also in 1884, another tract to the west at 4372 Papin was acquired by Fred Husemann, who worked as a carpenter. Husemann lived at this location until 1904, with Frank Vazis acquiring the property in 1905 (St. Louis City Directory 1884-1905).

In 1885, John Osterholz joined the three families in the neighborhood, establishing a residence at 4302 Papin. He worked as a laborer and was later assisted by his son, John F., who also worked as a laborer. Between 1906 and 1909, the property had been taken over by William Held and in 1913 by Frederick Fisk (also spelled Fick and Feck) (St. Louis City Directory 1885-1913). Over the years, other landowners acquired tracts within the mitigation area (Figure 9).

Figure 9: Number of Residences Within the Mitigation Area Between 1876 and 1890



Landowners in 1900

By 1900, the number of residences within the mitigation tract had increased to 35 (Appendix A). Some of the properties consisted of more than one lot. For example, on the northeast, three lots were owned by Mary Munchow. This property likely was acquired by Charles Munchow shortly after coming to this area. However, this tract did not contain a residence and the Munchow family continued to live in their original home just south of Briggs Avenue. In fact, no residence was ever placed at this location. Other large landholders included Thomas Hala, on the north-central portion, who owned 2 ½ lots; William Sanders and Mary E. Gould, who each owned 3 lots on the northwestern portion; and Ernst Hegel, who owned 3 lots on the southwestern portion (Figure 10). Four homes served as two family flats at 4303, 4361, 4362, and 4373 Papin (Figure 11). Eleven residences (28.2%) were purchased by the land-owners, another 9 (23.1%) were owned with a mortgage, and 18 (46.1%) were rented. The 1900 census did not list whether Louie Meyer's home at 4361 Papin was rented or owned.

Census data provided some demographic information on the residents of the mitigation area. Half of the household heads and their spouses had been born in foreign countries (Figure 12), many from western Europe or the British Isles (Figure 13). The greatest percentage of these people came from Germany (47%), or the nearby countries of Austria (2 people) and Switzerland (3 people), with the second highest percentage was from Ireland (28%). Thompson Wille, who lived at 4303 Papin, had been born at sea during his parents travel from Germany to the U.S. These immigrants arrived in the U.S. between 1844 and 1892 (Figure 14). The earliest arrival was Frederick (listed as Peter in the census) Hussman from Germany, with his wife, Annie, coming from Canada in 1857. Bernhart Meyer, who lived at 4369 Papin, was the last arrival in 1892. He was born in Germany. The greatest number came between 1880 and 1889 (N=22). There only were two individuals who arrived in the 1870s, William and Mary Hawkins, who lived at 4348 Papin; they came from England in 1870.

Although nearly the same percentage of household heads and their wives were born in the U.S., about 40% had at least one parent born in a foreign country, with only 10% having parents born in the U.S. The foreign born parents also mostly came from Germany (73%) and Ireland (17%), with another two born in Austria, one from France, and two from England (Figure 15). Overall, the mitigation area appears to have been inhabited by newly arriving immigrants mostly from Germany and Ireland, or the children of these emigrants.

Of the native born individuals, the greatest percentage of these were born in Missouri (N=22) (Figure 16). Another seven individuals were from other states in the Midwest: Illinois, Iowa, and Indiana. Only four people came from the Northeast: Ohio, New Jersey, and Massachusetts; and three from the Southeast: Maryland, West Virginia, and Georgia.

Houses were occupied by 39 families. Most of them (N=36) were headed by married males, although one person, 60 year old Jakob Hisor of 4300 Papin, was single, and 64 years old M. Friedman at 4305 Papin, was a widower. The only female head of a family was the widow, Elizabeth Pfeifer. Household heads ranged in age from 24 to 64, with slightly more being between the ages of 40 to 49 (Figure 16). Overall, these homes appear to have been used by individuals in the prime of life during their mean working years.

Figure 10: Residents in the Mitigation Area in 1905

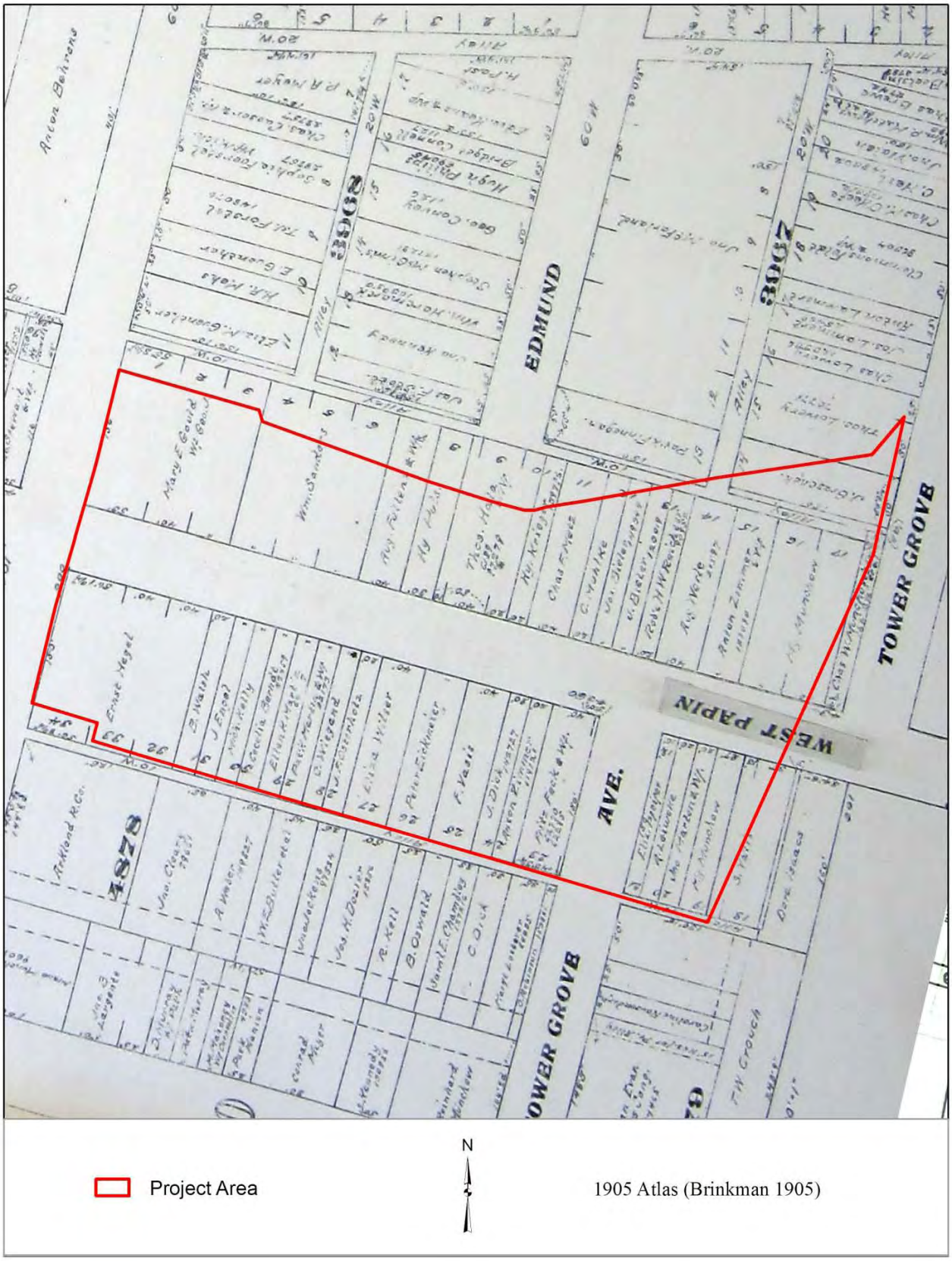


Figure 11: 1909 Sanborn Map Showing Locations of Buildings Within the Mitigation Area

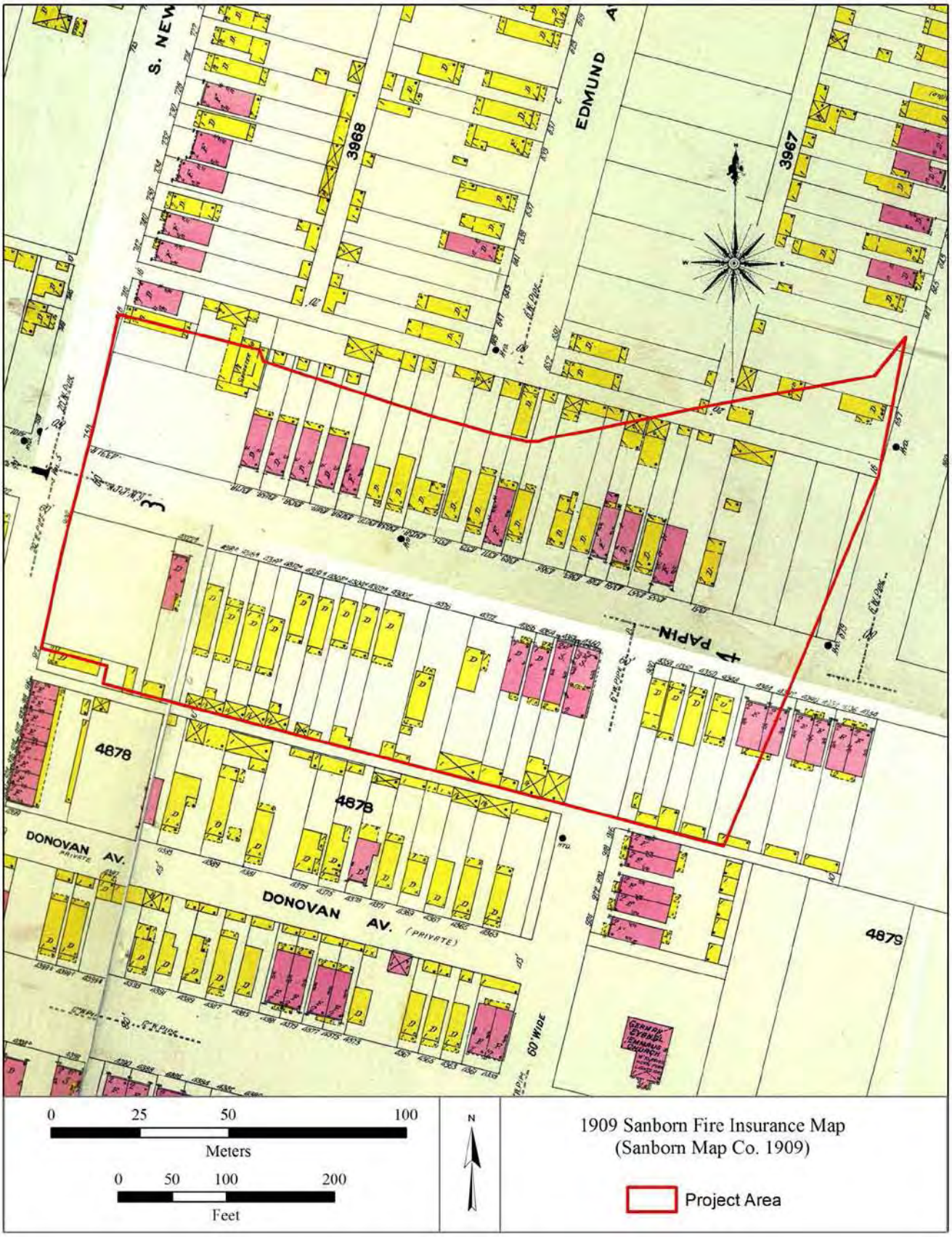


Figure 12: Percentage of Household Heads and Wives That Were Foreign Born, Native Born, or Native Born With At Least One Foreign Born Parent According to the 1900 Census

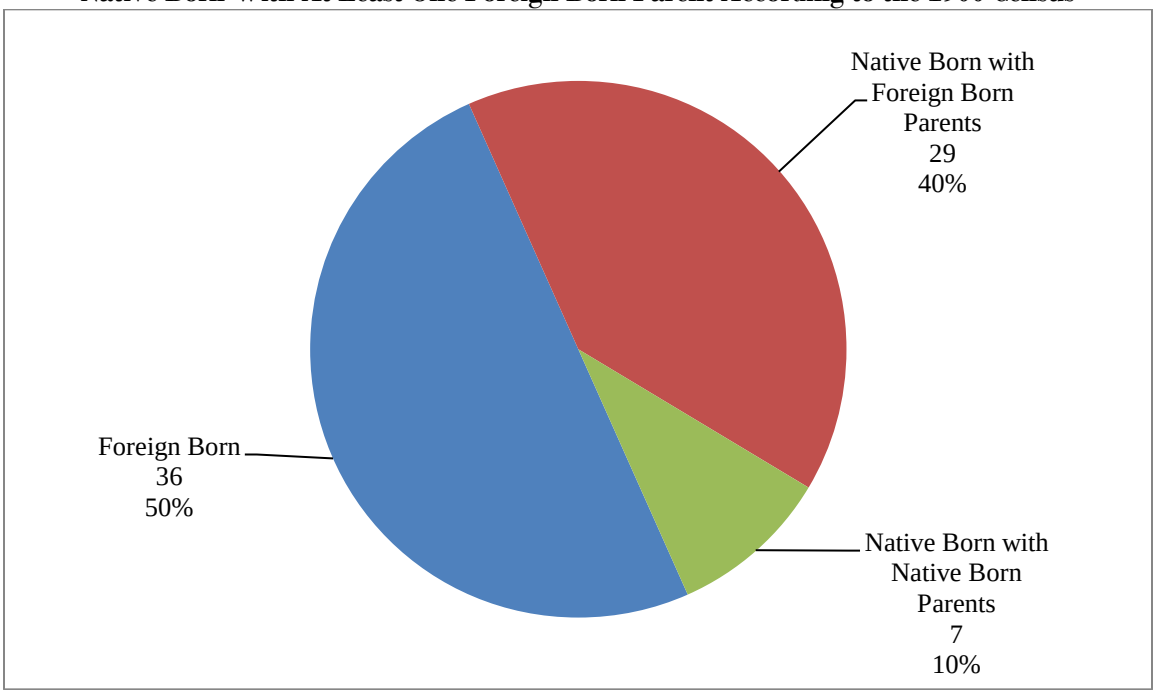


Figure 13: Percentage of Countries Where Foreign Household Heads and Wives Were Born According to the 1900 Census

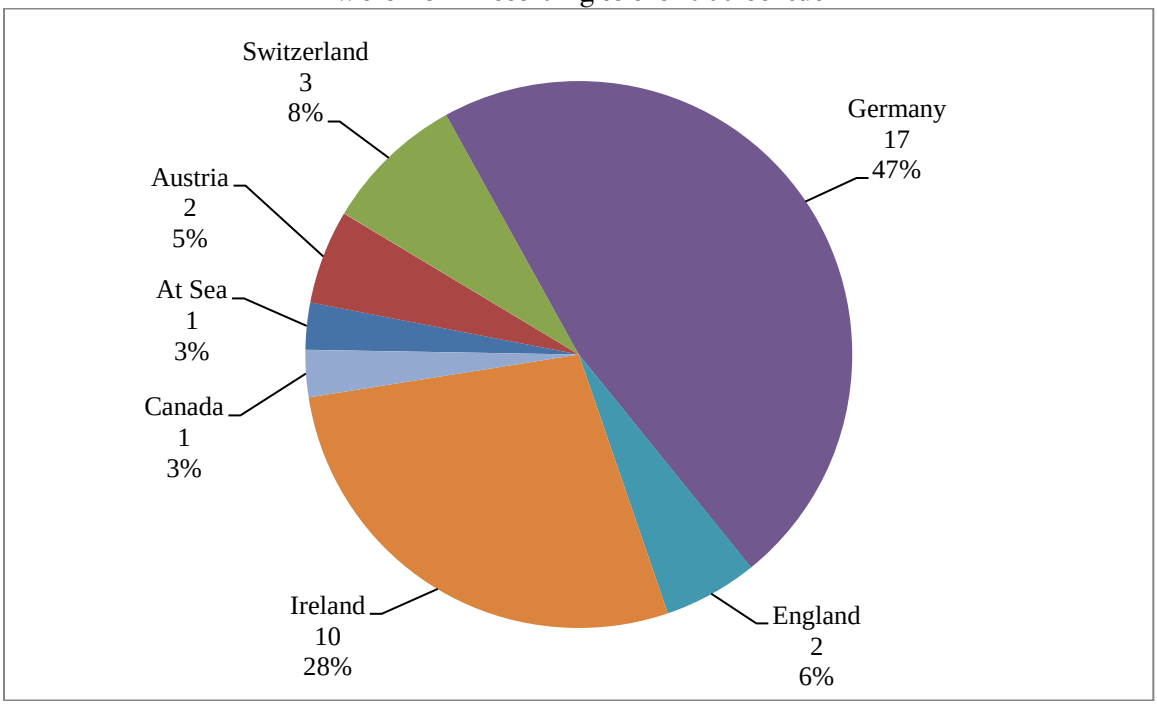


Figure 14: Years When Immigrants Came to the U.S. According to the 1900 Census

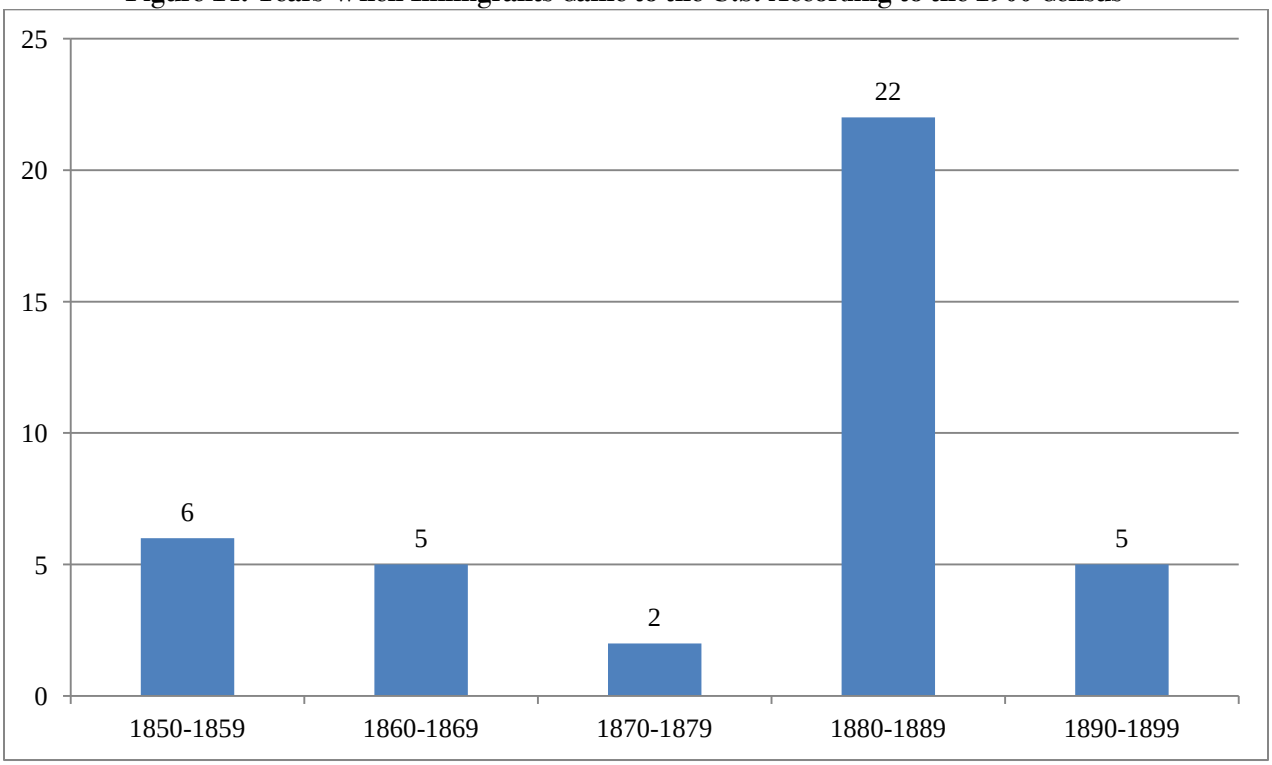


Figure 15: Birthplace of Foreign Born Parents of Native Born Household Heads or Their Wives According to the 1900 Census

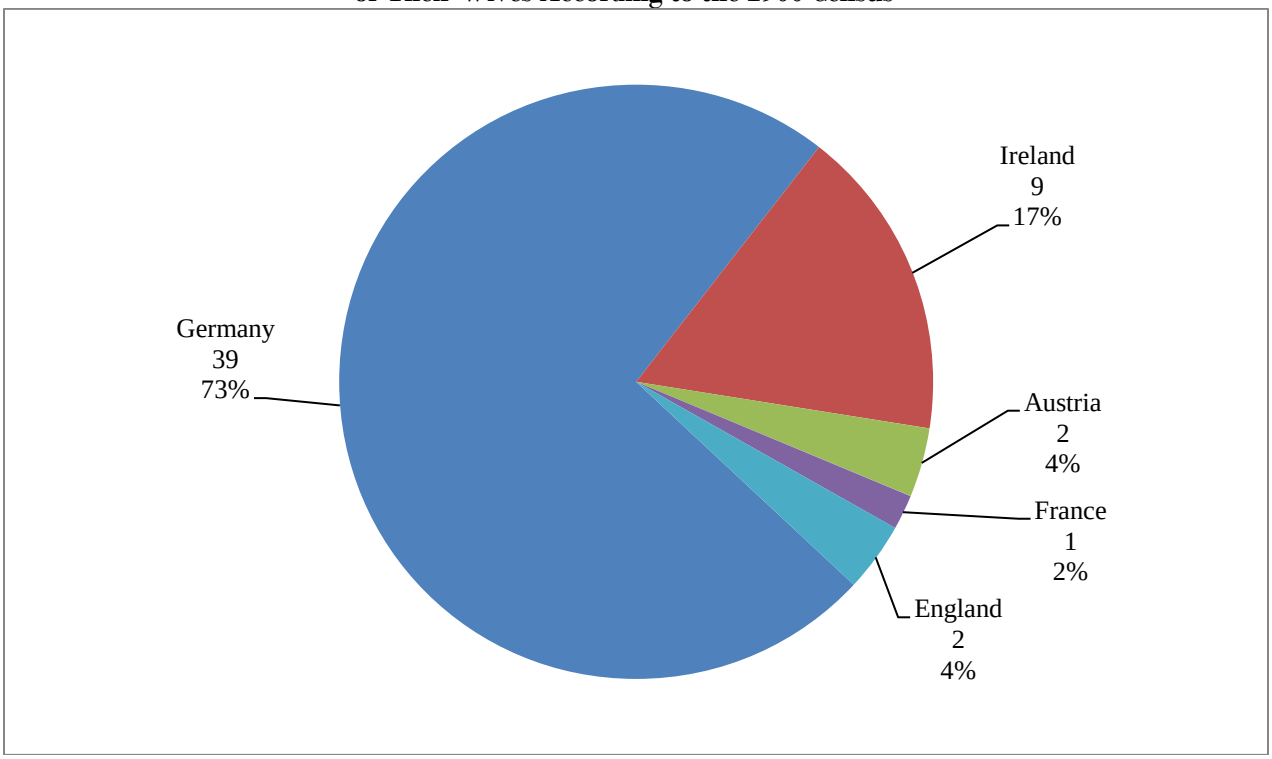


Figure 16: States Where Household Heads and Wives Were Born in the U.S. According to the 1900 Census

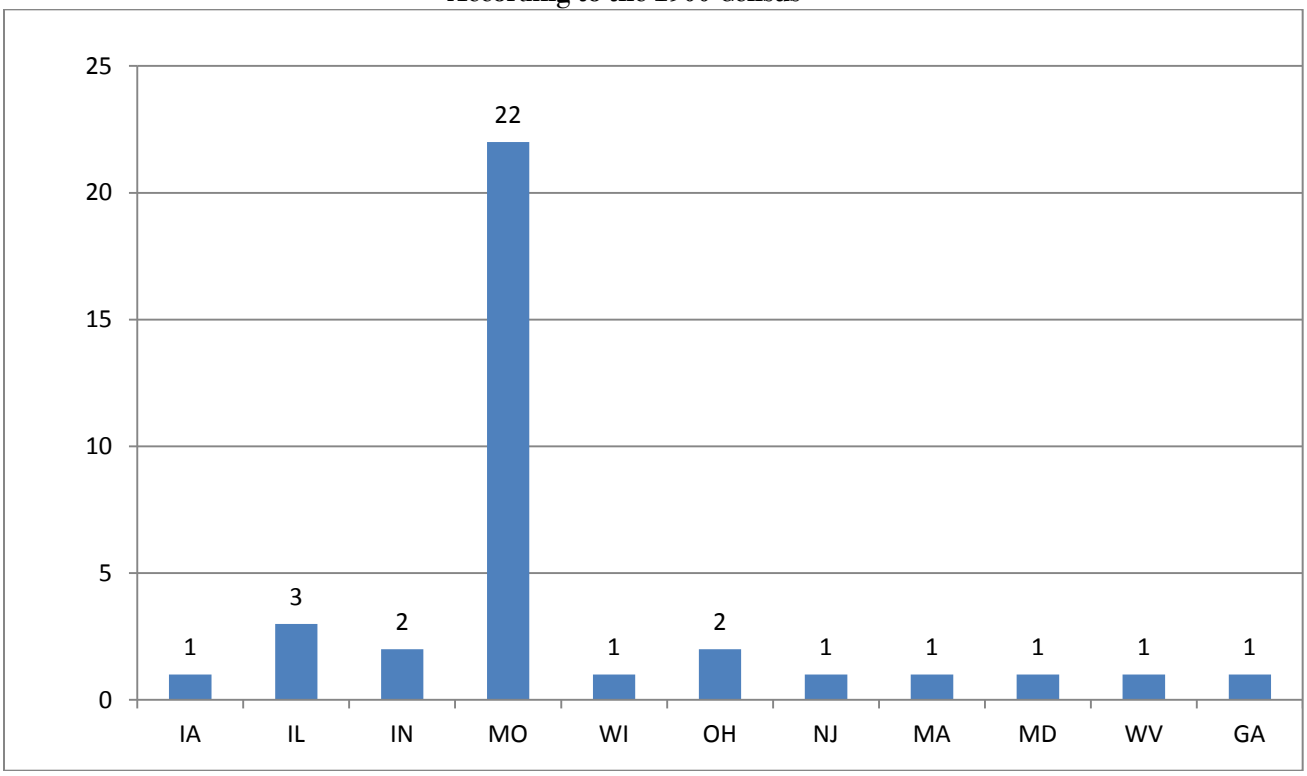
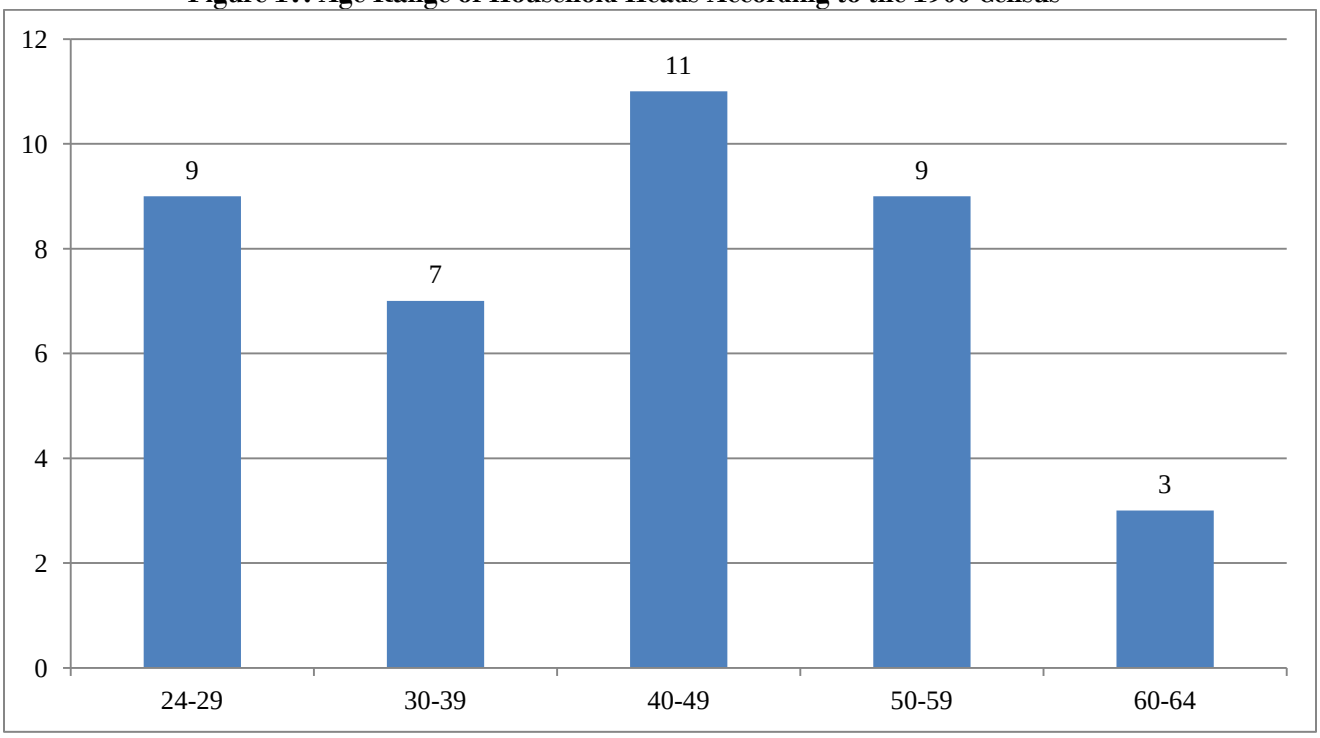


Figure 17: Age Range of Household Heads According to the 1900 Census



The male head of the households mostly held unskilled or semi-skilled positions, with the majority (N=9) working as laborers. Other unskilled positions included newspaper carrier, shoemaker, watchman, janitor, teamster, and store clerk. Semi-skilled professions consisted of electrical worker, cabinet maker, two carpenters, plumber, grader, steam engineer, and a general contractor. Two held supervisory positions of foreman and a city inspector. Four worked as blacksmiths and three as butchers. One of the butchers was George Gould, who lived at 748 Newstead. He operated a slaughter house behind his home since 1896, and Frederick Fisk, who had his own butcher shop at various times at 4360 and 4362 Papin, within the northwestern portion of the mitigation area. Of the 39 household heads, 11 were out of work for 2 to 10 months during 1900.

Only one of the 35 housewives had a job. Although household funds were limited, wives tended not to work outside the home, but maintained the family household. Even the one wife that worked, Annie Zeude, made dresses out of her home at 4373 Papin.

The number of children per family ranged between 1 and 11, with an average of 4.5 children. Some families had a large number of children consisting of 11 for Magdalene Pfeifer, who also lived at 4362 Papin, 10 for Rosa B. Fisk at 4316 Papin, and 9 for Susan Fallanz at 4307 Papin. Of these families, 17 had lost at least one child (48.5% of the families). Out of their 136 children, 95 survived at the time of the 1900 census (69.8%). Some families lost a large number of children. For example, out of the 10 children born to Rosa Fisk only 4 were still alive. The children within the mitigation area consisted of 53 sons and 42 daughters. Only five families did not have any children. Most of these were recently married, but Mary Ann Fisk of 4362 Papin had been married for 8 years and Fredricka Steven of adjacent 4364 Papin had been married for 10 years without any children.

Of the children past high school age, 28 had jobs. These consisted of 18 sons, who held positions similar to their fathers consisting of 2 workers in planning mill, 3 carpenters, 2 brick layers, 2 laborers, 2 secretaries, a machinist, a shovel maker, a steam engineer, a store clerk, a stair builder, a bar maker, and a photographer. Willie Osterhold of 4302 Papin was only 13, but he worked in the planning mill similar to his brother Otto, age 15. Daughters included 10 who had graduated from high school, all of these had jobs except for Kattie Hussman, age 29 of 4372 Papin. The daughters held jobs such as a stenographer, a teacher, 3 factory workers, and 3 dressmakers, including Karry Hussman, the 25 year sister of Kattie. Mary M. Pfeifer of 4362 Papin worked at a factory even though she was only 14 years old. The 1900 census indicated that her 13 year old sister, Eugenie, had “no job, not in school”.

Other family members lived with three families. These include the mother of Charles Hinze of 4355 Papin, M. Schulenburg. She was 56 years old and a widow. Anna Schmidt, also a widow at age 55, was living with Jakob Hisor at 4300 Papin. The census indicated that she was related to this single man, but did not state how. The 21 year old grandson of Elizabeth Pfeifer, Otto A. Walters, also held a job, but it could not be read in the census.

Only three families took on boarders to help supplement their family incomes. Boarders consisted of Auren Logeman who resided at 4309 Papin and worked as a butcher, James B. Kelly who resided at 4314 Papin, and Darriel McKay, who lived at 657 Tower Grover. Both Kelly and McKay worked as teamsters.

Although most of the mitigation area was occupied by families of western European heritage, one African American family owned their home at 4371 Papin. William Flusker was 58 years old and his wife, Louise, was 59. They had been married for only one year so the three children: Mary age 18, Ophilia age 11, and Marvin. age 8, were from William's previous marriage. William worked as a laborer, but he was out of work for 9 months in 1900. His daughter, Mary, also did not work (U.S. Census 1900). This was prior to the passage of St. Louis' segregation ordinance in 1916, which prohibited African Americans from purchasing homes in an area where over 75% of the residents were of European heritage (Primm 1980:436-439). Even though similar ordinances were struck down in 1917, neighborhood rules, which were even stricter, were legal and resulted in segregated communities across St. Louis, until the laws were finally abolished in the 1960s. As a result, no other African American families lived in the mitigation area though at least 1940, and the community maintained its ethnic character (U.S. Census 1900-1940).

Landowners in 1910

By 1910, the number of homes in the mitigation tract had increased from 35 to 42 (Appendix B). This was due to some lots of the larger properties being sold separately (see Figure 11). The larger tracts, once owned by Munchow on the northeast portion of the mitigation area and George Gould on the northwest portion, remained mostly intact through the 1940s (see Figure 10). A greater number of residences (N=7) were occupied by two families than in 1900 at 4303, 4309, 4342, 4344, 4355, 4361, and 4373 Papin. The house at 4371 Papin was utilized by three families. The percentages of homes freely owned (N=14, 27.4%) and owned with a mortgage (N=9, 17.6%) was down from 1900, while the percentage rented went up to 28 (54.9%).

In 1910, the percentage of native born family heads and their wives having at least one foreign born parent was higher at 57% (Figure 18). Those born in foreign countries dropped to 35%, however, the greatest number of these were still from Germany and Ireland. Three individuals were born in Norway and Sweden. Three others, consisting of Mathew and Rose Wappel who lived at 4322 Papin, and Anna Bielor, the wife of Joseph, who lived at 4359 Papin, came from Hungary. Most of these individuals arrived in the U.S. within the past 30 years, especially between 1880-1889, and 1900-1909 (Figure 19). The percentage of native born residents having parents born in the U.S. also dropped slightly to 8% (Figure 18).

The census further indicated that the number of families increased from 39 in 1900 to 51. Of these, 43 families were headed by a married male, five of them married for the second time. One male head, Peter Eikmeyer of 4376 Papin, was a widower and Francis J. Hula, who lived at 4303 Papin, was single. Six women served as the head of the family, all of them were widows. The heads of household ranged in age from 20, for Francis J. Hula who was living with his 16 year old sister, and 69 year old Peter Eikmeyer. The age for most of the other families was the same as in 1900 consisting of individuals in the prime of their life (Figure 20).

Figure 18: Percentage of Household Heads That Were Foreign Born, Native Born, or Native Born With At Least One Foreign Born Parent According to the 1910 Census

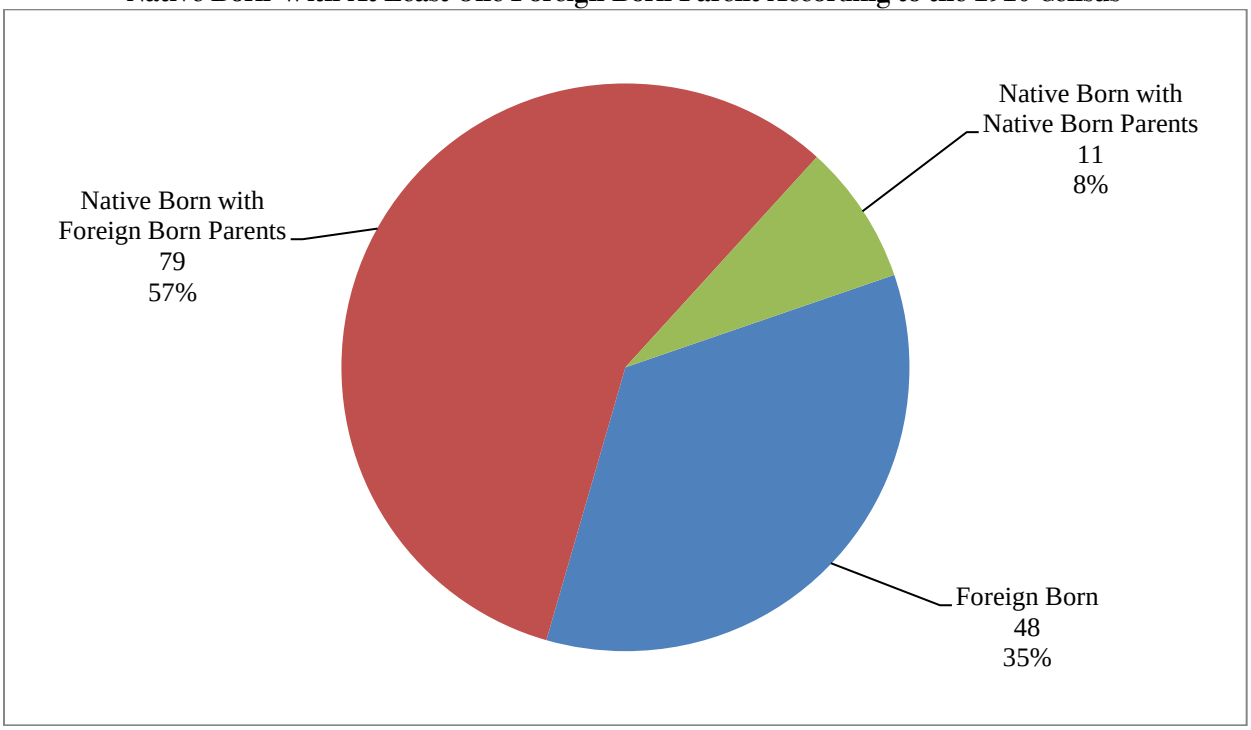


Figure 19: Years Immigrants Came to the U.S. According to the 1910 Census

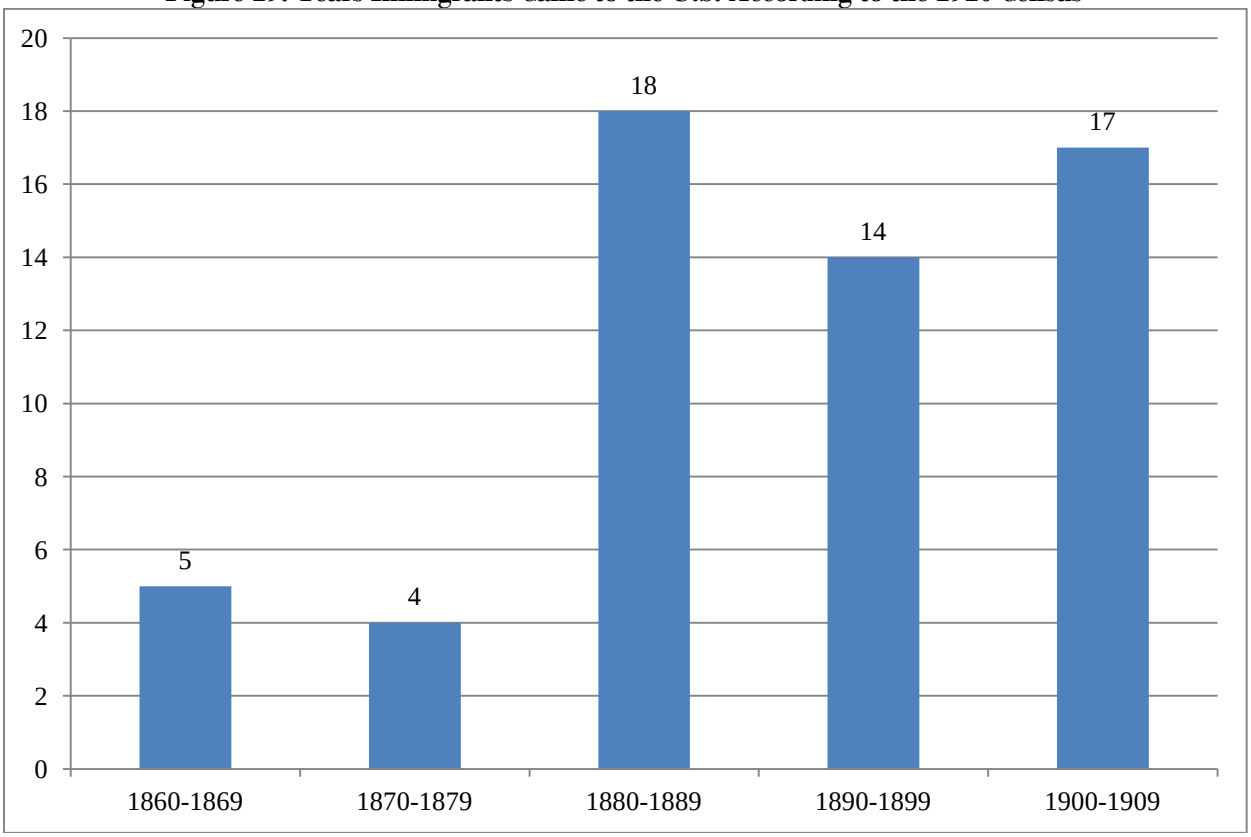
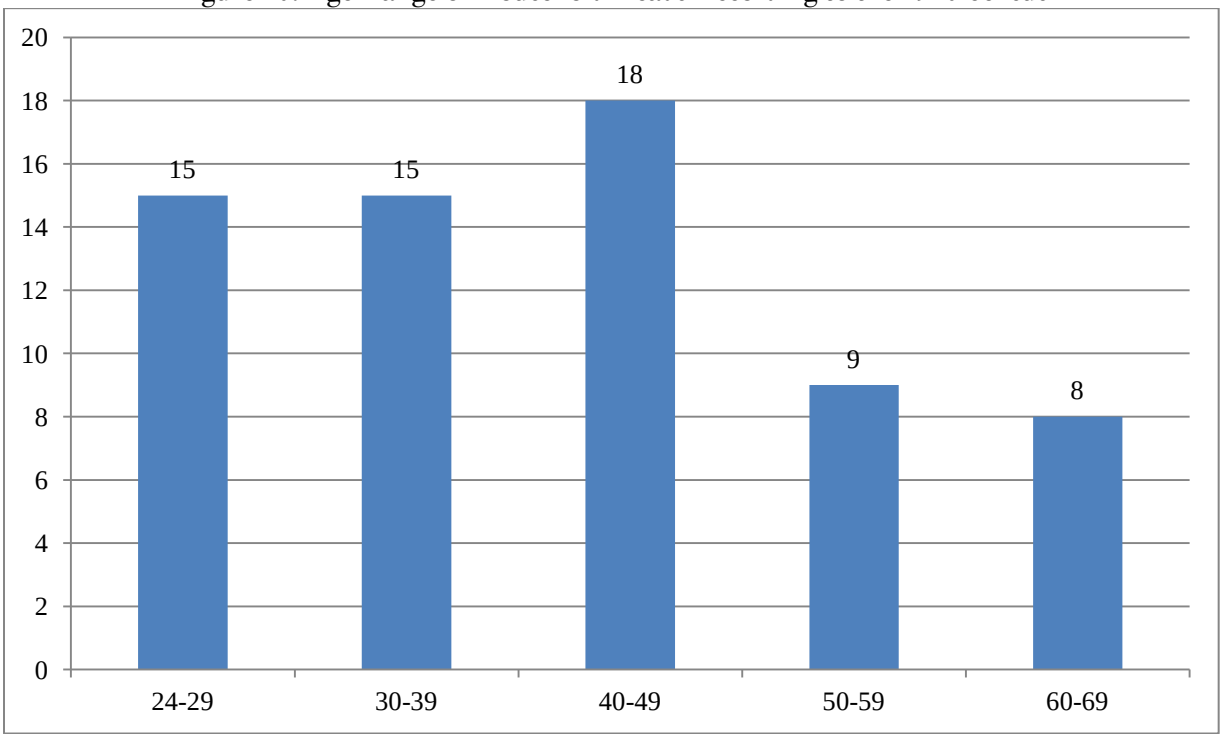


Figure 20: Age Range of Household Heads According to the 1910 Census



Male heads had similar positions as in the 1900 census. Although George Schroeder of 4342 Papin worked as a harness maker, other individuals reflected the changing nature of travel, at this time. Frank Vazis, of 4372 Papin, owned and operated his own rubber automobile tire repair shop. Another two individuals, James Lawless of 4344 Papin and Ernest Emilson of 4372 Papin, were motormen on the newly formed street railway lines. Other individuals operated their own stores in the neighborhood such as Frederick Fisk of 4360 Papin who ran a butcher shop and his neighbor at 4362 Papin, Charles Schmits, who ran a bakery. George Gould continued to operate a slaughter house behind his home at 748 Newstead. Charles Enseroth, who lived at 4344 Papin, operated his own tailor shop, but it does not appear to have been within the mitigation area.

Only three of the wives worked outside the home. These include Lena Hahn of 4313 Papin who worked as a washer woman for a private household, Mary Stueng of 4309 Papin who drove an ice wagon, and Keara Krentzer of 4309 Papin who wove wire for a wire manufacturer. Only one family did not have any children, Joseph and Rouise Beck at 4371 Papin, but they had been married for only one year. Louisa Reiche of 4357 Papin had two children, but both of them had died. The 1910 census suggested that the wives had 186 children, 134 of them were alive, 72%, about the same percentage as occurred in 1900. Three families living next to each other had the greatest number of children, Magdalena Vocker of 4315 Papin had 10, Lena Hahn at 4313 Papin had 15, and Elizabeth Kestler of 4311 had 13. However, only 7 of the Vocker and Hahn family's remained alive and only four of the Kestler children.

The 1910 census suggested that 130 children lived within the mitigation area in 1910, which was up from the 95 in 1900. These included 80 sons, 48 daughters, and two step daughters. Of the sons, 27 were past school age and had jobs similar to their fathers. Four boys only 14 years old also worked, these include John Engel of 4316 Papin who worked as a laborer

in a box factory, William Ketchum of 4350 Papin who worked as a helper for a huckster who had his own wagon, Joseph Krieger of 4369 Papin who worked as a route boy for a mercantile agency, and Walter Hahn of 4313 Papin who served as an apprentice for a bakery where his father, William, worked as a stable hand. Of the 11 daughters past school age, 8 had jobs outside the household, working as starchers at a laundry (N=2), filler and labelers at a chemical company (N=2), a wrapper and a sorter at a tobacco factory, a paper inspector at a printing company, and a stretcher for a shoe manufacturer. The number or working daughters (72.7%) could suggest that the families needed the extra income to survive. Nora Martin of 4348 Papin, who was 14 years old, worked for a private family as a nurse.

Seven families had a relative (brother, sister, mother, nephew, or niece) living with them. Another three families had a lodgers living with them. This included one person at 4309 and 4311, and two lodgers at 4355 Papin. Similar to 1900, few families used lodgers to supplement their incomes in 1910.

Landowners in 1920

According to the 1920 census (Appendix C), the number of homes within the mitigation tract increased to 48. A greater number of these (N=18) served as two family flats. Another three properties, at 4315, 4317, and 4371 Papin, had three families living in each home. At this time, only 17 (24.6%) of the residences were freely owned, down from the previous two census. An even greater reduction occurred in the percentage of families that owned their home with a mortgage (N=3, 4.3%), while the number of rented properties increased to 45 (65.2%). This could suggest that the families were not doing as well financially.

According to the 1920 census, the percentage of household heads and their wives who were born in foreign countries dropped to 28% from 35% in 1910 (Figure 21). The majority of these people continued to be from Germany or the surrounding countries of Austria (N=3), Switzerland (N=1), France (N=2), and Hungary (N=2). The number of residents born in Ireland, however, dropped greatly, as only four came from that country possibly reflecting the ending of the Irish migration. For the first time, a household head and his wife, Mitar and Fanna Koprivica, who lived at 4360 Papin, came from Serbia in eastern Europe. By the 1900s, a greater number of immigrants arriving in the U.S. came from eastern Europe, many of them Jews escaping persecution.

Within the mitigation area, the earliest immigrant to the U.S. was the 78 year old widow, Bridget Craven, who lived at 4303 Papin. She came to the U.S. from Ireland in 1849, although she did not move to the mitigation area until 1920. The greatest number of immigrants living in this area arrived during the 1880s (Figure 22). The Kopivicas represented the most recent arrivals coming in 1917. The percentage of those born in the U.S. to at least one parent that had been foreign born dropped to 31% (Figure 21), while those born to parents who also were born in the U.S. increased to 41% from only 8% in 1910.

Figure 21: Percentage of Heads of Households That Were Foreign Born, Native Born, or Native Born With At Least One Foreign Born Parent According to the 1920 Census

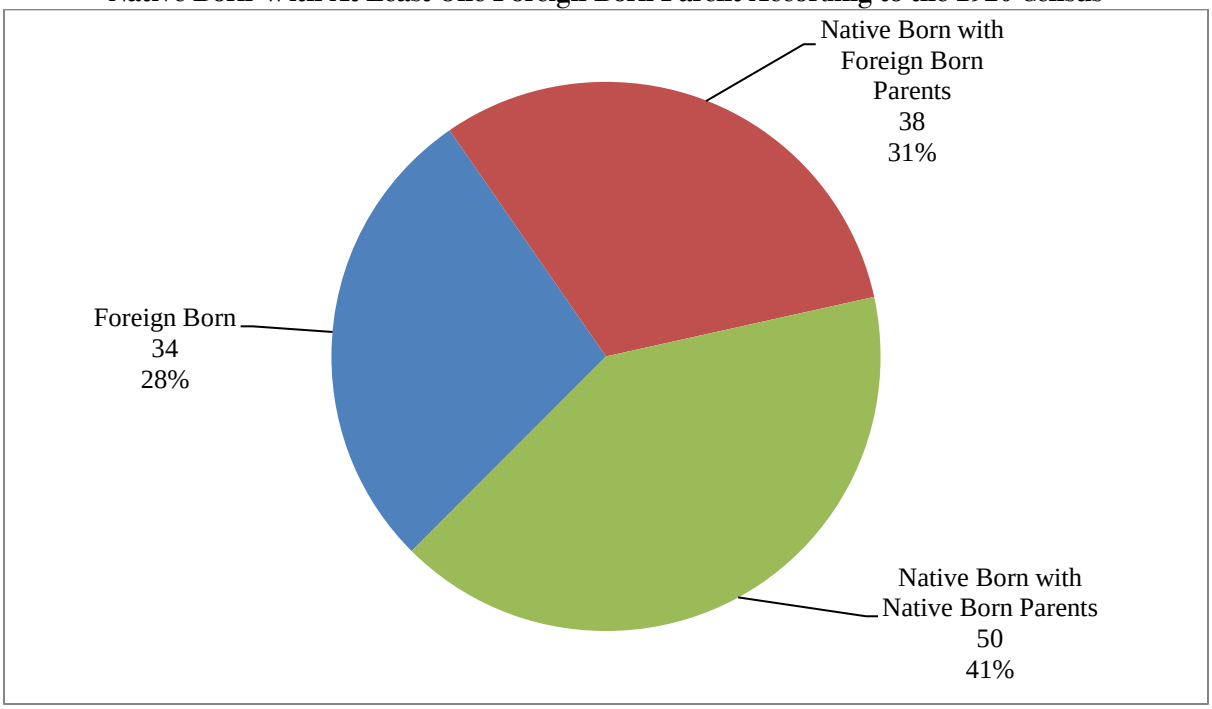


Figure 22: Year That Immigrants Came to the U.S. According to the 1920 Census

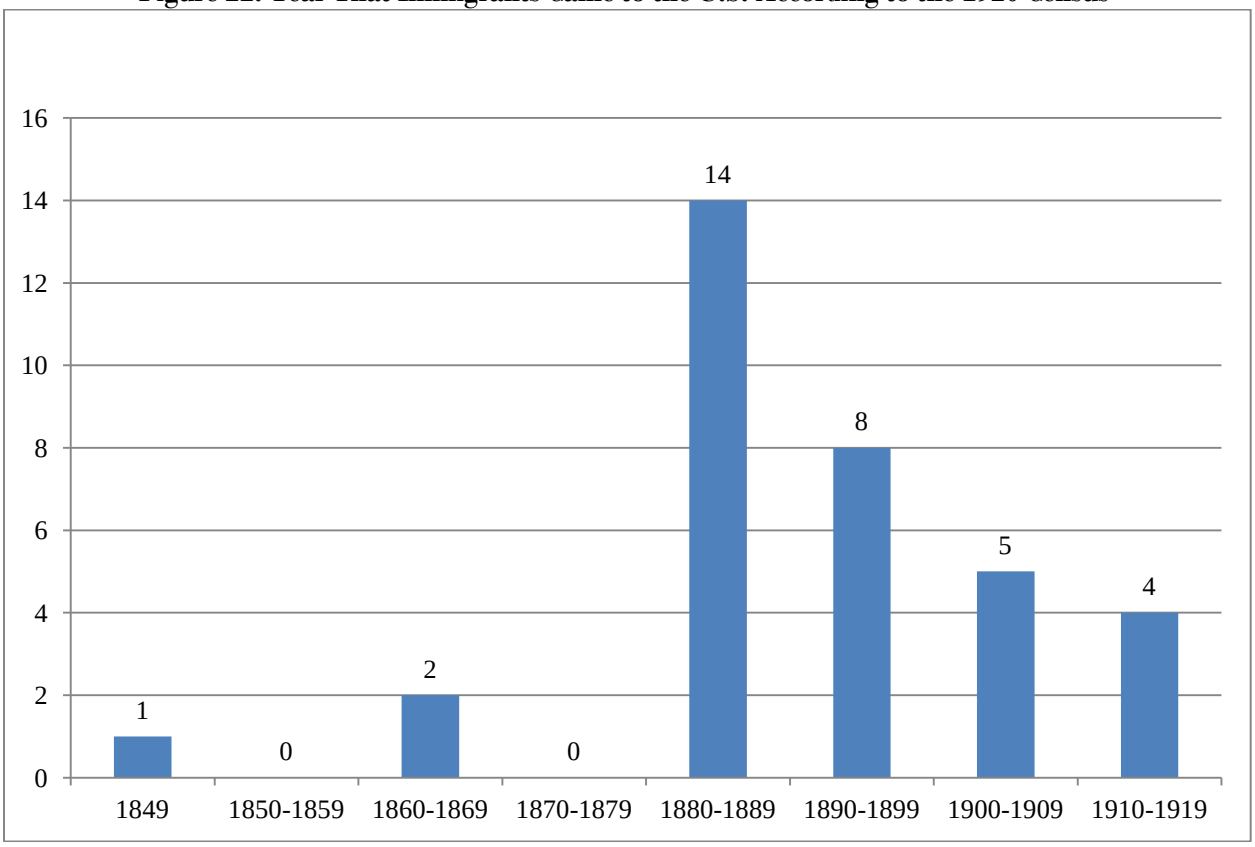
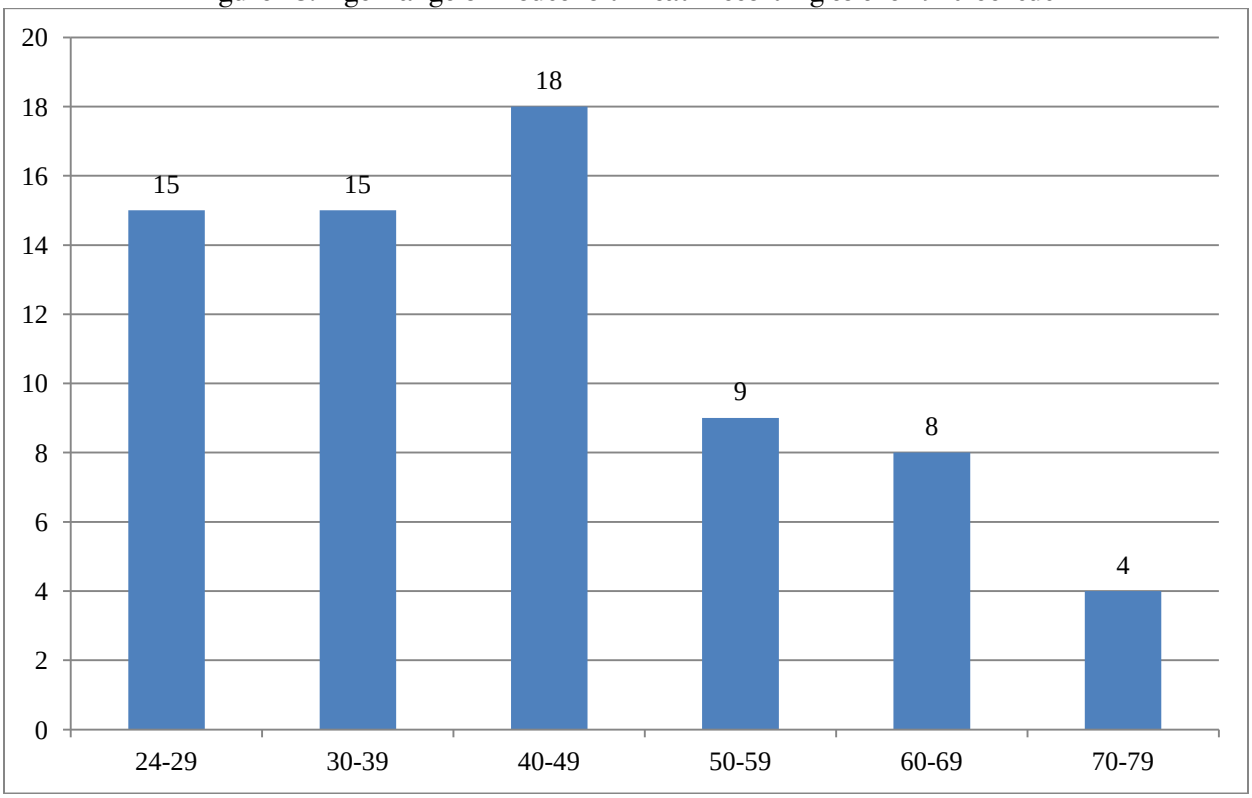


Figure 23: Age Range of Household Head According to the 1920 Census



The number of families living within the mitigation tract also increased to its greatest amount of 69 families (U.S. Census 1920). The youngest head of a household was George A. Buerke at 4344 Papin, who was 25. The oldest person was the widow, Bridget Craven. In general, a slightly greater number of older family heads existed in the mitigation area (12 individuals between the ages of 60 and 78), due to the original homeowners aging and due to improving health care. Most of the household heads, however, were at the peak of their working years (Figure 23). Families were headed by married males (N=58), but a greater number of the households, N=11, were headed by a woman. Most of these were widows, however, Mary Theimann at 4364 Papin, was divorced.

The male head of families continued to have similar unskilled and low paying semi-skilled positions as recorded in the previous two censuses. A greater number of them (N=14) worked as butchers for butcher shops or in meat packing plants, including the slaughter house operated by George Gould behind 748 Newstead. This slaughter house, however, was closed shortly after 1920. Other business owners living in the mitigation area included Fred (Frederick) Fisk at 4362 Papin who continued to operate a grocery store at 4360 Papin, Michael O'Hearn at 4317 Papin who operated his own horse shoeing business, and Frank Vazis (spelled Vasis in 1910 census) now listed at 4370 instead of 4372 Papin, but continuing to operate his own automobile tire vulcanizing business.

Of the female widows who served as the head of the family, only two worked outside the home. These consisted of Clara T. Werle, age 54, at 4355 Papin who worked as a janitress for St. Louis City dispensary and Julia Tisdale, age 59, at 4362 Papin who worked as a nurse for a

private family. Out of the 58 wives, only one, Fredericka Shoemaker at 4304 Papin had a job outside of the home, working as a presser for a dry cleaning company.

The number of children born to the women and how many were still alive was no longer recorded on the 1920 census, but there were 124 children living within the mitigation tract at this time, slightly lower than in 1910 (N=130). These consisted of 75 sons, 46 daughters, and 3 step children. At least 26 of the sons had graduated from high school. They worked at the following professions:

4 weavers for wire company	2 clerks for insurance company
insurance agent for insurance company	glazer for sash and door company,
contractor laborer	office boy for shoe company
laborer for biscuit factory	laborer at iron works
salesman at grocery store	tuck pointing for the city
grinder for machine shop	laborer at tobacco factory
mechanic for optical company	bookkeeper for metal company
teamster for the city	chauffeur for laundry company
mechanic for automobile company	helper at electric company
helper at machine shop	salesman for tea company
bookkeeper for lumber company	

Frederick Gould, son of George Gould who operated his own slaughter house, was going to college and did not work. Two sons of Reuter at 4361, Elsworth age 23 and Leslie age 20, were listed as having no jobs.

Of the 19 daughters who had graduated from high school, 14 had jobs. These were mostly low paying positions including a helper in a candy factory, shoe factory workers (N=2), type setter for a chemical company, helpers in a pharmacy (N=2), stenographer for the Gas/Light Company, binder in a book store, sales lady in a department store, helper at wire factory, helpers in a cigar store (N=2), cashier at theatre, and elevator girl at a hotel. At this time, none of the school age children had jobs.

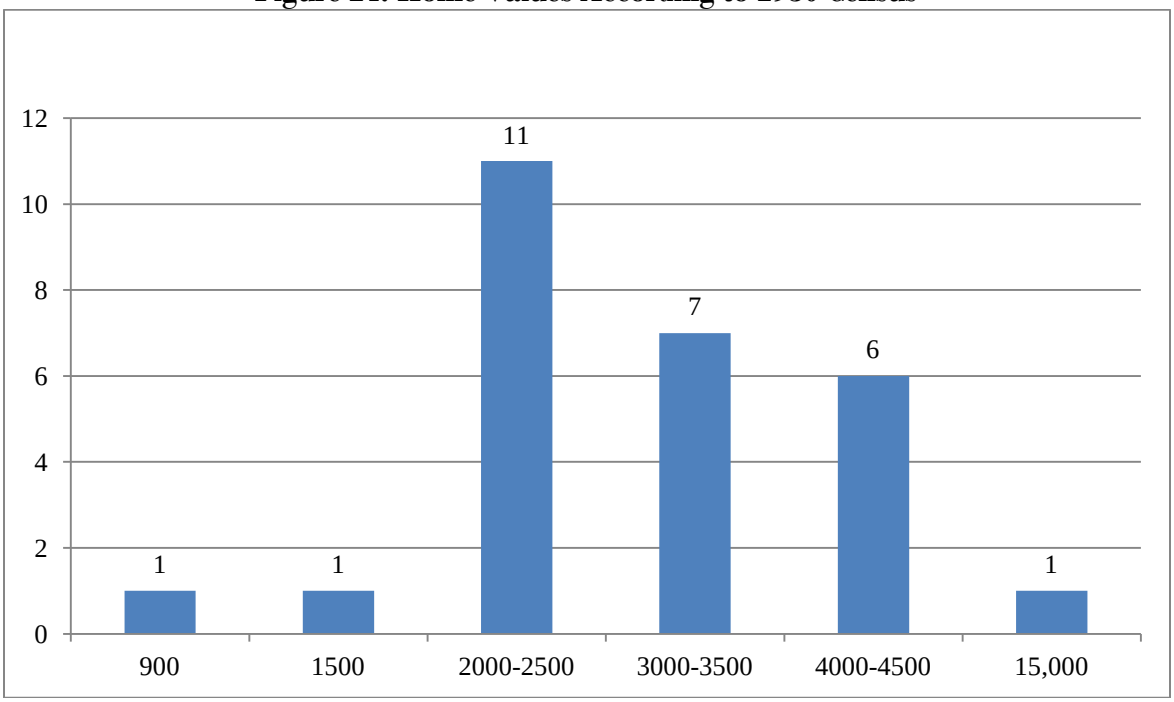
A greater number of families (N=14) had a relative living with them than in 1910 (N=7). These individuals included father in law, mother in law, sister in law, brother in law, nephew, son in law, and grandchildren. Another six families supplemented their incomes by taking in borders. The widow Eva D. Flowers, at 4330, supported herself by running a rooming house with four boarders. The Fisk family had five boarders living above their grocery at 4360 Papin, all of them recent immigrants (1897-1911) from Serbia. Other residences that had roomers included two at 4347 Papin, and one at 4355, 4324, and 4370 Papin.

Landowners in 1930

Information from the 1930 census (Appendix D) suggests that the number of homes within the mitigation area increased by only one to its maximum amount of 49. This additional house was constructed behind 4371 Papin next to the ally. However, fewer of these homes (N=10) had two families living within them than in 1920 (N=18), possibly reflecting better economic times of the 1920s, before the Depression.

Also reflecting this better time was a greater number of homes in 1930 that were owned free of any mortgage (N=27, 45.8%) than in 1920; none were listed as having a mortgage. The 1930 census listed home values which ranged from as low as $900 for 4348 Papin, owned by John Martens, to as high as $15,000 for the store/residence at 4360 Papin, owned now by the widow of Frederick Fisk, Mary. Excluding the value of Fisk's store/residence, the average home value for this area was $2,792, with most of the home values ranging between $2000 and $2500 (Figure 24).

Figure 24: Home Values According to 1930 Census



Another 32 (54.2%) families rented their homes. The 1930 census also recorded the amount per month that these families paid in rent. These costs went for as low as $15 paid by Charles A. Dry for 4309 Papin and by John W. Rippey for the home in the rear of 4371 Papin. Henry J. Happel paid the highest rent at $50 for 4330 Papin. Overall, the families paid an average of $28.54 in rent, with most paying $30-34 (Figure 25). The census further indicated whether families had a radio set. Nearly half of the families (N=30) within the mitigation area could afford to purchase a radio.

By 1930, the number of household heads and their wives that had been born in foreign countries dropped to only 8 individuals, representing 18% (Figure 26). In response to the influx of immigrants from eastern and southern Europe, an immigration law was passed in 1924 limiting the numbers allowed into the U.S. (Green 2000:5). Of these individuals four had been born in Germany, two in Ireland, and one in Italy. Eugene Kertler, who lived at 4311 Papin, was born at sea as his family was emigrating from France. Similar to the 1910 census, a greater percentage, 50%, of these individuals were born in the U.S. to parents who came from other countries. Those born in the U.S. and whose parents were born in the U.S. represented 32% of the families. The vast majority of these individuals (N=11) had been born in Missouri, with only Viola Berndt, the wife of Paul J. at 4308 Papin, being born in Illinois, and Carl C. Saller at 4302 and Henry Kettler at 4369 Papin, both born in Indiana.

Figure 25: Monthly Rent On Homes According to the 1930 Census

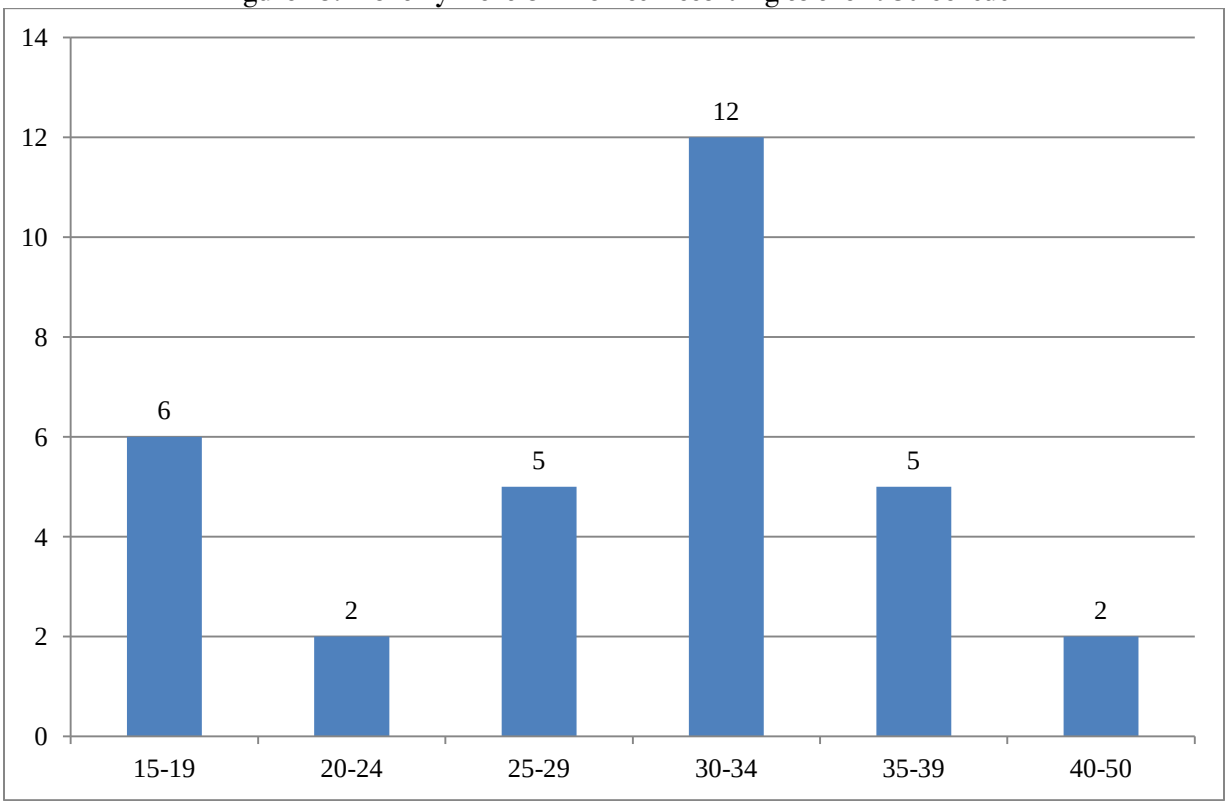


Figure 26: Percentage of Heads of Households That Were Foreign Born, Native Born, or Native Born With At Least One Foreign Born Parent According to the 1930 Census

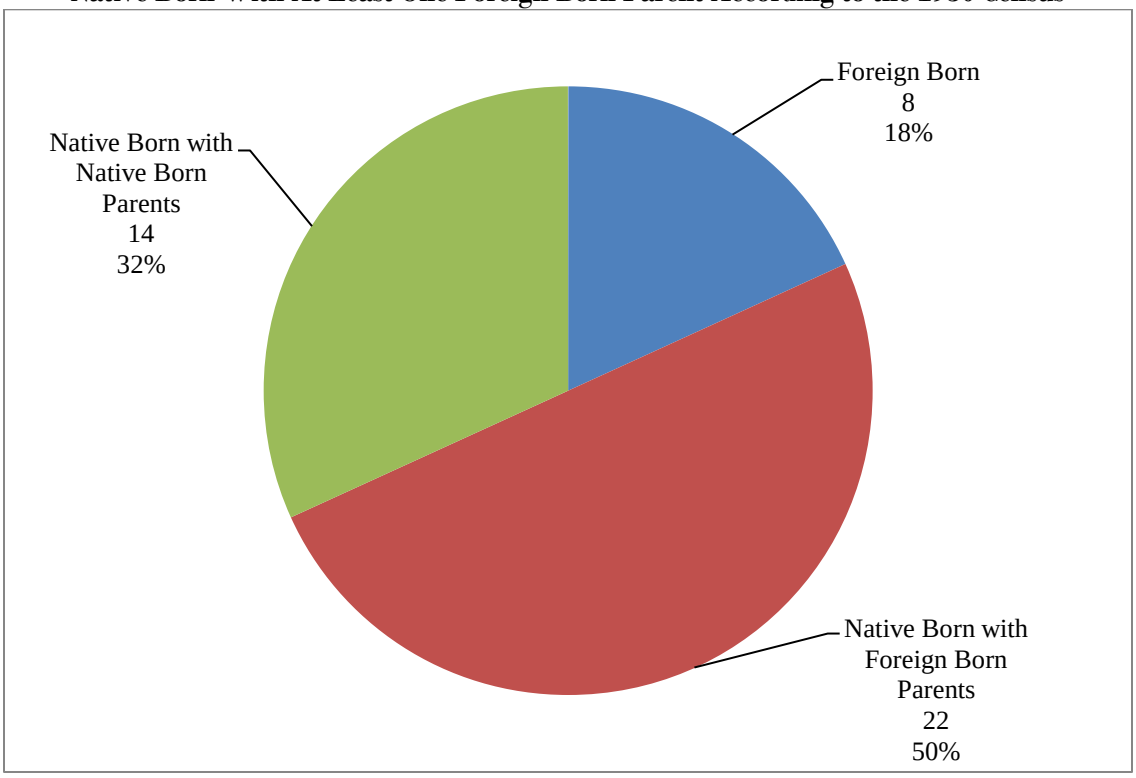
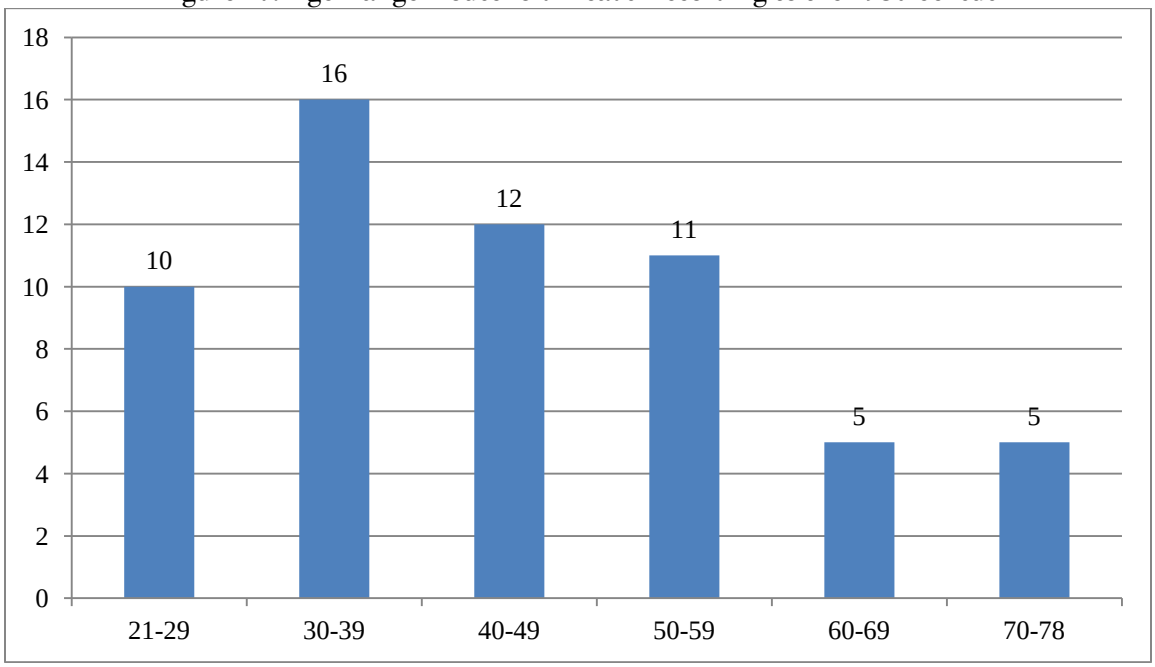


Figure 27: Age Range Household Heads According to the 1930 Census



By 1930, the number of families living within this area had decreased from 69 in 1920 to 59. Of these, 42 were headed by a married male. Two families had a widower as the head, Henry Friend at 4313 Papin and Givoanni Accinelli, an immigrant from Italy, who lived in the adjacent home at 4315 Papin. A greater number (N=5) of the male heads were single. These include William Engel age 21 of 4316 Papin, Henry Eichmier age 26 of 4376 Papin, Joseph Scherer age 35 of 4350 Papin, Eugene Kertler age 38 of 4311 Papin, and Edward Langan age 49 of 4365 Papin. Another 10 families had widowed female heads of households.

The age range of the household heads living within the mitigation area during this time varied from 21 years old for William Engle to the 78 year old widow, Mary Thiemann, who lived at 4364 Papin. Overall, there was only a slightly smaller number (N=10) of older heads of households (60 to 78 years old) within the mitigation area than in 1920 (N=12). Most of the heads, similar to previous census, were during their peak working ages, with most between the ages of 30 and 39 (Figure 27).

The male head of families continued to have similar unskilled and low paying semi-skilled positions as recorded in the previous censuses. Some of these individuals operated their own business including Paul Berndt of 4308 Papin who had a sheet metal business, George Hallu of 4375 Papin who had his own carpenter shop, Carl Saller of 4302 Papin who had a barber shop, and Joseph Corrigan of 4351 Papin who was a huckster with his own wagon. Jacob Westerman of 748 Newstead had his own grocery store and meat market. It's possible that he took over Gould's slaughter house operation. Daniel Gould of 746 Newstead was listed as a livestock buyer for a meat packing plant, perhaps the one run by Westerman.

The 1930 census also indicated if a person was a veteran. Ten male family heads (20.4% of the male household heads) had served in the military, with most of these serving in the World War (I). Clarence Coff of 4373 Papin served in the Spanish American War.

Four of the wives also held jobs, including Helen Stroup of 4326 Papin, who operated a tractor for the railroad; Delphine Vazis of 4370 Papin, who served as a telephone operator; and Louise Appel of 4372 Papin and Unna Mertell of 4342 Papin, who made shoes for a shoe company. Of the ten female widows who served as the head of the family, only two worked outside the home. These consisted of Clara T. Werle of 4355 Papin who continued to work as a janitress for St. Louis City dispensary as she had in 1920. Mary Bennsen of 4309 Papin, age 42, worked as a house keeper for a private family.

Fewer children lived within the mitigation area at this time (N=83) than in 1920 (N=124), consisting of 41 sons and 42 daughters. Of the 22 sons who were past school age, 16 had jobs. Most of the professions consisted of entry or low paid positions including:

street paver for the city	shoe worker for shoe company
office boy for plumbing company	paste boy for paper hanger
errand boy for supply company	helper for fur company
apprentice carpenter for construction co.	clerk for office
sign painter for sign company	grocery clerk for grocery store
chauffeur for gas and fuel company	

The latter grocery clerk was Fredrick Westerman, the son of Jacob, who opened a store at 748 Newstead. Other sons such as Edward Schoenig of 4303 Papin, was 39 years old, divorced, and worked as a butcher at a meat packing plant. Gallis Maschmann who lived at 4362 Papin was 27 years old, single, and worked as an optician for an eye company. The two sons of Clarence Coff, Clarence Jr. and Robert, at 4373 Papin, were golf professionals at a golf club. The remaining six sons were not listed as working including the 17 and 18 year old sons of Daniel Gould.

The same number of daughters as sons beyond school age (N=22) worked (N=16). Most of these women were stenographers (N=5). Other professions held consisted of:

office clerk for loan company	house cleaner of private homes
box maker for box factory	grader clerk for wholesale coffee company
stretcher for stationary/printing company	shoemaker for shoe factory

The latter was the 21 year old daughter of Jacob Westermann of 748 Newstead. His other 19 year old daughter, Dorothy, worked for her father as a clerk at the grocery store and meat market. Other daughters held supervisory roles such as Viola Coff of 4373 Papin who was a supervisor for the telephone company and Helen Samuelson of 4363 Papin, 24 years old and single, who worked as a factory head for radio parts company. Mary Hueppner of 4355 Papin, a 48 year old widow, made garments out of her home.

A greater number of relatives (N=24) were living with the families (N=14) than in 1930. Some families had three or four relatives living with them such as Henry Eichmier of 4376 Papin whose half sister, sister, and aunt lived with the family, and Edward Langan of 4365 Papin who had his brother in law and three nieces living with his family. However, only one family, Frederick and Mary Doehring of 4344 Papin, had a lodger living with them; John Lawrence was a 31 year old widower who worked as a shoe maker at a shoe factory. This could reflect the ending of the practice of taking in boarders by 1930.

Landowners in 1940s

The 1940 census revealed that the number of homes within the mitigation tract had decreased dramatically to only 29 (Appendix E). Homes within the northeastern portion of the mitigation area had been removed and the Hy-Grade Water and Soda Bottling Company was established at that location in 1936. This plant was extended to the north and west in 1946 resulting in the removal of residences between 4357 and 4363 Papin, as well as 650 and 652 Edmund. Ten of the remaining homes served as two family flats, and three families are listed at 4344 Papin including John Martin, who owned the property, and two families who rented. However, it is possible that one of these families lived at 4348 Papin, which Martin also owned in 1930, but no one is listed at this address on the 1940 census.

Of these families only 14 (44.2%) owned their homes, with 26 renting. Home values ranged from as low as $900 at 4344 Papin, owned by John Martin, to a high of $8,000 for the property at 4330 Papin, owned by Henry Happel. Happel had established a store at corner of Papin and Newstead. Home values averaged about $3,043, which was higher than in 1930 when home values averaged $2,792. However, this could be due to three homes in 1940 having higher values than the rest between $6,000 and $8,000. A majority of the homes (N=8) were evaluated at $2,500 or lower (Figure 28). One of the lower building values at $1,200 was surprisingly because 4360 Papin was owned by Carl Fisk, the son of Frederick and Mary. Mary apparently had died by 1940. This was the highest evaluated property in 1930 at $15,000, which could suggest that the Depression had hit this family particularly hard. The back portion of the property was turned into a gas station just prior to 1940.

Rents ranged from as low as $10 a month for A.C. Cutler, who shared the residence at 4361 Papin with Max Hinsinger who a higher rent of $16. The highest rent, $25 per month, was paid by Clarence Patton for the residence at 4352 Papin (Figure 29). Average rent was lower than in 1930 ($28.54) at $18.19, with most people paying between $17 and $20 a month. This was nearly $10 to $14 below what most families paid in 1930, reflecting the effects of the Depression on the local housing market.

The 1940 census documented only an individual's birthplace and no longer listed the parents' birthplace. By this time, the majority of the household heads and their spouses had been born in the U.S. (92.9%, N=79), with only six people born in foreign countries. These include the widows, Mary Engle of 4316 Papin and Veronica Scherer, who were born in Germany; Michael Sonnecker of 4300 Papin, who was born in Austria; John Martin and his wife, Catherine, who were born in Ireland; and Frank Weber of 4370 Papin, who was born in Romania, reflecting the tightening of immigration laws during the 1920s and 1930s. The majority of those born in the U.S. were in Missouri (68.2%, N=58). Those born outside of Missouri mostly came from Illinois (N=9). There was one person born in Indiana, three people from the southern states of Arkansas, Tennessee, and Georgia, and two people from the western states of Oklahoma and California. This portion of St. Louis City appears to have been less of a draw for people who were born in the Northeast or upper Midwest, than it had been before this time.

Figure 28: Home Values According to 1940 Census

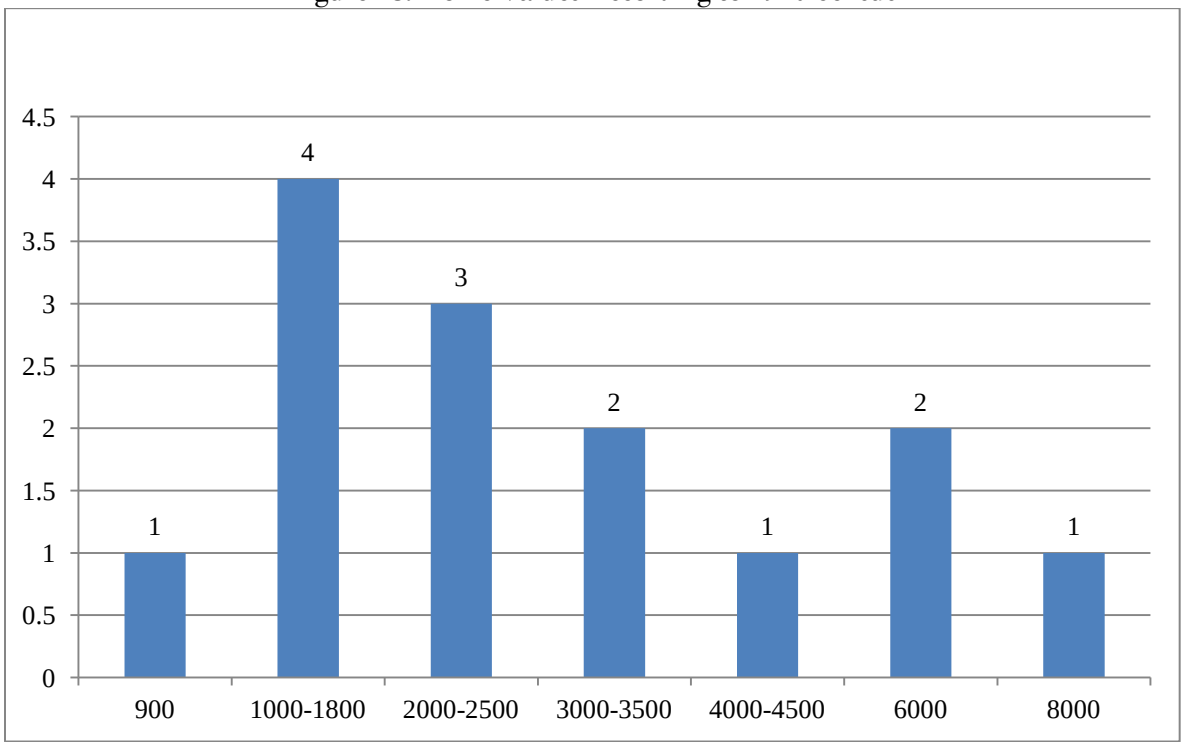
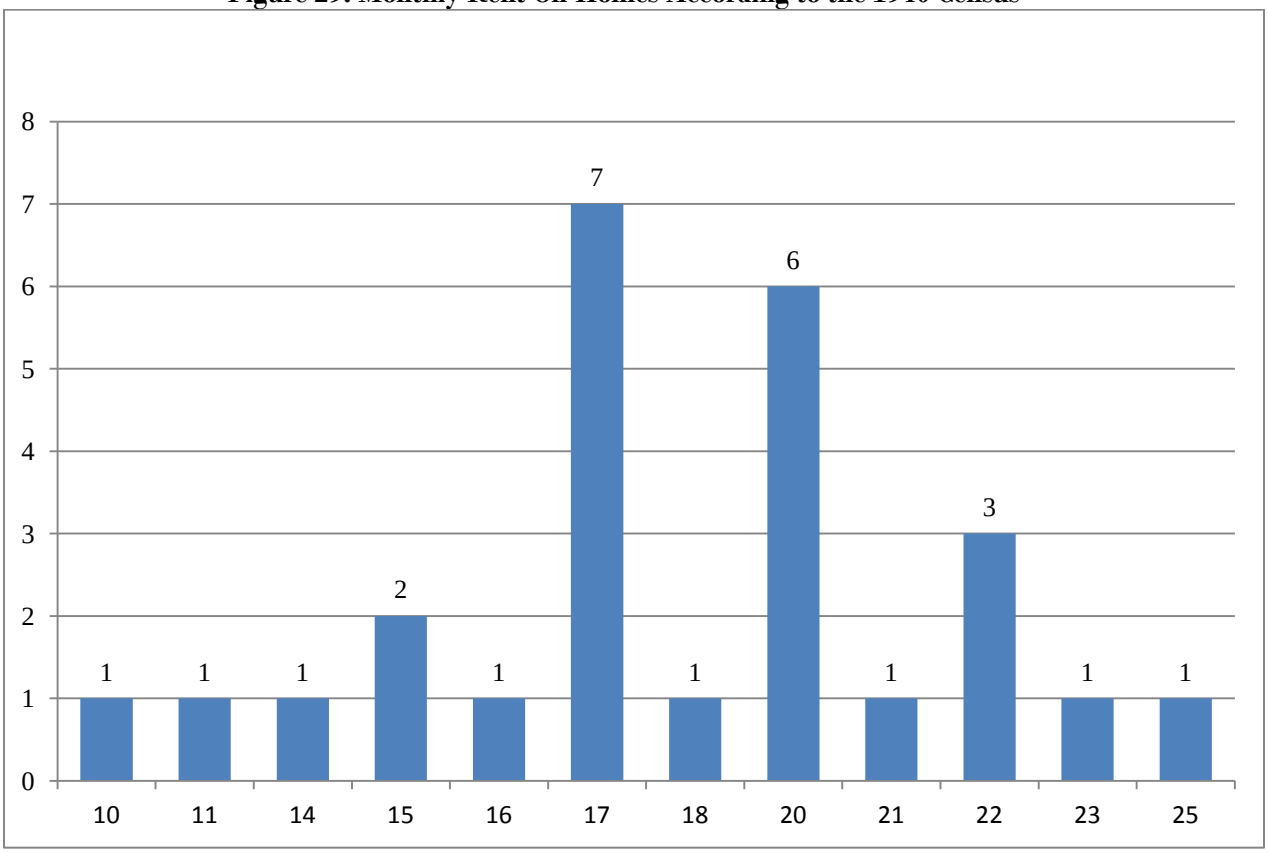
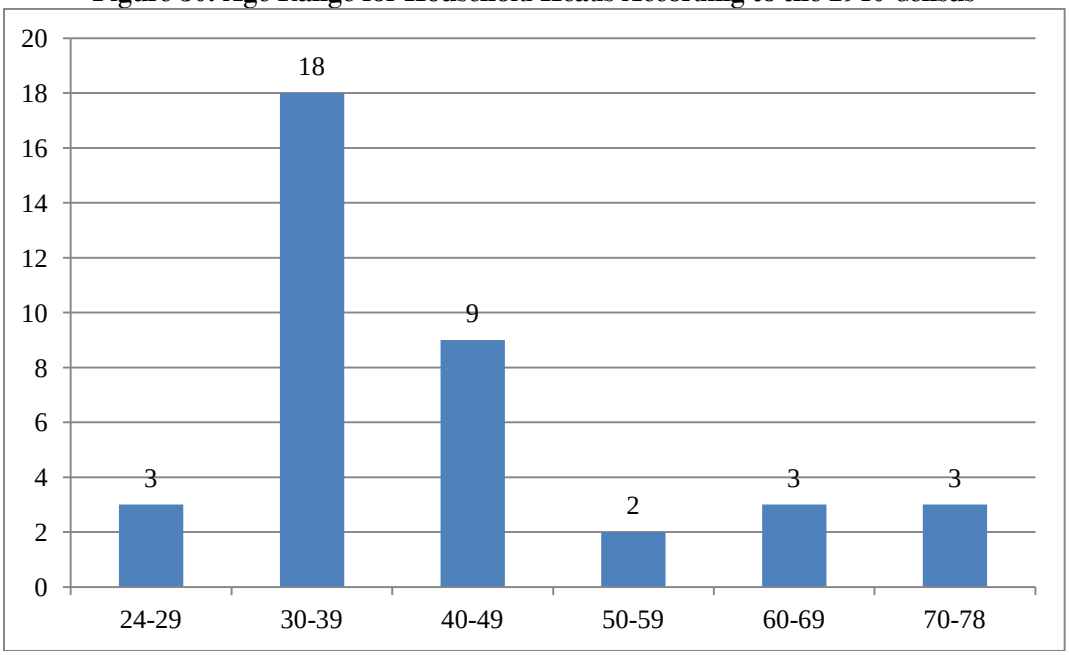


Figure 29: Monthly Rent On Homes According to the 1940 Census



The number of families living within the mitigation area dropped even further from the high of 69 in 1920 to only 40. This is nearly the same as the number of families living in the mitigation area in 1900 (N=39). It could reflect that effect that the Depression had on the residents of this area. Most of these families were headed by a married male (N=33), with one residence at 4352 Papin rented by a single male, Clarence Patton, age 42. The remainder were headed by women who were either single (N=3) including Cecilia Berndt of 4312 Papin, Emma Thiemann of 4364 Papin, and Lottie Eickmeier of 4376 Papin; or widows (N=3) including Mary Engle of 4316 Papin, Margaret Munchow at 4313 Papin, and Veronica Schrerer at 4350 Papin. The ages of the household heads ranged from 24 years old for William Borgmann and Earl Scott, who both lived at 4315 Papin, to 78 years old for John Martin at 4344 Papin. The majority of the household heads, however, were between 30 and 39 (Figure 30), suggesting that this area continued to be draw for working families.

Figure 30: Age Range for Household Heads According to the 1940 Census



Five of the male head of households had their own business including Henry Happel who opened a grocery store at 4330 Papin. A.C. Cutler of 4362 Papin operated his own confectionary store, likely at this location. While Carl Saller of 4302 Papin operated his own barber shop, Chester Klein of 4304 Papin repaired and sold radios, and Frank Weber of 4370 Papin operated his own tavern. These businesses, however, may have been away from their residence, outside the mitigation area. The remaining 26 male heads of households worked for others. Clarence Patton of 4352 Patton and Joseph Hopkins of 4344 Papin were unemployed.

The 1940 census indicated how many weeks in 1939 these men worked and the wages they received for that year. Of these individuals, 15 worked most of the year (49-52 weeks). Figuring the amount of wages that these individuals earned per week, these went from as low as $15 per week to as high as $86, with most male head of households earning between $20 and $39 per week (Figure 31). The lowest was for Max Hinsinger at 4362 Papin who worked as a meat cutter for a butcher shop, possibly at 4360 Papin, for only $15 per week.

Figure 31: Wages Earned Per Week According to 1940 Census

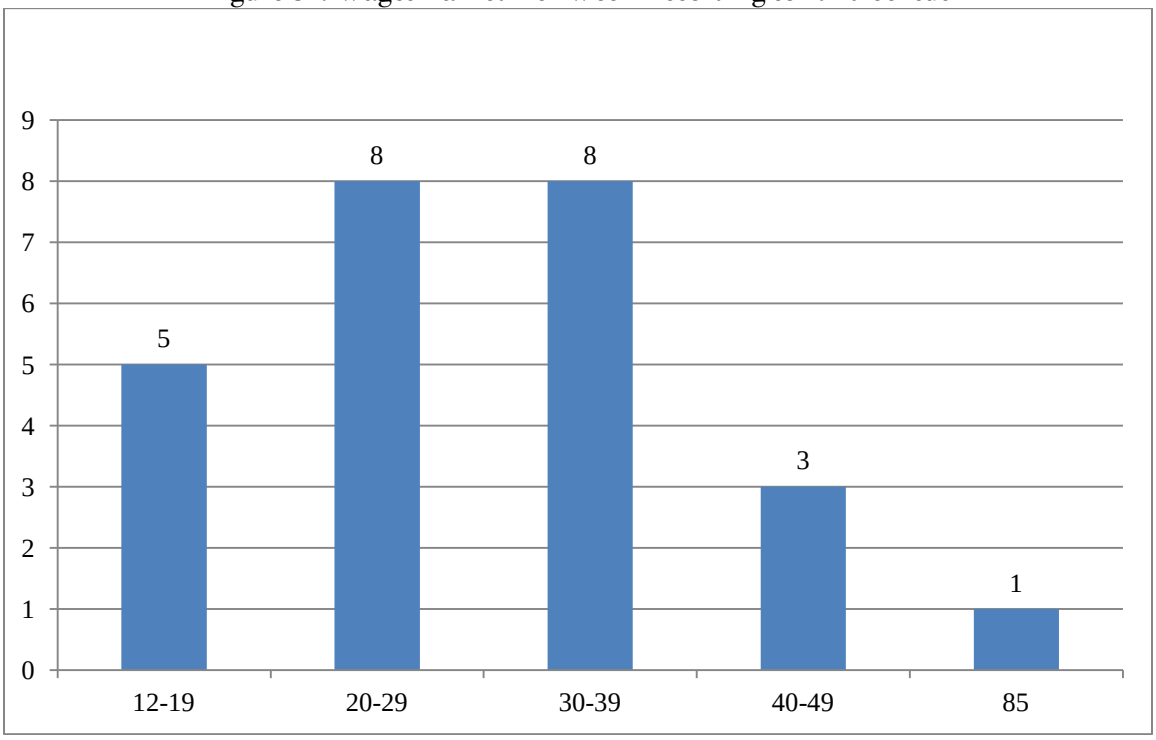
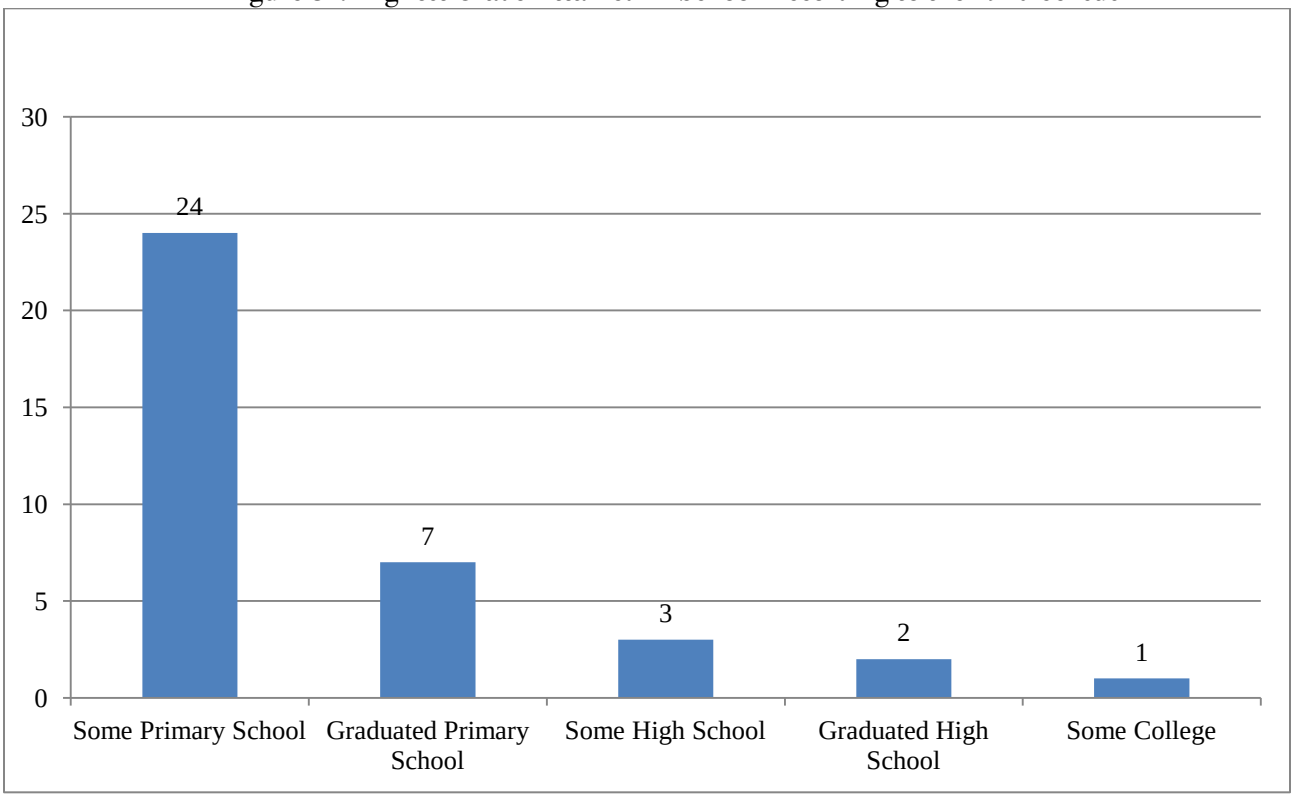


Figure 32: Highest Grade Attained In School According to the 1940 Census



Walter Jasmund of 4366 Papin earned only $15.50 per week working as a mill wright for an asbestos shingle company and Claude Manior of 4360 Papin earned $16 per week working for a battery company. Even those on the upper end of the scale worked unskilled positions including William Crowder of 4322 Papin who earned $44.44 per week as a truck driver for a long distance moving and storage company, and Roey Stetson of 4313 Papin who earned $48.21 per week working as a solicitor for the candy department in a local chain department store. He supplemented this income by also working in the store's warehouse. Daniel Gould, who continued to reside at 746 Newstead still was a livestock buyer for a packing company, earning $60 per week. The most money per week was by Carl Hirschausen of 4314 Papin, who repaired trucks for the City of St. Louis, earning $85 per week and who in 1939 made more money than the other wage earners living in the area at $4,420.

The 1940 census also lists the highest grade attained by individuals (Figure 32). Only three of the male heads had graduated from high school. This includes Earl Scott, who lived at 4315 Papin and worked as a grocery manager; and Pasko Branham of 4319 Papin, who was a druggist for a drug store. Joseph Schwartz of 4316 Papin not only graduated from high school, but also had two years of college. He worked as an aircraft worker for an airplane company. Schwartz apparently only recently acquired this job for he worked only 29 weeks in 1939 and earned $870 or about $30 per week at this job. A greater number of these individuals left school before attending high school (only eight years of school or less on Figure 32). Several individuals had only four years of school including Carl Saller of 4302 Papin who operated his own barber shop and Charles Jones of 4372 Papin who was a weaver in a wire company. Three other individuals were females who were either widow or single, including Mary Engle, Margaret Munchow, and Emma Thiemann.

Two wives, within the mitigation area in 1940, had jobs to bring in extra income. Ethel Cutler of 4362 Papin worked as a clerk in her husband's confectionary store at this location, and Ina Laramore of 4317 Papin worked as a bundle wrapper in a laundry. Of the female head of families, the three widows, Mary Engle, Margaret Munchow, and Veronica Scherer did not work. Single females such as Cecilia Berndt worked as a clerk in a credit exchange company and Lottie Eickmeier worked as a wrapper for a tobacco company. The 1940 census indicated that Emma Thiemann was "unable to work".

The number of children living within the mitigation area had dropped further to 54 in 1940 from 83 in 1930. These included 29 sons and 25 daughters. Only 13 sons were past high school age. All of these had jobs except for James Crowder of 4322 Papin and Joseph Schwartz at 4326 Papin who attended college, and James Martin, age 34, the son of John at 4344 Papin, was unable to work. All three of Gould's sons were employed as a mail carrier, a guard for a bank, and a retail shoe store clerk. Other boys in the neighborhood worked as a derickman for a stone company, truck driver for an excavation company, stock room clerk at a cosmetic company, and vegetable preparer for a cafeteria. Joseph Scherer at 4350 Papin, worked as a greens keeper at a golf course. William Hinsinger, at 4362 Papin, worked as a service station attendant at the gas station behind this residence. He worked for only four weeks, possibly suggesting that the gas station had only recently opened. The stepson of Walter Jasmund at 4366 Papin, Richard Holmes, was listed as a "new worker". He had been unemployed until recently. All of the daughters over the age 15 held jobs. This includes both daughters of Gould who worked as a telephone operator and an analyst for a plant and seed company. Margaret Michel

of 4314 Papin worked as a sorter for a silk manufacturing company, Mary Saller of 4302 Papin worked as a typist and clerk for a wholesale feed company, and Marian Sonnecker of 4300 Papin who worked as a machine operator for a shoe factory. Helen Martin at 4344 Papin was the only member of her family who worked, as a box maker for a candy company, as her father John (age 78) and brother, Joseph, were listed as unable to work.

Five families had a relative living with them including mother in law, daughter in law, sister, brother, nephew, and grandchildren. One family had a lodger, Christopher Sarros, age 20, who worked as a busboy for a hotel. He lived at 4360 Papin with the Carl Fisk family. Henry Happel of 4330 Papin, who owned his own store, had a maid, Anna Jaoquin, working for his family. This was the first family living within the mitigation area that could afford to have a maid.

Landowners in the 1950s

Although the 1950 census is currently unavailable, the 1951 Sanborn fire insurance map (Figure 33) suggested that there were three fewer homes (N= 26) within the mitigation area. Five of the homes served as two family flats at 4324, 4326, 4344, 4370, and 4372 Papin. The stores remained on the corner of Papin and Tower Grove at 4360 and 4362 Papin, and Happel's grocery store on the corner of Papin and Newstead at 4330 Papin. There may have been additional families renting the upper floors of these buildings. The filling station still existed behind the store at 4362 Papin. By this time, all of the homes north of Papin had been removed. The eastern half of this area, between Edmund Road and Tower Grove, was now occupied by a Pepsi Cola and Hy-Grade bottling facilities. The residence of the Gould family at 746 Newstead also had been removed as had the slaughter house and the lot left vacant. It was during the 1950s, that the Daniel Boone Expressway, Highway 40/61, later known as Interstate 64, was proposed to pass through the center of the mitigation area (Figure 33).

Daniel Boone Expressway and the Interstate System

By the 1910s, automobiles had evolved beyond the experimental stage, afforded only by the more wealthy families, and became the main means of transportation that nearly everyone could afford. Roads, however, remained inferior, lacking any national or state-wide organization. In 1912, Carl G. Fisher organized the Lincoln Highway Association which marked the first transcontinental highway route in the United States, piecing it together from existing roadways. Other associations followed, basically operating in the same fashion, connecting any two major destinations via a marked route cobbled together from existing roads. The associations drew their profits by soliciting contributions from towns and businesses along the marked route. The routes were often circuitous and the association efforts rarely involved road improvement work (Stewart 1953:11-13).

Also in 1912, the Daughters of the American Revolution led a fight to establish a marked cross state highway network of existing roads. The National Highways Association had been organized in 1914 to work for establishment of a federally funded National Old Trails Road highway system, extending over 50,000 miles, roads within the system chosen on the basis of historic, commercial, and scenic considerations (Federal Highway Administration 1976).

Figure 33: 1951 Sanborn Map and Mitigation Area

Figure 34: 1927 Map of St. Louis and Major Roadways
(Langwith Publishing Company 1927)

Project Area
MAP OF
ST. LOUIS
and VICINITY
COPYRIGHT BY LANGWITH PUB. CO.
To HANNIBAL, QUINCY
To WASHINGTON, JEFFERSON
To CHESTER
To ST. GENEVIEVE
EAST ST. LOUIS
MISSISSIPPI RIVER
EADS BRIDGE
FREE BRIDGE
McKINLEY BRIDGE
TOWER GROVE PARK
FOREST PARK
Mapleswood
Venice
Kenwood
Edgewood
Normandy Heights
Jennings
Madison
Taylor Ave.
Calvary Ave.
Broadway
Kingshighway
Grand Ave.
Gravois Ave.
Manchester
Lindell
Olive
Washington
Market
Chouteau
Delmar
Forest Park Ave.
Clayton Road
Big Bend Rd.
Watson
Mackenzie
Lohmann
Morgan
Ford
Bates
Chippewa
Meramec
Arsenal
Tower Grove Ave
Shaw
Compton
Jefferson
Russell
Gravois
Union Blvd
Page
Easton
Kingshighway
Hamilton
Ogden
Kienlen Ave
Charles
Forsyth Blvd
Wydown
Skinker
Pennsylvania
McCausland Ave
Sublette Ave
Hampton
Delmar
Lindell
Forest Park
Olive
Washington
Market
Chouteau
Laclede
Lafayette

In 1925, federal authorities created a national road numbering system that virtually ignored the confused system of marked roads previously created. Among the new roads created were U.S. Highways 40, 61, and 66, which transverse most of the country and intersect at St. Louis, just east of the mitigation area (Figure 34). U.S. Highway 40 extended 3091 miles from Atlantic City east through Baltimore, St. Louis, Kansas City, Denver, Salt Lake to San Francisco. In St. Louis, this roadway passed just north of the mitigation area along Forest Park Boulevard and Lindell Avenue making its way to St. Charles Rock Road where it continued to St. Charles. U.S. Highway 61 extended north to south 1,400 miles from New Orleans, Louisiana, to the city of Wyoming, Minnesota, although it was originally planned to end at the Canadian border. This highway passes southeast of the current project area along Grand Avenue, where it continues along U.S. Highway 40 to about Wentzville in St. Charles County, where Highway 61 turns north. U.S. Highway 66 extended 2248 miles from Chicago, Illinois to Los Angeles, California. It passed just south of the current project area along Manchester Avenue and continued east along Chouteau, across the Mississippi River to Chicago.

As early as 1938, consideration was given by the federal government to an interstate highway network. A report resulting from the Federal Highway Act of that year recommended construction of a 26,000 mile inter-regional system consisting of two or four lane highways, some with controlled access. The plan remained dormant until the Federal Highway Act of 1944 authorized the designation of select existing highways as part of an interstate system. The act called for improvement of these designated roads, but made no provision for increased federal funding. Lack of money and uniform design standards slowed progress on the project over the following years. Although funding increased with the Federal Highway Act of 1952, only 6,000 miles of highway had been completed by 1953 (Weingroff 1996).

In an address to the Governors conference in 1954, President Dwight Eisenhower declared that the highway system then in place was totally inadequate, causing needless death and injury, creating delay in the transportation of goods, and placing the nation at risk in the event of major disaster or war. He called for federal and state cooperation in the creation of a modern interstate network, paid for by a revamped system of financing that would avoid debt. Installed over a period of 10 years, the highway program would, according to Eisenhower, cost $50 billion. A presidential advisory committee headed by General Lucius Clay subsequently determined that modernization of 36,402 miles of designated highway could be achieved in 10 years at a cost of $27 billion (Weingroff 1996).

The Federal Highway Act of 1956 substantially enacted Eisenhower's proposal and initiated the current interstate highway system. The act instituted construction on a network 39,600 miles in extent and authorized $25 billion for the project, to be spent between 1957 and 1969. Inherent in the terms of the act was the idea that the interstate system would evolve and improve over time and that initial construction would be altered or replaced in the future as need arose. The original act permitted two-lane interstate segments with at-grade intersections in low traffic rural areas, but called for the adoption of minimum standards aimed at the eventual elimination of these segments. Legislation passed in 1966 ultimately did require all interstates to be at least four lanes and have no at-grade intersections. According to the 1956 act, interstates were to be constructed according to standards accommodating traffic forecasted for 1975. Subsequent legislation amended this requirement so that highway design would tolerate traffic

estimates for a maximum of 20 years (Federal Highway Administration 1976:476; Weingroff 1996).

It was in the 1960s that work began on the Daniel Boone Expressway, U.S. Highway 40/61, (renamed Interstate 64/40 in 1988) through the mitigation area. This roadway passed approximately through where Papin Avenue once existed, requiring that residences on the south side to be removed during the late 1950s. In order to maintain an acceptable grade, it was necessary to cut through the hill, where the historic residences were located. Further disturbances were caused by the construction of bridges for Newstead and Tower Grove Avenues.

Overall, the archival data for the mitigation area suggested that initially, this area was first occupied in 1876 and 1884 mostly by middle class families, whose head of households had businesses and several of them owned more than one tract or homes within the mitigation area. A grocery store/butcher shop was established at the southwest corner of Papin and Tower Grove, and a slaughter house on the northeast corner of Papin and Newstead. However, fairly quickly, working class families, many of them immigrant families or the children of immigrants from Germany and Ireland, purchased or rented homes within the mitigation area. These families appear to have struggled financially during the 1900s and 1910s, but did make some headway during the 1920s, with more owning their homes, only to have these successes reversed during the 1930s and early 1940s. After 1940, fewer families continued to reside within the mitigation area and in the 1950s, the remaining homes were purchased for the construction of Interstate 64/40. This portion of the interstate was cut down destroying the remains of the residences, the backyards of these properties at the edges of the right of way appear to have been less disturbed and could still contain yard features.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

With the Newstead and Tower Grove bridges now reaching 50 years old, it has been proposed that they be replaced and an interchange with the interstate constructed at Tower Grove Avenue (Figure 35). A previous survey of this area for improvements to Interstate 64 suggested that this area has "been heavily disturbed due to road, residential and commercial development/ construction" (Rahe 2007:6). However, as indicated by Meyer, Daniels, and Dawdy (2012:3), the original survey "was based upon a review of 20th century maps of the area, and failed to consult earlier resources including Dry and Compton (1876), Hopkins (1883), and Whipple (1897)". As a result, the proposed construction easement for the two bridge replacements was investigated to verify the potential presence of significant cultural resources (Meyer 2012; Meyer, Daniels, and Dawdy 2012).

Since intact cultural remains could not be verified by a surface survey, as most locations within urban areas have been covered by a recent fill, a backhoe was used to excavate test trenches to search for their presence. Access was not available to the area north of the interstate, so only the southern side could be examined. Two trenches were excavated within City Block 4879, which is located on the southeastern portion of the mitigation area, east of Tower Grove Avenue. One of these trenches was within the current mitigation area (Figure 36). It exposed the top of a possible brick lined privy (identified as Feature 4879-13), verifying that intact yard features still existed within this area, which was recorded as site 23SL2328. Another two trenches were placed in Block 4878, located on the southwestern portion of the mitigation area, between Newstead and Tower Grove Avenues (Figure 37). These trenches exposed three ash pits (F4878-1, F4878-2, and F4878-4). This block was recorded as site 23SL2329.

Based on the results of the test trenching, Meyer, Daniels, and Dawdy (2012:7-8) concluded:

> Although the features identified do not appear to contain significant research potential, they demonstrate a relatively high degree of integrity within MoDOT right of way and the probable presence of other, more significant features (i.e. privy vaults). Based upon these results, and conclusions drawn from historical research, intact 19th-century deposits are anticipated in this location. Historical research suggests that both sites will have deposits dating to the 1880s and 1890s, and testing demonstrated that MoDOT right of way has retained sufficient integrity for the archaeological deposits to be considered significant.

Since this area did contain possible remains dating to the end of the 19th century that were significant according to Criterion D for nomination to the National Register of Historic Places, "That have yielded, or may be likely to yield, information important in history or prehistory" (Federal Register 1974), it was recommended that mitigation operation be conducted.

Figure 35A: MoDOT Plans for Proposed Improvements Western Portion of Mitigation Area (Meyer, Daniels, and Dawdy 2012)

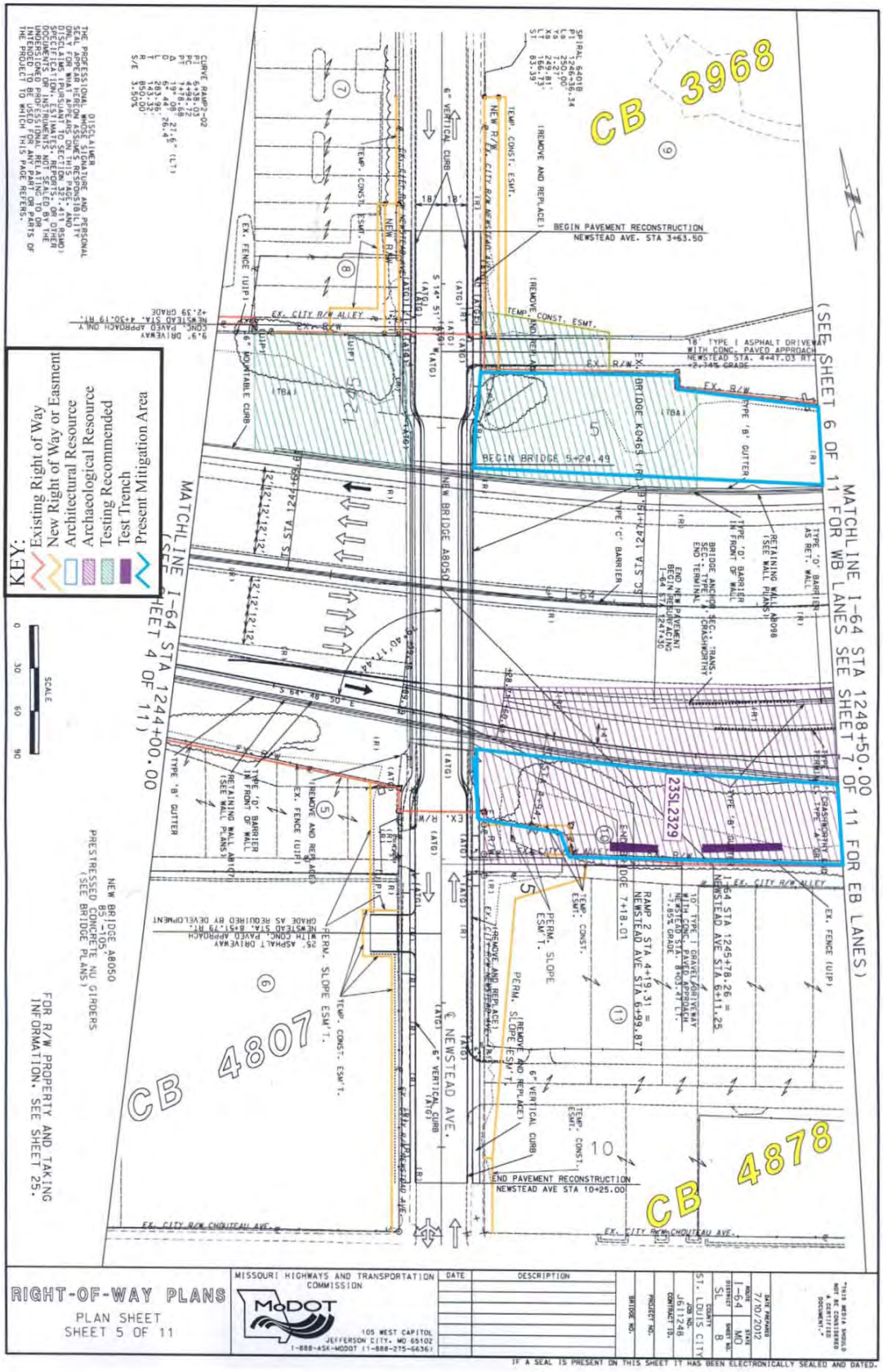


Figure 35B: MoDOT Plans for Proposed Improvements Northeastern Portion of Mitigation Area (Meyer, Daniels, and Dawdy 2012)

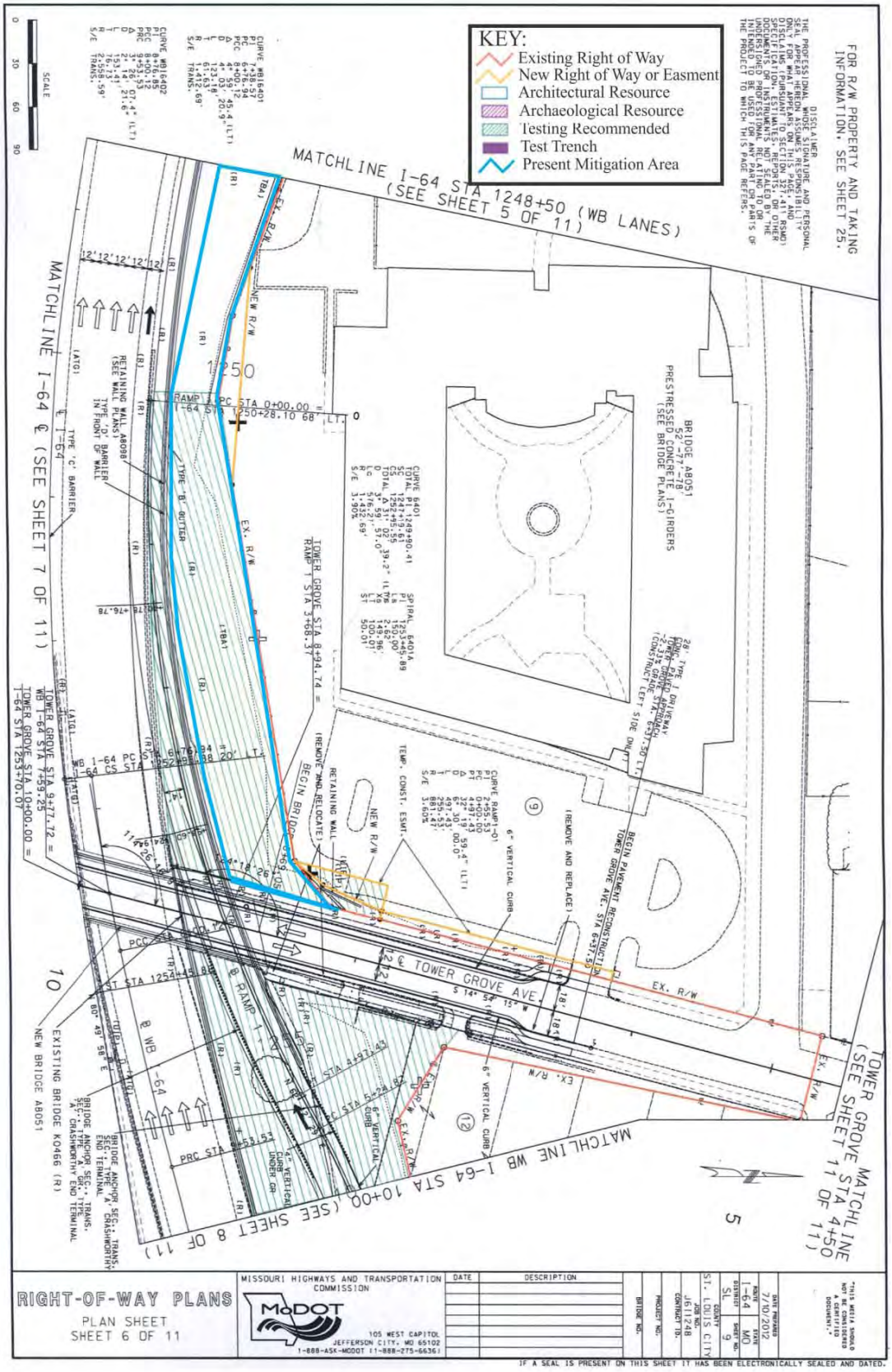


Figure 35C: MoDOT Plans for Proposed Improvements Southeastern Portion of Mitigation Area (Meyer, Daniels, and Dawdy 2012)

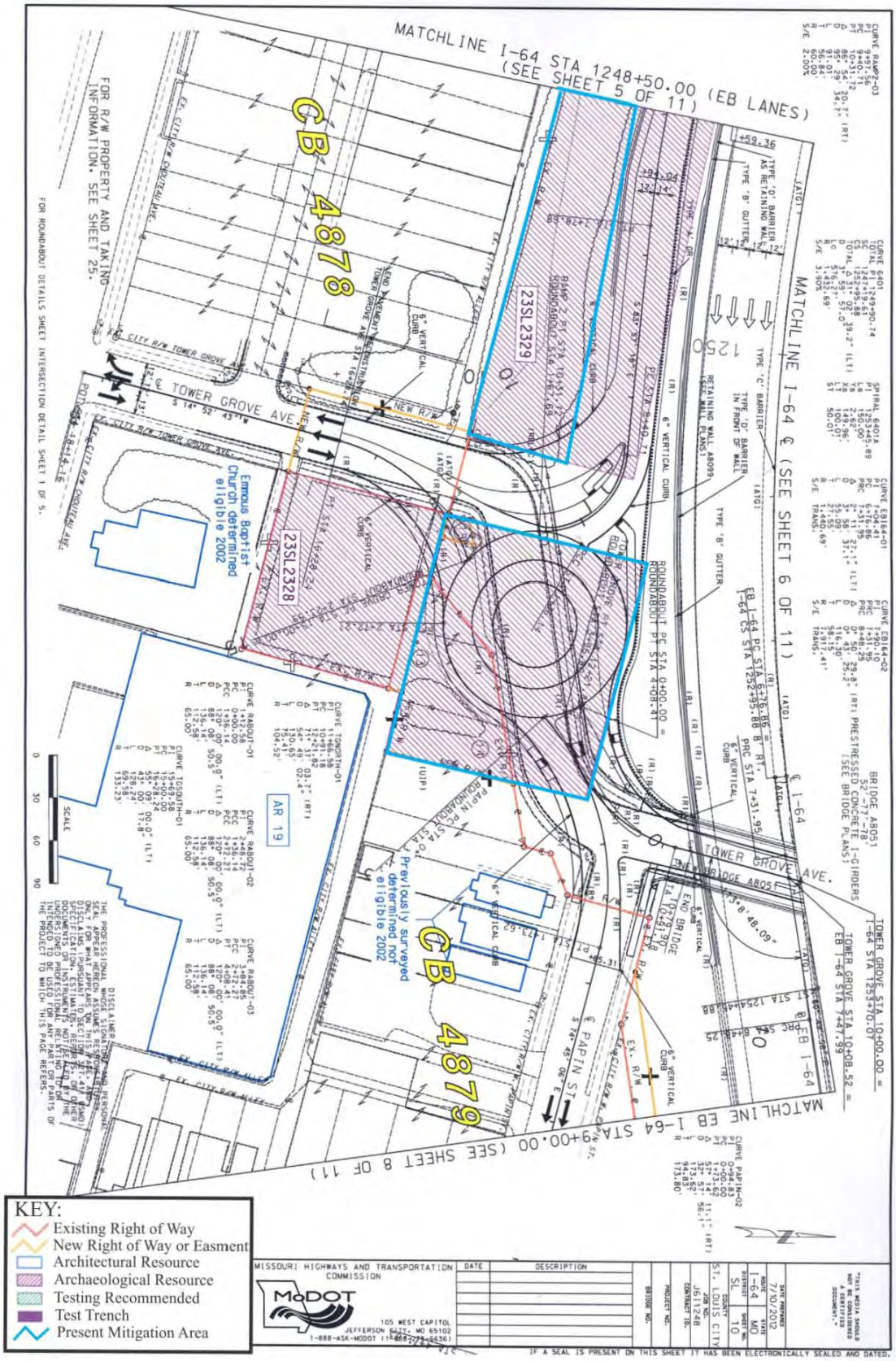
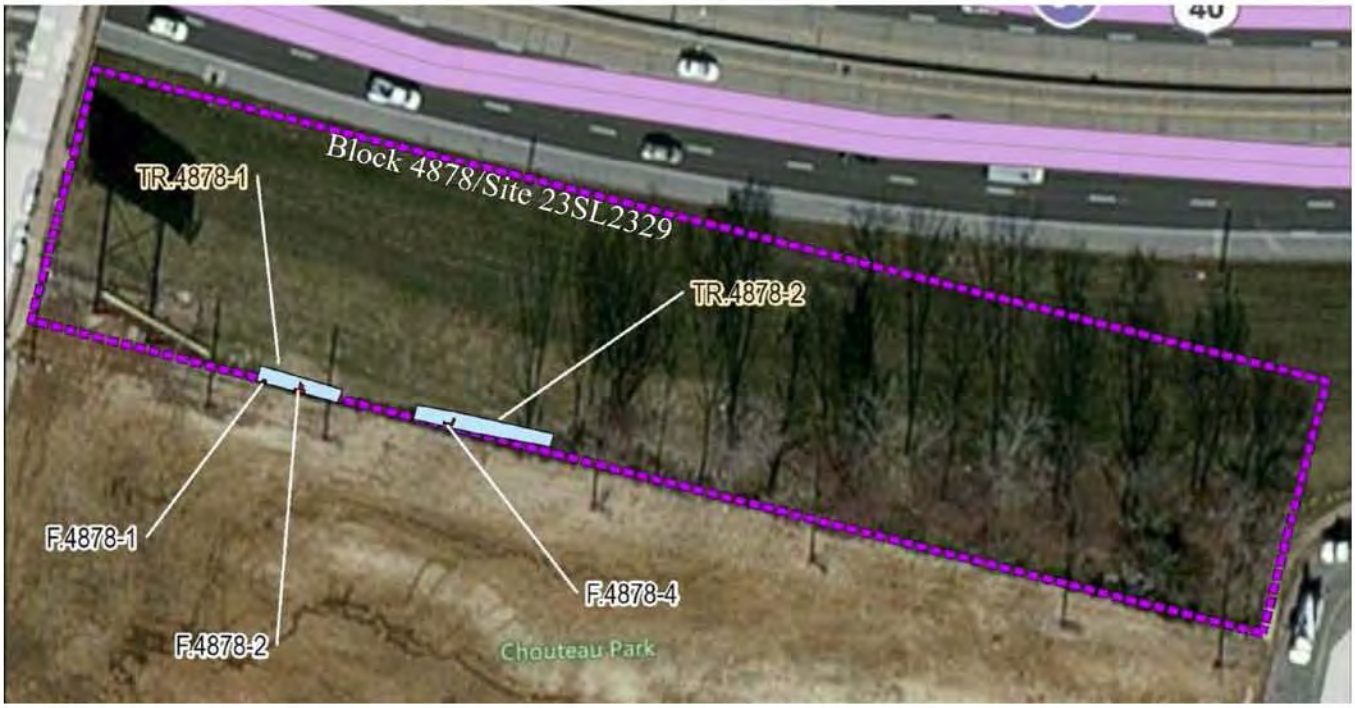


Figure 36: Test Trenches and Features in Block 4879, Site 23SL2328
(Meyer, Daniels, and Dawdy 2012:6, Figure 2)

Figure 37: Test Trenches and Features in Block 4878, Site 23SL2329
(Meyer, Daniels, and Dawdy 2012:7, Figure 3)



MITIGATION METHODOLOGY

The proposed improvements of Newstead and Tower Grove Avenues with Interstate 64 will be limited to the existing MoDOT right of way. Previous archaeological investigations conducted by the staff of MoDOT's Historic Preservation section (Meyer, Daniels, and Dawdy 2012) indicated that although the northern side of the interstate was not accessible, undisturbed yard features were located on the south side.

POTENTIAL YARD FEATURES

Potential yard features that could still exist within the proposed construction easement include privies. Privies typically were placed at the back of properties to keep the offensive smells and pests drawn to this location as far from the home as possible. Without trash collection, privies also were utilized as a place to discard rubbish from homes. Since space is limited, urban privies are typically dug very deep, nearly 10 feet, allowing them to be used for longer periods of time. Privy bottoms were left open so that waste could filter out into the surrounding soils reflecting late 19th century Victorian beliefs of "out of sight, out of mind". If something was deemed unhealthy, its sights and smells were hidden, representing the 19th century belief in the miasma theory (Stottman 2000). It was reasoned that diseases were caused by the presence of a poisonous vapor of suspended particles of decaying matter (miasma) that was characterized by its foul smell. Prior to an understanding of microbes, which occurred by the end of the 19th century, this waste usually reached the water table polluting the local wells. Once a privy became full of human waste and rubbish, they were cleaned out, usually at night, by licensed scavengers to prevent local residents from having to experience perceived harmful sights and smells (Geismar 1993; McCarthy and Ward 2000; Krum 1850:305-306). Privies were not always completely cleaned out, so their lower layers sometimes contain older materials. At other times, a hole for a new privy was excavated and the old one sealed with the rubbish still inside of it. At least 35 properties within the mitigation area were constructed before 1898 (Figure 38), so they were likely built with outdoor privies.

Figure 38: Dates Of When Homes Were Constructed and Residences Likely to Have Privies

According to information supplied by the Metropolitan St. Louis Sewer District to MoDOT's Historic Preservation Section (2012), this area did not have sewer lines until 1898-1899. At the start of the 20th century, St. Louis City made significant investments into improving the water and sewer systems. During the 1870s-1880s, an understanding of germs and water born nature of communicable diseases was becoming widely accepted. As a result, by 1887 St. Louis City passed an ordinance that after the construction of sewer lines that privy vaults be replaced by vaults with brick floors and walls held together by hydraulic mortar (Anonymous 1887a). An inlet pipe likely using rain water flushed out the waste through a exit pipe that was placed slightly lower. This 6 inch outlet pipe connected to larger sewer lines placed under the alleys and carried the sewage to nearby waterways. In 1894, the *St. Louis Post Dispatch* described the nearby River Des Peres as "nothing less than a monster open sewer poisoning the air with the most dangerous corruption and menace to health known, the corruption of sewage" (Corbett 1997:123). It took until 1970 before sewage treatment plants were finally constructed (Corbett 1997:124). These vaults continued to be used to discard trash and required regularly cleaning. After 1898-1899, the open floor privy vaults likely were converted to what the fire insurance maps describes as "water closets", representing the enclosed vaults that were flushed out by waste water. Thus, artifacts within the water closets would date after 1898.

Another potential yard feature was a cistern. Cisterns were used to hold rain water collected by guttering along the roof. This water typically was not used for drinking, but for daily household chores. Cisterns' walls and floors were lined with mortar or cement to hold in the water. Just before the World's Fair, water lines were placed through this area. However, water was "a coffee-colored liquid that the uninitiated found repellent" (Primm 1981:400). It was only weeks before the World's Fair was to open that machines for treating water were installed and "every tap in the city was discharging an unfamiliar clear and pure liquid" (Primm 1981:401). After the installation of water lines by 1904, cisterns would no longer be necessary. Trash was usually not discarded into cisterns pits during their use, but after the installation of water lines, these pits were sometimes filled with rubbish or with soils to prevent a person or pets from falling into these no longer needed holes.

Other yard features could include ash pits, where rubbish was burned. Holes were sometimes dug in the backyards to burn these remains, but more often a formal ash pit made of brick or concrete blocks was used. This reduced the amount of trash that needed to be hauled away. These pits could contain remains that did not burn. Other holes were dug to discard excess cinder or ash resulting from using coal to heat homes and to cook foods. These pits also could have been used to discard unwanted rubbish.

Remains associated with the features have the potential of providing information on the lives of people who resided within this area. The archival review suggested that a residence was first constructed on the northeastern edge of the mitigation area, at 657 Tower Grove, in 1876 (Figure 38), however, most of the homes were built between 1884 and 1893. Additional houses were constructed on the northwestern portion of the mitigation area between 1904 and 1908 and on the southwestern portion between 1913 and 1916. In 1936, the Hy-Grade Water and Soda Bottling Company was place in the northeastern portion of the mitigation area, where the residence at 657 Tower Grove and vacant lands owned by the Munchow family since the 1870s was located. A loading facility was constructed just to the west, which removed additional

homes on the northeastern portion of the mitigation area during the 1940s. By 1951, the rest of the homes north of Papin Avenue had been razed and by 1960, the southern homes were razed for the construction of the Daniel Boone Expressway. Thus, the mitigation area could have remains dating from the end of the 19th century until the mid 1900s. As such, all of the artifacts should be over 50 years old, which has been accepted as the standard cutoff date for nominating properties to the National Register of Historic Places (Federal Register 1974).

RESEARCH QUESTIONS

The majority of the remains date to the end of the Victorian Era and the start of the modern Consumer/Industrial Age (ca. 1880-1930), or what Charles Orser (2011) has defined as the latter part of the Gilded Age (1865-1925). This period of history has begun to attract a great deal of research interest. After 1930, the artifacts represent changes in consumer behavior caused by the economic hardships suffered during the 1930s Depression and the following sacrifices that people made in order to support the war effort during the first half of the 1940s. This was again followed by an economic upturn during the 1950s, when this neighborhood was being abandoned. Understanding these periods of history will provide insights not only into past people's lives, but provide a better understanding of our behavior today. Unfortunately, little work has been conducted on sites dating to this important period of history, so these excavations have the potential of providing much needed information.

The archival review provided some basic demographic information about the residents of the mitigation area, but these documents really did not provide insights into the lives of these people. What were their aesthetic tastes, purchasing patterns, social beliefs, or desires? Many of the occupants were German immigrants or the children of immigrants. How quickly did they adopt American society or did they cling onto aspects of their original culture? Understanding people's lives represents the main reason for conducting anthropologically based archaeological research. There are many things that can be learned as the result of these investigations. A few potential research questions are:

1. Previous work suggests that during the Victorian Era and into the early decades of the 20th century, social dining was an important activity conducted by families (Jameson 1987; Lucus 1994; Schlereth 1991). Dinner parties allowed families to show off their economic fortune and family values. These were reflected by the diversity and types of foods, and appropriate drinks served. Decoration of the home, dining room, and table settings reflected not only a family's economic standing, but their aesthetic tastes and values. It was important for the host family to display proper etiquette during these events, reflecting refined family values. Hundreds of etiquette books were produced at the time describing proper dining behavior as well as covering other aspects of proper etiquette (Lucus 1994; Shackel 1992). Dinner parties served as a form of social competition in which the guests were expected to not only reciprocate by having a dinner party within the near future, but had to have a more extravagant affair. To not do so could result in the family losing social prestige in the eyes of the community. This social competition was particularly prevalent among the more influential families, but social dining appears to have been just as important among urban working class families as well

(Harl et al. 2003). The archival review indicated that the mitigation area was occupied mostly by working class families. Industrialization allowed for more expensive looking dinner settings to be produced that could be afforded by working class families. Although in essence their economic situation rarely actually improved, the mass production of expensive looking commodities at affordable prices gave people the impression that their lives were improving. Having more expensive looking settings at dinner parties was a way of expressing a family's economic success to friends, co-workers, and relatives. By the 1920s, advances in worker's rights and growth of unions did result in the growth of the middle class, but these advances came crashing down with the 1930s Depression. Research questions that could be addressed associated with dining activities include:

a. Will the dinner settings reflect those used by other working class families in St. Louis consisting mostly of semi-vitreous ironstones? Did these families prefer American made ceramics, versus pieces made in England or more expensive porcelains produced in other countries?
b. How were these dinner settings decorated? In rural areas, most settings were plain or simply decorated, while at urban sites, even among working class families, more ornate pieces appear to have been preferred (Harl et al 2003). Similar findings occurred during the first half of the 19th century, suggesting a social and economic lag in rural areas (Klein 1991).
c. Did these families use various utensils associated with specific dishes, for example: butter knife, oyster fork, sugar spoon, desert spoons, and relish forks, or did they only have a limited number of utensils? Also were more inexpensive utensils used versus more expensive silverware sets?
d. Expensive porcelain pieces are present at the homes of more influential families. However, porcelains at times became a form of social prestige and working class families were sometimes willing to spend their limited expendable income on these pieces (Geismar 1982; Klein 1991; Wall 1991). Do these sites have a low percentage of foreign produced porcelains?
e. Did these families purchase more expensive cuts of meat, or more affordable pieces?
f. Wine drinking was considered an important aspect of dining, with certain types of wines, sherries, and ports, served with different courses (Wnuk 2000). Does a diversity of wine bottles and wine glasses exist, or is this activity more likely associated with more influential families?
g. Bottles associated with recreational drinking also were common at late 19th century sites. Did these families favor non-alcoholic drinks, such as milk, soda, grape juice, and mineral water, or did they partake of alcoholic beverages?
h. Tea drinking was considered an important aspect of social entertaining during the 19th century (Wall 1991). Do these sites have expensive tea sets, common at even the most remote frontier farmsteads during the 19th century (South 1977:23), or did consuming coffee replace tea drinking?
i. Were foods and condiments acquired from local markets or groceries, or did people prefer the growing number of commercially produced brands sold nationally?

j. Did these families put up foods acquired from markets for future use in canning jars or stoneware crockery vessels, similar to rural areas (Stewart-Abernathy1992) or did they purchase commercially prepared foods?
k. If possible to discern, is there a difference in dinner settings used prior to 1930 versus those used by residents during the 1930s Depression and the 1940s.

2. Objects associated with health care typically are common at these sites. There was still a general mistrust of doctors and hospitals where patients were more likely to contract another disease than be cured of their ailment (Schlereth 1991:283). As a result, people were more willing to use ways to cure themselves. Also with rapid advancements in technology, people were more willing to trust the diversity of commercially produced medicines that promoted these advancements. In actuality, most of these medicines contained now illicit drugs, such as morphine, opium, or cannabis, or they contained mostly alcohol (Young 1992). These tended to provide only temporary relief from the symptoms rather than actually cure them.
    a. Does the medicine bottles used at these sites reflect people's trust in these fraudulent patent medicines or did they procure more reputable medicines?
    b. Did people acquire more medicines produced by local pharmacies or commercially produced brands?
    c. Did they attempt to cure themselves by using herbal medicines (Schlereth 1991:283; Bonasera and Raymer 2001)? Alternatively, did they use homeopathic kits (Israel 1968), consisting of medicines sold in small vials that often contained harmful products, such as arsenic and opium. These were taken in small doses in a belief that it would increase the body's natural immune symptoms and protect a person from becoming sick.
    d. What types of illnesses were people attempting to cure?

3. People were more concerned about personal hygiene by the end of the 19th century. A healthy person was often associated with a successful one (Wnuk 2000; Wells 1868). What diet and exercise could not fix, a growing number of commercially produced cosmetics, perfumes, and cures were available.
    a. Did the residents of this area use the growing number of products associated with dental hygiene?
    b. Did they purchase various cosmetic and perfumes?
    c. Where these commercially produced or did they use home remedies?

4. Personal objects have been found in small percentages at sites dating at the start of the 20th century.
    a. What types of personal objects were used by the occupants of these sites and what does this indicate about personal tastes or social affiliations?
    b. By the mid 1800s, meerschaum, briar, and porcelain tobacco pipes became more common, but older kaolin pipes continued to be used in some portions of St. Louis, such as the Irish neighborhoods until the 20th century (Harl 2006). Which types of tobacco pipes were used by the occupants at these sites? Does the continued use of kaolin pipes reflect the person's poor economic standing or is it

more a reflection of their cultural heritage? With many residents of German heritage, were porcelain multi-piece pipes popular in Germany used?

c. Children are recorded as living within the two sites. What types of children's toys are present?

5. Industrialization resulted in numerous commodities being produced that allowed women to conduct household chores more efficiently and in a shorter amount of time. Inventions such as sewing machines, household cleaning products, and vacuum cleaners reduced the need for household servants and allowed women to take on positions outside the household.
    a. What household cleaning products were used at these sites?
    b. Did these help reduce women's time spent doing household chores?
    c. Were these products produced locally or nationally/commercially produced brands?
    d. In Victorian ideology, flowers were associated with cleanliness and wholesomeness. Cities were polluted by choking amounts of soot produced by burning coal in homes and factories. Flowers and gardens often were used to bring a bit of the healthy countryside to protect the families from the effects of this pollution. Birds, with their pleasant songs, also were believed to bring a bit of the healthy outdoors into the homes to protect the family (Praetzellis and Praetzellis 1992; Upton 1992). Is there evidence that these families used flowers or perhaps birds in their homes?
    e. Parlors represented family museums, reflecting important events in their lives and revealing their values (Schlereth1991). Are there any remains from the parlor that would reflect this aspect of the families' lives?

6. A cursory examination of the census records suggested that many of the families were immigrants having come to St. Louis primarily from Germany or Ireland. Do any of the artifacts reflect the families' cultural heritage, or were these people rapidly acculturated into the American lifestyle?

SAMPLING STRATEGY

The complete excavation of the proposed construction easement was not economically feasible. As a result, it was proposed that the mitigation area be sampled. It was initially proposed that five Excavation Blocks be placed across this area (Figure 39). These areas were selected based on the varying information that they could provide as determined by the archival review.

Excavation Block 1- This block was to be placed within the northeast portion of the mitigation area, near Tower Grove Avenue. The oldest residence within the mitigation area, at 657 Tower Grove Ave., was constructed at this location in 1876. This area could not be investigated as part of the previous MoDOT work and has not been assigned a site number. Excavation Block 1 was to measure approximately 50 by 10 meters, and would be used to expose yard features that may be associated with this residence, including its original privy. The western end of this block also would be used to search for privies behind the residences at 4355 and 4357 Papin.

Excavation Block 2- Measuring approximately 47 by 18 meters, Excavation Block 2 was to be placed in the northwestern portion of the mitigation area. This block was to search for a privy that may exist behind the residence at 748 Newstead Avenue and to look for remains of the slaughter house operated by the Gould family. In addition, possible privies shown behind the brick residences at 4315 and 4317 Papin were to be exposed. Similar to Excavation Block 1, this area was not previously investigated by MoDOT, and had not been assigned a site number.

Excavation Block 3- Located on the southwestern portion of the project area near Newstead, this block was to be placed behind the residences between 4310 and 4318 Papin. This area, measuring 40 by 15 meters, could contain the remains of at least five privies within site 23SL2329.

Excavation Block 4- This block was to be placed on the southeastern portion of the project area immediately east of Tower Grove Avenue, within site 23SL2328. It measured approximately 38 by 8 meters. This block was used to expose at least four privies associated with the homes of working class families who lived between 4344 and 4354 Papin.

Excavation Block 5- Also located within site 23SL2329, immediately west of Tower Grove Avenue, a block measuring 19 by 16 meters was to be placed behind the stores located at 4360 and 4362 Papin. This block would search for features containing artifacts associated with these stores and with working class families who lived above these shops.

Figure 39: Location of Proposed Excavation Blocks
(Modified from Map Provided by MoDOT, Historic Preservation Section)

EXCAVATION METHODOLOGY

A trackhoe was used to remove the fill covering the yard features using a smooth bucket (Photo 1). Members of the field crew watched the backdirt, collecting diagnostic artifacts associated with the yard fill (Photo 2).

Once a feature was encountered, the operator carefully removed the overburden, completely exposing the top of the feature, if practical (Photos 3 and 4). The location of the feature then was placed on an overall map using a total station. Notes were taken concerning the feature's condition and construction. Its upper surface was mapped and photographed. This procedure continued until all of the Excavation Blocks were completed.

Since it would be very costly and potentially dangerous to hand excavate these deep, narrow pits, the trackhoe was used to cut the features in half. The excavations extended below the floor of the features to be certain that no older fill was present. The cut portion leading to the feature was sloped and the side walls were stepped to prevent the walls from collapsing, making it safer to excavate the remaining half of the feature. It was necessary to keep the cut portion of the feature straight so that the various zones within the fill could be documented, mapped, and photographed (Photo 5). As the first half of the feature was removed with the trackhoe, the crew watched the feature and backdirt for diagnostic artifacts, which were collected (Photo 2).

The remaining feature fill was hand excavated. This fill was removed in natural zones; however, if a zone was thicker than 40 cm, it generally was removed in 20 cm levels. The fill was processed through ¼ inch wire mesh screen in order to recover even small artifacts. These materials were placed in bags labeled with appropriate provenience information consisting of at least the project name, site number, Excavation Block number, feature number, zone, level if necessary, date, and the excavators' names. Since the buildings constructed at this location were known, with some residences still standing just outside the project area, construction debris was not collected. In order to keep the costs of this project down, only diagnostic artifacts were saved. For example, plain ceramic or glass bottle body sherds were not collected, unless they represented pieces from a nearly complete vessel. These pieces could not be used to determine the minimum number of vessels, but rim sherds and basal pieces, and all decorated fragments (even body sherds), were saved since they could be used to determine these vessels. Other dining, hygiene, or personal objects were collected as was habitational debris, such as lamp shades, electrical fixtures, flower pots, and ornamental pieces. All animal bones were saved in order to gain some insights into diet. A 10 liter flotation sample was taken from the lowest level of each feature, which typically had the richest organic zone, in an attempt to recover insights into how plants were consumed or used at these sites. In addition, flotation samples recovered smaller animal bones and artifacts smaller than ¼ inch missed in the screens. Once the fill had been completely removed, the feature forms were completed and a final photograph of the feature was taken (Photo 6)

Photo 1: Trackhoe Carefully Removing Soils to Expose Features in Excavation Block 4, Facing North

Photo 2: Crew Watching Backdirt in Excavation Block 4 for Diagnostic Artifacts, Facing East

Photo 2: Trackhoe Carefully Removing Soils to Expose Cistern, Feature 1, Facing Northeast

Photo 3: Top of Cistern (Feature 1) Exposed by Trackhoe, Facing East

Photo 4: West Wall Profile of Privy, Feature 14, Exposed by Trackhoe, Facing West

Photo 5: Feature 14 After Excavations, Facing West

LABORATORY PROCEDURES

Artifact Analysis

The artifacts and flotation samples were returned to the Archaeological Research Center of St. Louis laboratory, where the artifacts were carefully cleaned and placed on drying racks. Once materials were completely dry, they were placed in bags labeled with appropriate provenience information and ready for cataloging.

Flotation samples were processed using a Flote-Tech machine. Only a sample of the float samples was sent off for further analysis. The floral remains were sent to Kathryn Parker and faunal remains to Lucretia Kelly.

During cataloging, artifacts were initially divided into broad categories reflecting their material (bone, ceramic, glass, clay, etc.). Next, these were placed into categories based on their morphological attributes (dinner settings, bottles, animal bones, flower pots etc.). Each of these categories then was divided into smaller classes based on finer physical differences, how they were utilized, and their decoration. For example, bottles were divided into medicine, recreational drinking, or household products. These were further divided into groups based on embossed lettering which indicated the product inside these bottles and where the bottle was manufactured. Further information on the manufacturers and how the product was used was then researched. Dinner settings were divided into types based on how they were constructed (whiteware, ironstone, hotelware, stoneware, redware, or porcelain). Next these pieces were divided into categories based on how they were decorated (undecorated, painted, transfer print, decal, or gilded). The bases also were examined for evidence of manufacturer's marks that indicated where these dinner settings were produced. Any information on this company was then sought. Artifact attributes were listed in a Microsoft Excel spreadsheet. The spreadsheet contained the catalog number, location information, material composition, objects function, any further modifications or decorations, portion of artifact recovered, count, weight, and additional comments. The catalog numbers were marked with the feature number and then a consecutive catalog number. Thus, 10:1 indicated that the artifact was from Feature 10 **:** catalog 1, or the first artifact cataloged from this feature.

Materials generated during the data recovery investigations were curated in accordance with present federal guidelines. They were placed into 4 mil zip lock polyethylene bags containing provenience information and the bags placed into acid-free boxes provided by MoDOT. An artifact inventory was prepared for each box. These collections along with all field notes, forms, photographs, an inventory of artifacts, and two copies of the final report will be sent to MoDOT for permanent curation.

Methods of Botanical Analysis by Kathryn Parker

Macrobotanical remains were recovered through flotation sampling of six historic period features excavated during mitigation operations conducted along Interstate 64 for bridge replacements in St. Louis, Missouri. Five of the six features represent residential privy structures, and the sixth has been described as a backyard trash/ ash pit. Based on associated cultural artifacts, three separate temporal periods, spanning the late 19th through early 20th centuries, are reflected in the features investigated. In recent decades, analysis of materials, including botanical

remains, from urban privy deposits has proven useful in illuminating patterns of domestic resource use and consumption, and household refuse disposal practices as reflections of ethnicity and group identity, dietary preferences, socio-economic status, and access to, or participation in, larger trade networks. In this report the results of botanical analysis are presented sequentially, by temporal period.

Comparison of macrobotanical remains from the Tower Grove privies with those from other urban contexts of the same general time period suggest that basic foodways were similar across the country. However, influenced perhaps by factors such as geographic location, socio-economic status, or ethnic background, access to (or use of) non-local products varied.

During archaeological investigations by the Archaeological Research Center of St, Louis, 10 liter flotation samples were collected from basal levels excavated within five late 19th and early 20th century privy features. A sample of similar volume was also taken from a backyard pit that may have been used for household trash disposal by residents of a 1930-1960 dwelling. Flotation samples were processed in the ARC laboratory. After drying, the processed samples were placed in labeled ziploc bags and submitted for botanical analysis.

Initial scanning at 10 - 30 x magnification showed that both the heavy and light fractions of three privy samples, Features 14-16, were saturated with uncarbonized seeds, sometimes in embedded clumps. Subsequently, clumps were carefully pried apart with a fine point dental pick in order to recover seeds and other miscellaneous items including insects. A sample from Feature 34, trash/ash pit, also yielded varied seed taxa. In contrast, two of the privy samples from Features 19 and 36 had very few botanical materials

In addition to botanical remains, coal, clinker, metal, and glass were frequently observed in all samples. Cultural remains from privy Feature 14 included narrow twisted wire, a flat scalloped edge metal disc that may be a button, and a black seed bead. Identical black seed beads were present in the sample from the nearby trash pit, Feature 34, although this feature is thought to postdate the Feature 14 deposit by several decades. .

In order to facilitate sorting and identification of botanical materials, each sample (heavy and light fractions) was first separated into two size fractions with the aid of a No. 10 geological sieve (2 mm mesh). All plant remains in the large fraction (>2 mm) were extracted, sorted into categories (e.g. seeds, wood, other), identified and counted.

At 10 – 30x magnification, it was clear that the small fractions (<2 mm) from three of five privy samples were saturated by thousands of uncarbonized seeds, primarily from fruit/berry taxa such as raspberry/blackberry (*Rubus* sp.), strawberry (*Fragaria* sp.), grape (*Vitis* sp.), and tomato (*Lycopersicon esculentum*). In the interest of effective time management, a subsampling protocol was devised to estimate total seed numbers for those taxa present in vast quantities. First, the entire sample was weighed on an electronic balance; then a random subsample of known weight was removed, and all seeds of strawberry, tomato, grape, and raspberry/blackberry in this subsample were extracted and counted. Based on this count, seed totals for the entire sample were estimated. Non-fruit seeds, other potentially identifiable plant remains, and

miscellaneous items such as insecs, and woven or spun fibers observed in the small fraction were removed, identified where possible, and counted.

Identifications were made with the aid of the USDA/NRCS online database (http://www.plants.usda.gov/java/factsheet), standard texts (e.g. Hoadley 1990; Martin and Barkley 1961), and when necessary by comparison with a reference collection of botanical specimens. Genus level identifications were made whenever possible. Species identifications were attempted only if morphological comparisons ruled out other members of a genus, i.e. tomato (*Lycopersicon esculentum*). Scientific nomenclature follows Steyermark (1963).

Because the samples were taken from relatively recent deposits (approximately 125 years in age or less), and in the case of privies, were from sealed contexts, all plant materials, burned and unburned, were considered of potential cultural significance, and were evaluated accordingly. Seed specimens were usually well preserved, albeit discolored and sometimes distorted. Seeds representing possible recent contamination from cosmopolitan weeds such as carpetweed (*Mollugo verticillata*), goose grass (*Eleusine indica*), lambsquarters (*Chenopodium* sp.), and purslane (*Portulaca oleracea*) were encountered frequently in some samples. A fine point dental pick was used to confirm residual flexibility and moisture of perisperm and endocarp tissues in possible modern contaminants.

Methods of Faunal Analysis by Lucretia S. Kelly

Faunal remains were recovered primarily by hand excavations and some from flotations. The Archaeological Research Center (ARC) lab personnel processed all faunal materials before they were sent for analysis. Identification of the faunal remains was made to the most specific taxonomic level possible, given the completeness and portion of the bone present. All identifications were made by direct comparison to osteological reference collections either in possession of the author or housed in the Zooarchaeology Lab at Washington University in St. Louis. The remains were tabulated and analyzed by feature within the designated time periods.

The faunal material from this project was in generally weathered and fragmented condition (in part due to sawing), making specific identification difficult at times. If a bone could be only tentatively identified to a certain taxon, then the taxon was given a “cf.” designation. Tentatively identified bones are combined with bones that could be more definitively identified as that taxon when listed in the summary tables. If there were no other bones that could be definitively identified, then the “cf.” designation was retained in the tables.

As is common in zooarchaeology (Driver 1992; Reitz and Wing 20; Uerpmann 1973), when a mammal or bird bone could not be identified to a taxon more specific than class, it was placed in a size category (Table 1).

Table 1: Faunal Size Classes

Size Class	Animals Falling within Size Class
Very Large Mammal	Cow
Large Mammal	Pig,
Medium Mammal	Raccoon, Rabbit, Squirrel
Large Bird	Goose, Turkey
Medium Bird	Chicken

The categories of large, medium, and small are based on the size of the major bones in a skeleton. The intermediary categories of very large- large mammal and large - medium mammal in the summary tables are catch-all categories. For example, the category large-medium includes bone fragments that could belong to an animal of medium, medium to large, or large size.

Many bones are small fragments for which element cannot be determined. Placing bones in the intermediary categories is very subjective, therefore, these categories do not have much analytic value beyond identifying indeterminate bone fragments within a class to a slightly finer level than simply "indeterminate".

For each bone identifiable to the level of class or to a more specific taxon, the following information, when applicable, was recorded: faunal catalogue number, ARC field number, provenience information, taxonomic identification, element name, side, portion, percent complete, epiphyseal fusion, tooth wear and eruption, modification, placement of modification, number of fragments, weight in grams. Additional information and observations were entered into a comments section, if necessary. Types of modifications recorded include weathering, gnawing marks, cut/saw marks, staining, and burning.

There has been much discussion over the years about the use of the basic quantification measures in zooarchaeology: NISP (number of identifiable specimens) vs. the use of MNI (minimum number of individuals) (Chaplin 1971; Gautier 1984; Grayson 1984; Klein and Cruz-Uribe 1984; Marshall and Pilgram 1993). The use of either NISP or MNI has its drawbacks and can be affected by intensity of fragmentation and sample size. To offset the problems associated with these measures, both NISP and MNI were used, when applicable, for the taxa identified.

As a general rule for NISP, if two or more fragments can be glued or fitted together, I count them as one. This rule also applies to unfused epiphyses that can be refitted to their shafts. There may be some instances where a bone was broken into many pieces and time did not permit attempting to refit the pieces and the pieces are counted separately. Teeth in mandibles and maxillae are counted separately. For example, if a mandible has 5 teeth in place the NISP is 6.

MNI was figured for each taxon by counting the most frequently occurring element after dividing it into lefts and rights (if applicable). Completeness, portion, age, and, in some cases, size were taken into consideration. MNI is calculated for each period. MNI may not have much analytic significance for this project because it appears much of the meat may have been acquired from butcher shops. Cuts of meat have been determined from the skeletal elements recovered based on the works of Schultz and Gust (1983:48) and Lyman (1979:541). Age estimation for the cattle, swine, and sheep/goat remains are from epiphyseal fusion charts in Bull and Payne (1982), Grigson (1982), and Popkin et. al. (2012).

Overall, analysis of artifacts obtained during the data recovery investigations provided insights into the economic (buying patterns and consumer choices) and social behavior of the families living within the mitigation area at the start of the 20th century. This data was compared to similar information from other sites in the city of St. Louis and the overall culture at the time in order to present a fuller understanding of the cultural patterns.

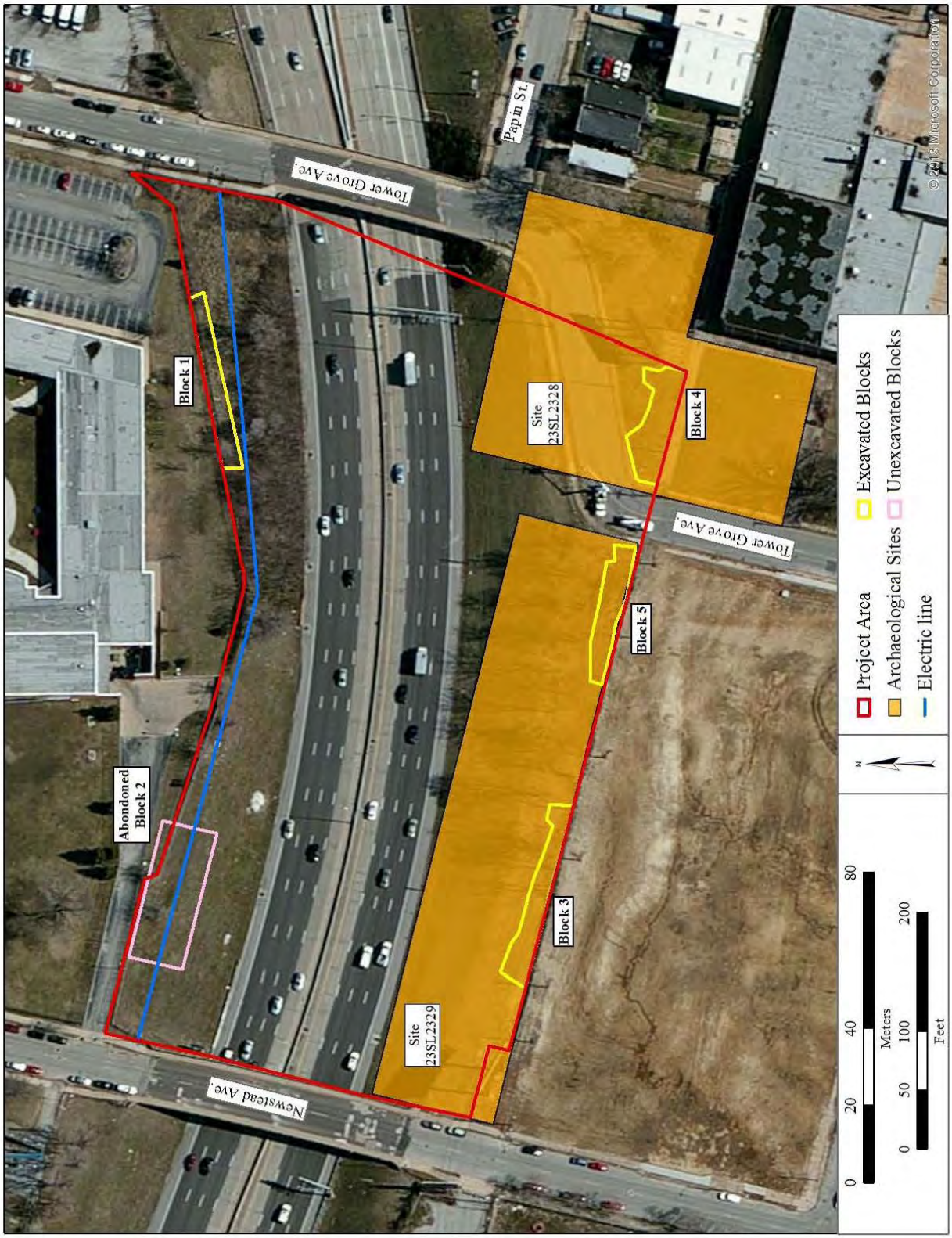
EXCAVATION OF BLOCKS AND FEATURES

EXCAVATION BLOCKS

Excavation of the blocks began on October 3, 2012. A trackhoe and operator, provided by Gateway Infrastructure, Inc., were used to remove the fill covering the yard features. These excavations were guided by Joe Harl and Robin Machiran of the Archaeological Research Center of St. Louis (ARC). Other members of the field crew, Meredith Hawkins Trautt and John Klein, watched the backdirt, collecting diagnostic artifacts associated with the yard fill, non-diagnostic artifacts were not collected during this phase of the excavations.

Five excavations blocks were proposed to sample the MoDOT right of way (Figure 39, page 60); however, buried electrical lines on the northwest portion of the project area caused the abandonment of proposed Excavation Block 2. As a result, Blocks 1, 3, and 5 were expanded (Figure 40). Two site numbers (23SL2328 and 23SL2329) were previously assigned during MoDOT's phase II work within the mitigation area. Excavation Blocks within these sites will be described in site number order.

Figure 40: Blocks Excavated Within the MoDOT Right of Way



Site 23SL2328, Excavation Block 4

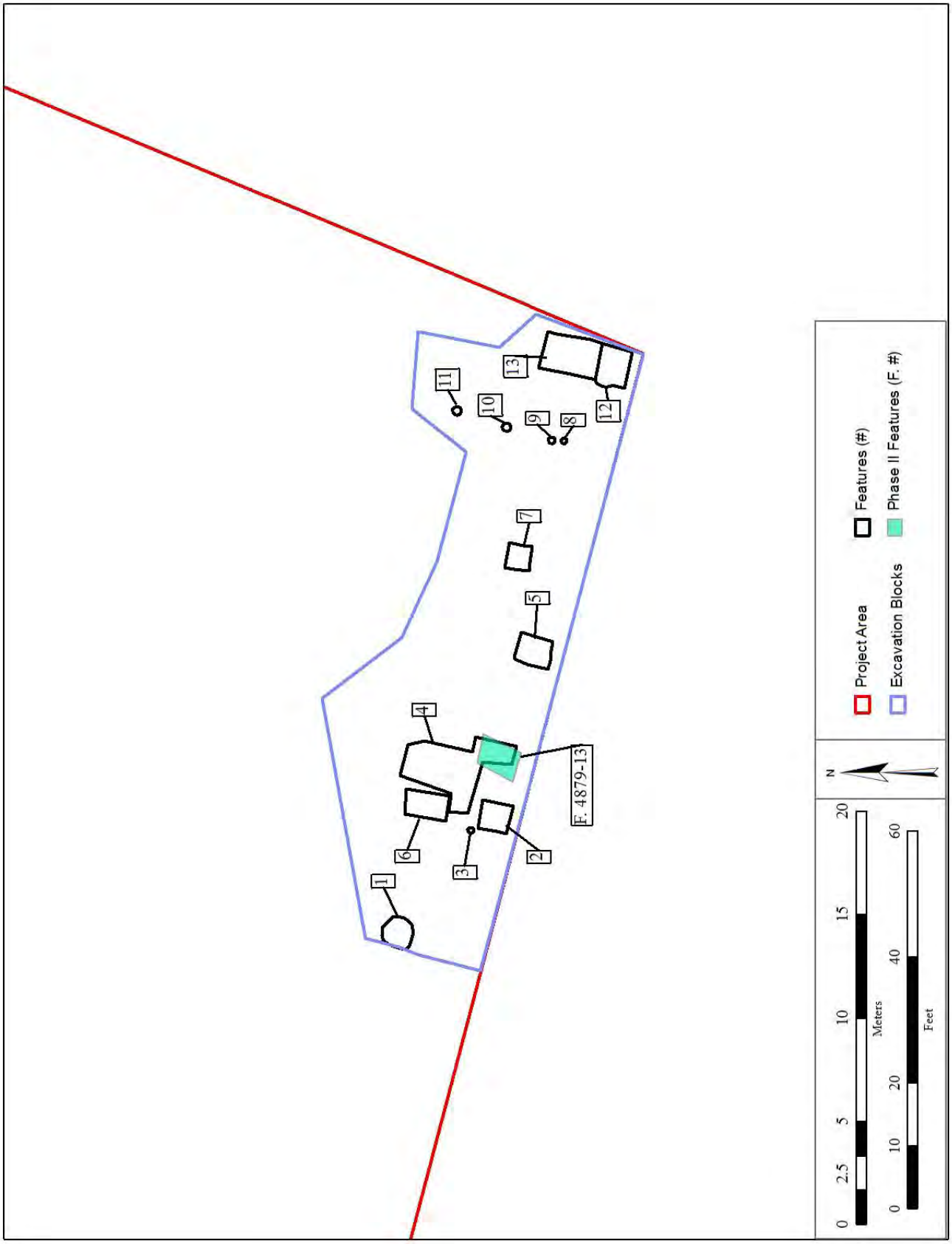
Site 23SL2328 is located in the southeastern portion of the project area within City Block 4879 (Figure 405, Appendix F, Figures F6 & 7). Located in the west central portion of the site, Excavation Block 4, measuring about 40 meters east/west and 9.5 meters north/south, was completed along the alleyway between 4344 and 4354 Papin Street (Photo 7). The trench was excavated as wide as possible, yet allow for the placement of backdirt within this area immediately south of Tower Grove Avenue. This location was chosen in the hopes of uncovering at least four privies associated with the working class families who lived at those addresses. A total of thirteen features were identified in Excavation Block 4 including 3 privies, 5 posts; 1 brick patio/walkway, 1 cistern, 1 ash pit, 1 rubbish pit and 1 restroom (Table 2, Figure 41). Phase II investigations in the area had identified one brick feature (4879-13, Figure 41). At the time, Feature 4879-13 was believed to be a possible privy. Overlaying the previous investigations maps on those of the current investigations, has shown this feature to be part of a patio and walkway (Feature 4) behind 4352 Papin (Figure 41).

Photo 7: Excavation Block 4
Facing East

Table 2: Features Indentified at Site 23SL2328, Excavation Block 4

Feature #	1909 Address	Planview Shape	Planview Length x Width (cm)	Profile Shape	Profile Depth (cm)	Feature Type	Comments
1	4354 Papin St.	Oval	154 x 93 (Continues West)	Straight Walls	192	Cistern	Mortar Lined
2	4352 Papin St.	Rectangular	166 x 150	Outslant Walls & Convex Floor	98	Water Closet	Brick Lined, Pipe at Bottom
3	4352 Papin St.	Circular	32 x 32	-	-	Circular Post	Not Excavated
4	4352 Papin St.	Rectangular	520 x 400	-	-	Brick Patio/ Walkway	Not Excavated
5	4350 Papin St.	Rectangular	166 x 138	Straight Walls	222	Privy/ Water Closet	Brick Walls and Floor; Pipe at Bottom
6	4352 Papin St.	Rectangular	212 x 136	-	-	Exterior Bathroom	Concrete Foundation; Not Excavated
7	4348 Papin St.	Square	120 x 120	Outslant Walls & Convex Floor	140	Water Closet	Brick Walls and Floor; Pipe at Bottom
8	4348/4344 Papin St.	Circular	24 x 24	-	-	Fence Post	Not Excavated
9	4348/4344 Papin St.	Circular	32 x 32	-	-	Fence Post	Not Excavated
10	4348/4344 Papin St.	Circular	40 x 40	-	-	Fence Post	Not Excavated
11	4348/4344 Papin St.	Circular	40 x 40	-	-	Fence Post	Not Excavated
12	4344 Papin St.	Rectangular	212 x 110	Straight Walls	12	Midden	Associated with Feature 13
13	4344 Papin St.	Rectangular	274 x 182	Straight Walls	12	Ash Pit	Brick Walls and Floor

Figure 41: Site 23SL2328 Features in Excavation Block 4



Site 23SL2329, Excavation Blocks 3 & 5

Site 23SL2329 is located within City Block 4878 on the southwestern portion of the project area (Figure 40, Page 70). Two Excavation Blocks were completed along the alleyway in this area, Blocks 3 and 5. In between these blocks was an area that had been previously dug out and filled with limestone cobbles removed from the bedrock during the excavation of I-64/40, construction debris, and other types of trash (Photo 8). The disturbed area was encountered about 50 meters on the eastern portion of Block 3 and at the western edge of Block 5. To ensure no buried features were present below this disturbance, an area 5 meters x 3 meters was excavated an additional meter revealing that no cultural features would be left intact in this area.

Photo 8: Disturbed Area at the East End of Excavation Block 3, Facing East

Excavation Block 3 was placed between 4302 to 4322 Papin Street (Appendix F, Figures F4 & F5). Initially planned to cover 40 meters east/west in the hopes of uncovering at least five privies, the block was expanded to 60 meters after the abandonment of Excavation Block 2 (Photo 9). Although recent activities in this area had disrupted portions of the trench, a total of fourteen features were identified within Excavation Block 3 (Table 3, Figure 42). Another disturbed area, measuring 5 meters x 3 meters, was encountered on the western portion of this block. This area, excavated during the construction of I-64/40, was used to discard rubble from the razed buildings in the area. It was excavated to a depth of 1.5 meters, destroying portions of Features 14 and 17.

The Phase II investigations identified three ash pit features in the area of Excavation Block 3, Features 4878-1, 4878-2 and 4878-3 (Figure 42). Uncovered during the mitigation, Feature 4878-4 turned out to be the upper portion of superimposing privies, Features 16 and 17. Unfortunately, the presence of an unmarked fiber optic cable prohibited the extension of Block 3 to the west, so 4878-1 and 4878-2 could not be investigated (Photo 10).

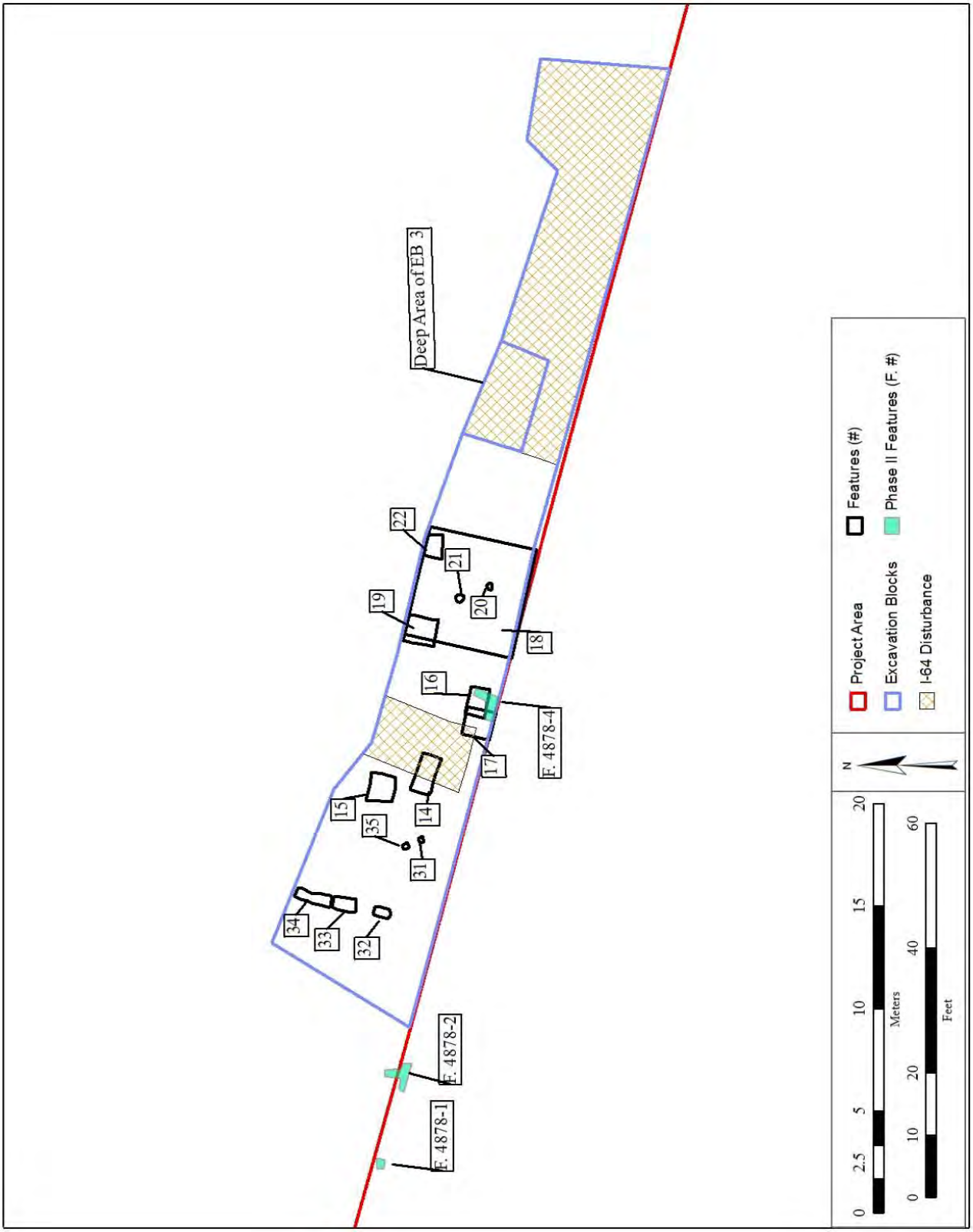
Photo 9: Excavation Block 3, Facing West

Photo 10: Fiber Optic Cable in Excavation Block 3, Facing Southeast

Table 3: Features Indentified at Site 23SL2329, Excavation Block 3

Fea. #	1909 Address	Planview Shape	Planview Length x Width (cm)	Profile Shape	Profile Depth (cm)	Feature Type	Comments
14	4316-18 Papin St.	Rectangular	191 x 92	Straight Walls	220	Privy/ Water Closet	Brick Walls and Floor; Pipe at Bottom; East End Disturbed
15	4318 Papin St.	Rectangular	136 x 120	Straight Walls	126	Vaulted Privy	Wood Lined Walls
16	4316 Papin St.	Rectangular	140 x 94	Straight Walls	88	Vaulted Privy	Wood Lined Walls ; Superimposed on West by F. 17
17	4316 Papin St.	Rectangular	140 x 136	Straight Wall & Convex Floor	96	Water Closet	Brick Walls and Floor; Pipe at Bottom; West End Disturbed
18	4314 Papin St.	Rectangular	670 x 60 (each foundation)	-	-	Garage	Concrete Foundation; Not Excavated
19	4314 Papin St.	Rectangular	132 x 122	Straight Walls	166	Privy/ Water Closet	Brick Walls and Floor; Pipe at Bottom; Superimposed by NW corner F. 18
20	4314 Papin St.	Oval	32 x 27	Basin	6	Post	In F. 18
21	4314 Papin St.	Oval	40 x 36	Basin	7	Post	In F. 18
22	4314 Papin St.	Rectangular	136 x 60 (Continues North)	Straight Walls	58 (Upper Portion Cut)	Vaulted Privy	Brick Walls; Superimposed by NE corner F. 18
31	4318 Papin St.	Rectangular	24 x 22	Basin	8	Post	
32	4322 Papin St.	Rectangular	76 x 48	Basin	15	Rubbish Pit	
33	4322 Papin St.	Rectangular	112 x 64	Straight Walls	37	Rubbish Pit	
34	4322 Papin St.	Rectangular	162 x 60	Straight Walls	45	Rubbish Pit	
35	4318 Papin St.	Rectangular	30 x 28	Base of Post	-	Post	

Figure 42: Site 23SL2329 Features in Excavation Block 3



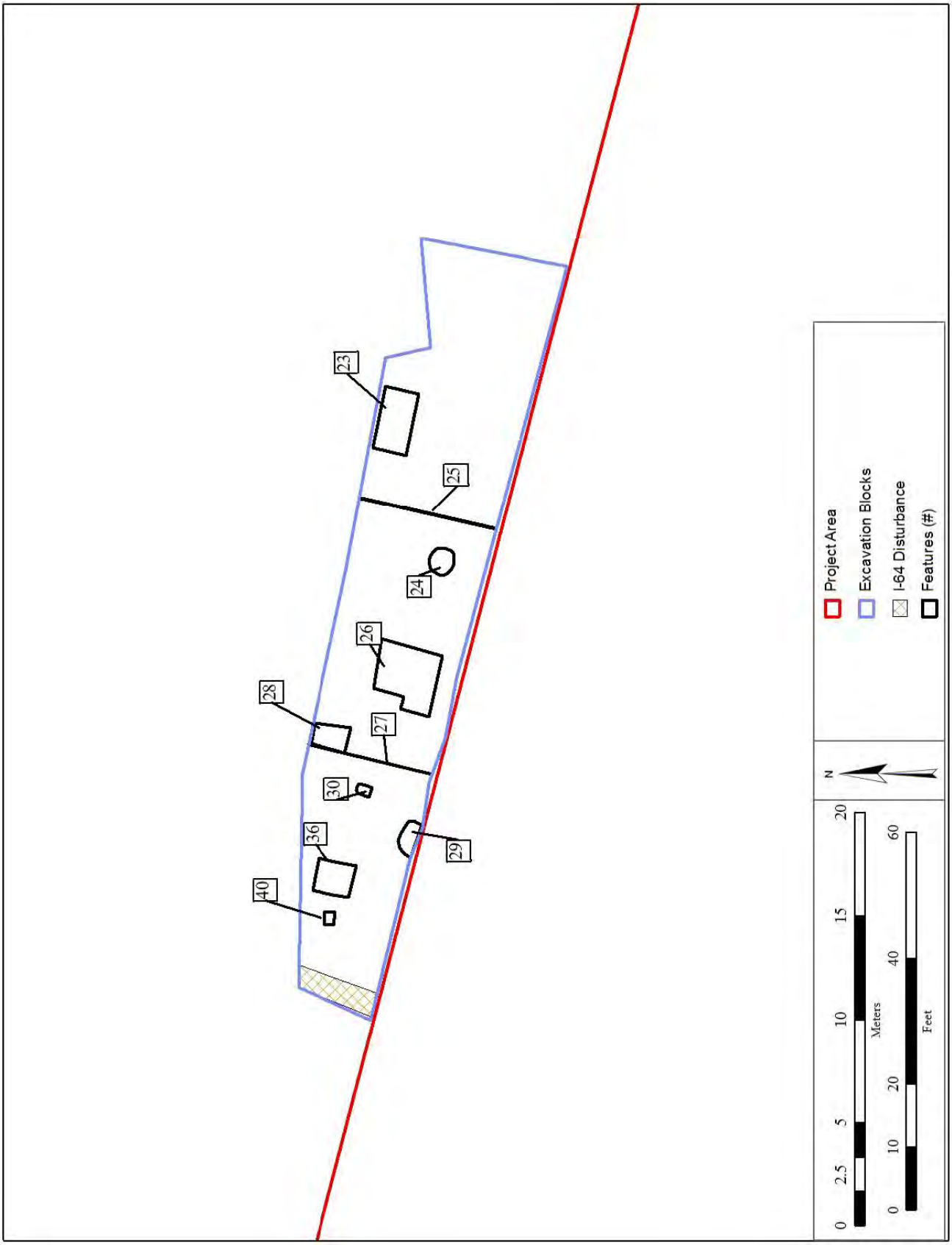
Excavation Block 5 was originally planned to be 19 meters long covering the area behind the stores that once stood at 4360 and 4362 Papin Street. The block was extended to the west after the abandonment of Excavation Block 2, measuring 48 meters east/west and 9 meters north/south (Photo 11). Both Blocks 3 and 5 were excavated as wide as possible to allow for the placement of backdirt on the north side before the steep slope cut during I-64/40 construction. Block 5 was extended to the west until the previous I-64/40 disturbance was encountered. A total of 10 features were examined within Excavation Block 5 in the backyards of 4360 to 4372 Papin Street (Table 4, Figure 43, Appendix F, Figures F8 & F9).

Photo 11: Excavation Block 5, Facing East

Table 4: Features Identified at site 23SL2329, Excavation Block 5

Fea. #	1909 Address	Planview Shape	Planview Length x Width (cm)	Profile Shape	Profile Depth (cm)	Feature Type	Comments
23	4362 Papin St.	Rectangular	388 x 211	-	-	Commercial Restroom	Concrete Foundation; Not Excavated
24	6364 Papin St.	Oval	134 x 126	Straight Walls	110	Water Closet	Brick Walls and Floor; Pipe at Bottom
25	4362/4364 Papin St.	Rectangular	850 (Continues North)x 30	-	-	Retaining Wall	Concrete; Not Excavated
26	4366 Papin St.	Rectangular	300 x 300	-	-	Brick Patio	Partially Excavated by Trackhoe
27	4366/4372 Papin St.	Rectangular	700 (Continues North) x 30	-	-	Retaining Wall	Concrete; Not Excavated
28	4366 Papin St.	Amorphous	225 x 160	Basin	10	Midden	Trackhoe Excavated
29	4372 Papin St.	Roughly Rectangular	166 x 76	Basin	5	Rubbish Pit	
30	4372 Papin St.	Rectangular	66 x 48	Basin	15	Rubbish Pit	
36	4372 Papin St.	Rectangular	186 x 160	Straight Walls	344	Privy/ Water Closet	Brick Walls and Floor; Pipe at Bottom & Up Pipe; Top of North Portion Disturbed
40	4372 Papin St.	Oval	80 x 62	Basin	30	Midden	Trackhoe Excavated

Figure 43: Site 23SL2329 Features in Excavation Block 5



Excavation Block 1

Excavation Block 1 was located on the northeastern portion of the mitigation area (Figure 40, Page 70). It was placed at the rear of 657 Tower Grove Avenue in an attempt to find what the archival search revealed as the oldest residence. It further was hoped that features associated with 4355-57 Papin Street would be identified on the western extent of Block 1 (Appendix F, Figures F1 & F2). No previous archaeological investigations had been conducted in this vicinity.

The completed block measured 58 meters north/south and 7 meters east/west exposing a total area of 406 square meters (Photo 12). The block could not be excavated any further to the west or any wider because of the presence of electrical lines. These excavations exposed a mottled brown and yellowish brown fill that reached a depth of about 30-40 cm below surface. The fill was clean with no artifacts encountered throughout the trench. A deeper trench measuring 5.5 meters x 2 meters was excavated to a depth of 50 cm at the southeastern portion of the trench to ensure that indeed this was sterile soil and that it did not cover older cultural resources.

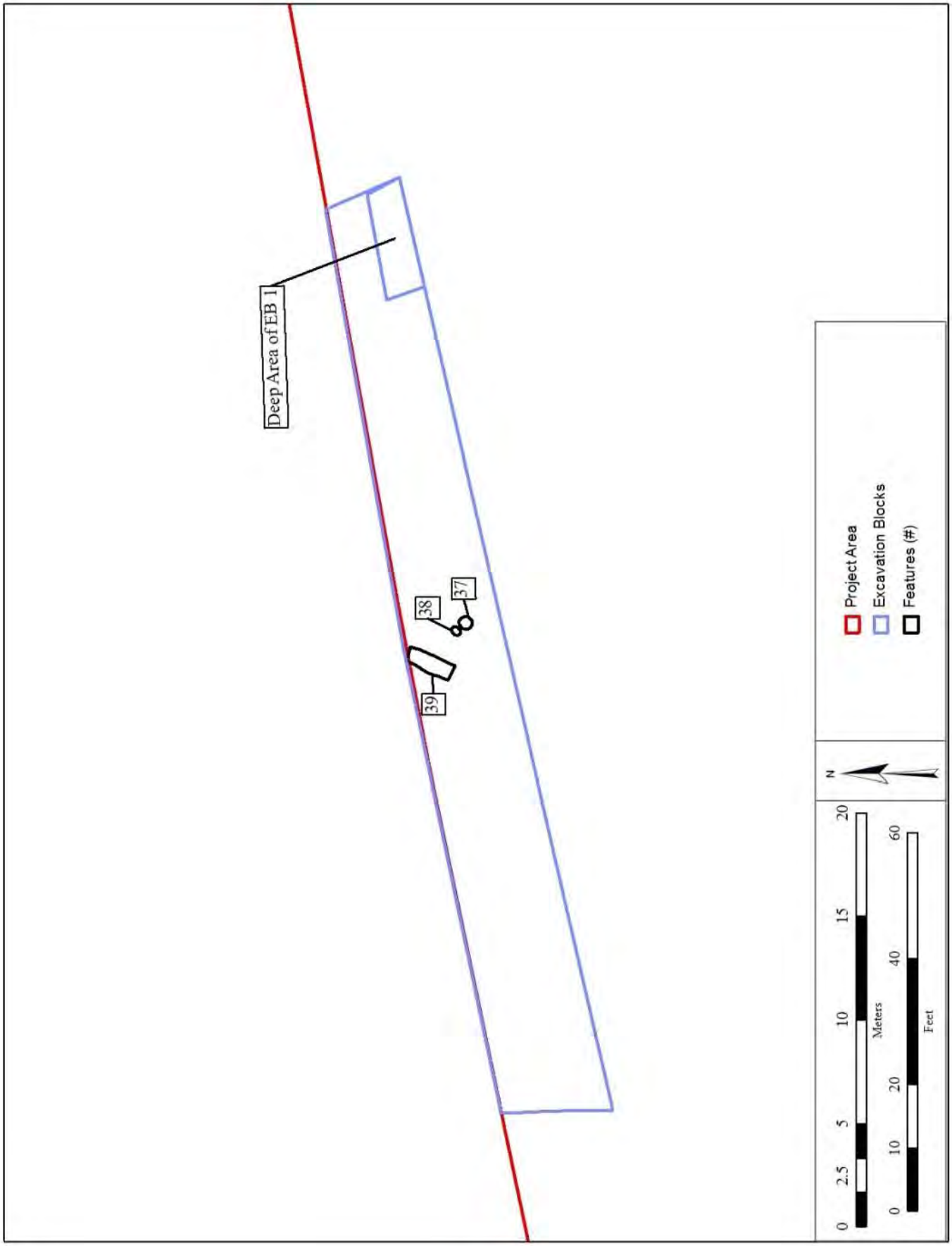
Photo 12: Test Block 1, Facing West

Three modern features were identified within the trench, all of which are associated with the later use of the area as a bottling plant (Table 5, Figure 44). No historic residential debris or cultural features were found within the block so no site number was assigned to the area.

Table 5: Features Identified in Excavation Block 1

Fea. #	1909 Address	Planview Shape	Planview Length x Width (cm)	Profile Shape	Profile Depth (cm)	Feature Type	Comments
37	657 Tower Grove Ave.	Oval	100 x 80	-	-	Wood Post Set in Concrete	Not Excavated
38	657 Tower Grove Ave.	Oval	60 x 46	-	-	Post	Not Excavated
39	657 Tower Grove Ave.	Rectangular	290 x 100	Straight Walls	180	Concrete Pit	Trackhoe Excavated

Figure 44: Features in Excavation Block 1



FEATURES

Excavation of features was conducted between October 11 and October 29, 2012. This work was completed by the ARC field crew consisting of Joe Harl, Robin Machiran, Jim Mertz, Larry Kinsella, Kathleen Stahlmann, John Klein, and Meredith Hawkins Trautt. A total of 40 features were located within the mitigation area (Table 6). Of these, 35 were private residential yard features and 5 were associated with commercial properties (Appendix F Figures F1-F9).

Table 6: Summary of Features Found in the Mitigation Area

	Feature Type	**Number**
Private Residential Features	Exterior Lavatories	12
	Posts	9
	Ash Pit	1
	Middens	3
	Rubbish Pits	5
	Cistern	1
	Brick Patios/Walkways	2
	Retaining Wall	1
	Garage	1
Commercial Features	Posts	2
	Pit	1
	Filling Station Restroom	1
	Filling Station Retaining Wall	1
	Total Features	**40**

<u>Private Residential Features</u>

Exterior Lavatories

Twelve exterior lavatories were investigated within the mitigation area consisting of four types: vaulted privies, water closets, privy/water closets and an exterior bathroom. A vaulted privy had a brick or wood lining that would have accumulated waste and required periodic cleaning. A water closet as defined as Meyer and Austin (2008:56) consists of "…a facility, either indoor or outdoor, in which waste matter is removed by water." A privy/water closet is one that likely first served as a vaulted privy and later was converted to a water closet. An exterior bathroom had a sewer pipe that was once attached to a flush toilet.

One brick lined (Feature 22) and two wood lined (Features 15 and 16) vaulted privies were identified in the mitigation area. Feature 22 was the only brick lined privy that did not have a sewer pipe at its base. It was located in Excavation Block 3 at 4314 Papin Street (Appendix F, Figure F4). The feature was superimposed by the northeast corner of garage, Feature 18. What was left of Feature 22, only 58 centimeters (2 feet) of the lower portion, showed that it had single brick walls and the floor was left open (Figure 45, Photo 13). The upper fills, consisting of

Figure 45: Feature 22 North Profile

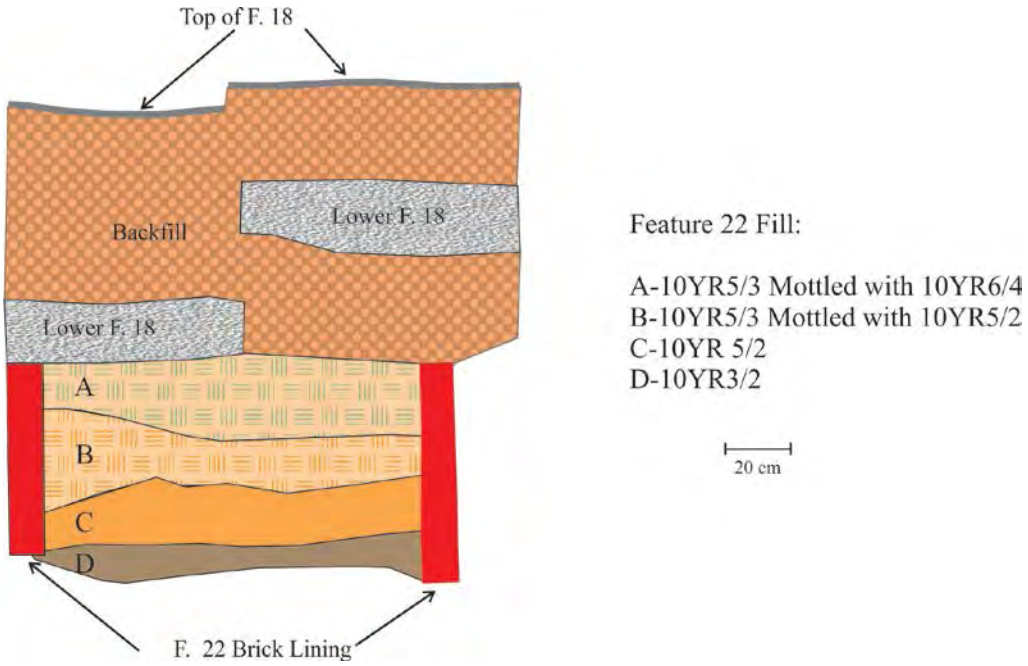
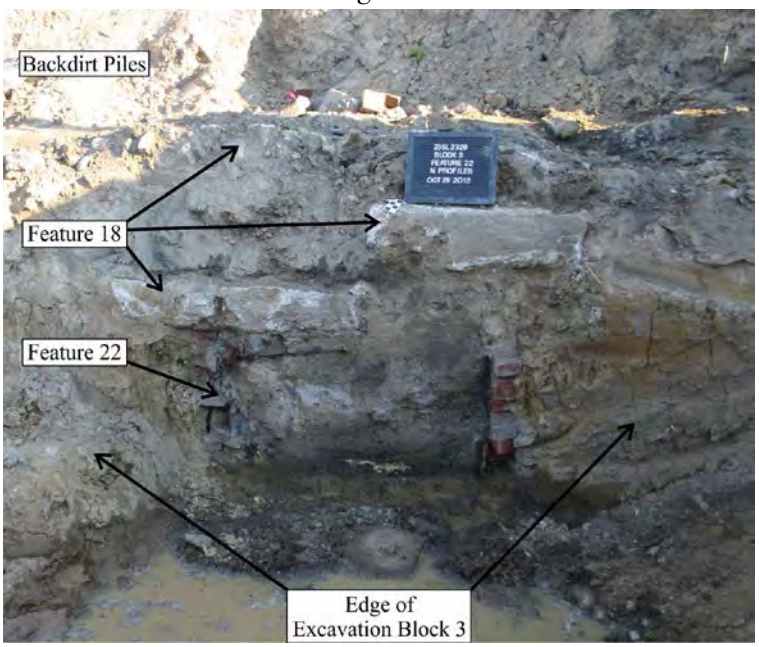


Photo 13: Feature 18 and 22 at Edge of Excavation Block 3 Facing North



Zones A and B with mottled brown silts, likely resulted during the garage construction. Zones C and D were all that remained of the original feature fill. Zone C was a grayish brown silt and D a very dark grayish brown silt. The remainder of the feature was under the concrete foundation of Feature 18 and the backdirt from the excavations placed at the edge of the mitigation area. Exposing the northern portion of the feature was not possible as this would have posed a danger of Feature 18 collapsing onto the workers. In addition, moving the backdirt posed a threat of the dirt falling onto I-64.

Feature 15 was located behind the residence at 4318 Papin Street (Appendix F, Figure F4). The vaulted privy was rectangular in plan and measured 1.36 meters by 1.2 meters (4 ½ by 4 feet) and reached a depth of 1.26 meters (just over 4 feet) (Figure 46). The floor of the privy was open, with the wood only lining the walls (Photo 14). Three basic fill zones were seen in the feature. Zone B2 was artifact rich black silty clay at the bottom of the feature. Zones B and A2 were clays with charcoal flecks separated by a layer of wood that probably fell from one of the walls when the privy was filled. Zone A2 above the wood was pale yellow in color and B below the wood was a light yellowish brown. The upper zone (Zone A) was a black ashy silt with charcoal, bricks and brick fragments throughout.

Figure 46: Feature 15 South Profile

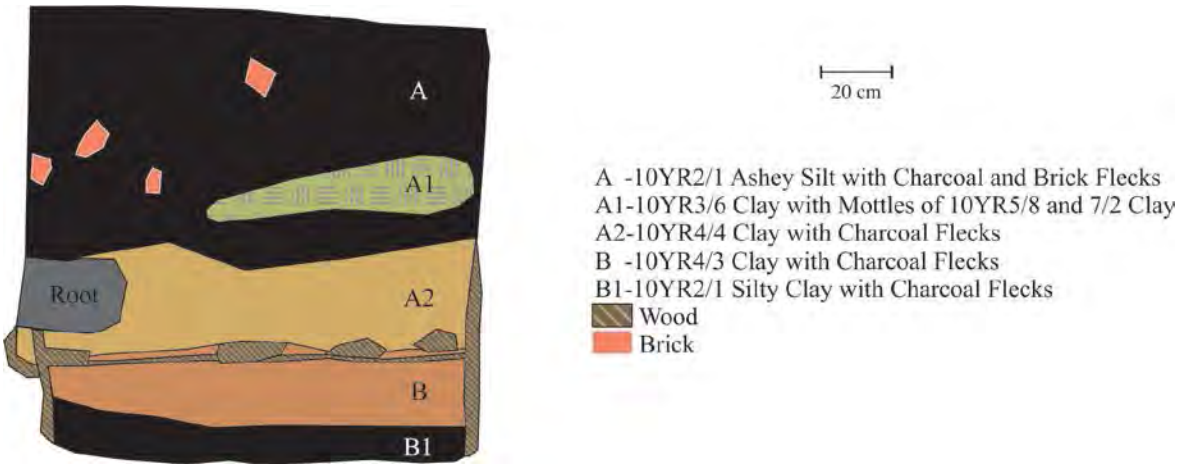


Photo 14: Base of Feature 15 with Wood Lining, Facing South

Feature 16 was identified behind the residence at 4316 Papin Street (Appendix F, Figure F4). The trackhoe began excavating the north half when a fiber optic line was encountered (Photo 15). Fortunately, this line was tunneled through this area instead of placed in an excavation trench, limiting the damage to this and other features. The exposed southern profile was photographed and drawn and trackhoe excavations were moved to the eastern half of the feature. This privy was the same size as Feature 15, measuring 1.36 meters by 1.2 meters (4 ½ by 4 feet) and reaching a depth of 1.26 meters (just over 4 feet). It was superimposed on the western end by Feature 17, a water closet (Figure 47).

Photo 15: Fiber Optic Line Running Through Feature 16, Facing South

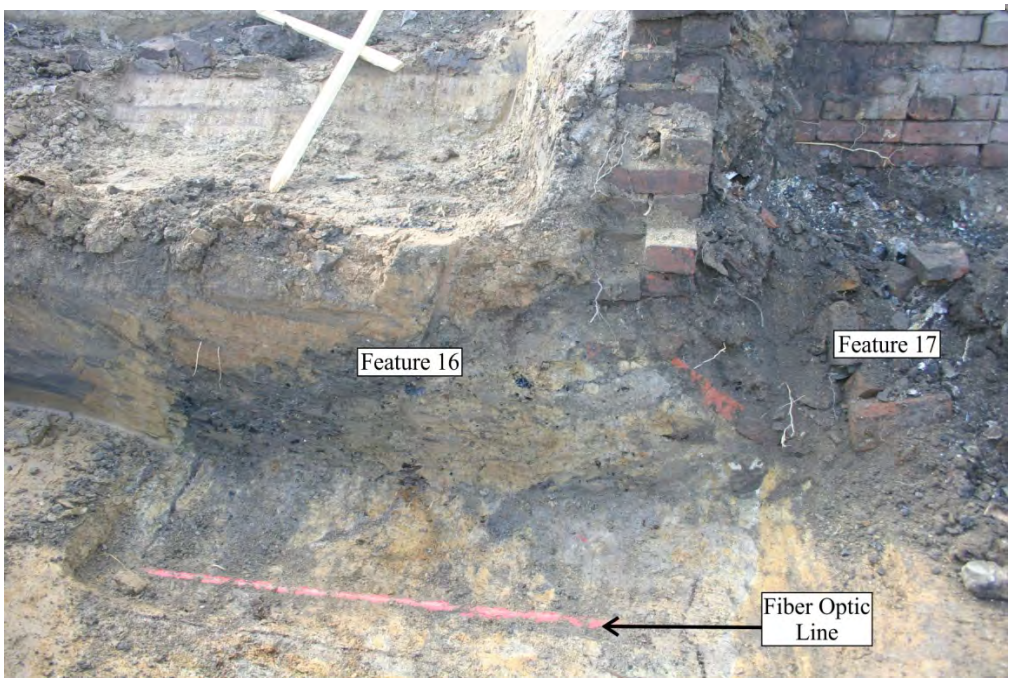
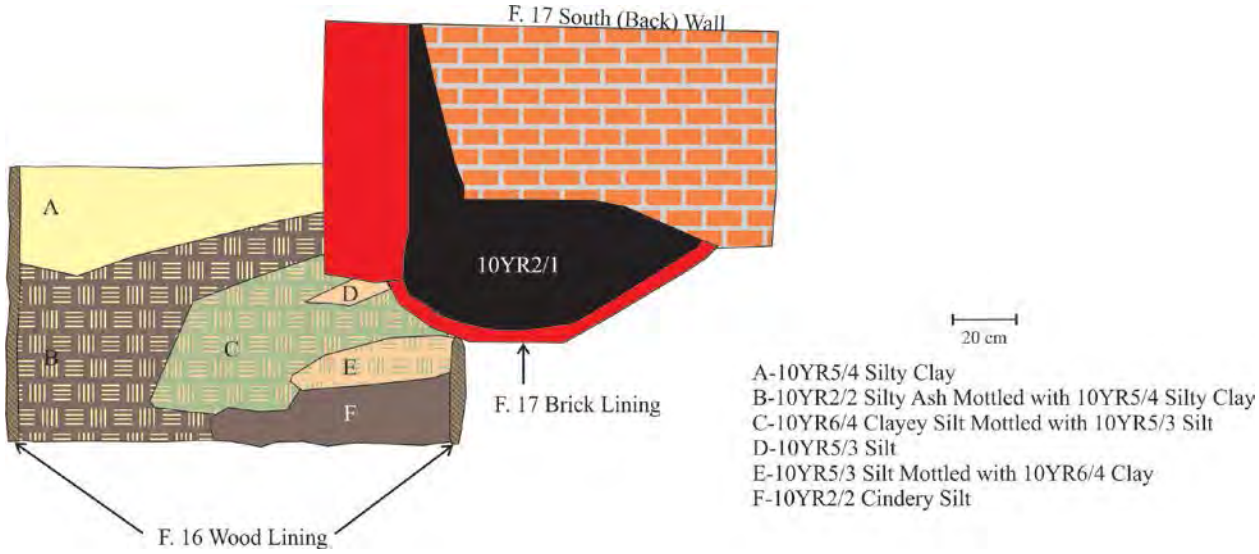


Figure 47: Features 16 and 17 South Profile

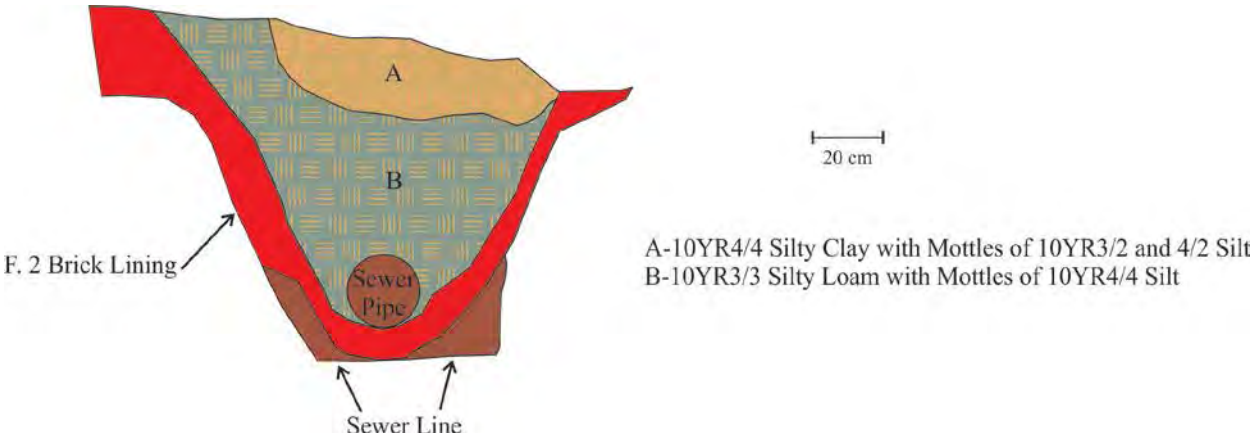


Feature 17, also at 4316 Papin Street, was a brick lined water closet. It was rectangular in plan measuring 1.36 meters by 1.4 meters (4 ½ by 4 ½ feet) and reached a depth of 96 centimeters (3 ¼ feet) (Figure 47). The feature had double brick, straight walls and a single brick convex floor with a sewer pipe running through the lowest part of the floor (Photo 16). Previous highway work in the area had disturbed the top and west end of the feature leaving only small portion of the fill consisting of a very loose cindery black silt, with many artifacts.

Photo 16: Feature 17 with Fill Removed, Facing South

Three other water closets were present in the mitigation area; Features 2 and 7 in Excavation Block 4 (Appendix F, Figure F6) and Feature 24 in Excavation Block 5 (Appendix F, Figure F8). Feature 2 was located at 4352 Papin Street, next to a brick patio, Feature 4. It was brick lined with inslanting walls and a convex floor housing a sewer pipe (Figure 48). The upper 26 centimeters (10 inches) of the wall was double brick with remainder of the the feature constructed with single brick walls and floor. The feature was retangular and measured 1.66 meters by 1.5 meters (5 ½ by 5 feet) at the top and reached a depth of 98 centimeters (3 ¼ feet). Two fill zones were present, Zone A, a dark yellowish brown silty clay with of dark grayish brown and very dark grayish brown silt. Zone B was a loosely compacted dark brown silty loam mottled with dark yellowish brown silt.

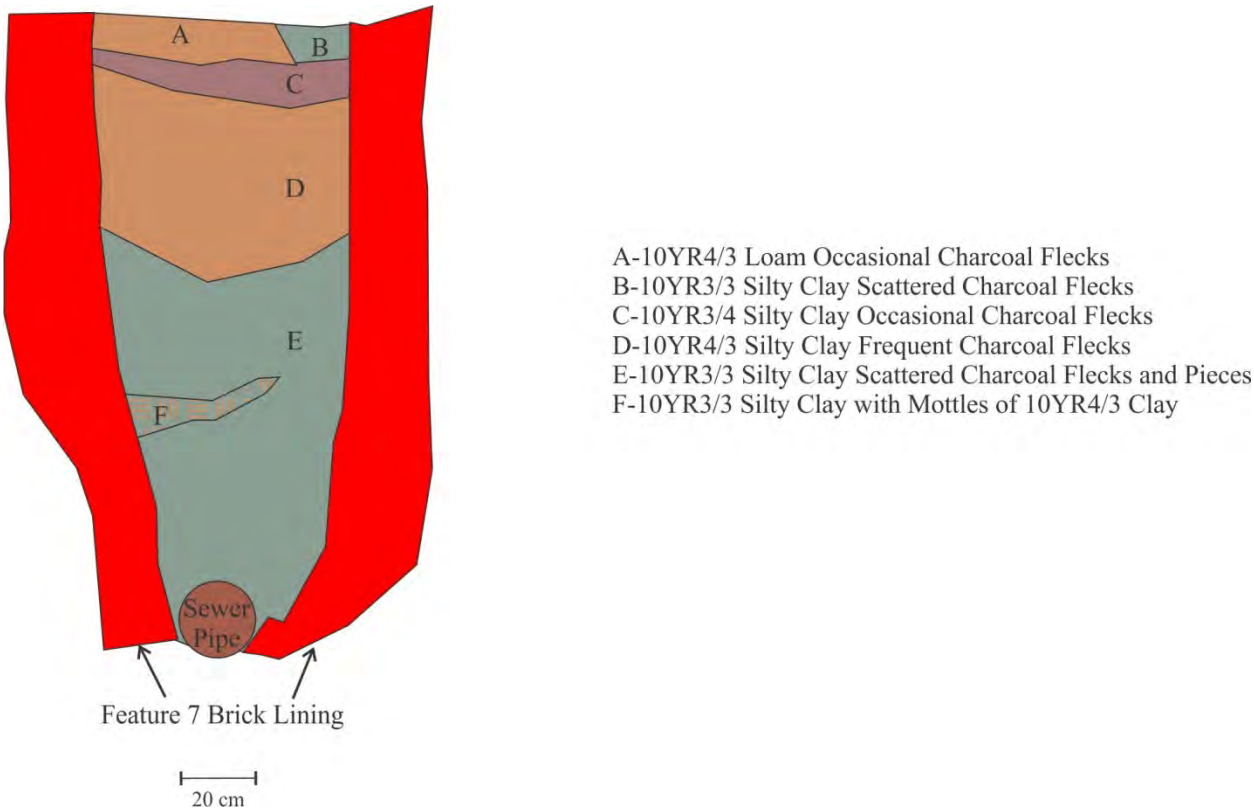
Figure 48: Feature 2 South Profile



Feature 7 was a double brick water closet with outslanting walls narrowing to the base where a sewer pipe was present (Figure 49, Photo 17). It was square and measured 1.2 meters by 1.2 meters (4 by 4 feet) in plan and was 1.4 meters (4 ½ feet) deep. Two major fill zones were present. Zone D was a compact dark yellowish brown silty clay with flecks of ash and mortor present. Zone E was a dark brown silty clay loam with debris and charcoal flecks and pieces.

Photo 17: Feature 7, Facing South

Figure 49: Feature 7 South Profile



Feature 24 was located in Excavation Block 5 at 4364 Papin Street and measured 1.34 meters by 1.24 meters (4 ½ by 4 feet) (Appendix F, Figure F8). It was oval in plan and lined along the walls and floor with a single brick layer. This water closet was 1.16 meters (5 ½ feet) deep and had a sewer pipe running from the west wall and curving into the south wall (Figure 50, Photo 18). Four fill zones were identified. Zone A was a cap of gray ash with abundant burned clay and charcoal over Zone B, a brown ash. Zone C was a dark yellowish brown silt with frequent cultural debris. Zone D also was brown ash, with frequent cultural debris throughout.

Figure 50: Feature 24 East Profile

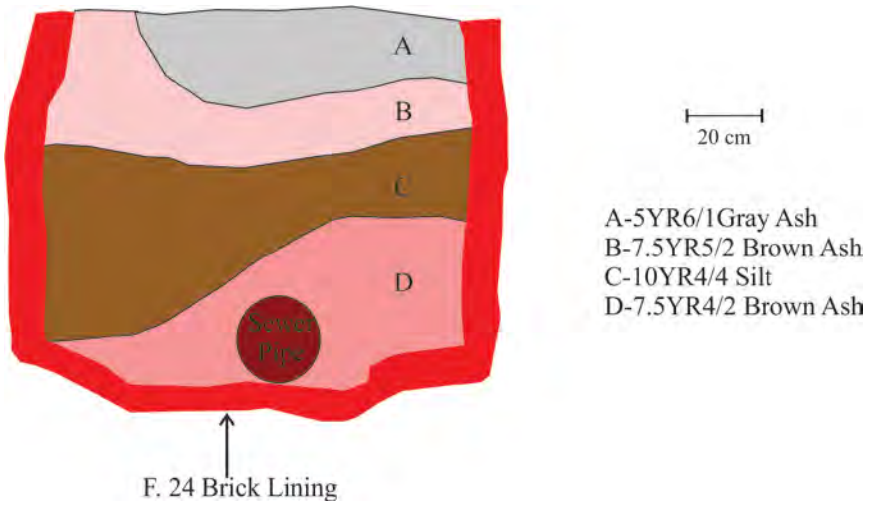


Photo 18: Feature 24, Facing Northeast

There were four brick lined privy/water closets (Features 5, 14, 19 and 36) with sewer pipes present at their bases. Feature 5 was located in Excavation Block 4 at 4350 Papin Street (Appendix F, Figure F6). It was rectangular in plan and measured 1.66 meters by 1.38 meters (5 ½ by 4 ½ feet) and was 2.22 meters (7 ¼ feet) deep (Figure 51). The walls and floor were lined with a single row of bricks; however, the southern and western walls were missing. Two fill episodes were noted. Zone A was a dark grayish brown very crumbly silty clay, with dark yellowish brown clay mottles having charcoal and clinker throughout. The upper portion of this level had a heavy concentration of bricks, possibly representing some of the bricks from the missing walls. Zone B was a loose dark brown silty clay with mottles of dark yellowish brown clay and some charcoal inclusions. The pipe that ran through the bottom of the feature, connected to a vertical up pipe outside the southern wall of Feature 5 (Photo 19A & 19B).

Figure 51: Feature 5 South Profile

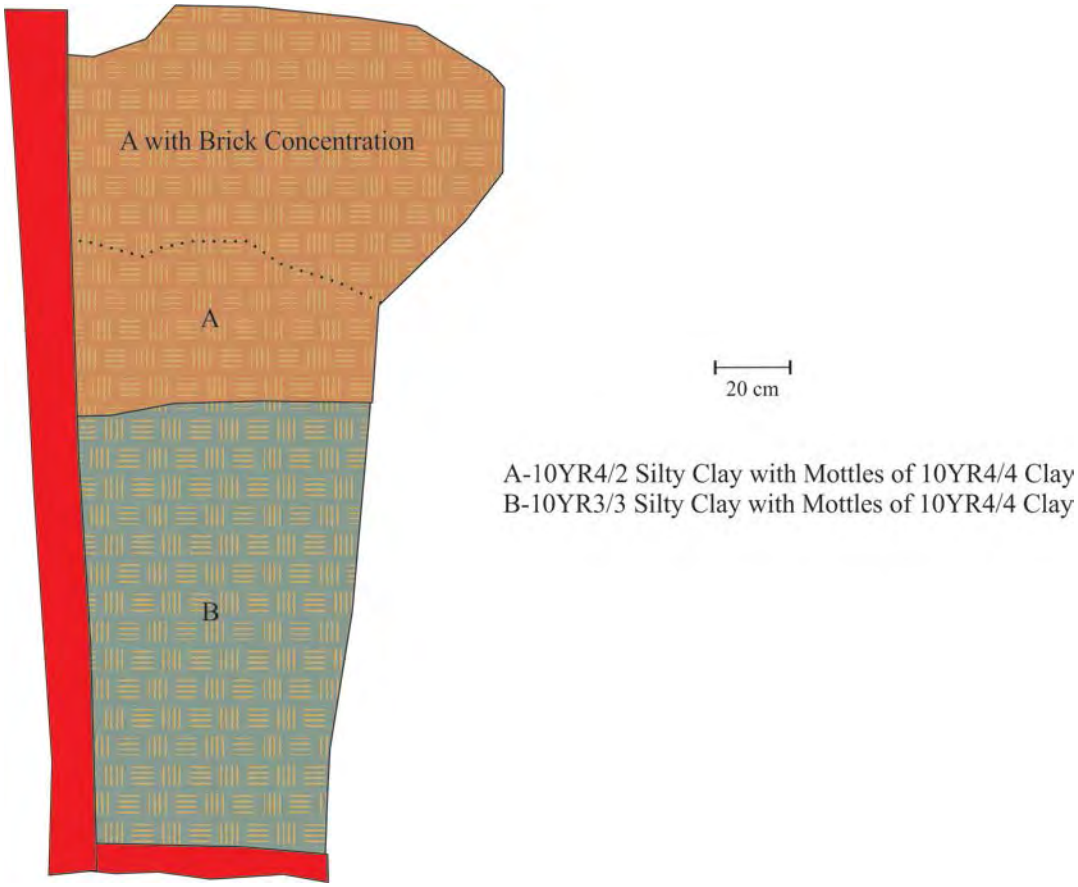
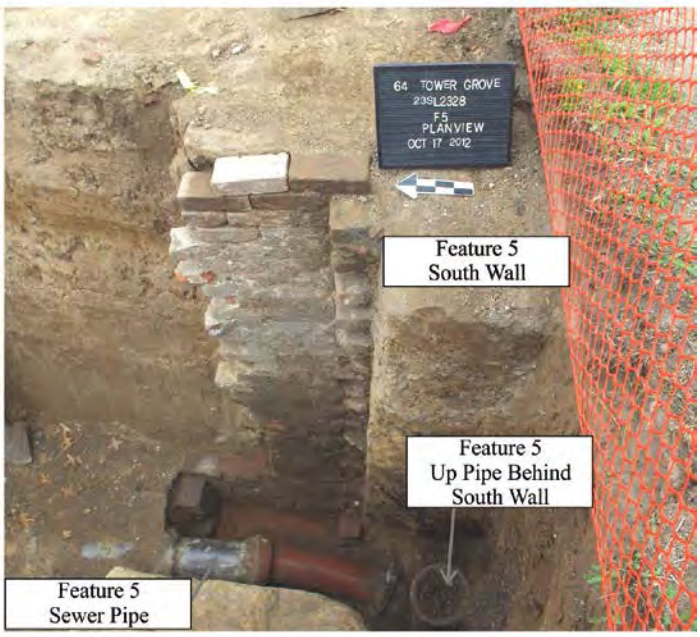


Photo 19A : Feature 5, Facing South

Photo 19B: Feature 5, Facing East



Feature 14 was found in Excavation Block 3 and was situated between 4316 and 4318 Papin Street (Appendix F, Figure F4). It was 2.2 meters (7 ¼ feet) deep and rectangular measuring 1.91 meters by 0.92 meters (6 ½ by 3 feet) in plan (Figure 52). The privy/water closet was constructed with a single row of bricks along the wall and floor. A pipe entered the feature on the north wall about 68 centimeters above the base and one left the feature on the south wall at the base. The exit pipe, however, had been blocked by two bricks set in mortar. Several fill zones were noted with the top zone (Zone A) a dark brown cindery silt containing a pocket of dark yellow brown silt with occasional coal pieces (Zone B). Zone C was a lens of black cinder. Zone D1 and D2 were dark yellowish brown silt graduating into dark brown silt with no clear line of demarcation. Zone E, at the base of the feature, was a black cindery silt, with mottles of dark yellowish brown silty clay. The upper eastern portion of the feature had been disturbed during the construction of I-64/40 (Figure 42, Page 76; Photo 20).

Figure 52: Feature 14 West Profile

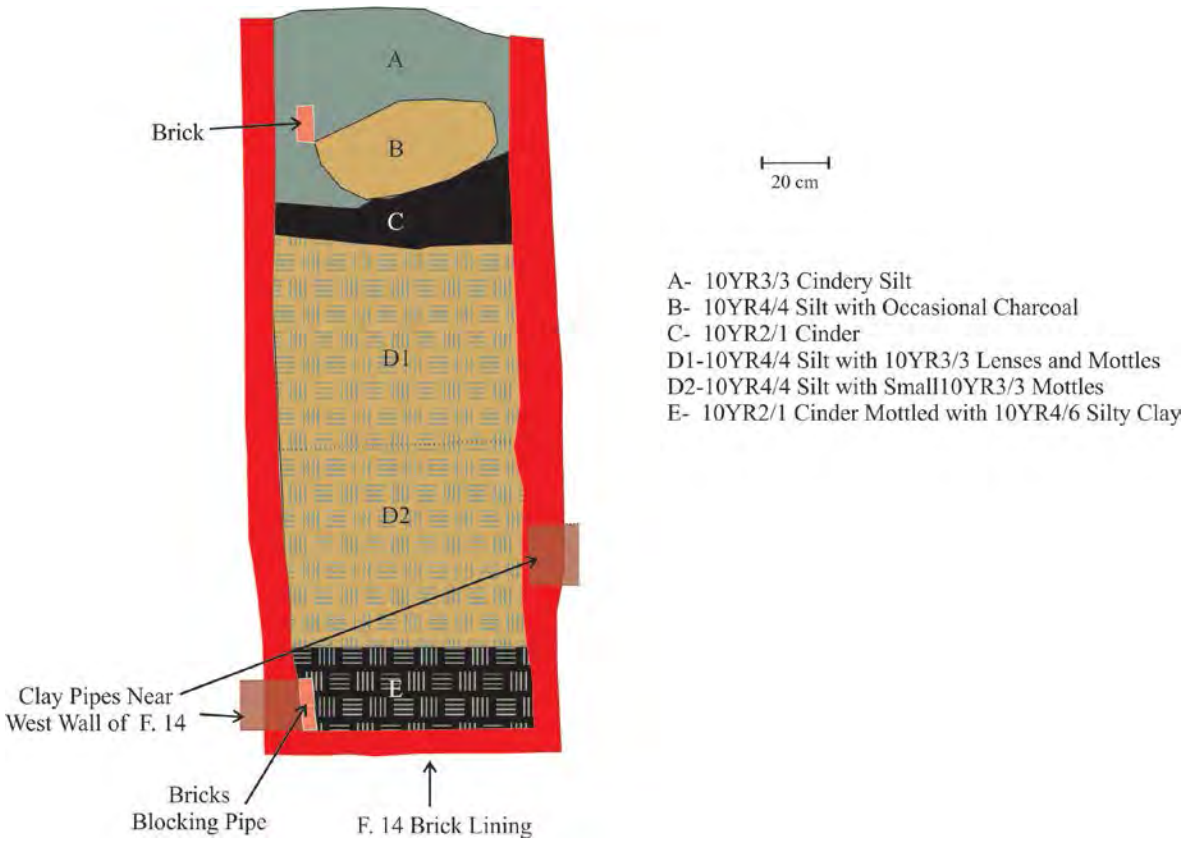
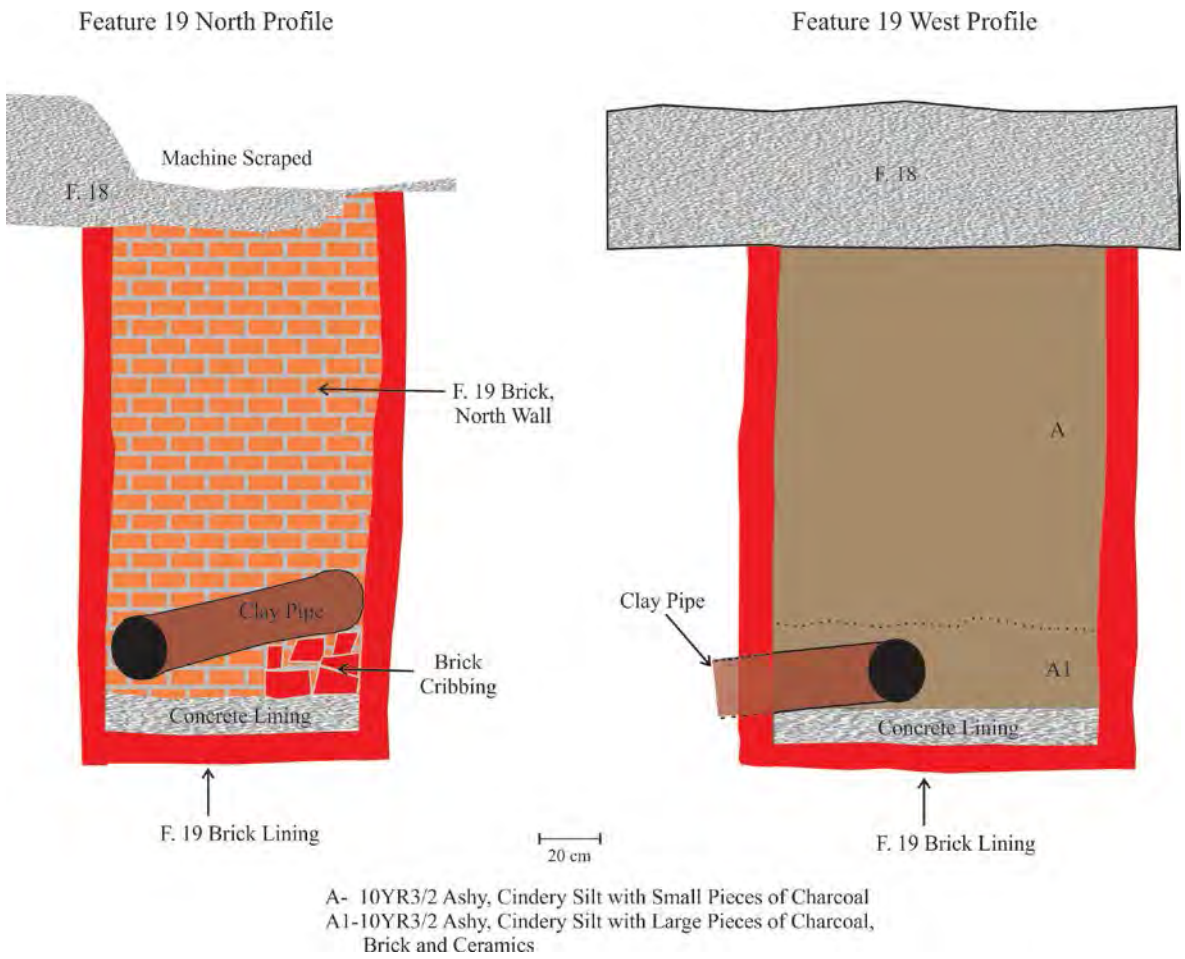


Photo 20: Feature 14 Plan View, Facing South

Privy/water closet Feature 19 was located in Excavation Block 3 at 4314 Papin Street (Appendix F, Figure F4). The feature was superimposed by the northwest corner of concrete foundations associated with a garage, Feature 18. Feature 19 was 1.66 meters (5 ½ feet) deep and rectangular measuring 1.32 meters by 1.22 meters (4 1/3 and 4 feet) in plan. The walls and floor were constructed with a single layer of bricks with a concrete lining on the floor (Figure 53). One fill zone, (Zone A) was identified consisting of very dark grayish brown silt with ash and charcoal throughout. The lower portion of the fill, Zone A1, also had large pieces of brick and ceramics. A sewer pipe passed through the base of the feature coming in on the northeastern portion of the wall and exiting the feature on the southwestern portion (Photo 21).

Photo 21 Feature 19 Sewer Pipe at Base, Facing Northwest

Figure 53: Feature 19 North and West Profiles



Feature 36 was identified in Excavation Block 5 at 4372 Papin Street (Appendix F, Figure F8). The top of the northern side of the feature had been disturbed by previous activity in the area (Figure 54). Overall, the rectangular privy/water closet measured 1.86 meters by 1.6 meters (6 by 5 ¼ feet) and reached a depth of 3.44 meters (11 ¼ feet). Three levels of fill were present (Figure 55). Zone A was a loose dark grayish brown ashy silt. The northern portion of this fill was disturbed to a depth of 90 cm (5 feet) during the I-64/40 construction. Zone B was a loose dark grayish brown ashy silt with mottles of yellowish brown clay. Zone C was the same as Zone A but slightly more compacted and wet although still crumbly. A pipe was present at the base of feature that angled downward to the alleyway connected to a vertical up pipe in the northwest corner of the feature. An additional pipe runs east/west along the southern wall of the feature (Photo 22).

Figure 54: Feature 36 Plan View Showing Disturbed Area

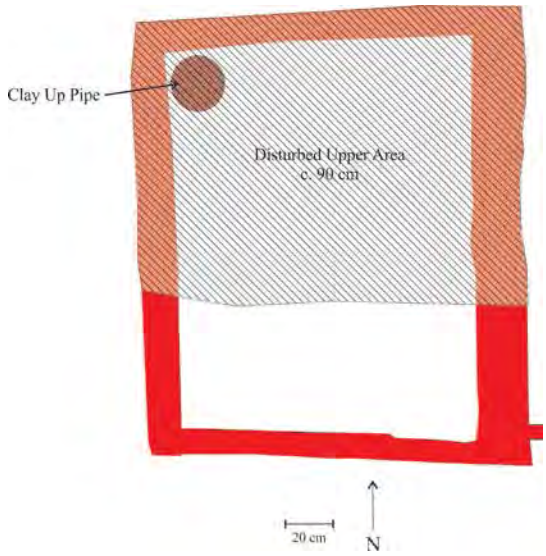


Figure 55: Feature 36 East Profile

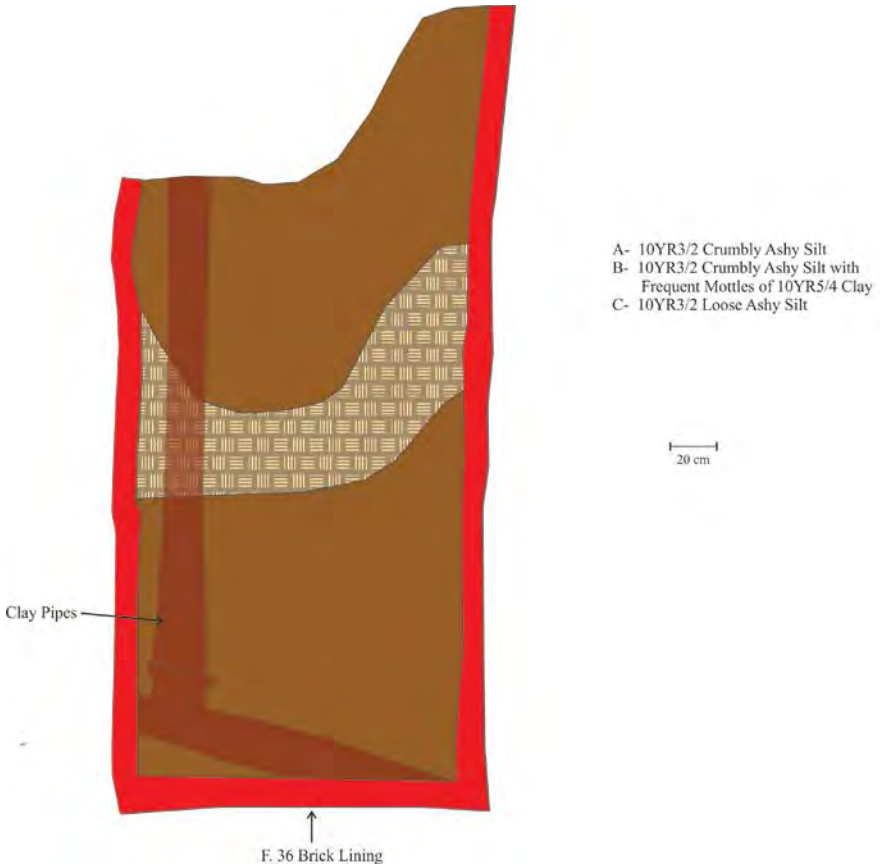
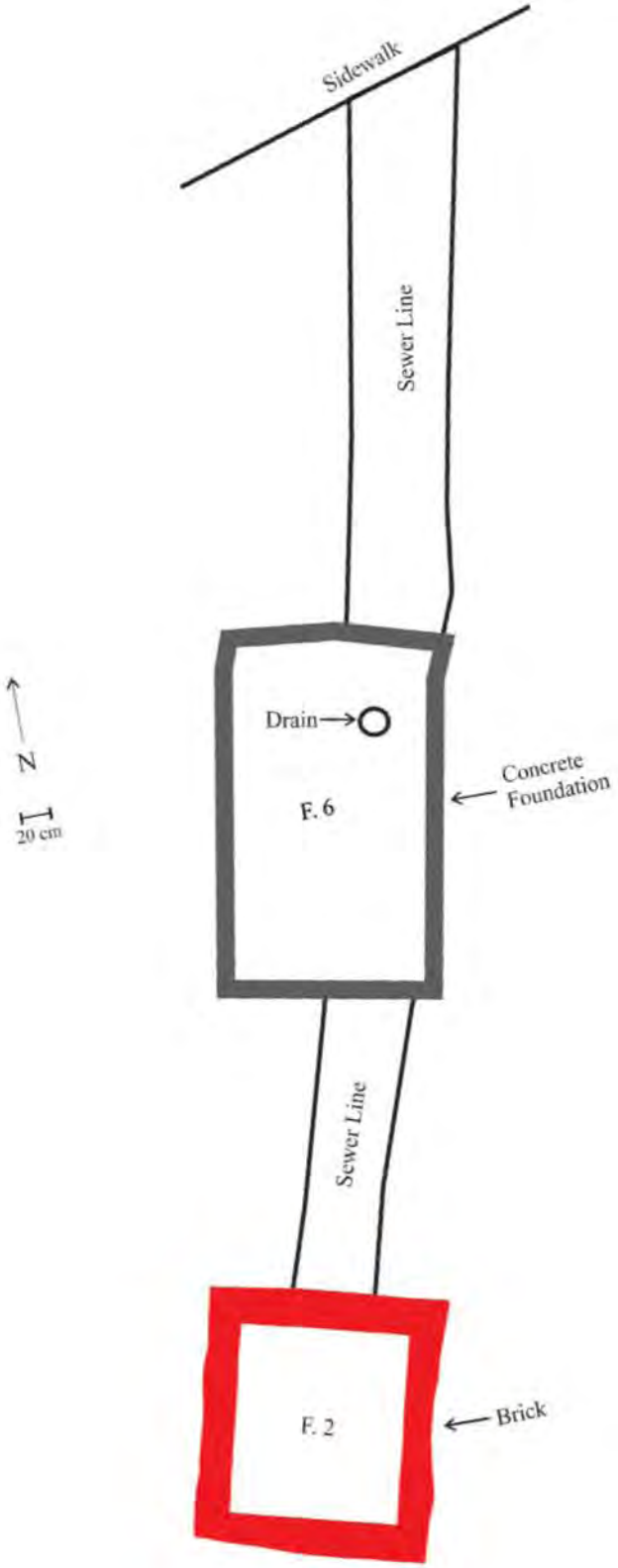


Photo 22: Feature 36 Completed, Facing Southeast

One exterior bathroom was found in Excavation Block 4 at 4352 Papin Ave. Feature 6 was located just north of water closet, Feature 2, and west of the brick patio, Feature 4 (Appendix F, Figure F6). The rectangular bathroom, measuring 2.12 meters by 1.36 meters (7 by 4 ½ feet), had a concrete foundation with an up pipe on the eastern side (Figure 56). A sewer line ran from the building area on the north to the south, with southern sewer extension connecting to Feature 2 and eventually to the alleyway.

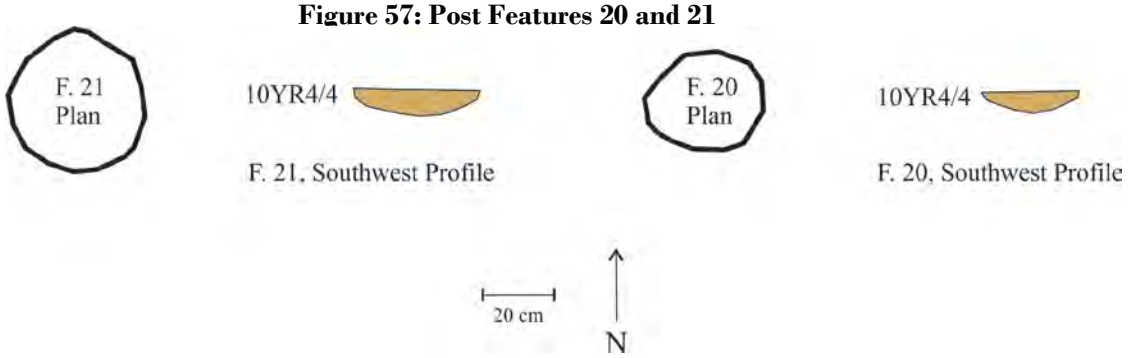
Figure 56: Plan View of Features 2, 6, and Sewer Line



Posts

Nine posts were found in the backyards of private residences. Four of the posts (Features 8-11) represented a fence line between 4344 and 4348 Papin Street (Appendix F Figure F6). The posts were circular with an average size of 34 centimeters (13 inches) in diameter. Four additional posts that were indentified likely served as support posts for buildings. Two support posts (Features 20 and 21) were found within the central area of garage Feature 18 in Excavation Block 3 (Appendix F Figure F4). They were oval in plan and basin shaped in profile spaced 1.5 meters (5 feet) apart and contained a dark yellowish brown silty clay fill (Figure 57).

Figure 57: Post Features 20 and 21



Two rectangular shaped support posts (Features 31 and 35) were located in Block 3 at 4318 Papin (Appendix F Figure F4). Feature 31 measured 22 centimeters by 24 centimeters (8 ½ by 9 ½ inches) in plan with a depth of 8 centimeters (3 inches). This post contained a brick that might have been part of a brick pier, used to support a wooden post, or possibly dragged into the hole when the area buildings were razed. Only the base of Feature 35 was intact. The post measured 28 centimeters by 30 centimeters (11 by 12 inches) in plan with only 2-3 centimeters (1 inch) of fill remaining. It is likely these were used to hold up an outbuilding that appears along the alleyway in 1909 (Appendix F, Figure F4).

A single post, Feature 3, was identified in Excavation Block 4 at 4352 Papin Street. The circular post measured 32 centimeters (1 foot) in diameter and was filled with cinder and ash. The post was positioned near Features 2, 4 and 6 (Appendix F, Figure F6). This post was about 30 centimeters (1 foot) from the corner of privy Feature 2 and possibly served to support the building covering the privy. However its proximity to exterior bathroom Feature 6 and patio Feature 4 could indicate it was a later lamp post used to light the area.

Refuse Areas (Ash pit, Middens and Rubbish Pits)

Several places to discard items were identified. Features 13 and 12 were located in Excavation Block 4 behind the residence at 4344 Papin Street (Appendix F, Figure F6). Feature 13 was a brick walled ash pit measuring 2.74 meters by 1.82 meters (9 by 6 feet) similar to others found in St. Louis (Figure 58). Allen (2011) notes that ash pits were common along alleys in St. Louis serving as refuse area for spent coal used to heat houses as well as a contained area to burn garbage (Figure 59). Feature 12 was a midden that formed immediately south of Feature 13 (Appendix F, Figure F6; Figure 41, Page 72), measuring 2.12 meters by 1.1 meters (7 by 3 ½ feet), reaching a depth of 12 centimeters (5 inches) (Figure 58). This area contained a dark brown silty clay, with several artifacts and probably formed as a dumping area or spillage area when Feature 13 was cleaned out.

Figure 58: Feature 12 and 13 Profiles

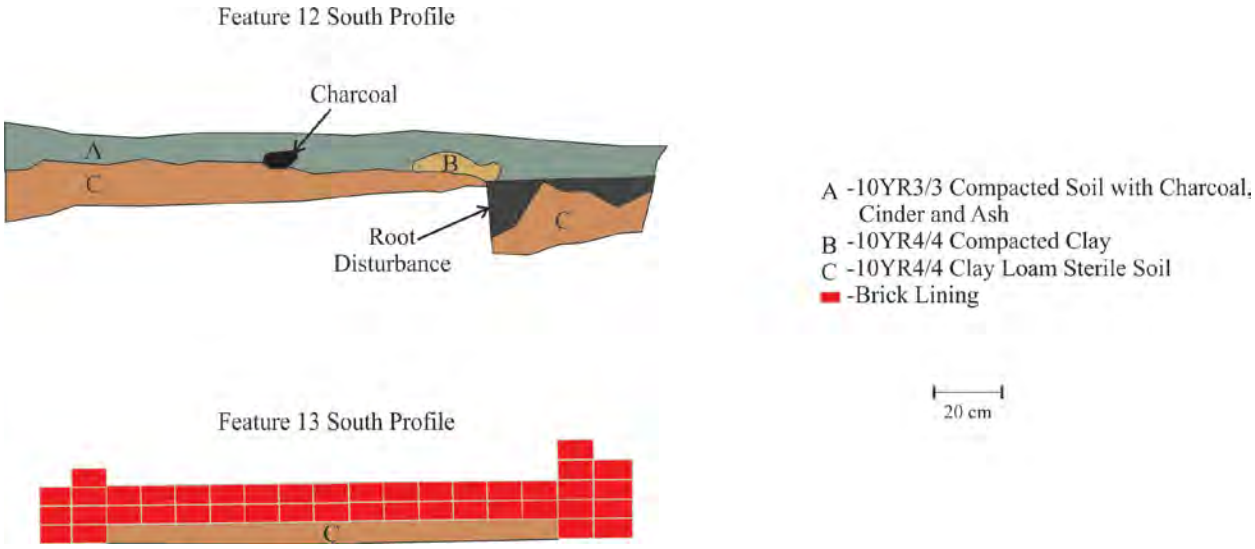


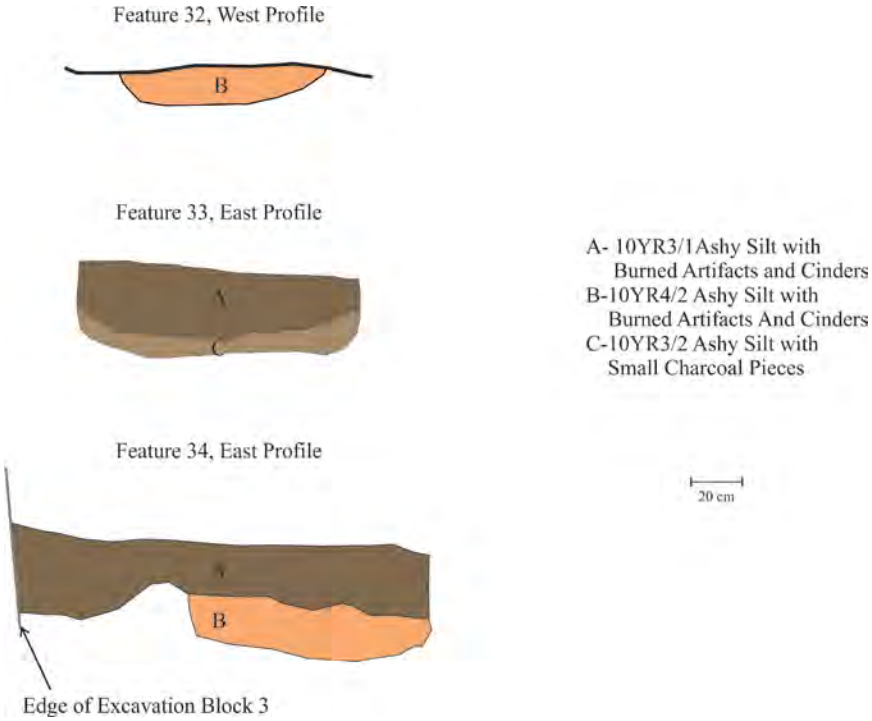
Figure 59: Brick Ash Pit on Adelaide Avenue in St. Louis
Allen (2011)

Two other middens were identified in the mitigation area. Feature 28 was found on the east side of retaining wall Feature 27 at 4366 Papin Street within Excavation Block 5 (Appendix F, Figure F8). This amorphous feature measured 2.25 meters by 1.6 meters (7 1/3 by 5 ¼ feet) and was 10 centimeters (4 inches) in depth. The feature was excavated by trackhoe and diagnostic artifacts were collected. It did not appear to be a formal trash pit for the residence but rather an informal dump area next to a retaining wall. Feature 40 was a cache of bottles from the Koenic Medicine Co. found within a sewer line leading to 4372 Papin Street (Appendix F, Figure F8; Photo 23), and near the large privy, Feature 36.

Photo 23: Feature 40
Facing South

Five rubbish pits were located in the mitigation area. Features 29 and 30 were ash filled pits in the backyard of 4372 Papin Street in Excavation Block 5 (Appendix F, Figure F8). Feature 29 was a shallow, 5 centimeter (2 inches), pit measuring 1.66 meters by .76 meters (5 ½ feet by 2 ½ feet). Feature 30 was a bit deeper at 15 centimeter (1/2 feet) and measured 66 centimeters by 48 centimeters (2 ¼ by 1 ½ feet). Both features represented areas where rubbish was discarded and burned. Features 32-34, in Excavation Block 3, were placed side by side at 4322 Papin Street along the eastern property line (Appendix F, Figure F4). All three contained discarded household items and showed evidence they were used to burn excess rubbish from the residence. Feature 33 measured 112 centimeters by 64 centimeters (3 ½ by 2 feet) with a depth of 37 centimeters (1 ¼ feet) (Figure 60). Feature 34 was 162 centimeters by 60 centimeters (5 1/3 by 2 feet) with a depth of 45 centimeters (1 ½ feet) (Figure 60). Feature 32, the smallest of the group, measured 76 centimeters by 48 centimeters (2 ½ by 1 ½ feet) with a depth of only15 centimeters (1/2 feet) (Figure 60). Fewer artifacts were recovered from this feature and its fill resembled the lower portion of Feature 34 having an ashy dark grayish brown silty clay.

Figure 60: Feature 32-34 Profiles



It is possible that that historic grading of the area when I-64/40 was initially constructed left only the lower portion of the feature intact and when in use, it was similar in size to the other two features.

Other Private Residences Yard Features

Other yard features identified included a cistern, 2 patio/walkways, 1 retaining wall and a garage. Feature 1 was a cistern located in Excavation Block 4 at 4354 Papin Street (Appendix F, Figure F6). This mortar lined cistern was 1.92 meters (6 1/3 feet) deep and measured 154 centimeters (5 feet) north/south (Figure 61). The east/west extent of the feature could not be determined because of the close proximity to the sidewalk and further excavation of Feature 1 could have resulted in the sidewalk's collapse (Figure 61; Photo 24). The construction of the sidewalk caused a slight disturbance in the upper 3-4 centimeters (1 ½ inches) of the feature with the remainder of the feature remaining intact containing four fill zones. Zone A was dark brown silty loam above Zone B that was a lens of gray mortar. Zone C and D consisted of a dark brown silty clay with Zone D also containing brick and limestone rubble.

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Figure 61: Feature 1

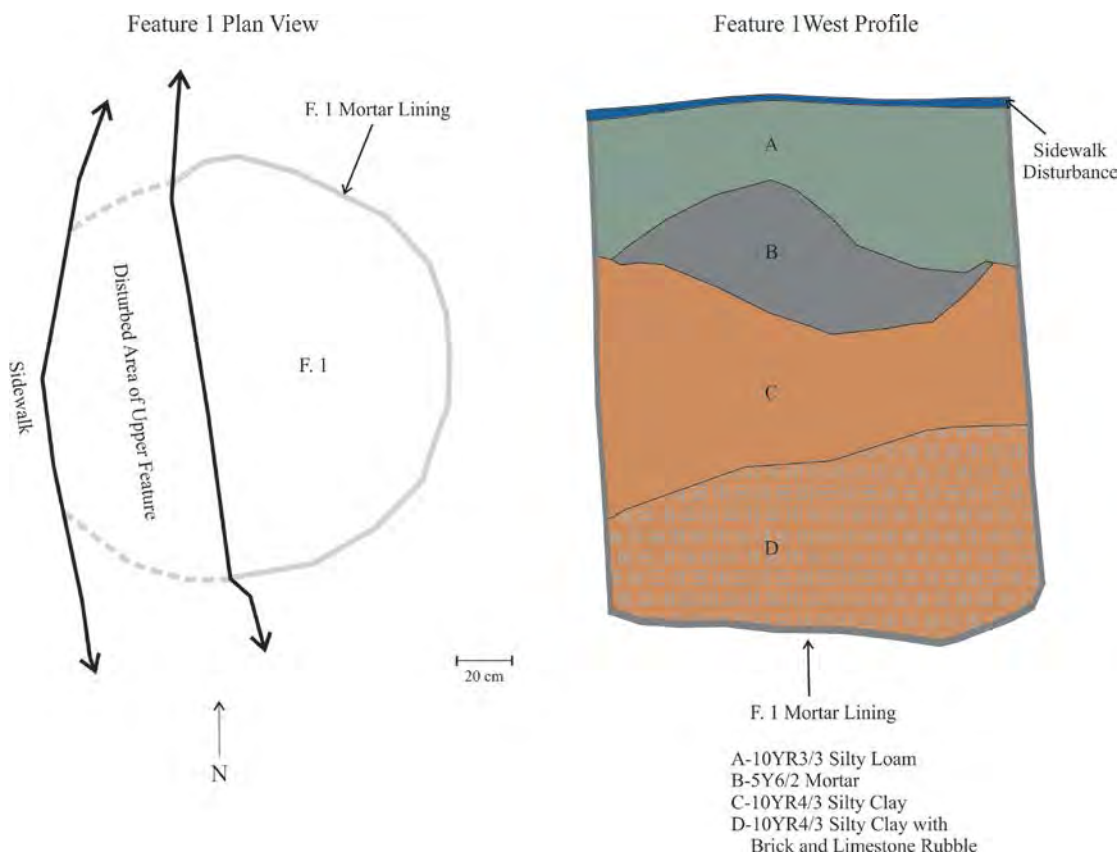


Photo 24: Feature 1
Facing West

Two brick patios were found in Excavation Blocks 4 and 5. Feature 4 was a patio with walkways located at 4352 Papin Street (Appendix F, Figure F6). The patio area measured 4 meters by 2.3 meters (13 by 7 ½ feet) (Photo 25). The leg of the walkway that ran to the alley measured 1 meter by 2 meters (3 ¼ by 6 ½ feet) and the one to exterior bathroom, Feature 6, was 1 meter by 1 meter (3 ¼ feet). The second brick patio (Feature 26) at 4366 Papin Street measured about 3 meters by 3 meters (9 ¾ feet) (Appendix F, Figure F8). A portion of this patio was excavated to look for any older, hidden features. Sterile soil was present beneath the patio and no additional features were located in this area (Photo 26).

Photo 25: Feature 4 and Surrounding Features
Facing East

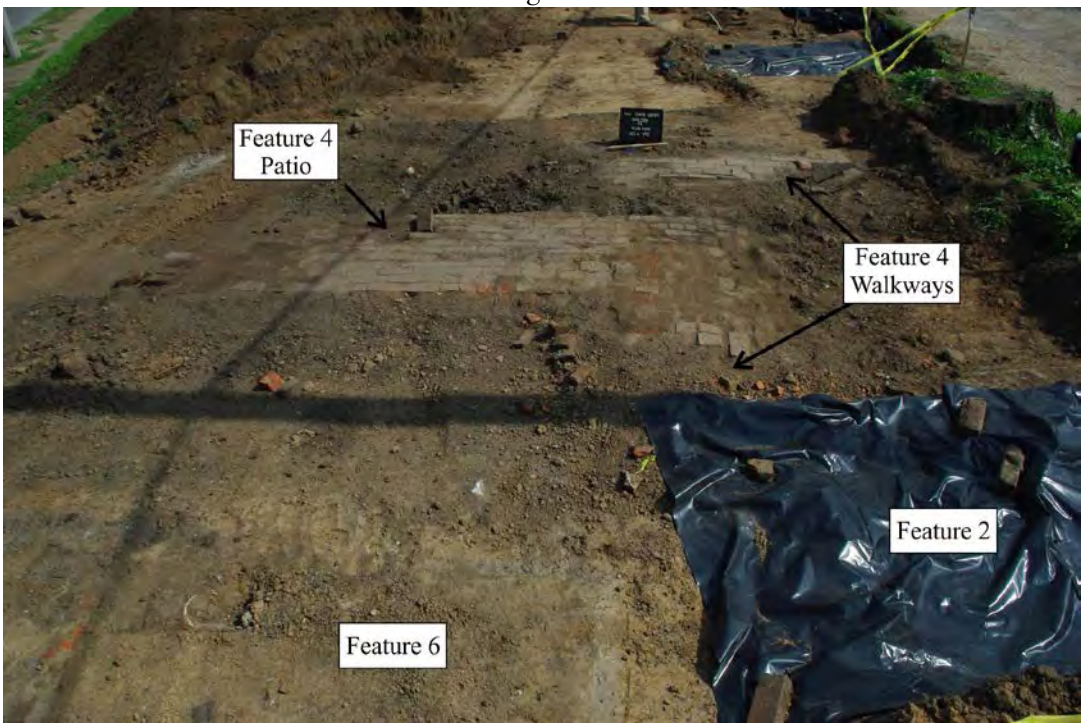


Photo 26: Excavated area of Feature 26 Showing Sterile Soil Beneath the Feature Facing East

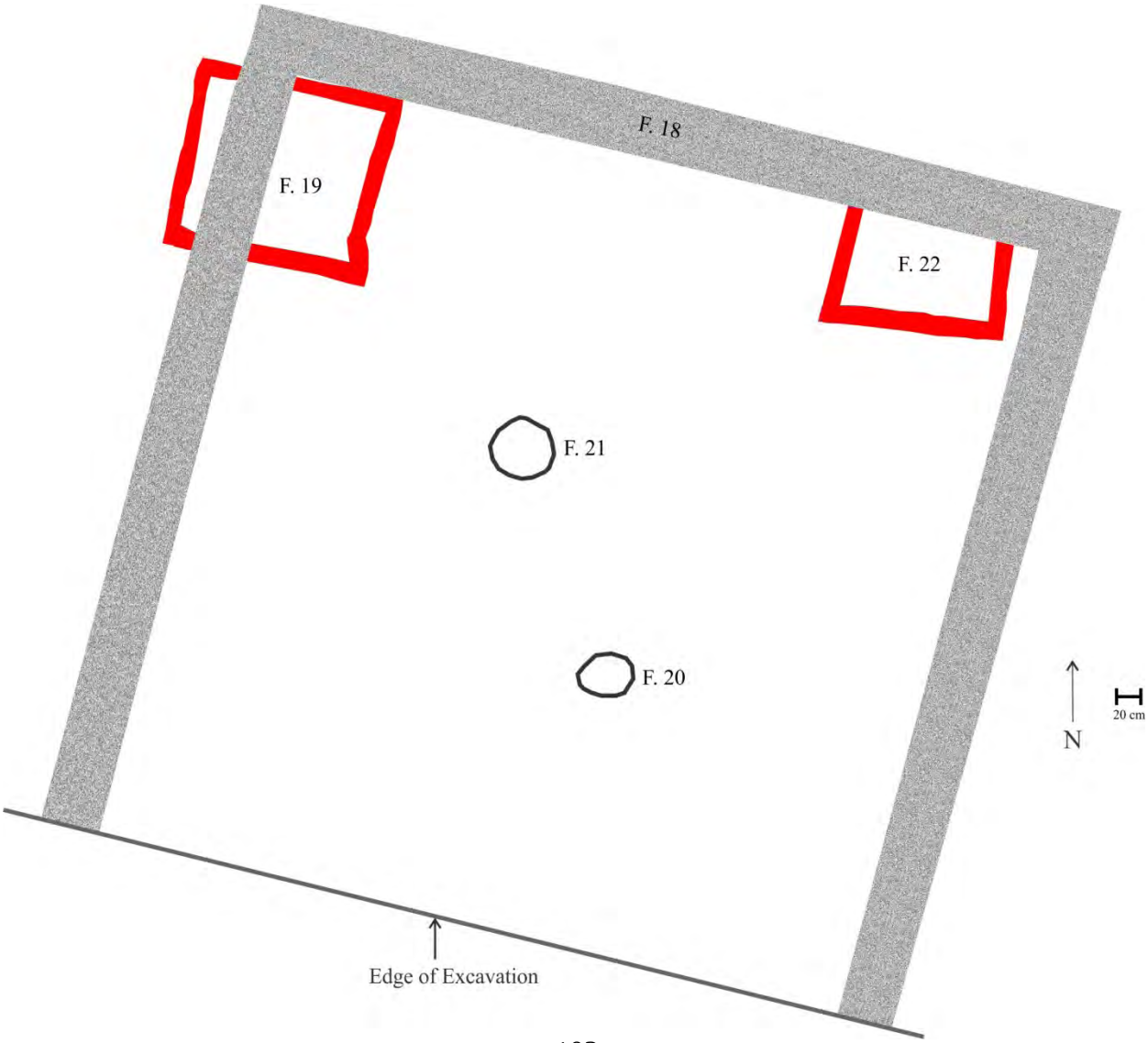
A concrete retaining wall was present dividing the properties at 4366 and 4372 Papin Street (Photo 27). The wall (Feature 27) was 30 centimeters (1 foot) wide and ran from the alley for at least 7 meters (23 feet), where it hit the edge of Excavation Block 5 (Appendix F, Figure F8).

Photo 27: Feature 27 Facing West

Garage Feature 18 was located at 4314 Papin Street within Excavation Block 3 (Appendix F, Figure F4). The feature consisted of a concrete foundation 60 centimeters (2 feet) wide and the overall feature measured 5.2 meters by 5.4 meters (17 by 17 ¾ feet) (Photo 28). The garage floor was dirt and contained post Features 21 and 22 that were likely used as supports for the garage. Additionally, Feature 18 superimposed privy Features 19 and 22 (Figure 62).

Photo 28: Feature 18 Foundation Wall Facing East

Figure 62: Feature 18 Complex



Commercial Features

Five commercial features were identified during the current investigations, three in Excavation Block 1 (Appendix F, Figure F2) and two in Excavation Block 5 (Appendix F, Figure F9). Features 37-39 were found within Excavation Block 1 in the alley that was behind the residence at 657 Tower Grove Avenue (1909 address). Two support posts were found side by side in the block. Feature 37 was the remains of a wooden post set in concrete measuring 100 centimeters by 80 centimeters (3 ¼ by 2 ½ feet). Feature 38 was an oval post mold measuring 60 centimeters by 46 centimeters (2 by 1 ½ feet). What was probably a deeper support pier was found just to the west of the posts. Feature 39 was a rectangular pit measuring 290 centimeters by 100 centimeters (9 ½ by 3 ¼ feet) and was trackhoe excavated to 1.8 meters (6 feet), at which point excavations were stopped for safety reasons. The pit was filled with concrete (Photo 29). All three features were likely associated with the warehouse and loading dock of the Hy-Grade Water and Soda Bottling Company that appeared on the 1951 Sanborn Map (Appendix F, Figure F2).

Photo 29: Feature 39
Facing East

Two commercial features (Features 23 and 25) were located at site 23SL2329 in Excavation Block 5 at the rear of 4360-4362 Papin Street. Feature 23 was the remains of a restroom facility with a concrete foundation. The area measured 3.88 meters by 2.11 meters (12 ¾ by 7 feet) with a sewer pipe on the northern side (Photo 30). Feature 25 was a concrete retaining wall placed between 4362 and 4364 Papin Street (Photo 31). The wall was 30 centimeters (1 foot) wide and at least 8.5 meters (28 feet) long, running from the alleyway and continuing to the north under the backdirt at the edge of the Excavation Block 5. Both features are likely associated with a filling station shown on the 1951 Sanborn Map (Appendix F, Figure F9).

Photo 30: Feature 23, Facing West

Photo 31: Feature 25, Facing West

ARTIFACT ANALYSIS

A total of 3,994 artifacts, weighing 85,166.7g, were recovered from the features during the mitigation operations. However, since many of the pieces could represent fragments from a single vessel, the minimum number of objects that these pieces represented was determined for better comparison purposes. This determination was based primarily on diagnostic pieces, for example, rims of ceramics and bottles, as well as on decoration or embossed lettering. If two pieces appeared to be similar, even if they did not mend, they were still counted as matching to produce the minimum number of objects. How these vessels were constructed was used to provide some insights into when they were used as well as documentation of any manufacturer's marks and other temporal indicators on ceramics and bottles. It appears that the features were filled in during a relatively short period of time, but the features fills were associated with three different times:

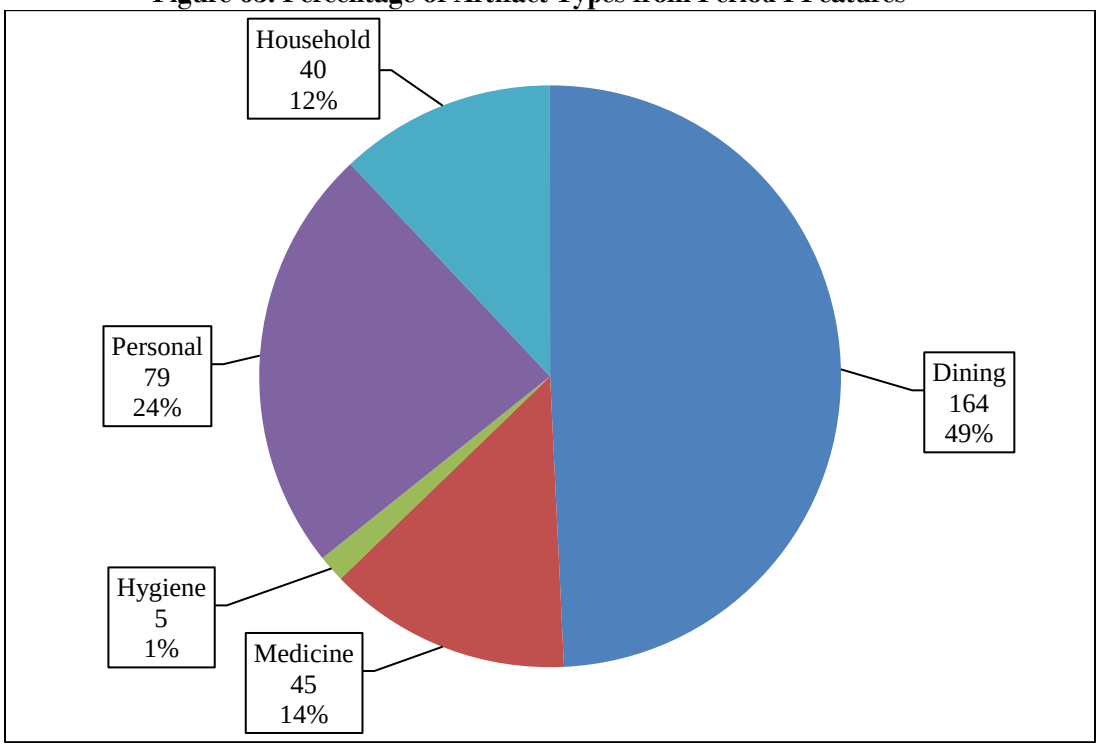
Period I: 1884-1904, Features 1, 14, 15, 29, and 30
Period II: 1905-1929, Features 2, 5, 7, 16, 19, 24, 28, 32, 36, and 40
Period III: 1930-1959, Features 6, 12, 13, 17, 18, 20, 21, 23, 25, 27, 33, 34, 37, 38, and 39
Indeterminate Features: 3, 4, 8, 9, 10, 11, 22, 26, 31, and 35

These times were fortuitous for they represented major changes that took place in the community and the overall American culture. The earliest dates represented the development of the neighborhood just prior to the St. Louis Wolds Fair. At that time, the neighborhood was occupied by mostly middle class families several of them owning businesses. From 1905-1929 less affluent working class families, several of them immigrants from Germany and Ireland, moved into the neighborhood. The neighborhood was filled with homes reaching its peak number of 49 residences occupied by 69 families. Their fortunes, however, improved during the last decade of this time (the 1920s) due to advances by unions and government regulation of the work place. During the final time period, the local residents struggled through the economic Depression of the 1930s, when they were forced to make sacrifices. Later during the early 1940s, local residents were deprived of many material goods in order to support the war effort, with people's economic situation again improving after the war. Material remains from the features will be discussed according to these three time periods. The artifacts were divided into five major groups of dining, health care, hygiene, personal objects, and household goods.

PERIOD I: 1884-1904

Features 1, 14, 15, 29, and 30 contained the oldest artifacts discovered at this site. In all 1,090 artifacts were found in these features, weighing 18,952.2g. These represented a minimum of 334 artifacts (not including animal bones). The greatest percentage of artifacts was associated with dining, which is not surprising since these objects were more likely to break due to daily use (Figure 63).

Figure 63: Percentage of Artifact Types from Period I Features



Dining

Dining artifacts represented pieces associated with the serving, preparation, and storage of foods or drinks.

Serving of Food

Most of these pieces represented table settings, with the majority consisting of ironstone (also known as stone china) vessels (Figure 64, Table 7). This semi-vitreous ware was first patented in 1800 by William Turner at his Lane End potteries in Longton, Staffordshire, England, but it soon was being produced by other potteries in that region (Hillier 1965:22; Miller 1991). Early ironstones tended to be heavy and were highly decorated, often copying similar decorations on Chinese porcelains. These thicker vessels, however, were not widely popular with consumers for table settings before 1840. After this time, due to the influx of Victorian ideology, pure white ironstone vessels did become widely popular (Miller 1980, 1991). The absence of decoration prevented the hiding of tainted foods, which was believed to not only impact a person's health, but even their morality. By the 1880s, more delicate ironstones, with finer molded designs, more intricate shapes, and simple transfer print or decal decorations became more popular. Most of these innovations were introduced by American manufacturers allowing them to take over the ceramic market from the English, who had dominated ceramic market for most of the 19th century (Snyder 1995:11, 36; Wetherbee 1996:8-9; Majewski 1987:46).

Figure 64: Percentage of Serving Vessel Types from Period I Features

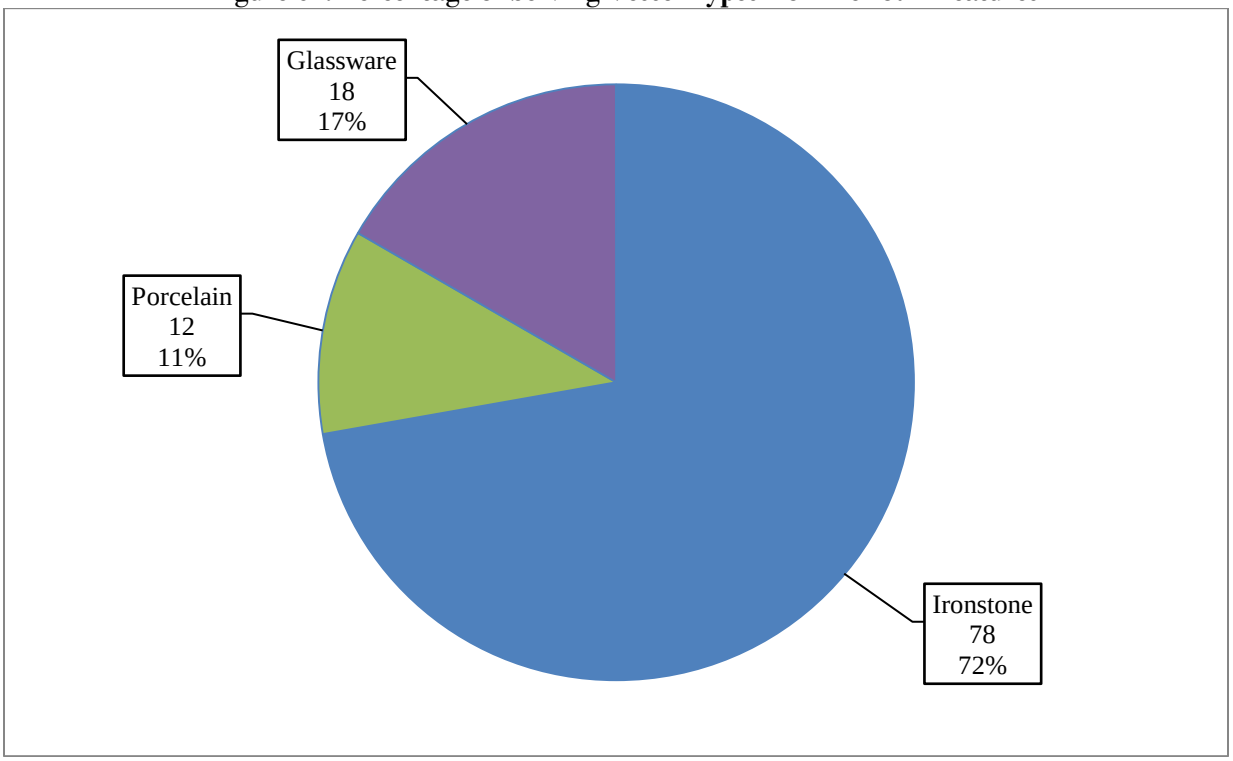


Table 7: Minimum Number of Dinnerwares Associated with Period I Features

Ironstone

14	plates
6	bowls
2	platters
3	tureens/serving bowls
1	serving dish
3	pitchers
1	butter dish insert
17	coffee cups
27	saucers

Porcelain

7	tea cups
5	tea saucers

Glasswares

5	tumblers
3	goblets
1	bowl
2	serving bowls
2	serving dishes
1	decanter top

Rim sherds, large enough to determine plate diameters (Photo 32:A-C), indicated that their sizes varied consisting of:

1	6 inch (16 cm)
1	7 inch (18 cm)
4	8 inch (20-21 cm)
1	9 inch (23 cm)
1	10 inch (26 cm)

Lucas (1994:84) suggested that 9 inch supper plates and 10 inch dinner plates were popular until about 1880. After that time, smaller plates were more popular as foods were served in courses with only one or two items served with each course. The need for larger dinner plates holding lots of food became less common. "Plates were advertised in various catalogs as being available in five primary sizes: 8-in. dinner, 7-in. breakfast, 6-in. tea, 5-in. pie, and 4-in. sauce" (Lucas 1994:84). Serving foods in courses also was reflected by the bowls recovered (Photo 32:D-G), including three measuring 8 and 9 inches, representing soup bowls, and two other bowls measuring 4 and 5 inches, likely used for smaller servings, such as salads, vegetables, desserts, or appetizers.

Other ironstone pieces consisted of cups and saucers. Cups measured about 3 inches (8-9 cm) in diameter (Photo 33:E-H). These tended to be fairly thick ironstones and were likely used in serving coffee instead of for tea, which were typically served in thinner, more delicate cups. Saucers ranged from 5 to 6 inches (12 to 16 cm) in diameter (Photo 33:A-D). Most of these also were very thick and likely used in serving coffee. Coffee drinking became more common at the dinner table than tea drinking by the end of the 19th century (Schlereth 1991).

Various ironstone serving vessels also were recovered: 2 tureens (Photo 34:A), 1 serving bowl, 1 serving dish, and 2 platters. An insert for a butter dish, measuring 5 inches (12 cm), was recovered from Feature 15, Zone A (Photo 34:B). Other serving vessels included a milk pitcher (Photo 34:C) and two portions of water pitchers (Photo 34:D) found in Feature 15 and 29.

The majority of the ironstone vessels (68%, N=53) had only undecorated surfaces (Figure 65, Photos 32-33). Although plain body sherds were not recovered, this would not have impacted this percentage, which was based on the minimum number of vessels, determined from rim and basal sherds. Another three vessels contained fine molded designs, including a water pitcher (Photo 34:C). While broad molded shapes and designs were popular on ironstones produced after 1850, by 1880 finer molded decorations, especially of flora, became more popular (Wetherbee 1996). A cup from Feature 15 has small molded dots around the rim exterior. A small sherd from an indeterminate vessel found in Feature 14, Zone E, contained small molded berries on its interior surface. The water pitcher in Feature 29 contained a broad molded floral design on its handle.

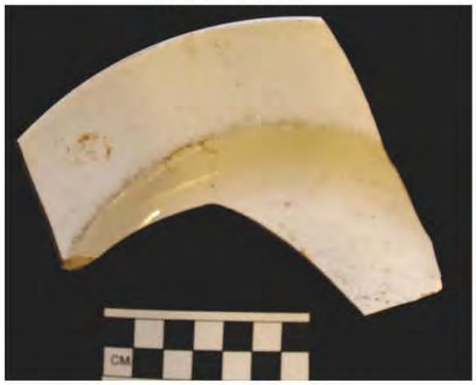
Another seven vessels had a painted decoration. Most of these (N=5) consisted of a copper colored band near the rim with a tea leaf pattern on the body (Photo 35:A-C). This design was first introduced during the mid 1800s by English manufacturers and it continued to be popular until about 1900 (Wetherbee 1996:153). It was present on 2 plates, 2 saucers, and 1 pitcher suggesting that these pieces were from matching sets. The remaining two sherds from saucers contained painted bands around their edges (Photo 35:D-E).

Photo 32: Plain Ironstone Plates and Bowls from Period I Features

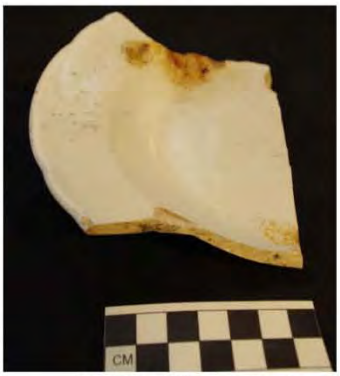
A. 15-11 Plate

B. 14-5 Plates

C. 14-128 Plate



D. 14-54 Soup Bowl



E. 29-04 Soup Bowl

F. 14-55 Serving Bowl

G. 15-1 Bowl

Photo 33: Plain Ironstone Saucers and Cups from Period I Features

A. 15-6 Saucer

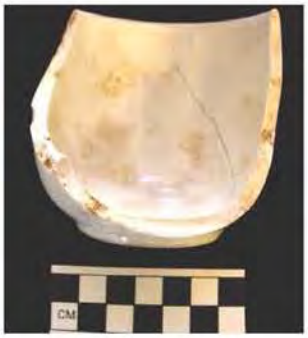
B. 15-7 Saucer

C. 15-8 Saucer

D. 15-121 Saucer

E. 15-48 Coffee Cup

F. 15-17 Coffee Cup



G. 15-16 Coffee Cup

H. 15-15 Coffee Cup

Photo 34: Ironstone Butter Dish and Pitchers from Period I Features

A. 15-154 Tureen

15-3

15-62

B Butter Dish Insert

C. 15-63 Milk Pitcher

D. 29-10 Water Pitcher

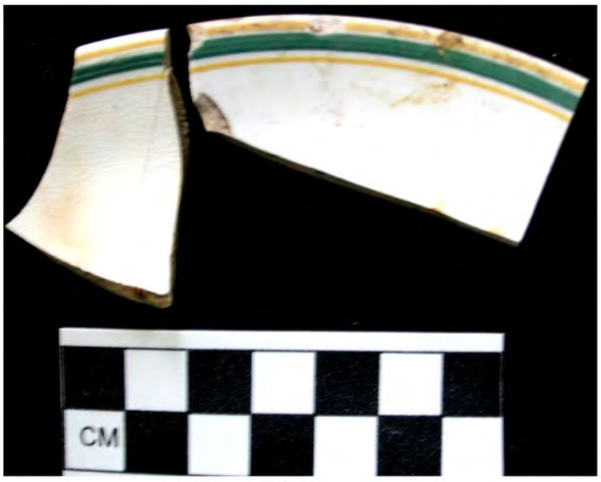
Photo 35: Painted Ironstones from Period I Features

A. 15-02 Plate

B. 15-93 Plate

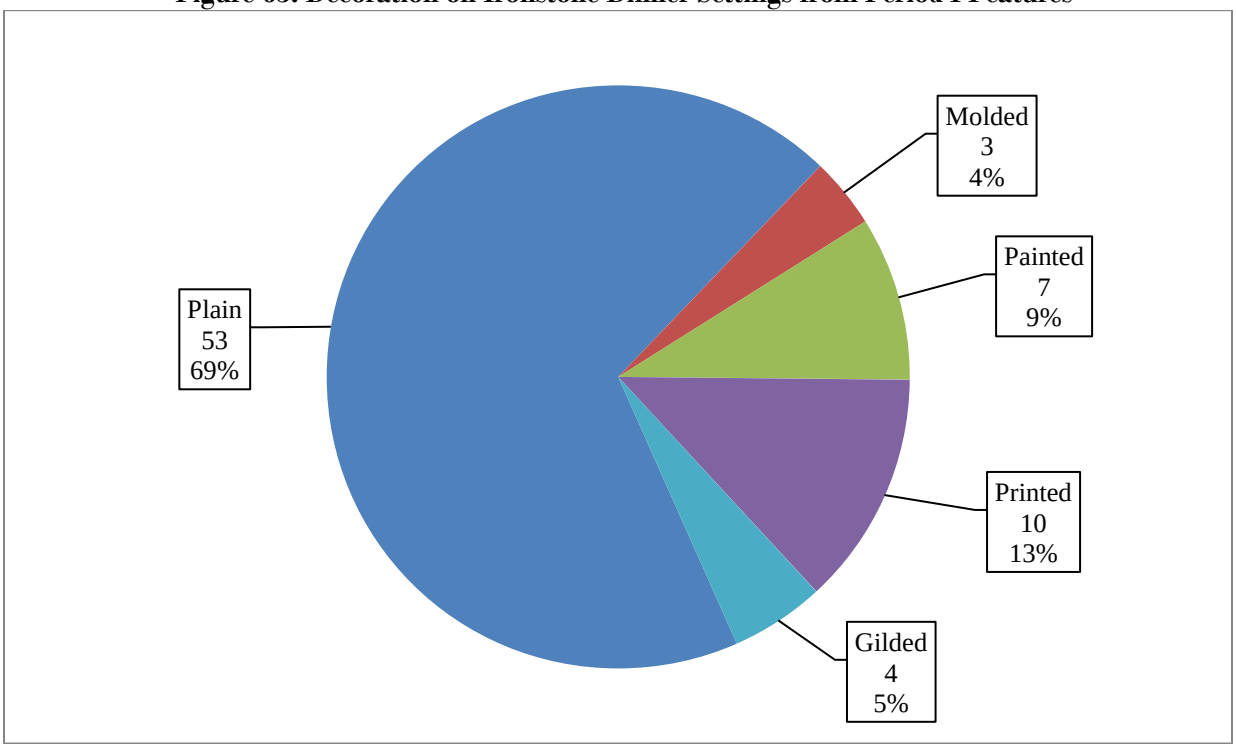
C. 15-94 Saucer

D. 14-9 Saucer



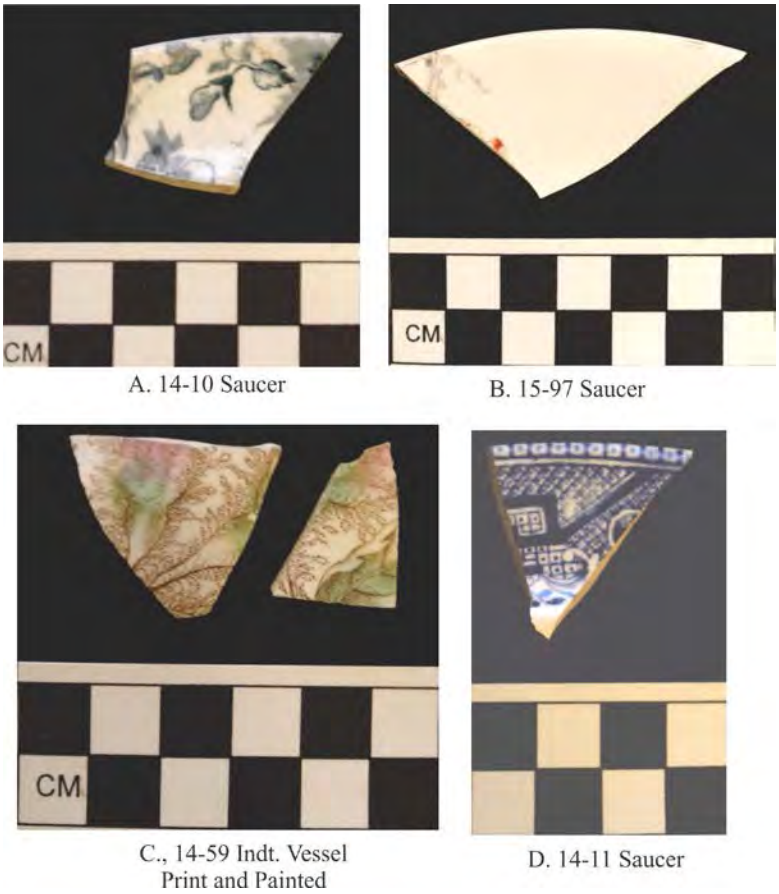
E. 15-148 Saucer

Figure 65: Decoration on Ironstone Dinner Settings from Period I Features



Transfer print designs are present on at least 10 vessels. This technique was first patented in 1751 (Williams-Wood 1981:53) on creamwares, but the early prints were placed over the glaze and tended to rub off over time. Although an underglaze print was developed around 1760, it was first introduced to potteries in Staffordshire, England after 1783. However, it did not become widely popular until after the introduction of pearlwares and a stipple method of decorating transfer prints about 1807 (Miller 1991:9). This decoration consisted of inscribing a decoration on a copper plate and then pressing the design, colored with a cobalt blue pigment, onto a piece of paper. The paper was then carefully transferred onto the ceramics; this highly skilled job was generally performed by women (Stelle 2001). The use of a transfer print greatly reduced the cost of decorating pieces as well as resulted in standard patterns, allowing homemakers to have matching dinner sets and to be able to replace broken pieces in a set. It also allowed vessels to be completely decorated with intricate designs depicting flora, landscapes, romantic, classical, or other themes. Between 1825 and 1830, other colors started to be utilized besides the cobalt blue (light blue, green, red, purple, brown, and black) although it was only in the 1860s that polychrome transfer prints could be applied (Lewis 1969). Most of the pieces recovered from the features were decorated with a floral print (Photo 36:A-C). Highly ornate prints dropped in price during the 1840s-1850s in favor of plain white vessels (Miller 1980). However by 1880, floral prints resurged in use, but the decorations did not cover as much of the vessel as earlier prints and the decorations were more stylized. Two vessels had prints with molded vine or a leaf pattern near the edge. Another two vessels had a floral print in which the flower pedals were painted over the print (Photo 36:C).

Photo 36: Transfer Print Decorations on Ironstone Vessels from Period I Features



A. 14-10 Saucer

B. 15-97 Saucer

C., 14-59 Indt. Vessel
Print and Painted

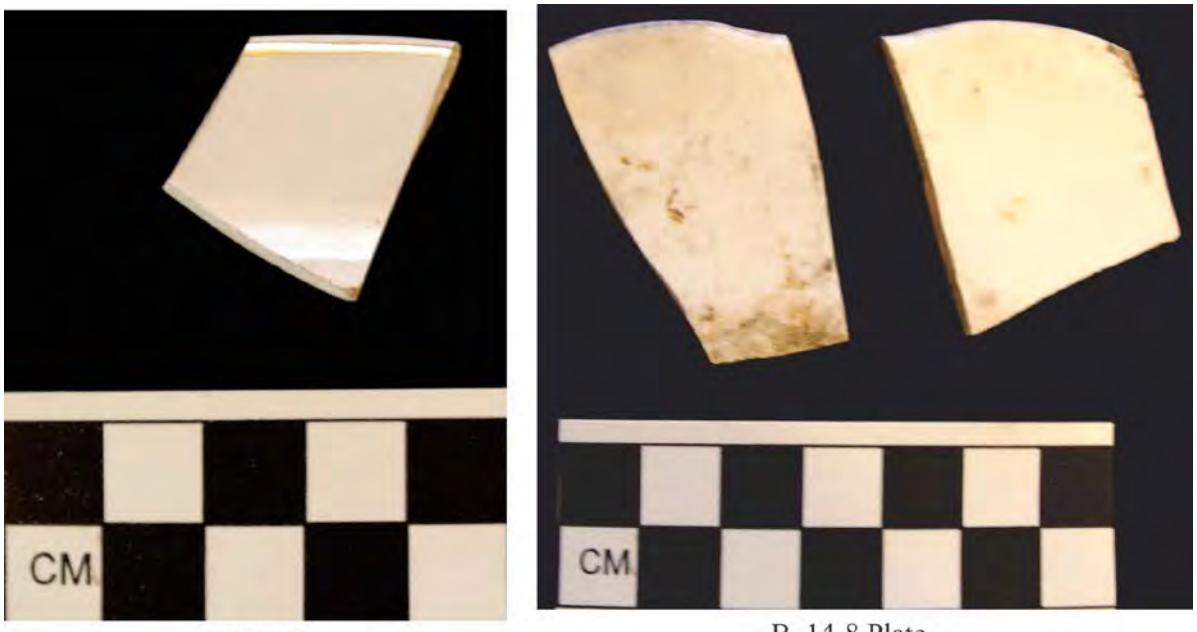
D. 14-11 Saucer

Figure 66: Example of Willowware Decoration Notice Border Pattern (Bockol 1995:25)

In England, print designs were patented by pottery companies making it possible to determine who manufactured the vessels and when they were produced. However by the end of the century, many American companies started copying popular designs and using patterns to date ceramics is less useful. One rim sherd in Feature 14, Level 1, did have a geometric pattern used on Willowwares (Photo 36:D, Figure 66). This pattern was first produced by the pottery of Thomas Turner in Worcester, England, in 1780. It was soon copied by other potteries, with as many as 200 English manufacturers using this design by 1830, which encouraged the British government to pass laws to patent popular patterns or works of art. Willowware features a fanciful Chinese inspired scene of two star-crossed lovers who are killed and fly off as doves on the upper portion of the design. Although the story was made up by Turner, it was meant to fool consumers into thinking they were acquiring more expensive Chinese ceramics at a cheaper price. This was one of the most popular designs that could be cheaply acquired until about 1850, when pure white dinner settings were desired. But the pattern had another resurgence during the late 1800s and continues to be produced today (Bockol 1995).

Another four rim sherds had a gilded decoration. Using gilding on ceramics was developed around 1723, but this process was expensive and generally applied to the more expensive porcelains. A liquid gold process was developed in Germany about 1836, but it was not applied to ceramics in the Staffordshire region of England until 1870. However, it was not until after 1890 that this procedure was widely applied to ceramic vessels, even on less expensive wares (Miller 1990:10; Lewis 1969). The sherds consisted of two saucer fragments found in Feature 15 with a gold band near their edge (Photo 37:A) and sherds from a plate in Feature 14 that had a fine molded dot pattern with a gold band at its edge (Photo 37:B).

Photo 37: Gilded Ironstone Vessels from Period I Features



A. 15-2 Saucer
Gilded Edge

B. 14-8 Plate
Fine Molded Dot Pattern and Gilded Edge

Manufacturer's marks were found on 15 of the ironstone vessels (Table 8). Seven were made by American firms (Photo 38:A-F). Four of these (produced by Vodrey and Brothers Pottery Company, East Trenton Pottery Company, Dresden Pottery Company, and the Salem China Pottery Company) copied the British seal of a lion and unicorn used by several English pottery manufacturers (Photo 38:A-D). Another three marks were likely copied by unknown American companies as they contained poorly produced lion and unicorn marks (Figure 38:F) or had "Warranted" below the mark. Prior to 1890-1900, the majority of dinnerwares sold in America were produced in England. American companies would often imitate British manufacturer's marks, especially copying the British seal, in an attempt to fool consumers into thinking they were getting what was perceived as better quality English wares. Slightly fewer of the marked ceramics (N=5) were made by English manufacturers. However, two saucers and two plates found in Feature 15 were produced by the Alfred Meakin Pottery Company in Tunstall, Staffordshire (Photo 39:A). Three of these pieces were decorated with the copper tea leaf pattern suggesting that these may have come from a matching set. The water pitcher found in Feature 29 was produced by the W. & E. Corn, of Longport, Staffordshire, England (Photo 39:B).

Table 8: Manufacturer's Marks on Ironstones Vessels Found in Period I Features

Quantity	Vessel	Manufacturer	City	Dates Used	References*
1	plate	Vodrey and Brothers Pottery Co.	East Liverpool, Ohio	1876-1896	Kovel:131
1	saucer	East Trenton Pottery Co.	Trenton, New Jersey	1888-1905	Kovel:10J
1	saucer	Dresden Pottery (Works) Co.	East Liverpool, Ohio	ca. 1890s	Kowalsky:31-32
1	saucer	The Salem China Pottery Co.	Salem, Ohio	1898-1918	MGAA
2	saucers	Knowles, Taylor, and Knowles	East Liverpool, Ohio	1890-1907	Kovel: 146F
1	plate	C.C. Thompson & Co.	East Liverpool, Ohio	1870-1889	Kowalsky:63
2	plates	Alfred Meakin	Tunstall, England	1891-1897	Kovel:12G
2	saucers	Alfred Meakin	Tunstall, England	1891-1897	Kovel:12G
1	water pitcher	W. & E. Corn	Longport, England	1900-1904	Kovel:76E
1	saucer	lion & unicorn mark-unknown manufacturer			
1	plate	lion & unicorn mark "Royal Iron..", unknown manufacturer			
1	soup bowl	lion & unicorn mark "Warranted", unknown manufacturer			

* References: Kovel- Kovel and Kovel 1986
Kowalsky- Kowalsky and Kowalsky 1999
MGAA- My Granny's Attic Antiques 2007

Photo 38: American Manufacturer's Marks on Ironstone Vessels from Period I Features

A. 14-37 Plate or Platter
Vodrey and Brothers
Pottery Co.,
East Liverpool, Ohio
1876-1896
(Kovel & Kovel 1986:13J)

B. 15-6 Saucer
East Trenton Pottery Co.
Trenton New Jersey
1888-1905
(Kovel & Kovel 1986:10J)

C. 15-150 Saucer
Dresden Pottery (Works) Co.
East Liverpool, Ohio
ca. 1890s
(KOWALSKY & KOWALSKY 199932-33)

D. 15-8 Saucer
The Salem China Pottery Co.
Salem, Ohio
1898-1918
(My Granny's Attic
Antiques 2007)

E 15-10 Plate or Platter
C. C. Thompson & Co.
East Liverpool, Ohio
1870-1889
(Kowalsky & Kowalsky 1999:63)

F. 29-03 Plate
Unknown Mark

G. 29-04 Saucer
Soup Bowl
Unknown Mark

Photo 39: British Manufacturer's Marks on Ironstone Vessels from Period I Features

A. 15-92 Plate With
Copper Tea Leaf Pattern
Alfred Meakin
Tunsall Staffordshire, England
1891-1897
(Kowalsky & Kowalsky 1999:277)

B. 29-10 Water Pitcher
W. & E. Corn
Longport, Staffordshire, England
ca. 1900-1904
(Kovel & Kovel 1986:76E)

Portions of porcelain tea sets were found within the Period I features including 7 cups and 5 saucers. These pieces were generally thinner than the ironstone cups and saucers used for serving coffee. Although five pieces were undecorated (Photo 40:A-C), a cup found in Feature 14, Zone D, Level 3, had a painted floral design and a cup from Feature 14 had a single gilded band on its exterior near the lip (Photo 40:D). Another three saucers found in Feature 15 had a gilded border decoration as well (Photo 40:E-G). Segments of a brass tea pitcher were recovered from Feature 14 (Photo 41). This pitcher was used to serve guests tea that was prepared on the stove in a tea pot. It was not as expensive as porcelain tea pitchers.

Photo 40: Portion of Porcelain Tea Sets from Period I Features

A. 15-21 Tea Cup

B. 14-79 Tea Cup Handle

C. 14-103 Tea Cup

D. 14-104 Tea Cup with Gilded Band

E. 15-65 Saucer with Gilded Band

F. 15-124 Saucer with Gilded Band

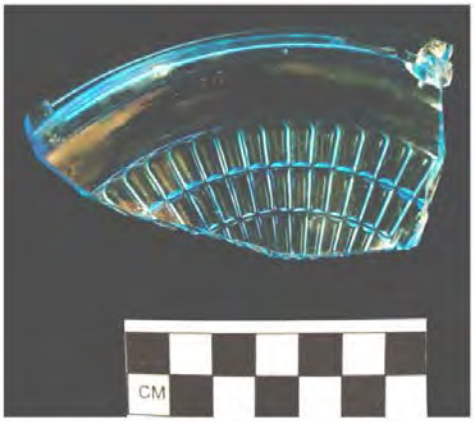
G. 15-145 Saucer with Gilded Border Decoration

Photo 41: Brass Tea Pitcher from Feature 14

Glasswares represented 18% (N=17) of the serving vessels. A serving bowl from Feature 29 was made from a white glass, with a molded cathedral design (Photo 42:A). Other bowls were made of pressed glass (Photo 42:B-F). With the change in dining habits to serving foods in courses on smaller dishes, pressed glassware also became popular over more expensive cut glass pieces. These were produced after 1850, mostly by American companies. In the 1910s, more expensive looking crystal pieces could be acquired from France and other European countries. However, during the Depression, pressed glass was again reintroduced. More common glasswares consisted of five tumblers (Photo 43:A-B) and four water goblets (Photo 43:C-D). Four of these pieces had pressed glass designs.

Photo 42: Glassware Bowls from Period I Features

A. 29-9 White Glass Serving Bowl



B. 15-25A Pressed Glass Dish

15-25B

15-119

C. Pressed Glass Dish

D. 14-24 Pressed Glass Bowl

E.-F. 15-157 & 158 Pressed Glass Bowls

Photo 43: Tumblers and Water Glasses from Period I Features

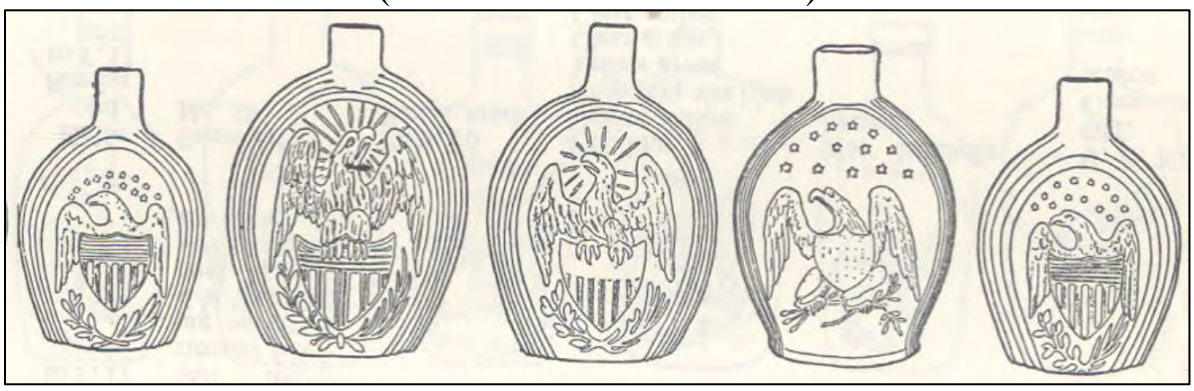
A. 14-22 Pressed Glass Tumbler B. 14-23 Tumbler

C. 15-29 Water Goblet

D. 15-113 Water Goblet

The drinking glasses were used to consume both alcoholic and non-alcoholic drinks. Alcoholic drinks include fragments from three wine bottles found in Features 14 and 15 (Photo 44:A-B). Also found were two decanter stoppers (Photo 44:C-D), one was made from a green glass. The decanters likely were used to serve wine or other alcoholic drinks. At least five fragments of bottles, one from Feature 1 and the rest from Feature 14, once contained liquors such as bourbon or scotch (Photo 44:E-G). Most of these were made on a semi-automatic bottle machine, first introduced in 1881. The bottle's body was produce on a machine, but the finish was made by the older blown technique, resulting in the mold seam extending only part way up the neck bottle and the finish applied separately. The liquor bottles had one brandy and two oil/ring finishes. A portion of a liquor bottle body found in Feature 14 contained an embossed decoration of the bottom of a federal shield with "(A)MERICAN" under it and laurel leaves (Photo 44:G). This type of symbol was common on liquor flasks during the mid to late 1800s (Figure 62).

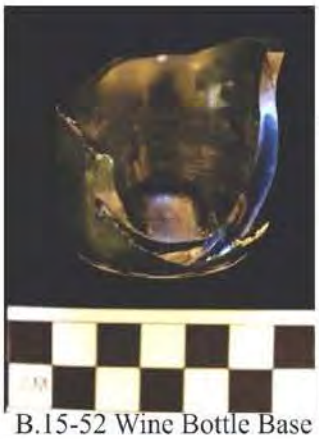
Figure 62: Examples of Liquor Flasks Decorated with Federal Shield and Laurel Leaves (McKearin and McKearin 1948:545)



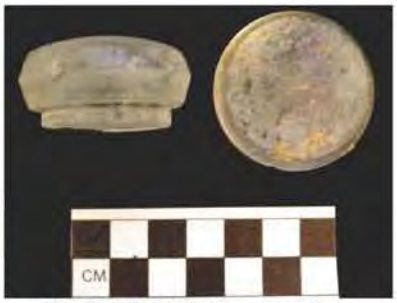
One brown liquor bottle found in Feature 14, Zone A, Level 2 (Photo 44:H), was made on a fully automatic machine, first patented in 1903 by Michael J. Owen, an employee of the Libby Glass Company (Paul and Parmalee 1973). It took until the 1920s, however, before most bottle factories converted over to this new technology. Bottles produced on fully automatic machines are easy to identify because the mold seam extends from the base to the bottle's lip. The brown liquor bottle had a continuous thread finish, first produced in the 1890s, but these were not popular on liquor bottles until the 1930s (Bureau of Land Management 2013). This bottle also was embossed with "Law Forbi..". A few years after the repeal of Prohibition (which ended in 1933) liquor bottles were required to have embossed lettering of "Federal Law Forbids Sale or Reuse of This Bottle" to discourage their use by bootleggers. This labelling, not required on beer or wine bottles, was used between 1935 until the mid 1960s (Society for Historical Archaeology 2013b). Thus, this bottle appears to be later than the other artifacts in Feature 14. However, the bottle was recovered from the top of the privy. The eastern edge of this feature had been cut around 1960 in order to discard rubbish when the buildings along Papin were razed for the construction of Highway 40. The bottle likely was placed in the feature fill at that time.

Photo 44: Alcoholic Bottles from Period I Features

A.14-75 Wine Bottle Base



B.15-52 Wine Bottle Base



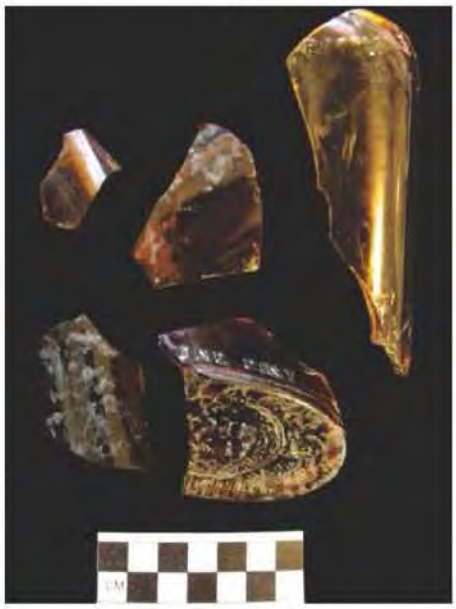
C.-D. 14-116 Decanter Tops

E. 1-2 Liquor Bottle Fragment

F. 14-132 Liquor Bottle Fragment

G.14-32 Liquor Bottle Fragment
"..MERICAN"
With Shield and Laurel

14-30
"Law Forbi.."



14-16

H. Liquor Bottle Produced Used Between 1935 and mid 1960s

Although no beer bottles were recovered, a small fragment of a stoneware beer stein was found in Feature 15 (Photo 45). The outside has molded grapes and grape leaves that were painted a cobalt blue color.

Photo 45: Beer Stein from Feature 15

Non-alcoholic drinks consisted of six soda bottles found in Features 14, 15, 29, and 30. Similar to soda bottles produced since the mid 1800s, these were made with a thick glass. Only two of these bottles were complete and one found in Feature 30 was the upper portion of the bottle. All of these were made on a semi-automatic machine. Two recovered from Features 29 and 30 had a blob finish, but the one found in Feature 14 was made with a crown finish. On February 2, 1892, a patent was issued to William Painter of Baltimore, Maryland, for a crown cap, which finally won out over all of the other closures types for carbonated beverages. It took some time, however, before this new innovation was widely accepted by manufactures and the public. As late as 1905, only 25% of the bottlers were using crown caps; by 1920, it was used almost exclusively. An advertising campaign on how to effectively open crown capped bottles helped to win over the public (Paul and Parmalee 1973).

The complete bottle with a crown finish found in Feature 14 was marked with "VOGEL-BUOL, SODA WATER CO., ST. LOUIS MO" (Photo 46:A). A search of St. Louis City Directories suggested that this soda company operated between at least 1906 and 1910, at 2207 Lynch, far to the southeast of the mitigation area. The other complete soda bottle found in Feature 29 was marked with "H. ACKERMAN" (Photo 46:B). The Ackerman Soda Water Company existed at 301 Barry in St. Louis between 1887 and 1908 (St. Louis City Directory 1885-1910). The base of the bottle further indicated that it was manufactured by the North Baltimore Bottle Glass Company in Indiana, between 1885 and 1930 (Toulouse 1971:79).

The base from another soda bottle found in Feature 29 contained a depiction of the moon eclipsing the sun with "ECLIPSE" under it (Photo 46:C-D). This mark could have been used by the Eclipse Bottling Company at 828 57th Street as early as 1889 (St. Louis City Directory 1889), but it was more likely used by the Eclipse Carbonated Beverage and Manufacturing Company at 1521 Vail Place between 1903-1907 (St. Louis City Directory 1903-1907). Charles R. Judge and Clifford M. Dolph, who operated other soda companies in St. Louis, were the main two officers of the company.

Other dining pieces recovered from the Period I features consisted of five utensils. A complete brass table spoon was found in Feature 14 (Photo 47:A) as well as portions of two brass handles from unknown utensils (Photo 47:B). In Feature 15, two bone handles were from unknown utensils were uncovered (Photo 47:C-D). These were heavily worn and slightly rounded and may have actually represented mixing spoons used in the kitchen instead of dinner settings.

Photo 46: Soda Bottles from Period I Features

A. 14-28 "Vogel-Boul Soda Water Co. St. Louis, MO"

B. 29-11 "H. Ackerman, St. Louis, MO."

C. 29-12 "L", "St. Louis"

D. 29-12 Base "Eclipse"

Photo 47: Utensils from Period I Features

A. 14-2 Spoon

B. 14-141 Utensil Handles

C. 15-71 Bone Utensil Handle

D. 15-24 Bone Utensil Handle

Food Preparation and Storage

Artifacts associated with food preparation consisted of three fragments from Features 14 and 15, representing semi- vitreous stoneware mixing bowls. All of these had a dark brown interior and exterior surfaces covered by a salt glaze (Photo 48:A). One, recovered from Feature 14, also had a dark blue spongeware decoration. A fourth mixing bowl was made from a nonvitreous yellow paste (Photo 48:B). The exterior had two brown slip bands commonly known as annularware (Leibowitz 1985), or dipped wares (Miller 1991:6-7). This style is known for the presence of annular bands made of slips of various colors. These were applied with a "slip quill that the decorator would blow through as the piece was turned on a wheel" (Leibowitz 1985:10). Annularwares were popular during the first half of the 19th century and continued to be made into the early 1900s, although after 1850, simple banded forms became more common. Since the bands were applied separately from the rest of the vessel, they tended to easily chip. As a result, annularware pieces were inexpensive and generally represented utilitarian vessels, such as mixing bowls.

Photo 48: Mixing Bowls from Period I Features

A. 15-97 Stoneware Mixing Bowl B. 14-82 Yellowware Mixing Bowl

Flavoring extract and condiment bottles also were recovered from the Period I features. Only five of these had a portion of their finishes suggesting that they were all made on semi-automatic machines with two having a patent/extract finish and three with an oil/ring finish. These bottles consisted of 3 flavoring extract (Photo 49:A-B), 3 olive oil (Photo 49:E), 1 pepper sauce (Photo 49:F), 1 Tabasco (Photo 49:G), 1 Lea & Perrins Sauce, and 3 condiment bottles of an unknown type. Even though only a few of these bottles were found in the features, they were from commercial manufacturers who sold their products across the U.S. The condiments also reflected regional (pepper sauce and Tabasco from the Southwestern and Southern U.S.) and ethnic (olive oil associated with immigrants from Italy and other places near the Mediterranean) varieties of condiments were widely available by the end of the 19th century.

Photo 49: Condiments from Period I Features

A. 15-28 Extract Bottle

B. 30-3 Extract Bottle

C. 14-110 Mustard Barrel Jar

D. 14-76 Mustard Barrel Jar

E. 14-131 Olive Oil Bottle

F. 15-75 Olive Oil Bottle

G. 14-115 Pepper Sauce

H. 15-109 Tabasco Sauce

Tabasco sauce was developed after the Civil War. Edmund McIlhenny acquired some cayenne pepper seeds from either Mexico or South America and grew them on his farm in Avery Island in southern Louisiana. Hoping to improve on the bland foods present in the south at this time, McIlhenny experimented with this pepper in order to create a spicy sauce:

> By selecting and crushing the reddest peppers from his plants, he mixed them with Avery Island salt and aged this "mash" for 30 days in crockery jars and barrels. McIlhenny then blended the mash with French white wine vinegar and aged the mixture for at least another 30 days. After straining it, he transferred the sauce to small cologne-type bottles with sprinkler fitments, which he then corked and sealed in green wax. (The sprinkler fitment was important because his pepper sauce was concentrated and best used when sprinkled, not poured.)
>
> (Tabasco n.d.)

It proved to be so popular that in 1868 he formed a company to commercially sell Tabasco, securing a patent on the name in 1870. During the 1870s, he was selling this sauce across a large portion of the U.S. and in England. It was advertised that it could be used to spice up many dishes and reflected higher social standing (Figure 69). Tabasco sauce is still owned by the McIlhenny family and they still produce it in Avery Island, with many of the employees having worked for the company across many generations.

Figure 69: Historical Advertisements for McIlhenny's Tabasco Sauce

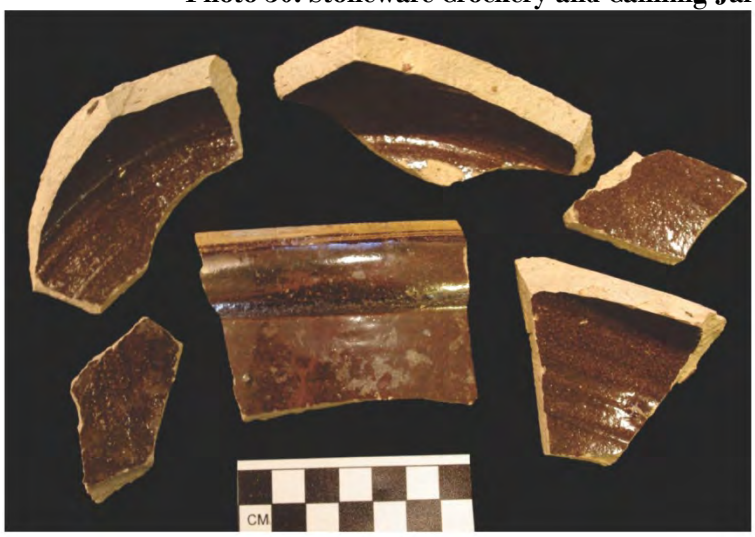
A glass stopper found in Feature 30 was from a Lea & Perrins Worcestershire Sauce bottle. This is one of the oldest commercially produced condiments sold in the U.S. John Wheeley Lea and William Henry Perrins began producing Lea & Perrins Worcestershire Sauce from their plant in Cheltenham, England in 1837. They encouraged sales by paying stewards of ocean liners to serve their sauce in their dining rooms. In 1839, a New York entrepreneur, John Duncan, ordered a small quantity, which quickly sold out. Demand became so high that Duncan opened a processing plant in the U.S., importing the ingredients from England and using the secret English formula, which continues to be sold today (Lea & Perrins n.d.).

In addition to these condiments three mustard barrel jars also were found in Features 14 and 29 (Photo 49:C-D). The mustard jars were likely produced by a St. Louis firm for local distribution. In Feature 14, a jelly jar was discovered, which may have been produced by a national producer. Another three glass vessels found in Feature 15 contained commercially packaged foods. Unfortunately, the glass vessels once contained paper labels that have been lost, so it is unclear as what foods were once contained within these vessels.

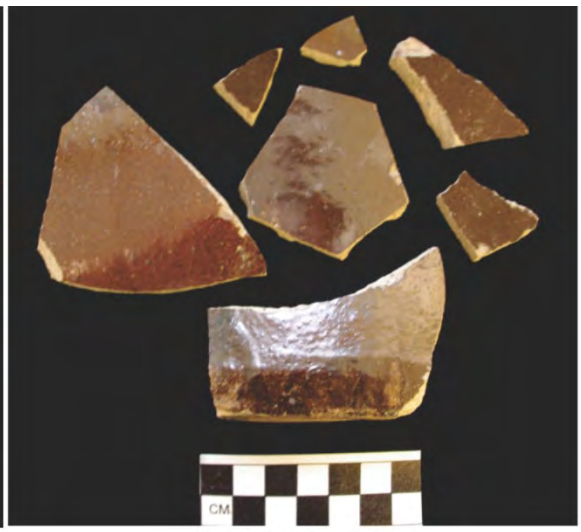
Other food storage vessels suggested that the residents purchased foods in bulk and stored them for future use. These may have been acquired from farmers at local markets or obtained from the grocery store. Six stoneware crockery vessels were found in Features 14 and 29 (Photo 50:A-B). These were used to hold large quantities of grains or other food products. In Feature 15 was a fragment from a small stoneware jug used to hold liquids. Canning jars also were used to preserve fruits, vegetables, and other foods. At least two canning jars fragments were recovered from Features 14 and 15 (Photo 50:C) as well as two white glass canning jar liners in Feature 14 and a zinc canning jar lid in Feature 29, all from separate canning jars. A variety of closures were developed after John L. Mason applied for a patent on November 28, 1858 for canning jars (Society for Historical Archaeology 2013c). A few years later, Lewis R. Boyd improved on Mason's canning jar by adding an opaque glass liner that separated the contents within the jar from the zinc lid (Figure 70), which would have contaminated the food (Lief 1965:8). Over the years, various versions of this type of closure were developed. The use of a white glass liner continued until the invention of a vacuum seal cap using a rubber gasket, which was developed in 1929, rapidly becoming popular during the 1930s (Lief 1965:32). One of the white glass liners was decorated with a cross in its center with each armed marked with "H", "F", "J", and "CO" (Photo 50:D). This is the manufacturing mark used by the Hero Fruit Jar Company of Philadelphia, Pennsylvania, between 1884 and 1900 (Toulouse 1971:249). On the edge is marked "GENUINE PORCELAIN LINED BOYD".

Figure 70: Closures Using White Glass Canning Jar Liners (Society for Historical Archaeology 2013c)

Photo 50: Stoneware Crockery and Canning Jars from Period I Features



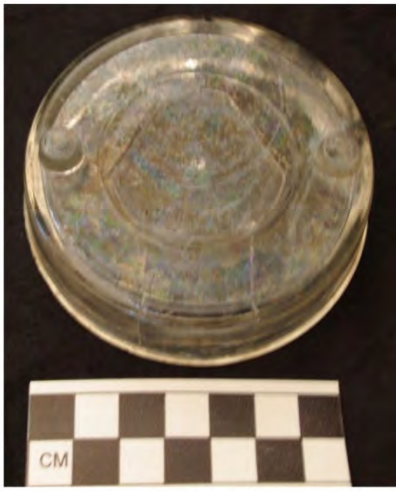
A. 14-39 Crockery



B.14-62 Crockery

C. 15-30 Canning Jar

D. 14-26
Canning Jar Liner
Hero Fruit Jar Co.
1884-1900
(Toulouse 1971:249)



E. 29-14
Canning Jar Lid

Another type of canning jar closure was found in Feature 29 (Photo 50:E). This type of closure is similar to one patented by the A. Stone and Company between 1857 and 1863 (Figure 71), which contained a rubber seal and held in place with a wire lightening fastener. Overall, the Period I features produced only a slightly greater number of commercially produced food products (N=19) than foods that were put up or stored by the residents (N=13).

Figure 71: A. Stone & Co. Canning Jar (Society for Historical Archaeology 2013c)

Botanical Analysis of Period I Features
by Kathryn Parker

Flotation samples equal to 10.0 liters of fill were collected from sealed basal zones of Features 14 and 15 in Block 3 of the mitigation tract. Macrobotanical remains consisted primarily of large numbers of uncarbonized seeds with fewer wood fragments, most of them unburned. Other categories of materials, including fruit tissue and insects, were less frequently encountered.

An estimated 139,940 seeds were recovered in 20 liters of fill from privy Features 14 and 15, the first brick-lined, and the second lined with wood (Table 9). The equivalent mean density of 7000 seeds/liter (2934/ liter for the Feature 14 sample, and 11,060/ liter for Feature 15) is not unusual in the context of mid-19th through early 20th century urban privy deposits. At least eleven different plant taxa were represented by seeds, comprised primarily of fleshy fruits/berries. In addition to raspberry/blackberry (*Rubus* sp.), strawberry (*Fragaria* sp.), grape (*Vitis* sp.), and tomato (*Lycopersicon esculentum*) recovered in great abundance, other fruit seeds identified included elderberry (*Sambucus canadensis*), mulberry (*Morus rubra*), peach (*Prunus persica*), cherry (*Prunus* sp.) and apple (*Pyrus malus*), suggesting an array of fruits routinely consumed fresh and in varied processed forms. Tomato, peach, and apple are fully domesticated and dependent on humans, but mulberry and other fruits in this assemblage have both wild and cultivated varieties that cannot be readily differentiated on the basis of seeds.

Single knotweed (*Polygonum* sp.) and nightshade (Solanaceae) seeds from Feature 14 are interpreted as products of natural seed dispersal from weedy plants growing along alleyways and lot margins.

Wood from the two Period I privies totaled 1064 (48.68 g) fragments, most of them uncarbonized. Only two taxa could be identified with certainty, pine (*Pinus* sp.) and oak (*Quercus* sp.). Both of these wood types were present in Feature 14, along with unidentified diffuse porous hardwood and conifer. Based on 20 fragments identified and a scan of the entire Feature 15 sample, all wood in this context is assumed to be unburned pine, possibly the remains of lumber used for privy lining.

A category of miscellaneous materials incorporated 20 items, most numerous among them thin, rolled, or twisted shreds of fruit epidermis, similar to tomato skin. An eroded squash

or pumpkin (Cucurbitaceae) rind fragment provides sparse evidence for use of another common garden crop (in addition to tomato). Tree nuts such as black walnut and hickory would have been locally available, but the only nutshell recovered was an inner septum of walnut/ hickory family (Juglandaceae). Two insect forms were present including a partial unidentified larva and instars of silverfish or another member of the Lepismatidae, which inhabit dark moist spaces and feed on organic materials, ideal conditions provided in privy environments.

Table 9: Botanical Remains from Sampled Features 14 and 15

Block 3 Sample Provenience	Feature 14, Base zone E	Feature 15, zone B1	Totals
Total Flotation Volume (liters)	10.0	10.0	20.0
Total Seeds (N)	29,340	110,600	139,940
Breakdown by taxon (N)			
Fragaria sp. (strawberry)*	1920	1710	3630
Lycopersicon esculentum (tomato)*	14,450	4115	18,565
*Morus rubra (*mulberry)	205	8	213
Polygonum sp. (knotweed)	1		1
Prunus persica (peach)	2	2	4
Prunus sp. (cherry)		1	1
Pyrus malus (apple)	1		1
Rubus sp. (blackberry/raspberry)*	10,100	105,850	115,950
Sambucus canadensis (elderberry)	60	2	62
Solanaceae (nightshade family)	1		1
Vitis sp. (grape)*	2600	620	3220
Unidentifable		2	2
Total Wood Fragments (N)	64	1000	1064
Total Wood Wt. (grams)	4.96	43.72	48.68
Breakdown by taxon (N)			
Pinus sp. (pine)	6	20	26
Quercus sp. (oak)	2		2
Gymnosperm	5		5
diffuse porous	1		1
Unidentifiable	6		6
Miscellaneous Materials (N)	3	16	19
Cucurbitaceae (cucurbit family) rind	1		1
Fruit epidermis		15	15
Juglandaceae (walnut/hickory) nutshell		1	1
Lepismatidae (silverfish family) insect	2		2

Note: All seeds and miscellaneous materials are uncarbonized. Wood is a mix of carbonized and uncarbonized fragments.

*Estimated seed total.

Faunal Analysis of Period I Features By Lucretia S. Kelly

Two privies, dating to Period I (1884-1904), Features 14 and 15, yielded faunal remains recovered from hand excavation. A total of 127 NISP weighing 678.5 grams were recovered (Table 10). Only two classes of animals are represented, mammal and bird, with two taxa identified within each class. Swine (Sus scrofa) and cattle (Bos taurus) were the mammals identified and chicken (Gallus gallus) and a possible turkey (cf. Meleagris gallopavo) were the birds. A number of indeterminate mammal and bird bones were placed into size categories and two bones could not be identified to the class level.

Table 10: Faunal Remains from Period I

	NISP	MNI	Weight (gm)	NISP burned	NISP weathered	NISP sawed	NISP cut marks
Mammals							
Sus scrofa	2	1	14.4	0	2	0	0
Bos taurus	13	1	287.8	0	10	3	1
medium-large mammal	43	-	12.5	8	35	0	0
large mammal	2	-	21.7	0	2	1	0
very large-large mammal	49	-	310.8	1	49	25	0
Sub-total Mammals	109	2	647.2	9	98	29	1
Birds							
Gallus gallus	14	2	21.9	0	0	0	1
cf. *Meleagris gallopavo*	1	1	7.9	0	1	0	0
medium bird	1	-	1.0	0	0	0	0
Sub-total birds	16	3	30.8	0	1	0	1
Indeterminate vertebrate	2	-	0.5	0	0	0	0
Total Period I	127		678.5	9	99	29	2

Cattle bones (NISP = 13) were more numerous than swine bones. Only 2 swine specimens were identified and both exhibited weathering to some degree. Neither appeared to be cut, sawed, or cleaved. One was a scapula neck and the other a lateral process to a lumbar vertebra. The cuts of meat these elements represent are picnic shoulder and rough back (Lyman 1979:541). Age could not be estimated on these specimens because no epiphyseal surfaces are present.

The 13 cattle bones represent 5 or 6 butchering units listed in order of greatest retail value (Schultz and Gust 1983): rump, chuck, foreshank/hock, hindshank, head (mandible listed does not include teeth), and foot unless the carpals may have been part of the foreshank (Table 11). All the cattle bones are weathered; one is rodent-gnawed; and another has black staining. The humerus, scapula and femur are sawed. The scapula blade is sawed on three faces, and the other two are sawed only on one existing face.

Table 11: Butchering Units Represented by Recovered Fauna

Swine Butchering Unit	Elements Present	NISP	Cattle Butchering Unit	Elements Present	NISP
picnic shoulder	scapula neck	1	rump	prox. femur	1
rough back	lumbar vert.	1	chuck	prox. humerus, scapula blade	2
			foreshank	dist. humerus, radius	2
			hindshank/hock	patella, astragalus	3
			foot	carpals	2
			head	mandible	1

The proximal femur head is unfused as is the distal radius. Both these elements fuse between 3½ - 4 years of age (Grigson 1982: appendix 3). A posterior portion of a mandible was recovered. Because the erupted tooth is broken it is difficult to determine whether it is a premolar or a molar. The tooth posterior to the erupted tooth is just breaking through the bone. If the erupting tooth is a 1st molar, the animal would be about 6 months of age. If however, the erupting tooth is a 2nd molar the animal would be about 18 months of age (Grigson 1982:13). The erupted tooth fragment does appear to be a deciduous tooth that has minor wear. However, because over half the tooth is missing this cannot be determined with a great deal of certainty.

There are a number of large and very large-large mammal bone fragments that could not be more specifically identified because of fragmentation, which are sawed. Five are long bone sections or “rings” that, depending upon the taxon, may represent round beef steak or ham steak cuts of meat. There was also a number of rib fragments that would represent cuts of meat not listed in Table 11. Two scapula fragments could not be specifically identified but may be swine. They were weathered and one was sawed.

Fourteen chicken (*Gallus gallus*) specimens were recovered representing two individuals (Table 10). None appear to be from juvenile birds and one individual represented is a male indicated by spurs on the tarsometatarsi. One spur was very long, curved, and sharp. A scapula fragment exhibits 6 light cut marks and is the only bird specimen to have cut marks. No eggshell was recovered. An ulna from a juvenile bird of medium size was recovered and it is also weathered. It is most likely from a chicken, but could not be identified with certainty. A single specimen (tarsometatarsal) from a probable turkey was recovered and it is quite weathered.

Health Care

A minimum of 45 objects were related to health care, weighing 2,489.1g. Eight of these objects were vials; all of them produced as blown glass (Photo 51). These vials could have contained medicines dispensed by local pharmacies, a doctor, or could represent some commercially prepared medicines (Israel 1968). However, it was more common for vials to be sold as part of "Homeopathic" kits (Figure 72). Homeopathy was invented by the German physician, Samuel Hahnemann, at the end of the 18th century, and later refined by the American physician James Tyler Kent. It is based on the theory that diseases could be controlled by administering drugs in small doses that produces the same symptoms as certain diseases in healthy people. In this way, the patient's natural immune system was believed to be stimulated to fight off diseases (MedicineNet Inc. 2012). The 1897 Sears catalog sold homeopathic kits that could ward off a diversity of diseases, however, some of the medicines used (e.g, arsenic, belladonna, mercury, and opium) could be more harmful than the diseases they were meant to fight (Israel 1968:29-30).

Photo 51: Medical Vials from Period I Features

14-99 14-113 & 114 15-108

Figure 72: Homeopathic Kits Sold in 1897 Sears Roebuck Catalogue (Israel 1968:29)

OUR HOMEOPATHIC REMEDIES.

Our Homeopathic Specifics are prepared under the supervision of an old experienced Homeopathic physician. Great care is taken in preparing them according to the rules laid down by the highest authorities on homeopathy, and only the purest drugs used. Every one of the following specifics is a special cure for the disease named on it. Adults take 6 pellets, children from 1 to 3 according to age, and from two to four doses are to be taken every day according to the severity of the case. We ask the special attention of all our customers to these high grade remedies. If you have them near at hand, we guarantee they will save you many a doctor's bill, and what of more consequence, quickly relieve any suffering member of the family and ward off more serious sickness. We make the price as low as we possibly can in order that they may be within reach of every one of our customers, only 18c each bottle, with the exception of three rare ones which of necessity we require to make a higher price

A SPECIAL OFFER. As an inducement to give these Remedies a thorough trial, we will allow you to select 12 cures, including the 60c ones. Make your own selection, one or more of any kind, and we will put them in a neat case such as we represent here and only charge you $1.50. No family can afford to neglect this great offer.

A 12 BOX CASE will save you many dollars doctor's bills in a year and may save your life. No family should be without a case of our Homeopathic Remedies.

		Usual Price.	Our Price.
No. D1751	Cures rheumatism or rheumatic pains	$0.25	$0.18
No. D1752	Cures fever and ague, intermittent fever, malaria etc.	.25	.18
No. D1753	Cures piles, blind or bleeding, external or internal.	.25	.18
No. D1754	Cures opthalmia, weak or inflamed eyes	.25	.18
No. D1755	Cures catarrh, influenza, cold in the head	.25	.18
No. D1756	Cures whooping cough, spasmodic cough	.25	.18
No. D1757	Cures asthma, oppressed or difficult breathing	.25	.18
No. D1758	Cures fevers, congestions, inflammation	.25	.18
No. D1759	Cures worm fever or worm diseases	.25	.18
No. D1760	Cures cholic, crying and wakefulness of infants teething	.25	.18
No. D1761	Cures diarrhœa of children and adults	.25	.18
No. D1762	Cures dysentery, griping, bilious colic	.25	.18
No. D1763	Cures cholera, cholera morbus, vomiting	.25	.18
No. D1764	Cures coughs, colds, bronchitis	.25	.18
No. D1765	Cures toothache, facesche, neuralgia	.25	.18
No. D1766	Cures headache, sick headache, vertigo	.25	.18
No. D1767	Cures dyspepsia, indigestion, weak stomach	.25	.18
No. D1768	Cures suppressed menses, or scanty	.25	.18
No. D1769	Cures leucorrhœa, or profuse menses	.25	.18
No. D1770	Cures croup, hoarse cough, difficult breathing, laryngitis	.25	.18
No. D1771	Cures salt rheum, eruptions, erysipelas	.25	.18
No. D1772	Cures ear discharge, earache	.25	.18
No. D1773	Cures scrofula, swellings, ulcers.	.25	.18
No. D1774	Cures general debility, physical weakness, brain fag	.25	.18
No. D1775	Cures dropsy, fluid accumulations	.25	.18
No. D1776	Cures seasickness, nausea, vomiting	.25	.18
No. D1777	Cures kidney disease, gravel, calculi	.25	.18
No. D1778	Cures nervous debility, vital weakness	1.00	.60
No. D1779	Cures sore mouth and canker	.25	.18
No. D1780	Cures urinary incontinence, wetting bed	.25	.18
No. D1781	Cures painful menses, pruritis	.25	.18
No. D1782	Cures disease of the heart, palpitations	1.00	.60
No. D1783	Cures epilepsy, St. Vitus dance	1.00	.60
No. D1784	Cures sore throat, quinsy or ulcerated sore throat	.25	.18
No. D1785	Cures chronic congestions, headache	.25	.18
No. D1786	Cures grip and chronic colds	.25	.18
No. D1787	A strong cardboard case covered with black moslin, containing 12 specifics, your own selection from above list		1.50
No. D1788	A polished hardwood case, with lock and key, containing 24 remedies		4.50
No. D1789	A full line of Humphrey's, Munyon's and Ballentine's cures in stock. The size usually sold for	.25	.20
	The size usually sold for	1.00	.80

YOU MAY LIVE MILES FROM A REGULAR PHYSICIAN. If so, you are in danger without these remedies in your home. They are always handy, always convenient, easy to take, act quick, will relieve your suffering and may save your life while waiting a doctor's arrival.

ONLY $1.50 FOR A CASE OF 12 BOTTLES, your own selection. Take our warning notice, don't be without them.

Homeopathic Medicines.

We are prepared to furnish anything in the line of Homeopathic supplies, and guarantee them to be full strength and fresh condition. We mention a few of the more prominent. We will be pleased to furnish information on Homeopathic medicines if you are in doubt as to what to order. We will also send a copy of Halsey's Manual (152 pages), a complete homeopathic treatise, free on request. When ordering the following remedies please specify what form you wish them in—pills, powder, discs or liquid.

Name.	Strength.	Name.	Strength.	Name.	Strength.
Aconite	3x	Cuprum met	3x	Mercurius viv	3x
Antimon crud	3x	Digitalis	2x	Natrum mur	6x
Apismel	3x	Drosera	2x	Nitric Acid	6x
Arnica	3x	Dulcamara	3x	Nux vomica	3x
Arsenic alb	3x	Eupatorium p'r	1x	Opium	3x
Baptisa	1x	Ferrum phos	3x	Phosphorus	3x
Belladonna	3x	Gelsemium	1x	Phosphorus acl	3x
Bryonia alba	3x	Glonoine	3x	Phytolacca	0
Calcarea carb	3x	Graphites	6x	Podophyllin	3x
Cantha~is	3x	Hamamelis	1x	Pulsatilla	3x
Carby veg	3x	Hepar sulphtr	3x	Rhus tox	3x
Caulophylum	1x	Hydrastis	1x	Sanguinaria	2x
Causticum	3x	Hyoscyamus	3x	Secale cor	1x
Chamomilla	3x	Ignati	3x	Sepia	3x
China	2x	Iodium	3x	Silicea	6x
Chinin, arsen	2x	Ipecac	3x	Spigelia	3x
Chimicifuga	1x	Kali bichr	3x	Spongia	3x
Cina	2x	Lachesis	6x	Staphysagria	3x
Cocculus	3x	Lycopodium	3x	Sulphur	3x
Coffea crud	3x	Mercurius bnod	3x	Tartar emetic	3x
Colchicum	3x	Mercurius corr	3x	Veratrum alb	3x
Colocynthis	3x	Mercurius sol	3x		

No. D1790	¼ oz. phials each, 10c; by mail	15c
No. D1791	½ oz. phials each, 15c; by mail	20c
No. D1792	1 oz. phials each, 20c; by mail	25c
No. D1793	2 oz. phials each, 40c; by mail	45c

A total of 36 medicine bottles and one jar were recovered from these features (Photos 52-54). All of these were produced on a semi-automatic bottle machine, with 19 prescription, 2 wide prescription, 2 patent, 2 extract, 2 bead, 1packer, and 1 double ring applied finishes. Ten of the bottles contained a mark on the base from the bottle manufacturer. Three had an "IGCO" mark. This was used by the Illinois Glass Company in Alton, Illinois, from 1880 to 1900 (Toulouse 1971:264). Another four bottles were produced by more distant bottle manufacturers. Two had a "Mc C" mark used by the William McCully (and Company) in Pittsburgh, Pennsylvania, between 1832 and 1886 (Toulouse 1971:351). Another two bottles had a "WT&Co" mark of the Whitall-Tatum Inc. in Millville, New Jersey. They used this mark between 1857 and 1935 (Toulouse 1971:54). Three other bottles had marks that could not be identified including one from Feature 14 with a "C" inside a larger "A" (Photo 53:A) and another two bottles from Feature 15 contained an unidentified mark of "B B MFG CO" (Photo 53:B).

Embossing on four of the bottles indicated that they were dispensed by a local pharmacy. These include two bottles in Feature 15, made by the Whitall-Tatum Inc., which were embossed on their sides with an A inside a B, with an address of "1323 BROADWAY, ST. LOUIS, MO" (Photo 53:C). This bottle was from Alois Blank who was a physician and operated his own drug store on Broadway from 1872-1906 (St. Louis City Directory 1865-1908). Another bottle was embossed with "D. Nake and Bro., Pharmacists". This represents a bottle from Dietrick and Paul Nake, who operated a drug store originally at 1552 Chouteau Ave. from 1881 to 1891. For a short time, they also had a store at 2136 Clark Ave. (St. Louis City Directory 1872-1891). The fourth bottle was marked with "LUYTIES PHARMACY, ST. LOUIS" from Luyties Homoeopathic Pharmacy (Photo 53:D). In 1865, Hermann C. G. Luyties operated a store specializing in homeopathic medicines and books at 306 N. 5th Street. By 1881, he established the Luyties Homeopathic Pharmacy at 619 Locust. The bottle would suggest that the vials recovered likely were associated with homeopathic medicines. This pharmacy, like the others, was situated far to the east of the mitigation area, near the central business district of St. Louis. Another three bottles, produced by the Illinois Glass Company in Alton, Illinois, and two bottles marked with "MB" also may have come from St. Louis pharmacies.

Three bottles indicated that they were patent medicine bottles produced for national distribution. Among these was a bottle marked "SAMPLE BOTTLE, DR. KILMER'S, SWAMP-ROOT, BINGHAMPTON, NY" (Photo 54:A). This was produced by physician Dr. Sylvester Andral Kilmer, who was born in Cobleskill, New York on December 19, 1840. He studied various types of medicine including homeopathy. In the 1870s, he moved to Binghamton, New York, where he purchased a home and established the Kilmer Medicine Works. He was later joined by his brother Jonas in 1878 who took over the proprietary medicine business, buying his brother out in 1892 (Golley 1997; Digger Odell 1998). Just prior to selling the company, S. Andral Kilmer established a Sanitarium and Hydrotherapium at a cost of $100,000 in Osborne Hollow, situated about ten miles east of Binghamton. This area had sulpher/phosphate springs and Kilmer convinced the community that the name be changed to Sanitaria Springs. He claimed that curative waters of the springs, eating a proper diet, and his secret medicine could cure cancer. Although trained in traditional medicine, Kilmer preferred homeopathic approaches (Golley 1997).

Photo 52: Various Medicine Bottles from Period I Features

1-1

14-29

14-64

15-33

15-127

14-66

15-107

14-133

14-111

15-82

Photo 53: Unknown Marked Medicine Bottles and Bottles from Pharmacies

A. 14-92
On Base C Inside A.

B. 15-105
"B.B. Mfg. Co."

C, 15-102
Pharmacy Bottle
marked with A Inside a B
"1323 So. Broadway, St. Louis, MO."

D. 15-106
"Luyties Pharmacy
St. Louis"

Photo 54: Patent Medicine Bottles

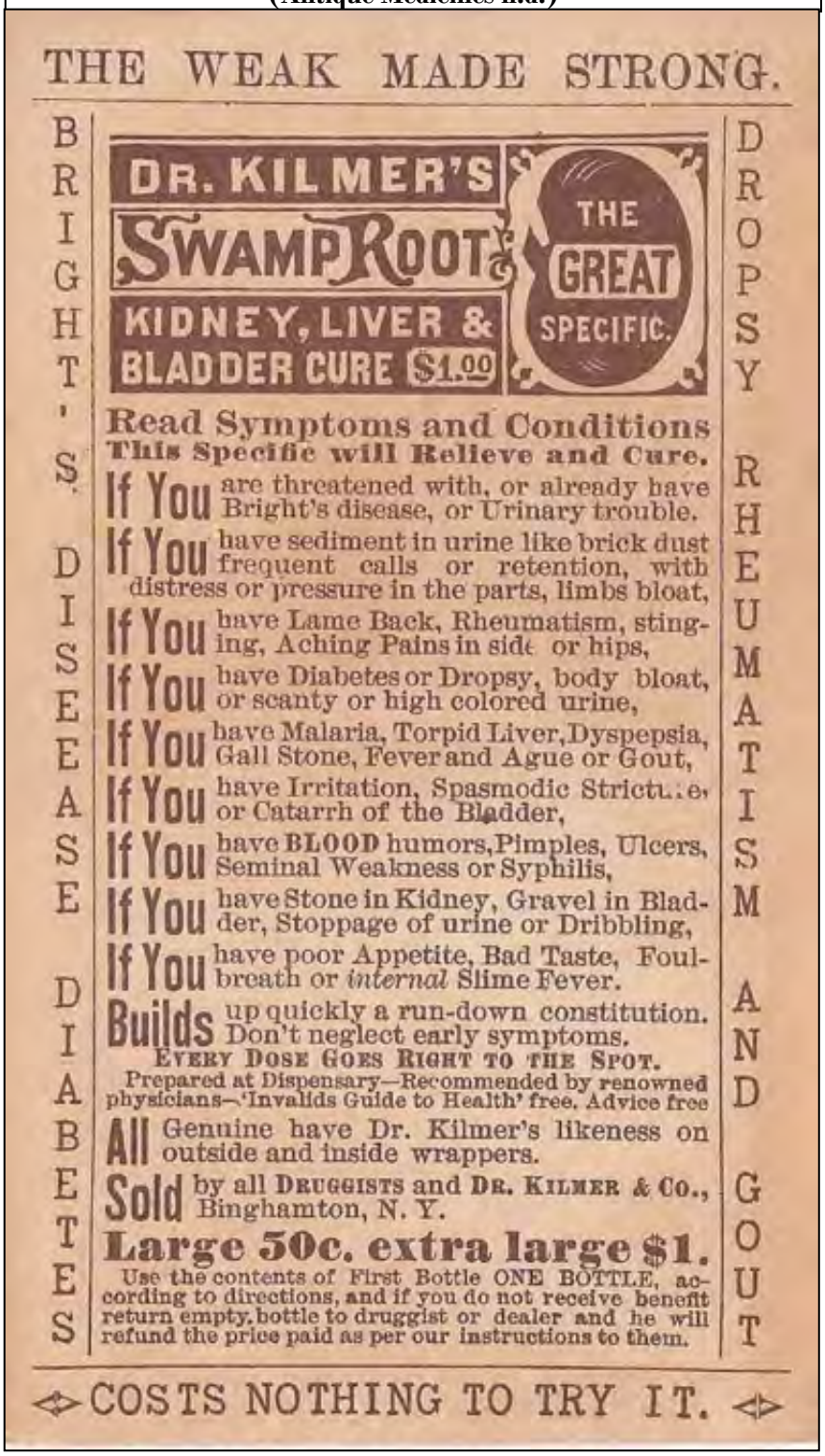
A. 14-65
"Sample Bottle
Dr. Kilmer's Swamp-Root
Binghampton, NY"

B. 15-32
"P. Moller
Ol Jecor"
(Cod Liver Oil)
Norway

C. 15-103
"Hydroleine
Physicians Sample"

The Kilmer Medicine Works produced a wide variety of products including "Dr. Kilmer's Ocean Weed Heart Remedy, Female Remedy, Indian Cough and Consumption Cure, Autumn Leaf Extract, U & O Ointment and Prompt Parilla Pills, and its most popular medicine Dr. Kilmer's Swamp Root Kidney Liver and Bladder Cure". Swamp Root contained "Buchu Leaves, Oil of Juniper, Oil of Birch, Colombo Root, Swamp-Sassafras, Balsam Copaiba, Balsam Tolu, Skullcap leaves, Venice Turpentine, Valerian Root, Rhubarb Root, Mandrake Root, Peppermint Herb, Aloes, Cinnamon and sugar and contained approximately 9 to 10-1/2% alcohol" (Golley 1997). Although Swamp Root was primarily sold to relieve kidney, liver, and bladder ailments, it also supposedly cured a variety of other diseases as well (Figure 73). Dr. Kilmer successfully marketed this product by sending out samples, similar to the one recovered from Feature 14, which was shipped in small wooden tubes.

Figure 73: Cures Treated by Dr. Kilmer's Swamp Root (Antique Medicines n.d.)


THE WEAK MADE STRONG.

BRIGHT'S DISEASE DIABETES

DR. KILMER'S SWAMP ROOT KIDNEY, LIVER & BLADDER CURE $1.00

THE GREAT SPECIFIC.

DROPSY RHEUMATISM AND GOUT

Read Symptoms and Conditions
This Specific will Relieve and Cure.

If You are threatened with, or already have Bright's disease, or Urinary trouble.
If You have sediment in urine like brick dust frequent calls or retention, with distress or pressure in the parts, limbs bloat,
If You have Lame Back, Rheumatism, stinging, Aching Pains in side or hips,
If You have Diabetes or Dropsy, body bloat, or scanty or high colored urine,
If You have Malaria, Torpid Liver, Dyspepsia, Gall Stone, Fever and Ague or Gout,
If You have Irritation, Spasmodic Stricture, or Catarrh of the Bladder,
If You have BLOOD humors, Pimples, Ulcers, Seminal Weakness or Syphilis,
If You have Stone in Kidney, Gravel in Bladder, Stoppage of urine or Dribbling,
If You have poor Appetite, Bad Taste, Foul-breath or *internal* Slime Fever.
Builds up quickly a run-down constitution. Don't neglect early symptoms.

EVERY DOSE GOES RIGHT TO THE SPOT.
Prepared at Dispensary—Recommended by renowned physicians—'Invalids Guide to Health' free. Advice free

All Genuine have Dr. Kilmer's likeness on outside and inside wrappers.
Sold by all DRUGGISTS and DR. KILMER & CO., Binghamton, N. Y.

Large 50c. extra large $1.

Use the contents of First Bottle ONE BOTTLE, according to directions, and if you do not receive benefit return empty bottle to druggist or dealer and he will refund the price paid as per our instructions to them.

COSTS NOTHING TO TRY IT.

Another bottle in Feature 15, Zone B, was cod liver oil produced by Peter Moller (Photo 54:B). Although this type of oil was used by Norwegians for over 1000 years, it was only after 1645 that cod liver oil was promoted as a good way of preventing and curing diseases. Moller searched for a way of producing this oil more cheaply and having a better taste. In 1854, he founded the Peter Moller Company with three factories in Lofoten, Ålesund, and Kristiansund, Norway. This company became very successful at promoting the health benefits of cod liver oil (Figure 74). In 2005, the Peter Moller Company merged with CollettPharma and in 2007 with DanskDroge forming a new company, Axellus (Moller's 2010).

A bottle, found in Feature 15, Zone B, Level 6, was marked “HYDROLEINE" "PHYSICIANS SAMPLE” (Photo 54:C). Hydroleine was mostly cod liver oil mixed with other flavors, with alcohol as the main ingredient to improve the taste (Figure 75). It was sold as a curative for consumption and other “wasting” diseases (Pilcher and Fowler 1882). Hydroleine was one of the drugs produced by the Charles N. Crittenton Company in New York City. Charles Crittenton was born on February 20, 1833 and in 1861 established his drug company. After his four year old daughter, Florence, died of scarlet fever, Crittenton devoted himself to helping the poor, working in the slums of New York and established numerous homes for prostitutes, and homeless and pregnant girls across the country as well as in France, Japan, China, and Mexico. Crittenton died on November 16, 1909, but his foundation continues to exist assisting homeless and abused women (Pollock 2012).

Figure 74: 1913 Advertisement for Peter Moller’s Cod Liver Oil (Amazon 2013)

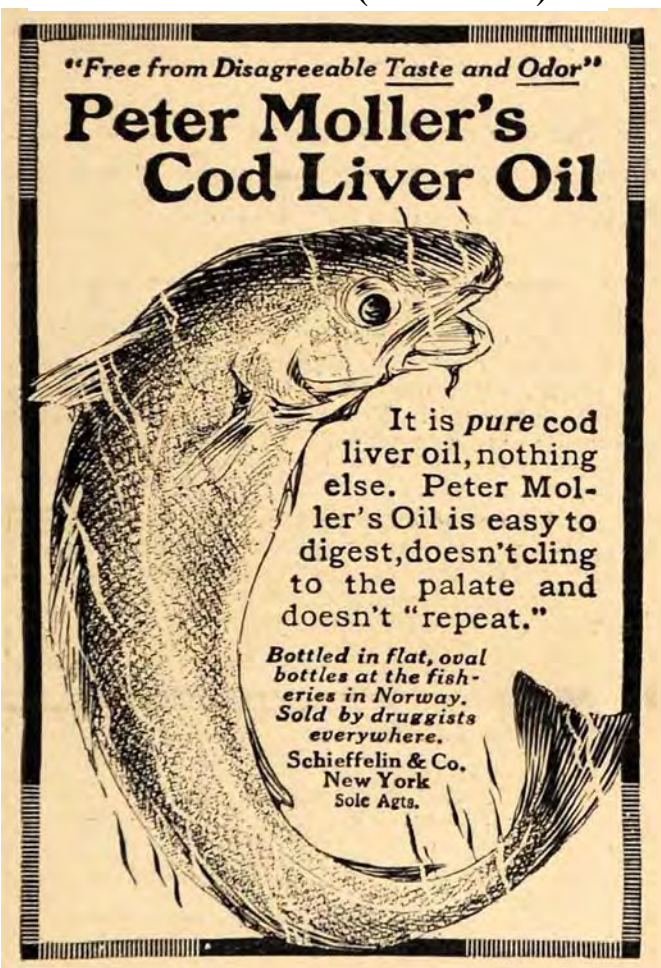
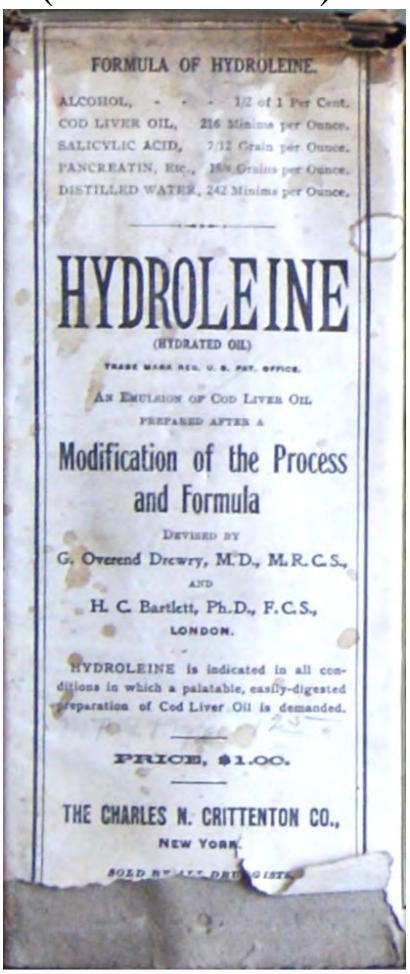


Figure 75: Hydroleine Label (Mondo Tiki Man 2010)



It appears that pharmaceutical bottles (N=4) slightly outnumber patent medicine bottles (N=3), but another 27 bottles and the jar did not have embossed lettering and were missing their paper labels. As a result, it could not be determined if these came from a pharmacy or represented patented commercially prepared medicines.

Hygiene Products

By the end of the 19th century, hygiene products became increasingly popular. However, only a minimum of five of these pieces, weighting 1,171.5g, were associated with the Period I features. These included portions of three chamber pots found in Features 1 and 15. All of these were made of ironstone. Two were undecorated (Photo 55:A-B), while 15 pieces from a nearly complete chamber pot found in Feature 15 had a broad molded decoration (Photo 55:C). Also recovered was the top of a pitcher from Feature 14. It was made from undecorated ironstone. It was likely associated with a wash basin. Feature 15 also produced a porcelain shaving mug. It had a painted floral design on its sides (Photo 55:D).

Photo 55: Toilet Sets from Period I Features

Personal Objects

A greater number of artifacts, 97 (weighing 649.5g) from a minimum of 79 pieces, were associated with personal use. These objects included clothing items consisting predominately of buttons (N=26, 21.8g); all of them with four sew-throughs. Nearly all of these were made of porcelain (Photo 56:A) representing "Little Chinas" or "Pearl" buttons (Figure 76) (Luscomb 1967:31). A method to mass produce porcelain buttons was developed by Richard Prosser in 1840, which was improved upon by the Frenchman, Felix Bapterosses (Pool 1985:281). This process revolutionized the manufacturing of porcelain buttons and allowed for both inexpensive and durable buttons to be available to the public. In 1841, Richard Prosser's brother, Thomas, immigrated to the U.S. bringing the method of making porcelain buttons with him. After 1850, porcelain buttons replaced nearly all other button types and were used on a wide variety of clothing, both formal and utilitarian (e.g. undergarments) (Luscomb 1967:31),

One button fragment from Feature 14, Zone E, was made from plastic (Photo 56:B). The first plastic buttons were primarily made of celluloid and Bakelite. Celluloid (also called Ivoroid) was first created in 1869 by John Wesley Hyatt to imitate ivory for billiard balls, but was soon being used to produce a wide variety of novelty items such as gaming pieces, figurines, billiard balls, buttons, and color studs (Luscomb 1967:36; Friedel 1987). Celluloid, made of nitro-cellulose and camphor, was a useful material for button manufacturing because it not only looked like ivory but could also be molded into various shapes (Pool 1985:286-7). Bakelite, invented between 1907 and 1909 by Dr. Leo Hendrick Bakeland, was the first synthetic plastic composed of carbolic acid, formaldehyde, and lye. Bakelite was the basis for all modern plastics (Luscomb 1967:19; Friedel 1987).

Other clothing items recovered included a brass snap in Feature 14, Zone A, Level 2 (Photo 56:C). Also found in this feature were three fragments from a single shoe consisting of its sole and some of the eyelets (Photo 56:D). The fragments, however, were too small to determine if this shoe was worn by a man or woman. A heel from another shoe was found in Feature 29. Only the middle section of the heel was recovered, but it appeared to have been from the heel of a woman's shoe.

Photo 56: Portions of Clothing from Period I Features

A. 15-56 Porcelain Buttons

B. 14-135
Plastic Button

C. 15-68
Brass Snap

D. 15-110 Shoe Fragments

E. 29-22 Shoe Heel

Figure 76: Buttons in 1902 Sears Roebuck Catalogue (1986:940)

BUTTON DEPARTMENT.

Pearl Buttons at Import Prices.
Button Scale.

Accompanying cut shows actual size of buttons. The prices quoted per dozen are the lowest. No reductions for the gross.

24-line 22-line 20-line 18-line 16-line

No. 18R4550 Half Fine White Pearl Buttons, 2 holes, good stock.
Size, line 16 18 20 22 24
Price, per dozen.... 3½c 3c 4c 4c 5c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4554 Superfine Clear White Pearl Buttons. Size, line .. 16 18 20 22 24
Price, per dozen 3c 4c 5c 5c 6c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4558 Smoked Pearl Dress Buttons.
Size, line 16 18 20 22 24
Price, per dozen.... 4c 5c 5c 6c 6c
If by mail, postage extra, per dozen, 2 cents.

Ball Pearl Trimming Buttons.

No. 18R4559 The Small Ball Pearl Buttons are very much in demand for trimming. Superior quality fresh water or domestic pearl buttons, one-half ball size, two holes. Special prices as follows:
Size, lines 12 14 16
Price, per dozen 5c 6c 7c

No. 18R4560 High Grade Ball Pearl Button, imported mother of pearl, full one-half ball button with two holes, same as above. A very stylish and excellent button for trimming fine garments.
Size, lines 12 14 16
Price, per dozen 9c 10c 11c

No. 18R4561 Smoked Pearl Ball Buttons, with two holes; very stylish for white waists and other trimmings. Size, lines 12 14 16
Price, per dozen 10c 11c 12c

No. 18R4563 Oriental Cat's Eye Ball Button with self shank, imported fine mother of pearl. This is a very handsome and dressy button. Sizes, 12 14 16
Price, per dozen 11c 13c 15c

No. 18R4564 Fine grade, full one-half ball plain white pearl trimming button with self shank. This is a good quality at a low price.
Size 12 14 16
Price, per dozen 8c 9c 10c

Choice of Any Design.

No. 18R4565 Pearl Shirt Button. Good clear quality (dressed). Choice of the three styles. Mention style wanted. Size, 16 line. Exact size of illustration. Price, per dozen 7c

No. 18R4566 Pearl Shirt Buttons. The imported clear mother of pearl. Same three styles as above. Size, 18 line. Price, per dozen 10c

No. 18R4567 Finest real mother of pearl. Size, 18line, the small size shirt button. Size of illustration. Choice of the three styles. Price, per dozen 8c

Pearl Buttons for Cloaks, Jackets and Dresses.

No. 18R4568 Large Pearl Buttons, used for street costumes and jackets. Heavy clear imported pearl, one in diameter.
Inches ... ⅞ 1¼ 1⅜ 1¾
Per doz. 18c 65c 80c $1.10
If by mail, postage extra, per dozen, 3 cents.

No. 18R4569 Fancy Carved Fine Pearl Buttons, four holes, for jackets, cloaks and dresses; between a smoked and white color. Four sizes.
Size in diameter ⅞ 1 1⅛ 1¼
Per dozen 15c 30c 55c 75c
If by mail, postage extra, per doz., 3c.

No. 18R4574 Fancy Colored Agate Buttons. 22 lines. For gingham or cheap worsted dresses. Come one gross in box. Colors, slate, navy, pink, cream.
Price, per dozen 9c
If by mail, postage extra, per doz. 2c

Colored Vegetable Ivory Dress Button.

No. 18R4578 Plain Vegetable Ivory Buttons. 22 lines, with self shank and studded. Colors, white, pink, blue, cardinal, navy, myrtle, brown and black.
Price, per dozen 5c
If by mail, postage extra, per dozen, 2 cents.

Fancy Gilt Metal Buttons.

No. 18R4582 Fancy Gilt Metal Button, half ball shape, with self shanks. These will be extensively used. Illustrations show exact size of lines, 8, 10 and 12.
9-line 10-line 12-line
Size, lines 9 10 12 14
Price, per dozen 3c 4c 6c 8c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4586 Flat Gilt Buttons, with self shank, dull fancy finish and bright edge on rim. The popular button.
Size, lines 20 22 24 18 19 20 22 24
Per doz. 3½c 3c 3½c 4c 4½c 5c 5½c 6c
If by mail, postage extra, per doz., 2c.
18 line

No. 18R4590 Fine Silk Diagonal Covered Buttons, for dress trimmings, etc., with self shank. Black only.
Size line 12 14 16 18 20
Price, per doz. 3c 4c 5c 6c 7c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4594 Fine Covered Diagonal Mohair Buttons. Black only.
Size ..... Vest Coat Overcoat
Per dozen. 6c 8c 10c

No. 18R4598 Fine Silk Covered Diagonal Buttons. Black only.
Size ..... Vest Coat Overcoat
Per dozen .. 7c 10c 15c
If by mail, postage extra, 3 cents.

Black Horn Buttons.

No. 18R4602 Black Horn Vest Buttons, highly polished.
Price, per dozen 4c

No. 18R4606 Black Horn Coat Buttons, same style as above.
Price, per dozen 6c

No. 18R4610 Black Horn Overcoat Buttons, same style as above.
Price, per dozen 10c
If by mail, postage extra, per dozen, 3 cents.

Officers' and G. A. R. Buttons.

No. 18R4614 Officers' Plated Brass Buttons.
Vest, per dozen 13c
Coat, per dozen 19c

No. 18R4618 G. A. R. Oval Top Republic Buttons.
Vest size, dozen .. 10c
Coat size, dozen ... 15c
Postage extra, per dozen, 3 cents.

No. 18R4622 Police Gold Plated Buttons.
Line ..... 24 Vest Size 30 Coat Size
Price, per dozen 18c 35c

Anchor Brass Buttons.

No. 18R4626 Anchor Brass Buttons. Vest size, per dozen 8c
Coat size, per dozen 10c
Overcoat size, per dozen 15c
If by mail, postage extra, per dozen, 3 cents.

Agate Buttons.

No. 18R4630 White Agate Buttons. See button scale for sizes.
Size. 18 20 24 28 30
Per gross. 4c 7c 9c 10c 11c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4634 Fancy White Agate Buttons.
Size 18 20 24 28
Per gross 5c 8c 11c 15c
If by mail, postage extra, per dozen, 2 cents.

Hand Snap Buttons.

By the use of these buttons the traveling man, the farmer, the laborer, the mechanic, the growing boy and his father, of any profession, can instantly replace his missing buttons.

No. 18R4643 Black, Gold or Silvered Metal Snap Fly Buttons, one dozen in box.
Per box 4c

No. 18R4648 Black, Gold or Silvered Metal Snap Suspender Buttons, one dozen in box. Per box ... 5c

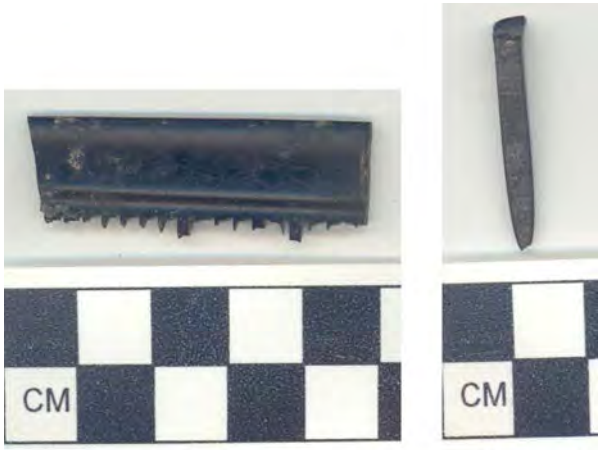
No. 18R4650 Automatic Bachelor Buttons. No needle required to put them on, and the only reliable button that can be taken off and used again. The most perfect and simple button. Once used, always used. The suspender size only. Price, per dozen, 7c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4654 Washburne Bachelor Buttons. This button is so neat in appearance and fills such a universal want that it hardly needs recommendation; can be adjusted instantly and removed just as quickly. Comes in blued steel or nickel.
Price, each 4c
If by mail, postage extra, per dozen, 2 cents.

No. 18R4658 Washburne Drawer Supporter. Fastens same as button. Comes in blued steel or nickel. The neatest and best drawer supporter ever invented. Worn once always worn. Price, each ..5c
If by mail, postage extra, per dozen, 2 cents.

Small fragments of rubber combs were found in Feature 14, Zone D2, Level 5, and in Feature 29 (Photo 57). Unfortunately, the pieces recovered were too small to determine the type of comb. These may have been dressing combs used to fix the hair (Figure 77). As such they could be considered hygiene items, but the combs were placed under personal items because a brush and comb set was generally owned by a single person. Conversely, these may have been side or back combs used to hold the hair in place (Figure 77). During the late 1800s, it was fashionable for women to wear their hair *à la Madonna* pulled back and braided on each side of the head, or in *chignon* braided and coiled into a large roll at the back of the head. These hairstyles were meant to balance the backward thrust of the full skirt's bustle and call attention to the face (Figure 78) (Schlereth 1991). By 1900, women began to wear their hair *à la pompadour* a full, ornate style, with their hair up and towards the front of their head instead of towards the back (Figure 79). Although hair pins were used to keep the hair in place, side and back combs also were used. Combs typically were made from or resembled tortoise shell, and could be ornate with pearl or jewel settings (Figure 77), but more practical rubber combs were more often used.

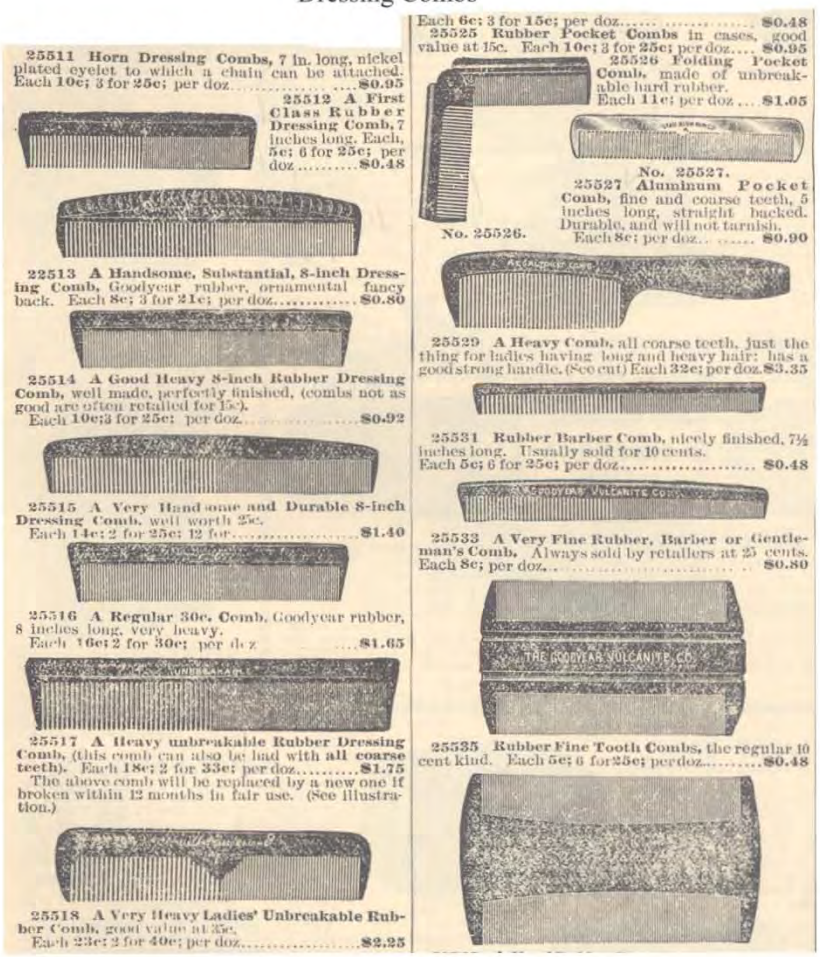
Photo 57: Portions of Rubber Hair Combs from Period I Features



A. 14-101 B. 29-21

Figure 77: Hair Combs Sold in the 1898 Sears Roebuck Catalogue (Israel 1968:326)

Dressing Combs



25511 **Horn Dressing Combs,** 7 in. long, nickel plated eyelet to which a chain can be attached. Each **10c;** 3 for **25c;** per doz.....**$0.95**

25512 **A First Class Rubber Dressing Comb,** 7 inches long. Each, **5c;** 6 for **25c;** per doz.....**$0.48**

22513 **A Handsome, Substantial, 8-inch Dressing Comb,** Goodyear rubber, ornamental fancy back. Each **8c;** 3 for **21c;** per doz.....**$0.80**

25514 **A Good Heavy 8-inch Rubber Dressing Comb,** well made, perfectly finished, (combs not as good are often retailed for 15c). Each **10c;** 3 for **25c;** per doz.....**$0.92**

25515 **A Very Handsome and Durable 8-inch Dressing Comb,** well worth 25c. Each **14c;** 2 for **25c;** 12 for.....**$1.40**

25516 **A Regular 30c. Comb,** Goodyear rubber, 8 inches long, very heavy. Each **16c;** 2 for **30c;** per doz.....**$1.65**

25517 **A Heavy unbreakable Rubber Dressing Comb,** (this comb can also be had with **all coarse teeth**). Each **18c;** 2 for **33c;** per doz.....**$1.75**
The above comb will be replaced by a new one if broken within 12 months in fair use. (See illustration.)

25518 **A Very Heavy Ladies' Unbreakable Rubber Comb,** good value at 35c. Each **23c;** 2 for **40c;** per doz.....**$2.25**

Each **6c;** 3 for **15c;** per doz.....**$0.48**

25525 **Rubber Pocket Combs** in cases, good value at 15c. Each **10c;** 3 for **25c;** per doz.....**$0.95**

25526 **Folding Pocket Comb,** made of unbreakable hard rubber. Each **11c;** per doz.....**$1.05**

No. 25526.

No. 25527.

25527 **Aluminum Pocket Comb,** fine and coarse teeth, 5 inches long, straight backed. Durable, and will not tarnish. Each **8c;** per doz.....**$0.90**

25529 **A Heavy Comb,** all coarse teeth, just the thing for ladies having long and heavy hair; has a good strong handle. (See cut) Each **32c;** per doz. **$3.35**

25531 **Rubber Barber Comb,** nicely finished, 7½ inches long. Usually sold for 10 cents. Each **5c;** 6 for **25c;** per doz.....**$0.48**

25533 **A Very Fine Rubber, Barber or Gentleman's Comb.** Always sold by retailers at 25 cents. Each **8c;** per doz.....**$0.80**

25535 **Rubber Fine Tooth Combs,** the regular 10 cent kind. Each **5c;** 6 for **25c;** per doz.....**$0.48**

Ladies Side and Back Combs

Ladies' Side Combs.

25563 **Ladies' Side Combs,** curved, come in tortoise shell; size, 3¾ inches, made of celluloid. Per pair, **8c;** 3 pairs for.....**$0.20**

25565 **A fine 3¾ inch Ladies' Side Comb,** made of celluloid, imitation tortoise, fancy back. Per pair, **10c;** 3 pairs for.....**$0.28**

25567 This handsome side comb is 3¾ inches long, made of celluloid, imitation tortoise shell, crimped teeth, which prevent comb from slipping out of the hair. Per pair, **15c;** 2 pairs.....**$0.25**

25571 **A beautiful 4-inch Side Comb,** made of celluloid, imitation tortoise shell, has a fancy ornamental back, graduated teeth, longest at center and tapening toward each end. A regular 35c comb. Per pair, **21c;** 2 for.....**$0'46**

25573 **A Handsome Back Comb,** celluloid, imitation tortoise shell, fine fancy top; size, 2½ and 3 inches. Each **13c;** 2 for.....**$0.23**

Figure 78: Women's Hair Styles Late 1800s (Israel 1968:270-271)

Figure 79: Women's Hair Styles After 1900 (1902 Sears Roebuck Catalogue 1986)

Other personal objects included two tobacco pipes. A kaolin pipe was found in Feature 14, Zone E (Photo 58:A). Kaolin pipes were made from the 16th century until the late 19th century. Similar to the ceramic market, England manufactured most of the kaolin pipes used in the Americas (Dallal 2004, Noel-Hume 1969:296). The types of pipes utilized and their decorations reflected a person's economic standing, social beliefs, political affiliations, or ethnicity (Rafferty and Mann 2004:xiv). By the mid 1800s, pipes made of brier, the wood from the roots of a White Heath tree along the Mediterranean, or meerschaum, composed of hydrous magnesium silicate from fossilized shells of ancient sea creatures that was initially mined in Germany, replaced kaolin pipes in popularity. Brier and meerschaum pipes did not conduct heat like the kaolin pipes and could be easily worked into a variety of decorative styles (Tender Box International 2010). The 1895 Montgomery Ward catalog lists mostly brier pipes with a small number made of apple wood and one made from corn cobs (Figure 80). Although brier and meerschaum pipes were popular during the late 19th century, kaolin pipes continued to be used into the early 1900s (Harl 2006:397). A portion of a rubber stem was found in Feature 15, Zone B, Level 6 (Photo 58:B). Rubber stems were used on brier and applewood pipes by the end of the 19th century (Figure 80).

Musical instruments recovered consisted of six fragments from a single harmonica found in Feature 14, Zone D, Level 3 and a complete harmonica found in Feature 15, Zone B, Level 7 (Photo 58:C-D). These were both made of brass. The harmonica was developed in 1821 by 16 year old, Christian Friedrich Buschmann. In 1826, his instrument was improved upon by a Bohemian instrument maker, Richter, consisting of ten holes and twenty reeds, with separate blow and draw reed plates mounted on either side of a cedar comb. Known as a "Mundharmonika, or mouth organ", this became the standard configuration in Europe. In 1857, German clock maker, Matthias Hohner, began to manufacture harmonicas. In 1862, Hohner introduced harmonicas to America. By 1887, Hohner was producing more than one million harmonicas annually and made 90 different models (Euxton n.d.). By 1902, harmonicas could be purchased as cheaply as 7 cents, but more expensive harmonicas could be acquired, which ranged in price from 65 cents to $1.30 (Figure 81).

Only one gaming piece was recovered from the Period I features. This was die found in Feature 15, from Zone B, Level 6. The die was made of bone with painted black dots (Photo 58:E).

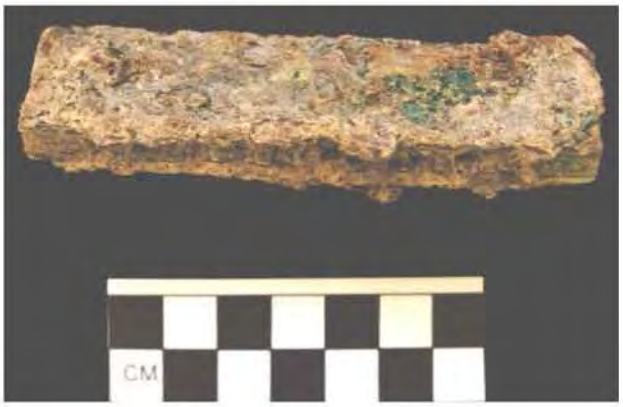
Short brass, shotgun shells were found in Feature 15, Zone A, within Levels 1 and 3 (Photo 58:F-G). The C.D. Leet Company from Springfield, Massachusetts is usually credited as being the first producer of paper shots with brass bases for shotgun shells, similar to the ones found in Feature 15. They patented this shell in 1869, but could have first made them during the Civil War. Their sale, however, lagged behind that of solid brass shells that could be reloaded by the user, until a machine for making paper shotgun shells was patented by Frank Chamberlin of Cleveland, Ohio in 1884. By the 1890s, commercially produced shotgun shells were widely popular with hunters (Farrar 2013).

Photo 58: Other Personal. Items from Period I Features

A. 14-136 Kaolin Pipe

B. 15-111 Rubber Stem of Pipe

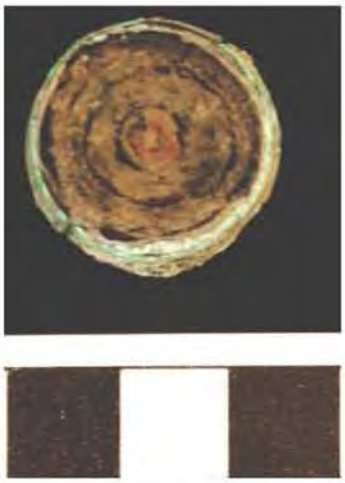
C. 14-84 Harmonica



D. 15-137 Harmonica

E. 15-112 Bone Die

F. 15-59 Shotgun Shell



G. 15-79 Shotgun Shell

Figure 80: Tobacco Pipes in 1895 Montgomery Ward Catalog (Emmit 1969:504-505)

SMOKERS' ARTICLES PIPES, ETC.

Pipes—Continued.

Pipes—Continued.

These three pages of PIPES AND SMOKERS ARTICLES should speak for themselves. The goods are as represented in every case. The prices are of the trade-making kind.

Figure 81: Harmonicas Sold in 1902 Sears Roebuck Catalogue (1986:207)

Harmonicas.

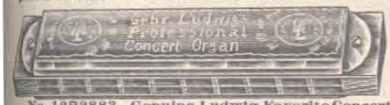
No. 12R2877 Made especially for us by the greatest manufacturer in Europe. Has ten single holes, white metal reed plates with good quality steel reeds, accurately tuned, easy blowing. Our special price, each 7c
If by mail, postage extra, 4 cents.

No. 12R2878 Genuine Bohm Professional Harmonica, has ten single holes and twenty best quality brass reeds. Best value for money ever offered. Brass plates, nickel covers. Our price, each.....10c
If by mail, postage extra, each, 4 cents.

No. 12R2879 Genuine Ludwig Harmonica, Richter Pattern Harmonica, has ten single holes, twenty reeds, accurately tuned; brass plates and nickel covers. Our price, each..11c
If by mail, postage extra, each, 4 cents.

If by mail, postage extra, each, 7 cents.

No. 12R2881 Genuine Ludwig Harmonica, Richter Pattern. Double sided Harmonica with ten holes and twenty reeds on each side; brass plates and nickel covers. Our price, each.....21c



No. 12R2883 Genuine Ludwig Favorite Concert Harmonica, Richter Pattern. Harmonica has twenty double holes, forty brass reeds, heavy brass reed plates and fancy nickel covers; has very powerful tone; specially fine value. Our price, each..32c
If by mail, postage extra, each, 8 cents.

No. 12R2890 Sousa's Band is 4 inches long, 1 inch wide; has ten holes and twenty brass reeds; heavy brass reed plates; handsome nickel covers. The best harmonica ever offered at the price, retails regularly at 35 cents. Our special price.....18c
If by mail, postage extra, 6 cents.

No. 12R2892 Sousa's Band is 4¾ inches long, 1¼ inches wide; has twenty holes; forty brass reeds; heavy brass reed plates and fancy nickel covers. The tone is powerful and of excellent quality. A regular concert harp. Our special price.....32c
If by mail, postage extra, 8 cents.

If by mail, postage extra, each, 4 cents.

No. 12R2903 The M. Hohner Harmonica, one of the best known and best liked harmonicas made; ten single holes, best reeds and brass reed plates. Nickel covers. Price, each.....15c

No. 12R2904 A Special Hohner Harmonica, with ten double holes, forty excellent reeds, brass reed plates and nickel covers. Price, each.....35c
If by mail, postage extra, each, 7 cents.

No. 12R2906 Hohner Harmonica. A double instrument of powerful and pleasing tone. Has ten double holes on each edge, twenty double holes in all; eighty very fine reeds, brass reed plates, nickel covers. Our special price.....80c
If by mail, postage extra, 8 cents.

Brass Band Harmonica.

The King of all Harmonicas.

No. 12R2907 The finest instrument of its kind in the world. Made by a most celebrated manufacturer. For purity and volume of tone this harmonica has no equal. The reeds are made of the finest bell metal and are extremely sensitive, producing a remarkably smooth tone. The covers are flaring at the back and are made of solid brass, heavily nickel plated and are consequently of unusual strength, thus protecting the reeds perfectly. Accurately tuned to concert pitch. The Brass Band Harmonica has ten double holes, forty bell metal reeds, brass reed plates and extension ends. It is in high favor with professional and amateur alike. We include a handsomely wood lined case, as shown in the illustration. Retails for $1.00 and is worth every cent of it. Price, each.....65c
If by mail, postage extra, each, 8 cents.

No. 12R2914 Same Harmonica as No. 12R2907, but has ten holes and twenty reeds, and comes packed in neat pasteboard case. Price, each ....(If by mail, postage extra, each, 6 cents).....19c

No. 12R2916 Bohm's Jubilee Harmonica. Harmonica has ten single holes, twenty brass reeds, mounted on heavy brass reed plates, nickel covers. Made in imitation of organ pipes, producing an exceptionally nice quality of tone.
Our special price, each.....18c
If by mail, postage extra, each, 5 cents.

No. 12R2918 Bohm's Sovereign Harmonica. A rare bargain in harmonicas. This harmonica is 5½ inches long and 1⅛ inches wide; has sixteen double holes and thirty-two steel bronze reeds, heavy metal reed plates and beautiful fancy nickel covers.
Our special price, each.....19c
If by mail, postage extra, each, 8 cents.

No. 12R2925 Angel's Clarion. Manufactured by C. H. Weiss, maker of the celebrated Brass Band Harmonica. This Harp resembles the brass band clarion in some respects, but is so constructed as to produce a peculiar, vibrating, organ like tone not found in any other harmonica. It has twenty-eight holes, with twenty-eight brass reeds and mounted on heavy brass reed plates. Has the clarion pipe and nickel covers. Every harmonica player should own one of these harps. Our special price, each.....(If by mail, postage extra, each, 8 cents).....35c

The Brass Band Clarion.

The Wonder Harmonica of the Age. A New Invention in Harmonicas.

No. 12R2940 The Clarion Brass Band Harmonica, manufactured by C. H. Weiss, the celebrated manufacturer of the Brass Band Harmonica. Although a novelty, the sales have been enormous, greatly exceeding those of any harmonica heretofore known. The illustration will give you an idea of the appearance of this wonder instrument. The brass reed plates and bell metal reeds are the same as those used in the Celebrated Brass Band Harmonica, which has gained such a world wide reputation. The new idea or invention is in the organ pipes, which are placed over the reeds. By means of these pipes, the performer is enabled to change the tone at will, giving imitations of the flute, church organ or trumpet calls. Its construction makes it the most powerful toned harmonica as well as the easiest blowing and most attractive that has ever been placed on the market. Pronounced as such by professionals throughout the country. Made in two styles, as follows: Harmonica has ten single holes and twenty reeds. PACKED IN HANDSOME HEAVY PASTEBOARD CASE HAVING SUBSTANTIAL HINGE AND NICKEL PLATED FASTENER. Price, each 25c
If by mail, postage extra, each, 5 cents.

No. 12R2941 Clarion Brass Band Harmonica, concert or large size, has ten double holes and forty reeds; packed in handsome pasteboard case. Price, each.....55c
If by mail, postage extra, each, 8 cents.

Tremolo Concert.

No. 12R2942 Tremolo Concert Harmonicas are made by And's Koch, s'xteen double holes, 7¼ inches in length, 2 inches wide, two reeds to each hole, sixty-four reeds in all. Brass reed plates and nickel plated covers. Our special price.....65c
If by mail, postage extra, 6 cents.

No. 12R2943 Same as No. 12R2942, except larger, has twenty double holes, eighty reeds in all.
Our special price.....70c
If by mail, postage extra, 7 cents.

No. 12R2944 Our special Ph. Brunnbauer instrument for $1.15. Worth $2.00. One of the most powerful toned harmonicas made. Beautiful gilt and fancy enameled covers, decorated with flowers, etc. Best brass reed plates, finest reeds, thirty-two double holes. Will produce the most exquisite music in the hands of an expert player. Our price, each...(If by mail, postage extra, 8 cents). .$1.15

No. 12R2945 Is the same genuine Ph. Brunnbauer make as above described, but has forty double holes. Our special price, each $1.30
If by mail, postage extra, 9 cents.

A greater number of personal objects (N=37, 47%) were associated with children, reflecting the number of children who lived within the mitigation area at this time. Marbles accounted for 36.8% (N=14) of the children's items (Photo 59). All but three of these were ceramic. Ceramic marbles were made of kaolin or feldspar clays fired at a high temperature and then glazed. Earlier examples of ceramic marbles (1850s-60s) were fired with a bisque glaze, "followed by the application of decorations using an oil-based enamel, and [then]...a second firing at a lower temperature which fused the enamel to the bisque surface" (Carskadden and Gartley 1990:60-61). Commercially produced ceramic marbles were first imported to the United States from Germany in the 1850s, but they were sometimes made by local potters from clay left after the production of stoneware vessels or brick manufacturers. The first commercial production of clay marbles in the U.S. began around 1884 at the C. Dykes Pottery in Akron, Ohio (Randall 1971). By 1890, several American companies, mostly based in Ohio, were producing ceramic marbles (Carskadden and Gartley 1990:58). Later examples of ceramic marbles (1890s) were first fired with a bisque glaze and then dipped in a clear glaze which gave the marble a shiny appearance. Decorations were then painted on the clear glazed surface and the marble was re-fired (Carskadden and Gartley 1990:61). Ceramic marbles fell out of fashion after the introduction of machine-made glass marbles and by the 1920s, ceramic marbles were no longer produced in either Germany or the United States (Carskadden and Gartley 1990:67).

Three glass marbles were discovered in Feature 14, Zone E (Photo 59:M-N). The first machine-made glass marbles appeared at the beginning of the 20th century and a few firms were manufacturing them on a large scale by 1905 (Baumann 1970). Glass marbles quickly took over the market due to their ease of production, low cost, high availability, and aesthetic appeal. The early machine produced marbles (prior to 1926) exhibit a ground down pontil scar where it was "twisted and cut from a glass rod", are opaque in comparison with both earlier hand-made and later machine-made varieties, and also have "a thick application of swirling colored glass very near the surface which can sometimes be felt" (Randall 1971). All three marbles collected exhibited these pre-1926 attributes. One of these was very large at 1 inch, and probably represented a shooter (Photo 59:M). It had painted black bands.

Portions of nine dolls were found in Features 14 and 15 (Photo 60). Five of these were made of porcelain. China dolls were first produced in the 1820s, but were most popular between the 1840s and 1880s. These dolls typically represented adult females with detachable legs and arms (Figure 82), similar to five of the dolls recovered from the features (Photo 60:A-C).

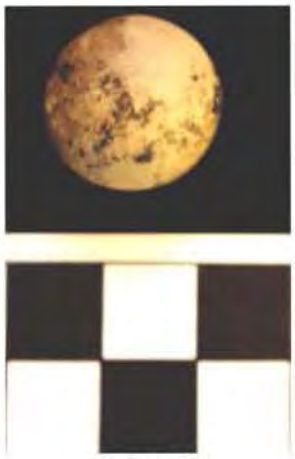
Another china doll from Feature 14 was different in that it had a child's face with painted blue eyes (Photo 60:D). There was a hole on the top of the head where the hair could be attached. Dolls of this type started to be produced after 1850. On the back of the doll was numbers "34" over "9", which are likely mold numbers.

Photo 59: Marbles from Period I Features

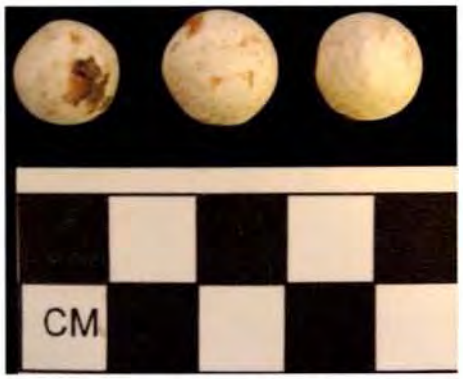
A. 14-46

B. 14-95

C.-D. 14-87

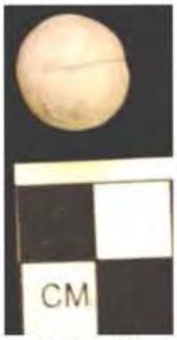


E. 14-126

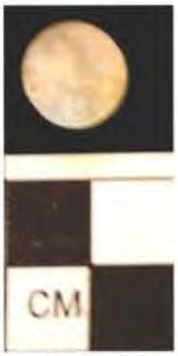


F.-H. 14-125

I. 15-54



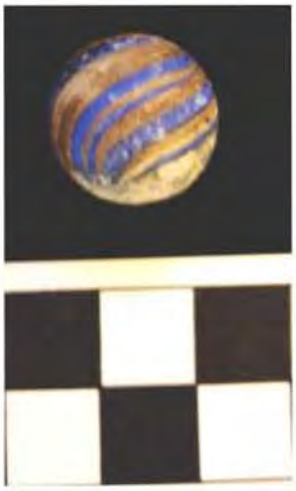
J. 15-84



K. 15-70

L. 15-135

M. 14-124 Large Marble



N. 14-127 Glass Marble

Photo 60: Dolls from Period I Features

A. 15-136
Feature 15
China Doll Legs and Arm

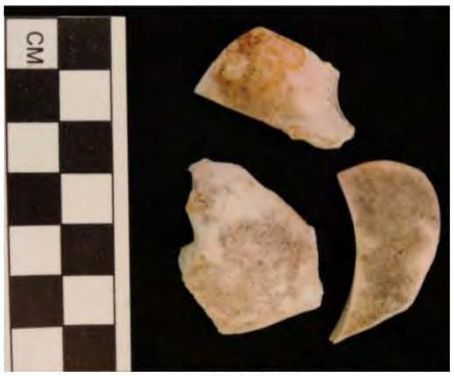
B. 14-03
Feature 14
China Doll Arm

C. 15-77
Feature 15
China Doll, Back of Head

D. 14-85
Feature 14
Porcelain Doll Head with Detachable Hair

E. 14-71
Feature 14
Bisque Doll,
Back of Head

F. 15-45
Feature 15
Bisque Doll
Back of Head



G. 15-55
Feature 15
Bisque Doll, Head Fragments
With Painted Hair and Eye Lashes

Figure 82: China Doll ca. 1850 (Van Patten 1999)

Around 1850, French Fashion and Bébés were introduced. These differed in that their heads were made of bisque (unglazed porcelain), with glass eyes, and leather bodies. Bébés differed from Fashion dolls in that were made with a child's face instead of an adult woman (Figure 83). Both dolls were sold with exquisite dresses, and additional wardrobes could be purchased. Magazines also instructed girls how to make dresses for their dolls teaching them sewing skills and fashion of the mid-late 1800s. These dolls, however, were expensive and generally could be afforded by only the more affluent girls. None of the dolls recovered appear to be of this type.

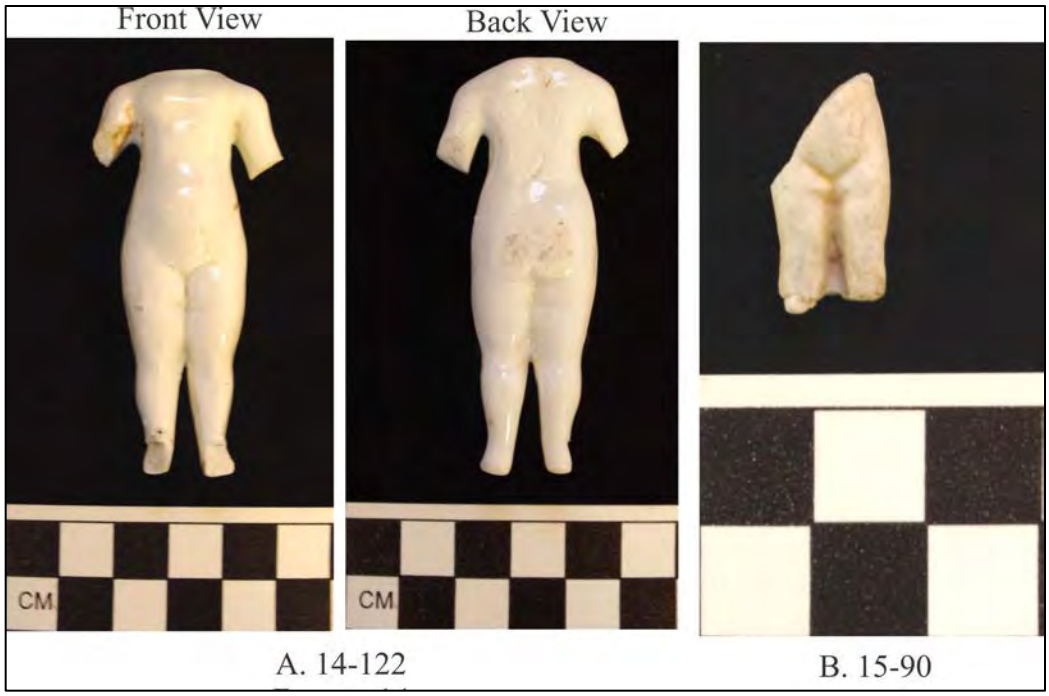
A more economical doll was produced in the 1890s, a German "Dolly-Faced" dolls. These dolls differed from the earlier china dolls in that they were made of unglazed porcelain, bisque, and represented infants (Figure 84), instead of young girls or adults. "Dolly-Faced" dolls replaced Bébés as they were cheaper and were manufactured in larger quantities, and continued to be popular until the 1930s (Van Patten 1999). At least three bisque dolls were recovered from the features (Photo 60:E-G).

Figure 83: French Bebes Doll ca. 1870 (Van Patten 1999)

Figure 84: German Dolly Faced Doll (Van Patten 1999)

One of the dolls has a horseshoe manufacturer's mark and "Made in Germany" with "1900" over "1318" (Photo 60:E). The first number represents the mold number for the Ernst Heubach's Porcelain Factory in Koppelsdorf, Germany, as did the horseshoe mark. The company was established in 1887. In 1919, Heubach and A. Marseilles merged and formed the United Porcelain Factory of Koppelsdorf (Vereinigte Koppelsdorf Porzellanfabrik vorm Armand Marseille and Ernst Heubach), until 1932, when the two companies separated. During this period, dolls were often marked with Heubach Koppelsdorf, which is not present on this doll and could suggest that it was made sometime between 1887 and 1919 (Doll Reference 2013). Another bisque doll is marked with "50/4". The first number could be the mold number, but it may refer to the doll size (in centimeters).

Photo 61: Frozen Charlottes from Period I Features



Two doll fragments represented Frozen Charlottes (Photo 61). These were based on a Victorian morality tale of how a young girl refused to obey her parents concerning putting her coat on before going outside, resulting in her freezing to death. These dolls were hidden within birthday cakes and puddings for young children and were played with by both girls and boys (Fraser 1963).

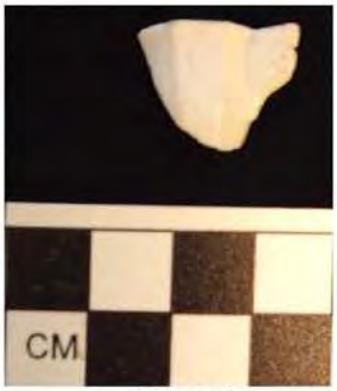
A number of the children's toys (N=11) were from toy tea sets. These consist of 1 tea pot, 3 cups, 3 saucers, 3 plates, and 1 platter (Photo 62). Most of these pieces were plain, but a saucer (Photo 62:E) and a plate had a blue floral transfer print design. According to the 1895 Montgomery Wards Catalog, the decorated toy tea sets were more expensive than the plain sets (Figure 85).

In Feature 14, Zone A, Level 2 was a portion of a slate writing tablet (Photo 63). This was used by children in school. Even though wooden pencils were invented after the Civil War, slate writing tablets continued to be used until the start of the 20th century.

Not necessarily related to children, but three porcelain figurine fragments were found in the Period I features. From Feature 14, Zone E a lady's head wearing a hood and a bird was recovered (Photo 64). Another portion of a figurine was found in Feature 15, Zone A, Level 1. It represented only a portion of a hand.

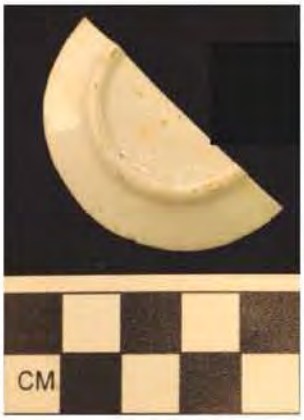
Photo 62: Toy Tea Sets from Period I Features

A. 14-123
Feature 14
Tea Pot



B. 14-73
Feature 14
Cup

C. 14-45
Feature 14
Cup

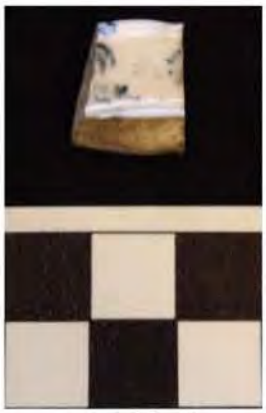


D. 14-44
Feature 14
Saucer

F. 15-78
Feature 15
Plate

G. 14-108
Feature 14
Platter

E. 15-160
Feature 15
Floral Print on Plate



F. 14-12
Feature 14
Floral Print on Saucer

Figure 85: Toy Tea Sets Sold in 1895 Montgomery Ward Catalog (Emmit 1999:231)

China Toy Tea Sets.

52155

25155 Set consists of cups, saucers, tea pot, sugar bowl and cream; small size; packed in paper box. Price.... $0.10

25156 Same description as above but larger. Price $0.25

25157 Set consists of decorated plates, cups, saucers, tea pot, creamer, sugar bowl; good sized dishes. Price.....$0.50

25158 Same description, but larger. Price..... .75

25159 Same, but larger size and assortment. Price..... 1.00

25163 White Stone China Tea Set of 24 pieces, as follows: 6 plates, 6 cups, 6 saucers, 1 sugar bowl and cover, 1 tea pot and cover, 1 creamer, 1 slop bowl. This set is large enough for a miss from 8 to 14 years of age. (Not safe to send by mail.) Weighs 8½ lbs. Per set.....$1.25

The pieces in this set are larger than usually sold in toy sets; the cups stand 2 inches high, and the plates measure 4½ inches across.

25164—Fancy Decorated Tea Set, same size and assortment as above; elegant patterns. Packed in wooden box, weight 8½ lbs. Price.$1.75

Decorated China Toy Toilet Sets.

25172 Extra Size Wash or Toilet Set, gilt lined and brilliantly decorated; a handsome set. Packed in strong box; weight, 3 lbs. Per set.....$0.65
Per dozen sets 7.00

Photo 63: Fragments of a Slate Writing Tablet in Feature 14

Photo 64: Portions of Figurines Found in Feature 14

A. 14-119 B. 14-120

Household

Artifacts associated with the operation of a household that do not belong to any particular person consisted of 127 pieces (1,241.0g), representing a minimum of 40 objects. Household artifacts included four flower pots, one jardinière, and five floral vases. The flower pots were all made from a nonvitreous redware. Three of these pots were unglazed, while the fourth one was painted pink on its exterior and tan on the inside. Redware flower pots were relatively inexpensive according to the 1895 Montgomery Ward Catalog (Figure 86). More expensive, were more ornate jardinières. These arts and crafts style flower pots were popular at the end of the 19th century. The small fragment of a jardinière recovered from Feature 14, Zone C, had a painted blue exterior surface and a brown interior that was covered by a glaze. Floral vases included a complete bud vase found in Feature 14, Zone E. It had been produced by glass being blown into a mold and had a flared finish (Photo 65:A). A different glass vase, found in this same zone, had a molded pressed glass design (Photo 65:B). A manufacturer mark on the base of this piece consisted of an anchor with initials "J.D." (Figure 87). This mark was used by John Derbyshire. In 1858, John and his brother James established a glassworks in Manchester, England, known as James Derbyshire & Brother. Later they were joined by another brother, Thomas, and they started another glassworks, J. J. & T. Derbyshire, that produced mostly high quality pressed glass tablewares. In 1873, John Derbyshire started his own glass works. Despite producing a number of famous designs that were widely sought after, the company closed in 1876. He used the anchor mark from August, 1873 to 1876 (John Derbyshire Pressed Glass 2013; Glass Encyclopedia 2013). Another vase found in Feature 29 was made of ironstone with a fine molded vine pattern and a floral transfer print design. A gilded band was placed near the top of the vase.

Figure 86: Prices of Flower Pots in 1895 Montgomery Ward Catalogue (Emmit 1969:537)

Figure 87: John Derbyshire Manufacturer Mark (John Derbyshire Pressed Glass 2013)

Photo 65: Glass Vases From Period I Features

Other objects were used around the home. These include three graphite styluses found in Feature 15, Zone A, Levels 3 and 4 (Photo 66). Although the styluses could have been used by school children to write on slate tablets, they may have been used by others as well; for example, by a carpenter in marking wood. A rounded piece of carbon found in Feature 14, Zone D, Level 3, represented the inner core of a battery.

Photo 66: Graphite Styluses from Period I Features

Parts of furniture also were recovered. In Feature 14, two furniture casters were found (Photo 67). These casters were small 3.2 cm (inches) and 4.2 cm (inches)

Photo 67: Furniture Casters in Feature 14

More common were parts of lamps. These came from a minimum of 22 lamps. Among these pieces was the base of a miniature bedside lamp found in Feature 14. It was made of white glass and had "Nutmeg" embossed on its side (Photo 68, Figure 88). This style of lamp was sold in 1894, and possibly as early as 1881 by Plume and Atwood Manufacturing Company of Waterbury, Connecticut (Graff 2004; The Lampworks 2011). A minimum of 8 glass chimneys used with oil lamps were found Features 14 and 15 (Photo 69). Other objects represented portions of lamp hardware (Photo 70:A-B) and glass lamp shades (Photo 70:C-F). Although most of the lamp shades consisted of undecorated clear or white glass, a portion of a shade found in Feature 15, Zone B, did have a molded design (Photo 70:D). As suggested by the 1897 Sears Roebuck Catalogue, undecorated lamp shades were sold more cheaply than ornate varieties (Figure 89).). These lamps were used to light homes as well as placed on tables and bedsides (Figure 90). No evidence of the use of electricity was found in any of these features. At this time, wiring a home for electricity would have been very expensive

Photo 68: Nutmeg Miniature Kerosene Oil Lamp

14-25
Miniature Oil Lamp

Figure 88: Typical Nutmeg Miniature Oil Lamp (WorthPoint 2013)

Photo 69: Kerosene Lamp Chimneys from Period I Features

Photo 70: Lamp Hardware and Shades Found in Period I Features

A. 01-04
Feature 1
Lamp Fixture

B. 14-138
Feature 14
Zone D, Level 3
Brass Lamp Parts

C. 15-141
Feature 15
Zoen B, Level 7
Glass Lamp Shade

D. 15-41
Feature 15, Zone B
Decorative Glass Lamp Shade

E. 15-43
Feature 15, Zone B
White Glass Lamp Shade

F. 15=116
Feature 15, Zone B, Level 6
White Glass Lamp Sade

Figure 89: White Glass Lamp Shades in 1895 Montgomery Ward Catalogue (Emmet 1969:552)

Lamp Shades.

55700 55701

55700 Porcelain Lamp Shade, plain white, 7 in., for standing lamps. This pattern is intended to be used on illuminator. Each, plain $0.25
Same as above, decorated ..... .40

55701 Porcelain Lamp Shades, cone shapes, 10 and 14 inches. Plain and decorated, assorted decorations, not all like cut; 10 inch for parlor stand lamp; 14 inch for hanging or library lamps.

Size..	10 in.	14 in.
Plain, each	55c.	73c.
Decorated	80c.	90c.

55702 Porcelain Lamp Shades, dome shape, 10 and 14 inch. Plain and decorated, assorted decoration; 10 inch for parlor stand lamps; 14 inch for library lamps.

Size..	10 in.	14 in.
Plain	50c	75c..
Decorated	75c.	$1.00

Figure 90: Example of Kerosene Lamps from the 1895 Montgomery Ward Catalog (Emmet 1969:551-552)

55668 55669

55668 Decorated Stand Lamp, metal foot, Japan finish, colored center and crystal glass fount, complete, with No. 2 Sun burner, chimney and fancy Japanese paper dome shade; height to top of chimney, 21 inches. Price..... $0.85

55669 Crystal Glass Stand Lamp; neat, plain pattern. We keep three sizes.
19 inches high to top of chimney, and trimmed with No. 2 burner, chimney and wick, complete. Price..... .35
18 inches high to top of chimney, and trimmed with No. 2 burner, chimney and wick, complete. Price..... .30
16 inches high to top of chimney trimmed and with No. 1 burner, chimney and wick, complete. Price..... .25

55670 Crystal Glass Stand Lamp has clinch collar put on under several hundred pounds pressure; no cement or plaster clinched on collars, never come off, and the process of putting them on breaks all the imperfect lamps, consequently a clinch collar lamp is superior and safer than those having collars put on with plaster paris.
19 inches high to top of chimney and trimmed with number 2 burner; chimney and wick, complete. Price..... $0.45
18 inches high to top of chimney and trimmed with number 2 burner; chimney and wick, complete. Price..... $0.37
16 inches high to top of chimney and trimmed with number 1 burner; chimney and wick, complete. Price..... $0.30

55671 Crystal Glass Night Lamp; will hold enough oil to burn all night and is fitted with a burner, wick and chimney, complete. Price..... $0.16

55672 Footed Crystal Glass Hand Lamp, heavy foot, not easily upset, complete with No. 1 Sun burner, chimney and wick. Price..... .20

55671 55672

55673 Footed Crystal Glass Hand Lamp, with patent clinch collar, put on under several hundred pounds pressure; no cement or plaster; can never come off; extra heavy foot; complete with No. 1 Sun burner, chimney and wick. Price. ...$0.25

The Banner Mammoth Lamp.

400 Candle Power Light.

55692 The Mammoth Lamp gives a strong and brilliant light, and has a fount holding one gallon of oil; it is the only mammoth lamp with extra wick feeder to supply oil to the burning wick; suitable for all places where a large and steady light is required; 20 inch embossed tin shade harp, smoke bell and chimney; ready for use. Price $3.25

55693 The Mammoth Lamp, with spring extension and 14 inch white porcelain shade; this makes a very neat appearing lamp and is especially adapted for use in churches, school houses, halls, etc. Price.....$4.75

Extra Chimneys to fit mammoth lamp. Each.....$0.25

Steel Frame Kitchen and Night Lamps.

55694 Reflector Lamp made of steel, riveted together; will last a lifetime; the polished tin reflector is removable, and if at any time it is not required can be taken off; it is fitted as shown in cut, complete with glass fount, number 2 burner, wick and chimney. Price $0.46
Per dozen..... 5.52

55695 All Steel Side Lamp with polished tin reflector; it is fitted with handled glass fount which can be taken from frame when required; this will be found to be a very convenient lamp; it is fitted with number 2 burner, chimney and wick complete.
Price.....$0.40
Per dozen..... 4.35

55696 All Steel Side or Reflector Lamp, very useful, as it may be hung up or placed on shelf; the frame is so constructed that it can be carried in the hand without the least danger of upsetting; trimmed complete with glass-fount No. 2 burner, chimney and wick. Price.....$0.35
Per dozen..... 3.80

PERIOD II: 1905-1929

At least ten features (2, 5, 7, 16, 19, 24, 28, 32, 36, and 40) contained artifacts dating to this time producing 1,643 artifacts, weighing 37,853.6g. These represent a minimum of 609 objects. The majority of these pieces were associated with dining (Figure 91).

Dining

Serving of Food

Most of the vessels used in serving foods consisted of ironstone dinner settings (Figure 92, Table 13). Of the ironstone dinner plates that could be measured, these consisted of various sizes but none represented the larger 9 inch supper plates or 10 inch dinner plates popular prior to 1880 (Lucus 1994:84). Instead, they were the smaller size plates common for serving foods in courses:

1	5 inch (12 cm)
2	6 inch (14-16 cm)
2	7 inch (18 cm)
5	8 inch (20-22 cm)

Measurable bowls also were of various sizes:

2	4 inch (9-10 cm)	2 bowls, 1 child's bowl
3	5 inch (12 cm)	3 bowls
5	6 inch (14-16 cm)	3 bowls, 1 soup bowl, 2 serving bowl
6	8 inch (20-22 cm)	5 soup bowls, 1 serving bowl
1	11 inch (29 cm)	1 bowl

These included 6 soup bowls. Most of these measured 8 inches (20 cm) in diameter, but one, found in Feature 36, was smaller at 6 inches (16 cm). Another three vessels represented serving bowls that measured 6 to 8 inches (16-20 cm) in diameter. Another 9 bowls served a general use at the dinner table. These ranged in size from 4 inches (9 cm) to 11 inches (29 cm).). A child's bowl was recovered from Feature 36 that measured 4 inches (9 cm) in diameter. In addition to bowls, a portion of a dish used for serving fruit came from Feature 5. It measured 5 inches (11 cm) in diameter.

Also discovered were cups measuring 3-4 inches (6-10 cm) in diameter and saucers measuring 5 to 6 inches (12 to 16 cm) in diameter. Most of these were very thick and likely used in serving coffee. A cup recovered from Feature 5 had a diameter of only 1 inch (4 cm). This may represent a demitasse cup (Photo 71:H).

Figure 91: Percentage of Artifact Types from Period II Features

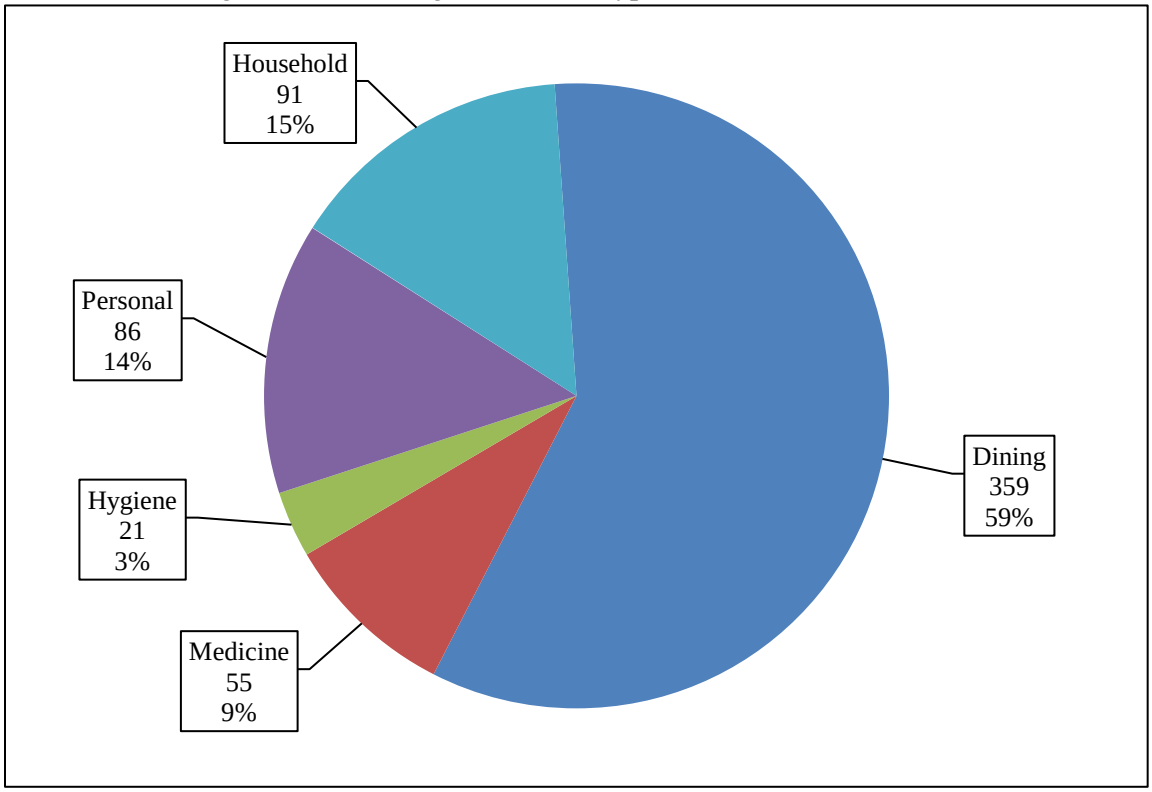


Figure 92: Percentage of Serving Vessel Types in Period II Feature

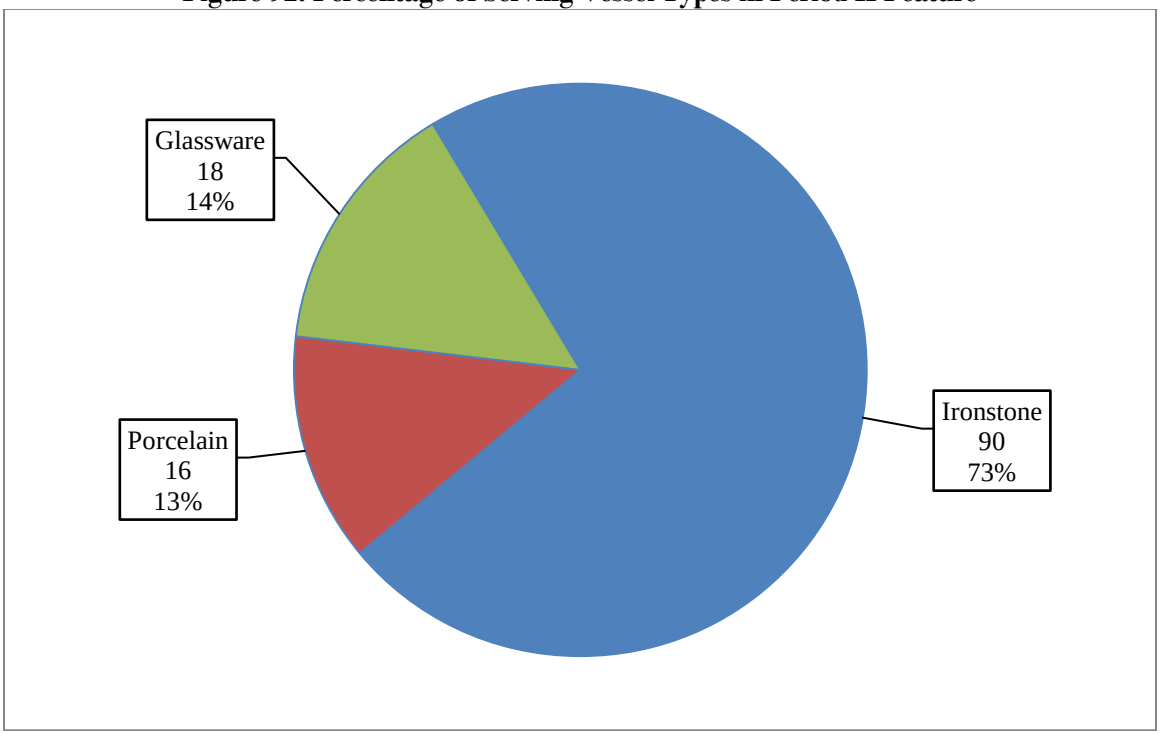


Photo 71: Plain Ironstone Vessels from Period II Features

A. 29-1 Plate

B. 16-2 Plate

C. 5-50 Small Plate

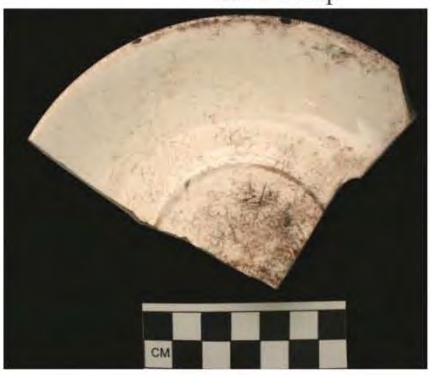
D. 19-1 Soup Bowl

E. 36-2 Bowl

F. 28-4 Cup

G. 36-4 Cup

H. 5-23 Demitasse Cup



I. 19-2 Saucer

Table 13: Minimum Number of Dinnerwares

Ironstone	Glasswares
19 plates	1 plate
11 bowls	1 platter
8 soup bowls	1 serving plate
4 serving bowls	2 serving bowls
4 serving dishes	1 pitcher
23 coffee cups	1 serving bottle
1 demitasse cup	10 tumblers
19 saucers	2 water goblets
	1 beer mug
Porcelain	
4 plates	
2 serving bowls	
1 cream pitcher	
4 cups	
4 saucers	
1 sugar bowl lid	
2 salt and pepper shakers	

Figure 93: Decoration on Ironstone Dinner Settings from Period II Features

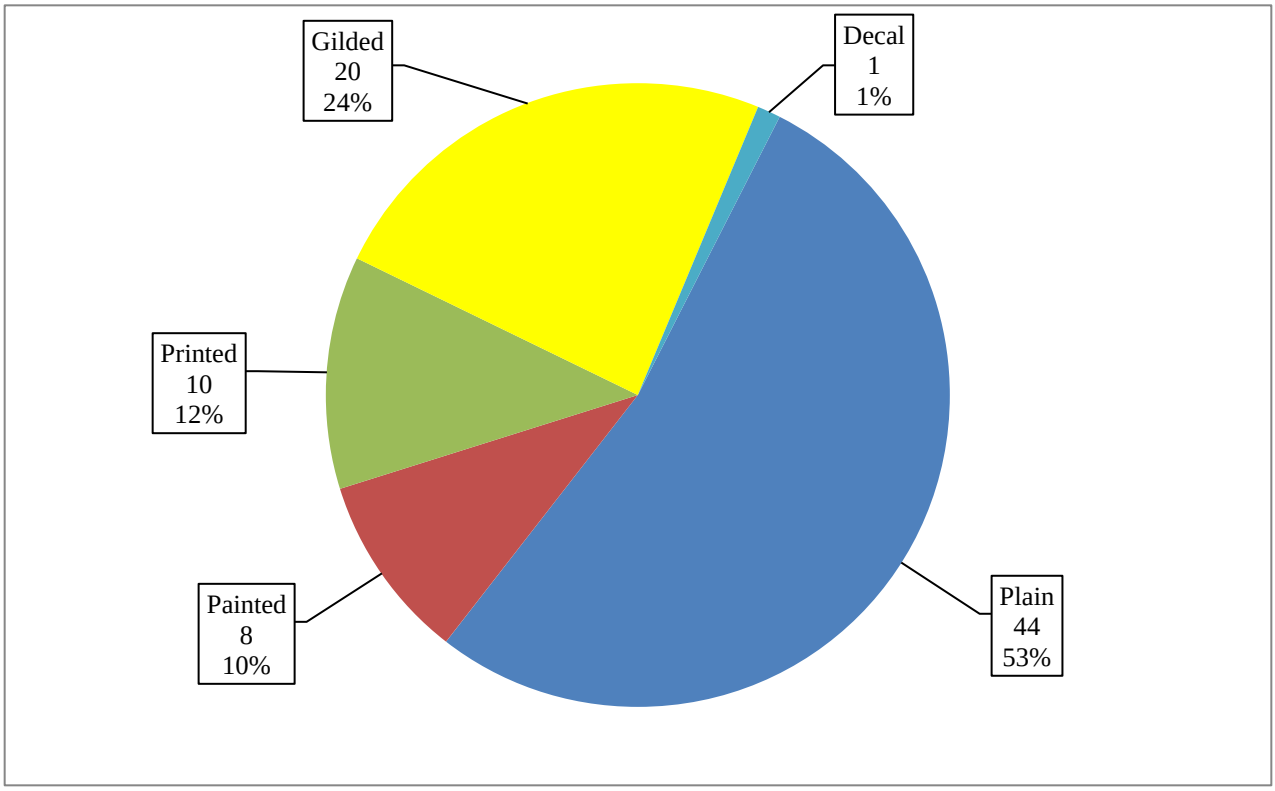


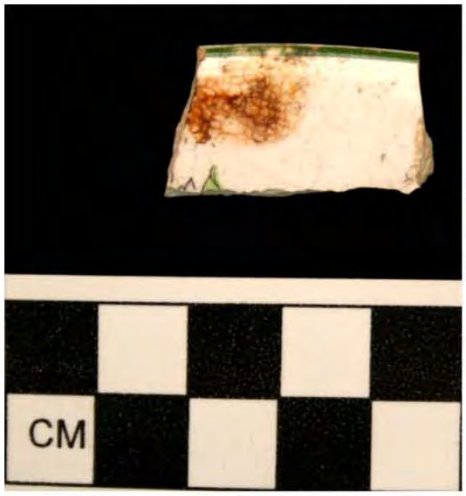
Photo 72: Painted Decorations on Ironstones from Period II Features

A. 16-1 Plate

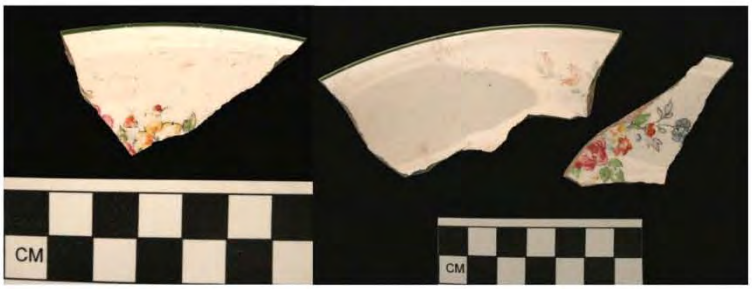
B. 16-37 Saucer

C. 24-4 Cup

D. 24-3 Cup



E. 19-90 Saucer



19-4 F. Soup Bowl 19-44

The majority of the ironstone vessels, 51% (N=44), had only plain, undecorated surfaces (Figure 93, Photo 71). Only eight vessels (10%) were painted. A plate and a saucer from the wood lined privy, Feature 16 (Photo 72:A-B), had a copper tea leaf pattern that was popular from the 1850s to about 1900 (Wetherbee 1996). This pattern was similar to those found on dinner settings within the nearby wood line privy, Feature 15 associated with Period I. Another seven pieces had a painted blue or green band near the edge (Photo 72:C-D). A saucer and a soup bowl from Feature 19 had a similar painted green band at their edges with a painted floral decoration just below (Photo 72:E-F). These were likely from a matching set.

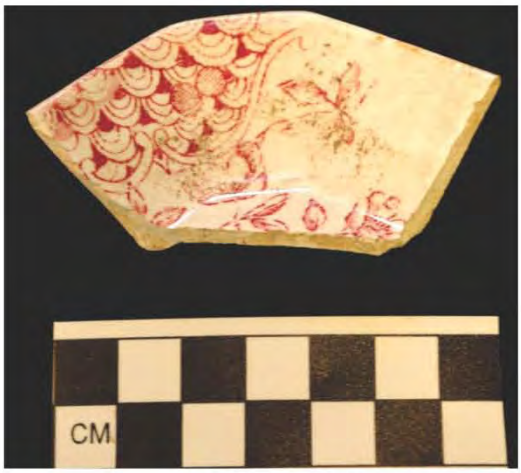
A slightly higher percentage of vessels (12%, N=10) had transfer print decorations. These include four vessels with a floral print. Among these was a serving bowl from Feature 24 (Photo 73), whose base indicated that this piece had a Dresden design (Figure 94). This design was produced by Sampson Hancock and Sons between 1906 and 1912 at their pottery company located at Stoke-on-Trent Staffordshire, England (Kovel and Kovel 1986:31H). The other floral prints consisted of a serving dish from Feature 5 (Photo 74:A) that was made in the older style with a red colored print. A serving bowl (Photo 74:B) and a saucer from Feature 19 had polychrome prints, which were produced after 1860 (Lewis 1969).

Photo 73: Serving Bowl with Dresden Design from Feature 24

Figure 94: Example of Dresden Design (Replacements Ltd. n.d.)

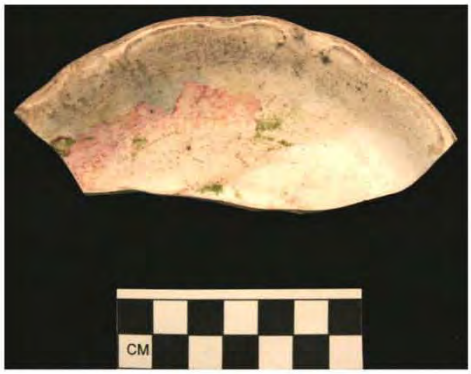
A serving dish from Feature 19 also was made with a polychrome floral print, but it also had a fine molded vine pattern at its edge (Photo 74:C). Three other vessels had a print design that was painted. These include a cup with a floral design found in Feature 24. The design was made in a style similar to ceramics produced during the first half of the 19th century with a mustard colored yellow paint (Photo 74:D). Two cups from a matching set discovered in Feature 24 had a print of a robin sitting on a basket within a floral bouquet, with painted flowers (Photo 74:E-F).

Photo 74: Transfer Print Decorations on Ironstones from Period II Features



A. 5-38 Serving Dish

B. 19-13 Serving Bowl



C. 19-134 Serving Dish
with Molded Vine and Floral Print

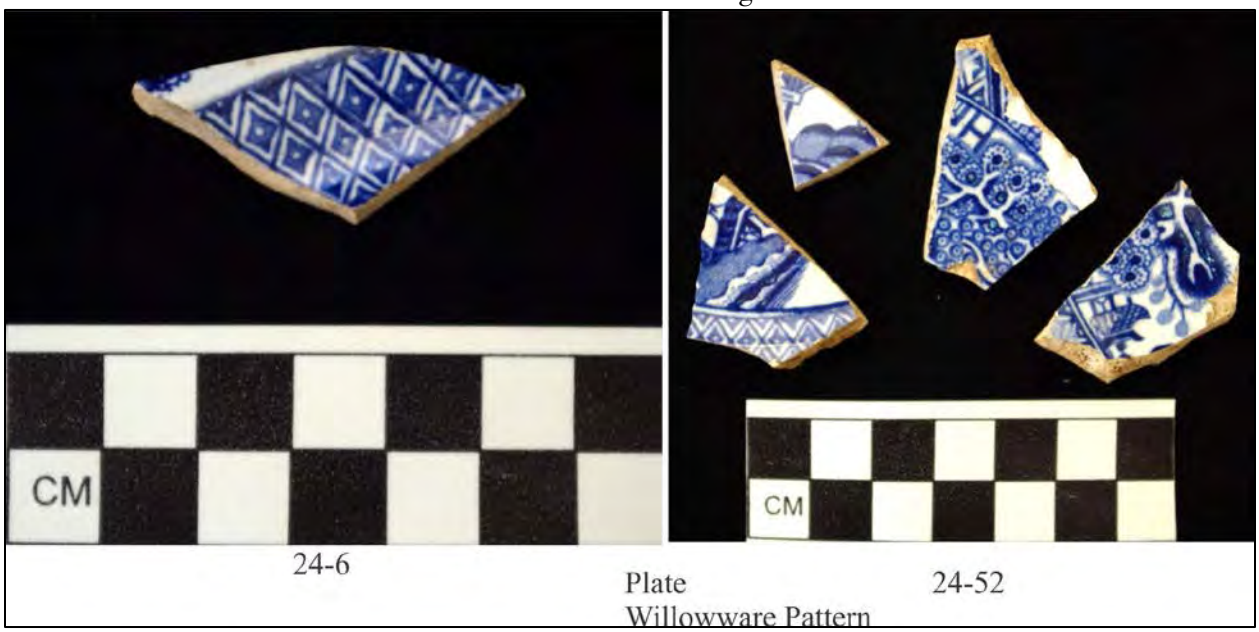
D. 24-20 Cup
Painted and Print

E. 24-24 Cup
Painted and Print

F. 24-5 Cup
Painted and Print

Other printed decorations included several fragments from a plate found in Feature 24. This contained a dark blue Willowware pattern (Photo 75). As suggested by a similar plate found in Feature 14 associated with Period I, this pattern gained resurgence in popularity at the start of the 20th century. Both plates imitated designs produced during the first half of the 19th century consisting of a cobalt blue transfer print.

Photo 75: Plate with Willowware Design from Feature 24



A child's bowl found in Feature 36 had a print of a boy wearing a raincoat (Photo 76). This was the trademark of the Uneeda Biscuit, one of the first commercially sold crackers in the U.S. In 1898, four local cracker bakers joined together to form the National Biscuit Company, with its headquarters in Chicago, Illinois. Its first president was A.W. Green. He came up with the idea of selling crackers in waxed paper protecting them from moisture, dirt, and germs. This covering allowed for these crackers to be one of the first sold nationally instead of just locally. Green, a Classical Scholar, at first wanted a Greek word for the name of his crackers, but one of his advertising men came up with "Uneeda". Green felt that "Biscuit" would suggest a higher grade product than cracker. In 1901, the company used the logo of a boy in a raincoat holding the biscuit box (Figure 95). With their unique wax paper wrapping, the image was meant to promote the freshness and preservability of their crackers. Today the company is known as Nabisco (Woods 1959; Cahn 1978). The child's bowl was probably given away as a promotional item to increase sales.

Photo 76: Child's Bowl from Feature 36

36-9 Bowl, Uneeda Biscuit Logo 36-92

Figure 95: Examples of the Uneeda Biscuit Boy

(Rootsweb n.d.)

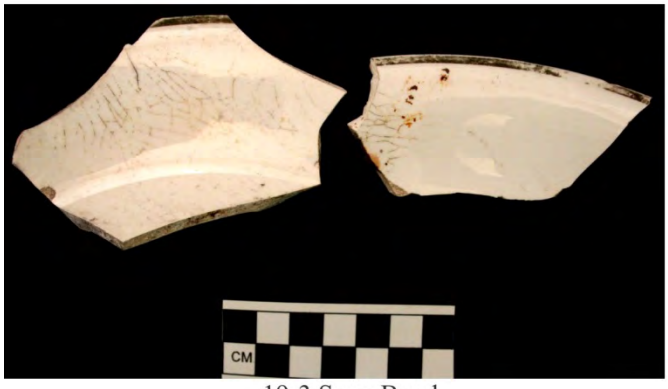
(Robert Edward Auctions 2007)

Ironstone vessels (24%, N=20) with a gilded decoration were found in Features 19, 24, and 36. The majority of these (N=7) represented a gold band placed near the edge (Photo 77). A plate from Feature 5 and a bowl from Feature 36 (Photo 78:A) had a gilt vine print around their edges. Another four vessels from Feature 36 had a molded edge pattern and a gilt floral print (Photo 78:B-E). Fragments of a saucer from Feature 24 had a floral print with painted highlights over the print, and a gilt band placed at the vessel's edge (Photo 78:F). Five cups, a saucer, and an oblong serving dish found in Feature 19 had the same print of two flying birds and a floral design with a gilt edge suggesting that they were from a matching set (Photo 79).

Photo 77: Ironstone Vessels with a Gilt Band from Period II Features

19-88 Plate

19-89 Soup Bowl

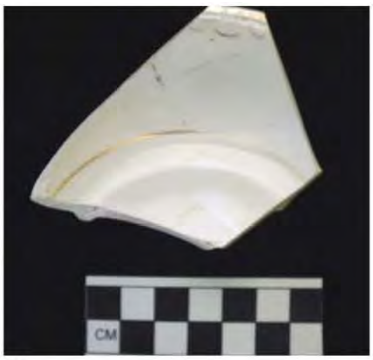


19-3 Soup Bowl

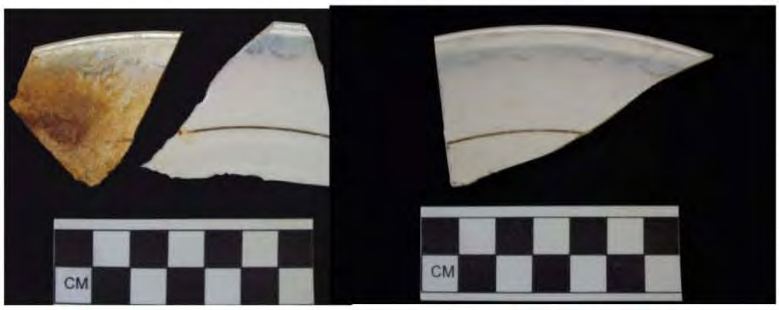
24-21 Cup

Photo 78: Additional Gilt Pieces from Period II Features

A. 36-64 Bowl, Gilt Floral Print and Band



B. 36-5 Bowl, Molded and Gilt Floral Design and Gilt Band

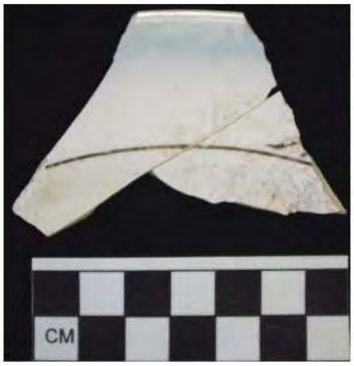


36-65 36-79

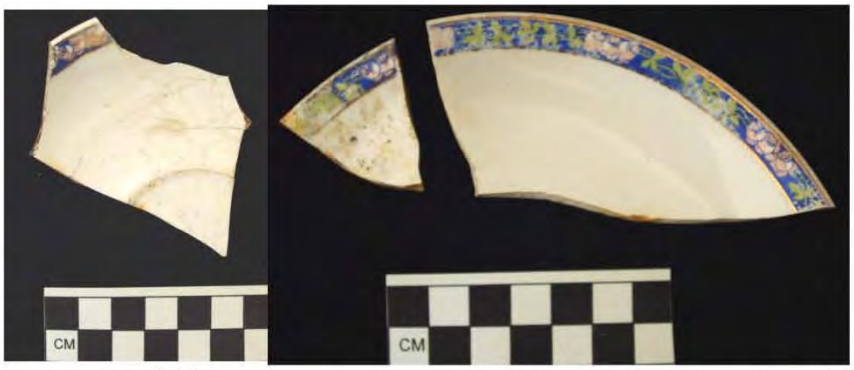
C. Plate, Fine Molded Vine, and Gilt Floral Print and Band

36-10 36-77 36-66

D. Plate, Molded Vine and Gilt Floral Print and Band



E. 36-6 Plate
Fine Molded Vine and
Gilt Floral Print and Band



24-2 24=19

F. Saucer, Floral Print and Painted
with Gilt Band

Photo 79: Matching Pieces with Print Design and a Gilt Edge Found In Feature 19

19-114 Cup
Floral and Bird Print, with Gilt Band

19-8 Cup
Floral and Bird Print, with Gilt Band

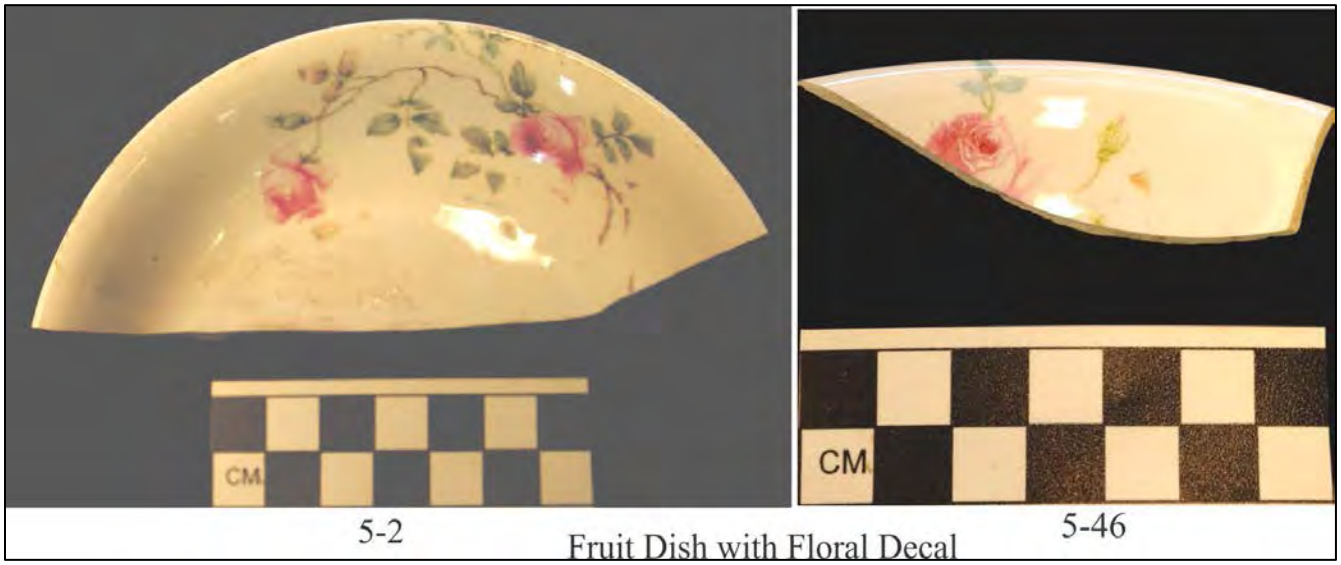
19-9 Cup
Floral and Bird Print, with Gilt Band

19-6 Saucer
Floral and Bird Print with Gilt Band

19-7 Serving Dish
Floral and Bird PrintWith Gilt Band

A fruit dish found in Feature 5 had a floral decal decoration (Photo 80). As suggested in the previous section this decoration became popular after 1890, but surprisingly no other vessels with this cheaper decoration were associated with Period II features.

Photo 80: Fruit Dish With a Floral Decal Found In Feature 5



Of the ironstone vessels, 9 contained a manufacturer's mark (Table 14, Photo 81). The vast majority of these pieces (N=8) came from the U.S. These include a saucer and a serving dish with the bird and floral print found in Feature 19 suggesting that other pieces from this set had likely been produced by the Standard Pottery Company of East Liverpool, Ohio, as well. Nearly all of the pottery produced in the U.S. came from this ceramic manufacturing region of East Liverpool, Ohio. However, a plate found in Feature 19 was marked with "H. R. WYLLIE, CHINA", which was located in nearby Huntington, West Virginia (Kowalsky and Kowalsky 1999:74). Only one piece was made in England; the serving bowl with the "Dresden" print found in Feature 24.

Table 14: Manufacturer's Marks on Ironstones Vessels Found Period II Features

Quantity	Vessel	Manufacturer	City	Dates Used
2	saucers	Standard Pottery Company	East Liverpool, Ohio	1910-1927
1	serving dish	Standard Pottery Company	East Liverpool, Ohio	1910-1927
1	saucer	Edwin M. Knowles China Company	East Liverpool, Ohio	1900-1948
1	saucer	East Liverpool Pottery Company	East Liverpool, Ohio	1894-1901
1	plate	Sebring Pottery Company	East Liverpool, Ohio	ca. 1895
1	plate	Homer Laughlin China Company	East Liverpool, Ohio	dates unknown
1	plate	H.R. Wyllie China Company	Huntington, West Virginia	1910-1929
1	serving bowl	Sampson Hancock & Sons	Stoke-on-Trent, Staffordshire England	1906-1912

Photo 81: Manufacture's Marks on Ironstone Vessels from Period II Features

A. 19-6 Saucer
Standard Pottery Co.,
East Liverpool, Ohio
1910-1927
(Kovel & Kovel 1986:211L)

B. 24-2 Saucer
Edwin M. Knowles China Co.
East Liverpool, Ohio
1900-1948
(Kovel & Kovel 1986:28H)

C. 36-7 Saucer
East Liver Pool Pottery Company
East Liverpool, Ohio
1894-1901
(Kowalsky & Kowalsky 1999:33)

D. 19-11 Plate
Homer Laughlin China Co.
East Liverpool, Ohio
1926-Present
(Kovel & Kovel 1986:178J & 181C)

36-123 E. Plate 36-1
Sebring Pottery Co.
East Liverpool, Ohio
ca. 1895
(Kovel & Kovel 1986:184J)

F. 24-1 Serving Bowl
Sampson Hancock & Sons
Stoke-on-Trent, Staffordshire, England
1906-1912
(Kovel & Kovel 1986:31H)

No vitreous hotelwares were found in the Period II features, but at this time, this ware, while cheaper, was not widely popular for home use. Porcelain represented 13% (N=16) of the serving vessels. Most of these were associated with tea sets including 4 cups, 4 saucers, 4 small plates, 1 serving bowl, 1 sugar bowl, and 1 cream pitcher. One sherd in Feature 5 was too small to indentify the vessel type. Five of these porcelain vessels were undecorated (Photo 82:A), but just over twice as many (N=11) were decorated. A saucer in Feature 36 had a fine molded dot and vine design. A saucer and a small plate from Feature 19 had a gilt band near their edges (Photo 82:B). Four vessels had a painted decoration including a blue band placed near the edge of the cream pitcher in Feature 36, a cup from Feature 16 with a floral decoration (Photo 82:D), and a cup and a saucer in Feature 19 with a floral Chinois design (Photo 82:C). A cup and a small serving plate from Feature 36 had a thin gilt band, with painted brown band at their edges and a floral design (Photo 82:E-F). A serving plate in Feature 36 had a Chinois landscape scene that was made with a transfer print that was partially painted (Photo 82:G). Unfortunately, none of these vessels had a manufacturer's marks to indicate if they were of Asian origins or if they represented European porcelains that just imitated designs from China. A small piece of porcelain from an unknown vessel was marked "MADE IN GERMANY" on its back. It was decorated with a transfer print in an unknown scenic pattern (Photo 82:H).

Europeans were unable to replicate the process used to produce porcelain developed in Asia until 1708/09 when a German chemist, Johann Bottger, discovered a process for making porcelain from local clays. By 1710, a porcelain factory was established in Meissen. The ceramics became known as Dresden porcelain because it was produced near this larger city. The artists at this ceramic works produced highly ornate painted porcelains copying Chinese and Japanese themes, but also produced European designs. The technique soon spread to other places in Europe. English companies could not compete with the better quality German porcelains, which spurred the British Parliament to pass the Merchandise Act on August 23, 1887. This act required that all goods marketed from Germany to be stamped with "Made in Germany". The act actually had the opposite affect than what it was intended allowing consumers to be assured that they were purchasing the better quality German porcelains. The mark on the piece found in Feature 5 had to be produced after 1887. Although the McKinley Tariff Act of 1890 required certain foreign goods to be marked with the country of origins, but it never required using the words "Made in" as mandated by the British government (Antique Porcelain Collector n.d.; Porcelain Marks and More 2013a).

Other than the tea sets, a porcelain salt and a pepper shaker were recovered from Feature 19. These were decorated with a copper colored lusterware (Photo 82:I). Both shakers were marked with "MADE IN JAPAN". Between 1890 and 1922, most porcelain from Japan was marked "Nippon". Japan was known as Nippon, "the sun's origins", since the end of the 7th century. After 1922, U.S. regulations were changed to more clearly identify the country of origin so ceramic marks were changed to "Japan"; the official name of the country since the late 1860s (Gotheborg.com n.d.). This would suggest that the shakers in Feature 19 dated after 1922.

Photo 82: Porcelain Vessels from the Period II Features

A. 16-6 Plate

B. 19-14 Saucer With Gilt Band

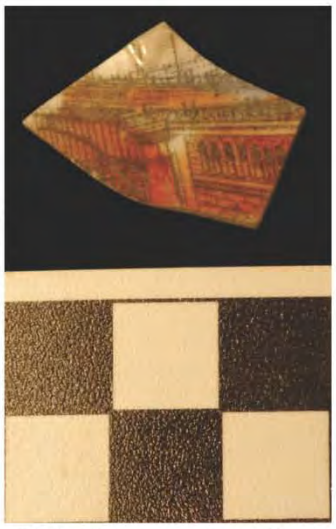
19-94 19-95
C. Cup with Painted Floral Design

D. 16-5 Cup
with Painted Floral Design

E. 36-132 Cup
Painted and Gilt
Floral Design

F. 36-122 Small Plate
Painted and Gilt
Floral Design

G. 36-63 Serving Bowl
Chinoise Print & Painted



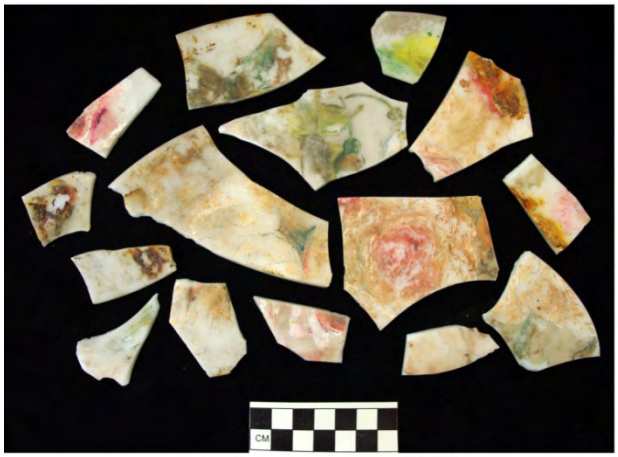
H. 5-18 Indeterminate Vessel
Scenic Print Made in Germany

I. 19-40 Salt and Pepper Shaker
Made in Japan

Glasswares represented the same percentage 14% (N=18) as porcelains. These came from a diversity of vessels that were popular on the dinner table at the start of the 20th century. A minimum of three were made from an opaque white glass including a serving plate from Feature 16 with a fine molded edge design (Photo 83:A), a platter in Feature 24 with a painted floral decoration (Photo 83:B), and a small plate from Feature 36 with a gold band near its edge (Photo 83:C). Another seven serving pieces were made of pressed glass consisting of two serving bowls from Features 19 and 24 (Photo 84:A), two glass bowl lids (Photo 84:B), a pitcher handle from Feature 16 (Photo 84:C), a serving bottle in Feature 36 (Photo 84:D), and a small portion of a fruit bowl in Feature 16, which contained a faux thumbprint impression (Photo 84:E). The majority of glasswares were used to serve drinks, consisting of a minimum of 10 tumblers and 2 water goblets (Photo 84:F-G). One of the water goblets, found in Feature 19, had an etched floral design. Also recovered from Feature 16 was a beer mug (Photo 84:H).

Photo 83: White Glass Serving Vessels from Period II Features

A. 16-7 Serving Plate



B. 24-7 White Glass Serving Platter

C\. 36-50 Small Plate with Gilt Band

Photo 84: Glasswares from Period II Features

A. 19-61 One Bowl

B. 16-15 Two Bowl Lids

C. 16-16 Pitcher Handle

D. 36-14 Bottle

E. 16-38 Fruit Bowl

F. 24-39 Tumbler

G. 16-14 Water Goblet

H. 16-18 Beer Mug

In addition to the beer mug, at least 12 alcoholic beverages were found in the Period II features. These included at least two aqua colored beer bottles, from Features 5 and 18, made on a semi automatic machine (Photo 85:A) and a portion of a brown beer bottle found in Feature 36. Beer manufacturers discovered, by the 1890s, that an amber colored bottle provided beer with the best protection from light rays, which could caused a photochemical reaction with the hops resulting in beer having a "skunky" flavor. However, it was only after the end of Prohibition before most beer bottles were amber colored (Society for Historical Archaeology 2012). Another 9 bottles represented liquor bottles (Photo 85:B-C). Three were made on a semi-automatic bottle making machine and one on a fully automatic machine. Two bottles from Feature 19 contained manufacturer's marks of the Owens Bottle Company in Toledo, Ohio, used from 1911-1929 (Toulouse 1971:393), and the Obear-Nester Glass Company of East St. Louis, Illinois used between 1915 until the present (Toulouse 1971:373-374). However, these bottles probably dated prior to 1920, when the Volstead Act prohibiting the manufacture of liquor took effect.

Photo 85: Alcoholic Beverages from Period II Features

A. 28-6 Beer Bottle

B. 16-23 Liquor Bottles

C. 36-33 Liquor Bottle

Nearly twice as many bottles (N=27) represented non-alcoholic drinks. Four of these were milk bottles (Photo 86:A-B). Milk originally was delivered in large metal containers and dipped into a customer's pitcher. Dirt and debris was introduced into the milk with each stop. A patent for the first milk bottle was issued on January 5, 1875, but Dr. Hervey D. Thatcher, a druggist in Potsdam, New York, improved on the design in 1885. He and his associates, Harvey and Samuel Barnhart, patented several ways to better seal the bottles between 1886 and 1889, eventually coming up with the cap seat used to hold a thin paper disk closure. This made returning, cleaning, and refilling milk bottles easier (Lockhart et al. 2007). Since milk bottles were made to be returned to the dairy, the few milk bottles found in the Period II features likely represent a small portion of the milk actually consumed by the area's residents.

Photo 86: Milk and Infant Bottles from Period II Features

A. 19-20 Milk Bottle
"P" Pevely Dairy Co.

B. 24-35 Milk Bottle
Pevely Dairy

C. 36-84 Baby Bottle

D. 36-35 Baby Bottle

Two of the bottles indicated that they were produced by the Pevely Dairy Company (Photo 86:A-B). By 1903, there were 20 dairies operating within the southern and central portions of St. Louis City. In that year, the Pevely Dairy Company was established at the corner of Virginia and Park, far to the southwest of the current mitigation area. Milk was supplied by the family's large farm of 485 acres located outside of Pevely, Missouri, and was shipped by rail to the Pevely Dairy. Its first president, Martin Kerckhoff, managed to secure a license to be the main milk supplier for the St. Louis World's Fair and the company became one of the most successful dairies in St. Louis. In 1989, the company was acquired by Prairie Farms Dairy and the family's land in Pacific was turned into a golf course and homes (Meier and Johnson 2006).

In addition to the milk bottles, two graduated infant bottles were recovered (Photo 86:C-D). These were used to feed milk to infants by inserting a long rubber tube which transferred milk from the bottom of the bottle, preventing air from mixing with the milk, a common occurrence with modern bottles (Figure 96). The costs for these pieces were relatively inexpensive making them accessible to most people.

Figure 96: Infant Bottles and Fittings From 1902 Sears Roebuck Catalogue (1986:454)

A total of 15 soda bottles were found in the Period II features. Three of the bottles, from Features 16, 19, and 30, were produced on a semi-automatic machine. A greater number, (N=6) were made on a fully automatic machine. The semi-automatic bottle found in Feature 30 contained a blob finish (Photo 87:A), while the other two semi-automatic bottles and all of the fully automatic bottles had crown finishes. A large number (N=90) of metal crown caps were found in the Period II features (Photo 87:E). These likely came from soda bottles. The vast majority of the crown caps (N=59) were from the various levels of Zone A in Feature 19, with another 22 caps found in Feature 5 and 9 in Feature 36.

Three of the bottles contained embossed lettering (Photo 87:B-D) indicating the soda manufacturers (Table 15):

Table 15: Soda Bottle Manufacturers Recovered from Period II Features

Quantity	Manufacturer	Location	Years in Operation
1	Tip Top Bottling Company	1424-1432 North Jefferson Ave.	1908-1940
1	Grone & Company	13 S. 11th Street	1891-1920
1	Witter & Christen	could not find in city directory	1904-1908?

Photo 87: Soda Bottles from Period II Features

No information could be found in the city directories for the Witter & Christen bottle found in Feature 16. However, Frank Witter and Herman Christen operated the Union Soda Water Company, at 2014 Menard, between 1903 and 1904. In 1908, Herman established his own soda works, which was soon taken over by his wife, Ida, presumably because Herman had died. It is possible that this bottle dates sometime between 1904 and 1908, after the Union Soda Water Company and before Herman Christen established his own soda company (St. Louis City Directory 1900-1910). Faulkenberry (2003:48) does describe bottles having these names as being extremely rare, probably due to the short time that Herman Christen was with the company. The Tip Top Bottling Company and Grone & Company were located at least three miles to the east of the mitigation area, at the edge of the downtown business district.

A bottle from Feature 5 was marked with "AMERICAN HOME BRAND PURE BEVERAGES" established by George Rasmussen in Chicago Illinois. No information could be found on this company. The bottle did have a priof finish, which was developed by the Illinois Glass Company in Alton, Illinois, as an easier opening alternative to the crown finish.

Sometimes opening crown caps resulted in the breaking of the bottle top, but the extra lip on the priof made it easier to use even everyday objects to pry-off the cap (Figure 97). It was introduced just after 1920. This finish, however, was never widely appealing and was discontinued in the 1930s. The bottle from Feature 5 may have contained a carbonated beverage, but this finish was more commonly used for citrate of magnesia. Although this was drunk as a recreational drink, citrate of magnesia was used as a laxative (Society for Historical Archaeology 2013A).

Figure 97: Advertisement For the Priof Finish
(Illinois Glass Company Catalog 1926:154)

Page 154

The Priof Finish

A New Finish That Will Save You Money By Saving Your Bottles

THIS new finish is so constructed as to protect your bottles from the stiff "upper cuts" of the crown opener. It wards off the blow of the blade and prevents chipped finishes and broken locking rims on your bottles.

Note how the regular finish, illustrated in the square below, permits the blade of the crown opener to slip up under the locking rim before it takes hold of the cap—thus throwing most of the leverage directly against the glass itself.

Contrast this with the Priof Finish illustrated in the circles. Notice how the shoulder of the Priof Ledge guides the blade up and out so that it just catches the edge of the cap, without letting the metal strike the glass locking rim.

The Priof Finish also has an appeal to your trade in the home, at picnics, etc., when the crown opener has been mislaid or lost. A knife, key or any flat piece of metal, applied under the edge of the cap and accompanied by a twist of the wrist, serves just as well.

We are prepared to furnish this finish on your bottles at no extra cost. It doesn't require additional or new equipment and takes the regular crown cap applied by any and all makes of crown capping machines.

Illinois Glass Company

A 7-UP bottle, associated with the Feature 5 privy, had a printed label with a date of 1954 (Photo 87:D). The base was further embossed with "Duraglass". This type of bottle was produced by the Owens Illinois Company between September 4, 1940 and October 18, 1963 (Toulouse 1971:170, 403). The 7-UP bottle was found adjacent to a vertical vent pipe just outside the south wall of Feature 5 and could have been added to the upper portion of the fill when this area was razed for the construction of I-64/40.

Three bottles in Feature 19 were embossed with "Mound City Bottling". These likely were from the Mound City Excelsior Manufacturing Company (Figure 98), that existed at 2410 N 10th Street, between 1901 and 1906 (St. Louis City Directory 1900-1906). Excelsior water could have been added to alcoholic drinks, but also was drunk as an alternative to the city water.

Figure 98: Example of a Mound City Excelsior Bottle (WorthPoint 2013)

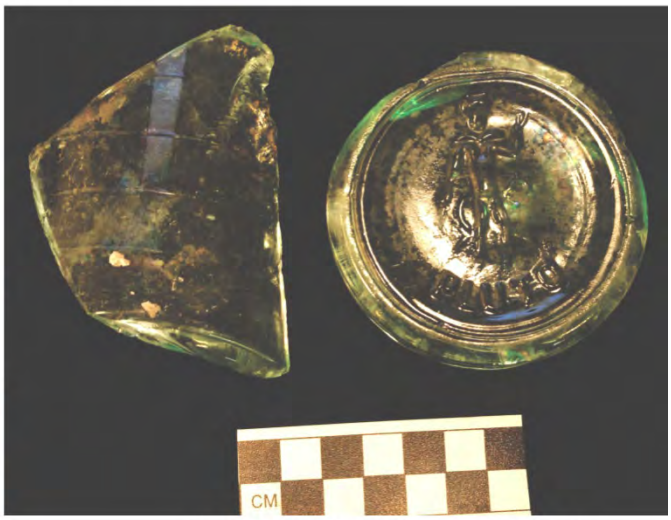
Another three bottle fragments may represent mineral water. These include five pieces from a single bottle found in Feature 29, with partial embossed lettering indicating that it contained physic water that was produced by a company with initials "L.H.C." (Photo 88:A). Unfortunately, this company could not be found in the city directories. Another two bottles from Feature 5 and 24 contained Pluto Mineral Water (Photo 88:B-C). This mineral water was named for the Roman God of metals and later as the Lord of the Underworld. An image of Pluto was depicted on the bottom of every bottle (Figure 99). Pluto Mineral Water was first developed by the Henry Drug Company, in Louisville, Kentucky, in 1905. The mineral water was sold in two different size bottles, but in 1909, the company was fined $50 by the Food and Drug Administration for false advertising because they were under-filling their bottles. In 1911, the French Lick Springs Hotel Company, in French Lick, Indiana, acquired the rights to Pluto Water. The hotel was a resort established near mineral springs, which were thought to have curative powers and health benefits (Figure 100). It was after this time that Pluto Mineral Water was widely marketed. Mineral water was drunk as a substitute to the water supplied by the City of St. Louis. The minerals in these waters also were thought to promote good health. Pluto Water was advertised as a natural laxative and stomach-aid (Figure 101). It continued to be bottled until 1971(Digger Odell Publications 1999).

A large brass serving spoon was recovered from Feature 36, Zone A, Level 4. It had a fine molded floral design on its handle (Photo 89). It probably was used to serve foods.

Photo 88: Mineral Water from Period II Features

A. 5-16 Carbonated Water
(Physic) "WATER", "LHC"

B. 5-35 Pluto Water Bottle



C/ 12-41 Pluto Water Bottle amd Mark on Base

Figure 99: Image of Pluto as the God of the Underworld and Metals, Depicted on Bottles of Pluto Water (Digger Odell Publications 1999)

Figure 100: 1919 Advertisement of French Lick Springs Hotel
(The Museum of Beverage Containers and Advertising n.d.)

Go to French Lick Springs—*Now*

SHELTERED by the surrounding Cumberland hills, this famous Indiana health resort enjoys spring days of southern mildness.

If you are tired from the winter's work—if the rigors of an unusual winter have made you long for rest and recreation and outdoor life—a stay at French Lick Springs is just what you need.

Here you may begin your season's golf on links already green, or ride through trails of spring-time loveliness on well-trained saddle horses. Every form of wholesome outdoor sport and exercise may be found at French Lick Springs.

Hotel accommodations are unexcelled, and people from all over the United States mingle in pleasant comradeship.

French Lick Springs is the home of Pluto Water, America's most famous physic. Drink it fresh and bubbling from the springs. It will give you renewed health and vim.

Reservations may be made by wire or letter to

French Lick Springs Hotel Company
French Lick, Indiana
Descriptive Booklet On Request

Figure 101: Magazine Advertisements for Pluto Water
(Nostalgiaville 2013)

1928 Advertisement

1929 Advertisement

Photo 89: Tablespoon from Feature 36

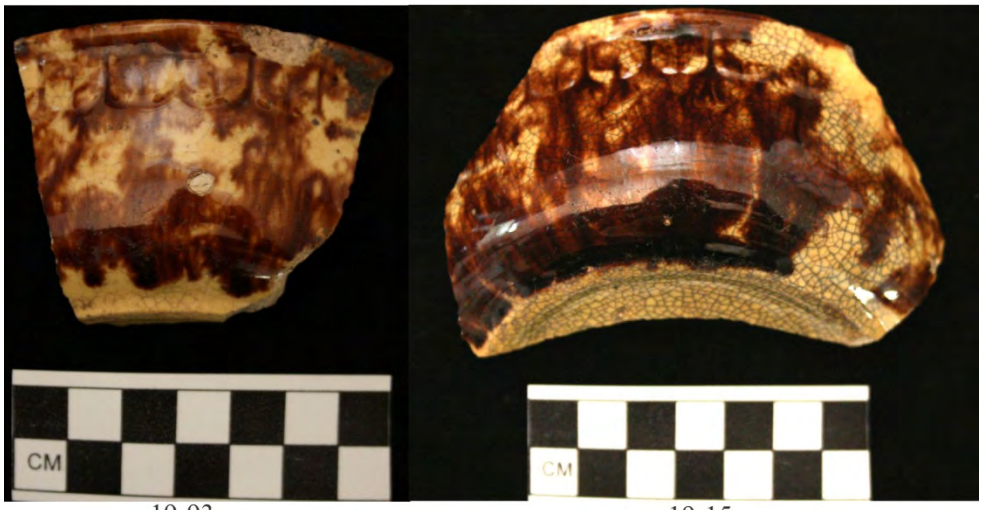
36-85 Tablespoon

Food Preparation and Storage

Artifacts associated with food preparation and storage also were found in the Period II features. These included a small mixing bowl made of glass found in Feature 24, Zone C (Photo 90:A). Parts of two bakers used to cook foods in an oven were recovered from Feature 19. These include one made of yellowware with a molded leaf pattern near its edge (Photo 90:B) and another one made of stoneware with a molded dot pattern near its edge. Both bakers were covered with a Rockingham dark brown glaze (Photo 90:B). Streaky dark molasses brown to golden butterscotch colored glazes were first produced by the Swinton Pottery in Yorkshire, England, in 1785. The streaky colors made these pieces more popular in the kitchen than in the dining room. During the 1800s, U.S. companies were using this inexpensive technique to decorate kitchenwares allowing them to compete against the English manufacturers. This style of glazing continued to be popular into the 20th century (Brewer 1996).

Photo 90: Glass Mixing Bowl from Feature 24 and a Baker from Feature 19

A. 24-34 Mixing Bowl



19-93 19-15

B. Yellowware Baker

A minimum of 34 bottles represented flavoring extracts and condiments. Only three of these were made on a semi-automatic machine, with 14 made on a fully automatic machine, the rest could not be determined. Finishes consisted of one bust off and grind lip on a condiment bottle, one double ring, one extract, four packer, one patent, eight crown (all on ketchup bottles), one partially threaded, and three continuous threaded. Threaded bottles were introduced during the 1890s and became popular on various types of bottles during the early 20th century (Society for Historical Archaeology 2013a).

Manufacturing marks were found on 11 bottles (Table 16).

Table 16: Manufacturer's Marks Found on Extract and Condiments Bottles in Period II Features

Quantity	Mark	Company	City	Dates Used	Page Number in Toulouse (1971)
8	O inside square	Owens Bottling Co.	Toledo, OH	1911-1929	393
1	I inside diamond	Illinois Glass Co.	Alton, IL	1916-1929	264
2	H over A	Hazel Atlas Glass Co.	Wheeling WV	1920-1964	239

Four of the bottles represented flavoring extracts (Photo 91). One of these was embossed with "Souders Elegant Flavoring Extracts, Royal Remedy & Ext. Co., Dayton, O." (Photo 91:E). The Royal Remedy and Extract Co. was founded in 1876, by Irvin C. Souders, at 21 East Third Street in Dayton, Ohio (Timelines of History 2013). The company incorporated in 1888 and produced:

> The products of the company consist of the celebrated "Souder" Flavoring Extracts and Perfumes and a number of special remedies with which the house has been identified from the start. The flavoring extracts and perfumes are of the best quality, and are widely sought after in the trade. They make extracts of lemon, vanilla, tropic fruit flavor, orange, Jamaica ginger, rose, almond, strawberry, raspberry, banana, essences of cinnamon and wintergreen. In odors they make all the popular ones, including Frangipanni, Patchouly, Opoponax, White Rose, Jockey Club, Heliotrope, Ylang Ylang, Rose Geranium and others. They also make a particularly high grade of Cologne. A recent specialty of the house is the manufacture of refined chewing gum, which, under the brand title of "Sweet Wheat", is being rapidly adopted by the trade as a standard of excellence and purity. The facilities of this house are of the best, and conduce to economy of production first class goods and promptness in the execution of all orders. The trade of the house extends through the States of Ohio, Indiana, Illinois and the Western and Southern States generally, and the business is represented on the road by four commercial travelers.
>
> (Dayton History Books Online 2013)

Photo 91: Extract Bottles from Period II Features

A. 30-3 Extract Bottle

B.-C. 36-138 & 139 Extract Bottles

D. 16-21 Extract Bottle "Sounders Elegant Flavoring Extracts Royal Remedy & Ext. Co. Dayton, O."

Condiments were represented by a minimum of 30 bottles and jars. These included: 12 ketchup, 1 olive oil, 1 pepper sauce, 2 chili powder, 2 Tabasco, 1 syrup, 2 glass stopper from a Lea and Perrins sauce, and 9 indeterminate condiment bottles (Photo 92). Similar to the condiments associated with the Period I features, these reflected the wide spread nature of commercially produced condiments representing various regions and ethnic uses.

Seven of these bottles, from Features 16, 19, and 36, represented ketchup (Photo 92:A), but another five bottles, Feature 19, had the distinctive shape of Brooks catsup (Photo 92:B-C). In 1891, a group of businessmen from Collinsville, Illinois, established the Collinsville Canning and Packing Company. The plant struggled through the years and went through various owners until 1907, when it was purchased by Everett and Elgin Brooks. They primarily produced ketchup and pickles. In 1920, the brothers sold out to the American Cone and Pretzel Company and then in 1933 to the G.S. Suppiger Company. The Brooks name was maintained by each of these new owners and new products were added over the years. As advertisement, a water tower was constructed in Collinsville, and large signs in St. Louis and Belleville, in the shape of a Brooks Catsup bottle. These continue to be important local landmarks even though the company has sold these structures.

Brooks used the term catsup, while most producers used ketchup, which was closer to the original Chinese term of *ke-tsiap* for a pickled fish sauce. Ketchup was introduced into Europe from China in the late 1700s, but it only was widely produced commercially during the late 1800s. In the early 1900s, some manufacturers changed the recipe slightly by not adding sugar, giving ketchup a more spicy taste. They also changed its name to catsup to set this condiment apart. Among these manufacturer's was Brooks. The spicy quantity of catsup was reflected in the original name of this product "Brooks Tabasco Flavor Catsup", but the McIlhenny Tabasco Company threatened to sue Brooks because they had copyrighted the name Tabasco. Not wishing to fight a costly legal battle, Brooks Company changed the name to "Brooks Old Original Tangy Catsup" (Brooks Catsup History n.d.; Durso 2010).

Another two bottles were embossed with "CHILI POWDER, GEBHARDT EAGLE" (Photo 92 E). Chili powder was first commercially produced by William Gebhardt of New Braunfels, Texas in 1894. Two years earlier, Gebhardt operated a café in the back of Miller's Saloon and his chili was one of the favorite foods of the customers. The chili powder was first called "Tampico Dust", but was soon changed to "Gebhardt's Eagle Chili Powder". In 1896, he opened a factory in San Antonio producing five cases of chili powder a week. He improved his operations over the years and patented 37 different machines for his factory (Clay's Kitchen n.d.).

One of the indeterminate condiments displayed a Heinz logo. This company was founded by Henry J. Heinz, who first bottled horseradish in 1869, but soon expanded his operations to mass produce preserved foods typically canned at home. He used glass bottles, knowing that these would appeal to the mind of Victorian era consumers with their concerns about purity, and to show that his foods did not contain additives or fillers. Heinz utilized commercial farming and new mass production techniques to produce his food products, but what made his company successful were his creative advertising campaigns (Schlereth 1991:46).

A minimum of 25 jars contained commercially packaged foods (Photo 93). The majority of food containers, which could be determined, were made on a fully automatic machines (N=11), with only one, a baby food jar, made using a semi-automatic machine. This is because food packers more quickly converted over to fully automatic machines. They also adopted the use of continuous thread finishes present on 7 jars. Only two baby bottles had a rolled finish. Manufacturer's marks were present on five jars (Table 17).

Table 17: Manufacturer's Marks Found on Commercially Packaged Food Containers From Period II Features

Quantity	Mark	Company	City	Dates Used	Page Number in Toulouse(1971)
2	I in diamond	Illinois Glass Co.	Alton, IL	1916-1929	264
1	I in diamond and circle	Owens Illinois Glass Co.	Toledo, OH	1929-1954	403
1	"BALL"	Ball Brothers Glass Mfg. Co.	Muncie, IN	1888-present	66-67
1	"N"	Ball Brothers Glass Co.	Belleville, IL	1902-1910	369

Photo 92: Condiment Bottles from Period II Features

A. 36-104
Ketchup Bottle

B. 16-19 Brooks
Catsup Bottle

C. 19-17 & 18 Brooks Catsup Bottles

E. 19-53 Chili Powder Jar
"Gebhardt Eagle"

F. 16-20 Olive Oil Bottle

G. 19-21 Sauce Stopper
"Lea & Perrins"

H. 28-7 Syrup Bottle

I. 36-94 Heinz Logo on
Unknown Condiment

Photo 93: Food Packing Jars from Period II Features

A. 19-19 Pickle Jar

B. 24-09 Pickle Jar

C. 36-137 Pickle Jar

D. 19-102 Pickle Jar Lid

E. 19-27 Baby Food Jar

F. 24-38 Jelly Jar

G. 5-29 Jelly Jar

H. 24-37 Jelly Jar

I. 24-31 Food Packing

J. 24-33 Food Packing

The packaged food containers consisted of 4 pickles, 3 baby food, 5 jelly, and 13 indeterminate food packing jars (Photo 93). The jelly tumblers were often saved after the jelly had been consumed and used for drinking glasses. In addition to the glass food containers, six containers found in Features 19 and 36 consisted of metal cans. The paper labels on these cans no longer existed.

The residents also put up their own foods for future use. Evidence of this included 4 stoneware crockery vessels and 25 canning jars and canning jar liners.

Botanical Analysis of Period II Features by Kathryn Parker

Overall, the botanical assemblage from Period II privies (Features 16, 19, 36) appeared broadly similar to taxa in Period I samples. However on closer inspection, several differences are apparent (Table 18). Seeds included a number of flowering ornamental taxa not present in Period I samples. Seed frequency and diversity in the Feature 16 sample were extremely high, comparable to the earlier privies. Nearby, also in Block 3, Feature 19 exhibited fewer seed taxa and in far fewer numbers. Some distance away, in Block 5, a total of only four seeds and wood fragments were recovered from Feature 36. Either use of the three privies varied, or the original deposits of the latter two had been removed.

An estimated 27,176 seeds were present in Period II privy samples, for a mean of 906 seeds/ liter. However, the average seed density for Feature 16 was 2708/ liter, compared to 9.5/ liter for Feature 19, and 0.1/ liter for Feature 36. Among 16 plant taxa represented by seeds, edible fruit/berry taxa were again dominant, led by several thousand each of raspberry/ blackberry, tomato, and strawberry, followed by fewer grape and mulberry, and one or two apple, elderberry, cherry (*Prunus* sp. #1) and plum (*Prunus* sp. #2) seeds. All were recovered primarily from Feature 16. Seeds of plants that were likely to have been grown as flowering ornamentals totaled 21, and included sunflower (*Helianthus* sp.), holly (*Ilex* sp.), morning glory (*Ipomea* sp.), and rose family (Rosaceae). Weedy taxa consisted of single specimen each of plantain (*Plantago* sp.) and nightshade family, while grasses were represented by a single seed of fescue (*Festuca* sp.).

Twenty unburned wood fragments, all identifiable as pine, were recovered from Feature 16, adding to evidence that pine lumber may have been used for lining privies. Pine and a trace of sycamore (*Platanus occidentalis*) were present in the Feature 19 sample as burned and unburned fragments indicating possible disposal of wastes from stove cleaning or yard cleanup. Feature 36 yielded no identifiable wood.

The miscellaneous category was dominated by a minimum number of 48 insects in the Feature 16 sample, all but one identical to silverfish family specimens from Period I Feature 14. Also recovered was a single unidentifiable beetle carapace. Thin, curled fragments of fruit epidermis (tomato skin?), interior hickory/walnut shell segments, and a fine plait or braid (part of a blond doll wig?), completed the Period II assemblage.

Table 18: Botanical Remains from Sampled Features 16, 19, and 36

Sample Provenience	Feature 16, zone F	Feature 19, zone A,Base	Feature 36, zone C,Base	Totals
Total Flotation Volume (liters)	10.0	10.0	10.0	30.0
Total Seeds (N)	27,080	95	1	27,176
Breakdown by taxon (N)				
Festuca sp. (fescue)	1			1
Fragaria sp. (strawberry)*	4475			4475
Helianthus sp. (sunfower)	12			12
Lycopersicon esculentum (tomato)*	5425	1		5426
Ilex sp. (holly)	2			2
Ipomea sp. (morning glory)	1			1
Morus rubra (mulberry)	175	1		176
Plantago sp. (plantain)		1		1
Prunus sp.#1 (cherry)	1			1
Prunus sp. #2 (plum)	1			1
Pyrus malus (apple)	6			6
Rosaceae (rose family)		6		6
Rubus sp. (blackberry/raspberry)*	16,175	80		16,255
Sambucus canadensis (elderberry)	2			2
Solanaceae (nightshade family)			1	1
Vitis sp. (grape)	800	2		802
Unidentifable	5	4		9
Total Wood Fragments (N)	20	155	3	178
Total Wood Wt. (grams)	0.80	2.89	0.02	3.71
Breakdown by taxon (N)				
Pinus sp. (pine)	20	7		27
Platanus occidentalis (sycamore)		1		1
gymnosperm		11	1	12
diffuse porous		1		1
unidentifiable			2	2
Miscellaneous Materials (N)	53	5	0	58
Fine twisted/plaited fibers (doll hair?)	1			1
Fruit epidermis	4	1		5
Juglandaceae (walnut/hickory) nutshell		4		4
Insect (beetle) carapace	1			1
Lepismatidae (silverfish family) insect	47			47

Note: Most seeds are uncarbonized. Wood is a mix of carbonized and uncarbonized fragments.
*Estimated seed total.

Faunal Analysis of Period II Features by Lucretia S. Kelly

Faunal remains from Period II (1905-1929) were recovered from two privies also, Features 16 and 19. A total of 81 NISP weighing 291.1 grams was recovered (Table 19). As with Period I, only two classes are represented, mammals and birds, however more mammal taxa were identified within the Period II features. Chicken was the only bird identified and only 2 specimens are present. Both are from Feature 19 and they show no taphonomic effects (weathering, cut marks, etc.). They do not appear to be from juvenile individual(s).

Four taxa of mammals were identified, but all are present in small numbers. A single cottontail rabbit specimen was identified from Feature 19. It was calcined.

Table 19: Faunal Remains from Period II

	NISP	MNI	Weight (gm)	NISP burned	NISP weathered	NISP sawed
Mammals						
Sylvilagus floridanus	1	1	0.3	1	0	0
Ovis/Capra	1	1	11.5	0	1	0
Sus scrofa	4	2	50.3	0	4	2
Bos taurus	3	1	80.4	0	3	2
medium-large mammal	4	-	2.4	4	0	0
large mammal	28	-	60.1	13	9	6
very large-large mammal	28	-	81.4	13	12	11
Sub-total mammal	69	5	286.4	31	29	21
Birds						
Gallus gallus	2	1	4.1	0	0	0
Indeterminate vertebrate	10	-	0.6	1	0	0
Total	81	6	291.1	32	29	21

One specimen of a sheep or goat (Ovis/Capra) also was recovered from Feature 19. It is a metapodial shaft that is from a young individual (distal end is unfused), but it is difficult to age because it cannot be identified to element (metacarpal or metatarsal) or to the sex of the animal, all of which influence the fusion estimate. It would be from an individual under two years of age (Popkin et. al. 2012).

Three specimens of cattle were recovered, all weathered and two are sawed. A rib shaft was sawed on two faces and a dorsal spine from a thoracic vertebra is sawed longitudinally. The cuts of meat represented are neck (atlas) and possibly chuck, although without specifically being able to identify the position of the rib and the vertebra they could represent a rib cut (Lyman 1979:541).

Four swine specimens were recovered, two from each feature. A radius and ulna from Feature 16 may have been articulated. Both are weathered and covered with an ash or calcium carbonate deposit. The proximal ulna is unfused and the proximal radius is fused, indicating the

individual was between 1 and 3 years of age (Bull and Payne 1982:66). The two bones from Feature 19 are both humerus shaft fragments. It cannot be determined if they are from the same element. Both are weathered and sawed. The distal shaft fragment is from a young individual because the distal epiphysis is unfused. This epiphysis fuses around one year of age. All these bones would represent a picnic shoulder butchering unit (Lyman 1979:541).

Two sawed long bone shaft sections or "rings" were recovered that would represent a round or ham steak, depending on the taxon. They are weathered and could not be more specifically identified. There are also a number of rib fragments and a scapula fragment that were placed into mammal size categories because they were too fragmented to identify further. They are weathered and several are sawed.

Health Care

A minimum of 55 objects, weighing 5.566.4g, (9% of the artifacts) were related to health care. This includes a cluster of at least 22 bottles (identified as Feature 40) made by the Koenic Medical Company of Chicago, Illinois (Photo 94). These were placed within a trench for a sewer line leading to the privy, Feature 36.

Photo 94: Bottles from the Koenic Medical Company From Feature 40

40-1 "Koenic Med. Co., Chicago"

Only two of the health care objects represented vials (Photo 95). These were recovered from Features 16 and 19. One vial from Feature 19 was made from blown glass. Although most bottles were made on machines by this time, vials continued to be made in this fashion into the 1930s. These medicines could have been sold by local pharmacies or part of homeopathic kits.

The bottles whose manufacture could be determined consisted of 29 produced on semi-automatic machines, but 22 of these were the Koenic Medical Company bottles. Another 13 medicine bottles were made on fully automatic machines. A variety of finishes were used on these bottles including 4 bead, 3 collard ring, 1 double ring, 1 reinforced abstract, 1 packer, 2 patent, 24 prescription (including the Koenic bottles), and 4 continuous thread. Nine bottles had manufacturer's marks (Table 20).

Photo 95: Vials from Period II Features

Table 20: Manufacturer's Marks on Medicine Bottles From Period II Features

Quantity	Mark	Company	City	Dates Used	Page in Toulouse (1971)
1	"IGCo" in diamond	Illinois Glass Co.	Alton, IL	1900-1916	264
2	"I" in diamond	Illinois Glass Co.	Alton, IL	1916-1929	264
1	"I" in diamond & circle	Owens Illinois Glass Co.	Toledo, OH	1929-1954	403
1	"F"	Fairmount Glass Works	Indianapolis, IN	1930-1945	201
2	"N" in square	Obear-Nester Glass Co.	East St. Louis, IL	1915-present	374
1	"MB"	Millville Bottle Works	Millville, NJ	1903-1926	349
1	"X" in diamond	unknown manufacturer			

Few of the bottles contained embossed lettering; none of these were marked with a local pharmacy. As a result, it is unclear how many medicines were from pharmacies versus commercially produced patent medicines (Photo 96). However, four bottles were marked with a "ʒ" and II, III, or IV (Photo 96:I-L). This is a druggist capacity mark, with the Roman numerals indicating the number of ounces that the bottle holds. These marks and graduated bottles were used on pharmacy bottles between 1900 and about 1950 (Society for Historical Archaeology 2013d).

One bottle base from Feature 24 was marked with "REXALL" (Photo 97:A), which represented one of the first national drug stores. Louis K. Liggett persuaded 40 independent drug stores to invest $4,000 in a cooperative called United Drug Stores, based in Boston in 1903. The company moved to St. Louis in 1920 establishing its headquarters at San Francisco Street and Kingshighway. At that time, the company changed its name to Rexall and shortly afterwards to the Rexall Drug Company. Rexall franchised nearly 10,000 drugstores across the U.S. and manufactured over 2,300 products, including drugs, candies, and cosmetics. Its chain of stores existed in the U.S. until 1977, but they continue to exist in Canada. The company is now part of the UniCity Network. Rexall brand name products are still sold in the U.S. (Gray 1994; Rexall n.d.; Absoluteastronomy n.d.).

Photo 96: Unmarked and Pharmacy Bottles from Period II Features

A, 36-16

B. 36-16

C. 36-53 D. 36-54

E.-H. 19-30 to 32

I. 24-42

J. 36-17

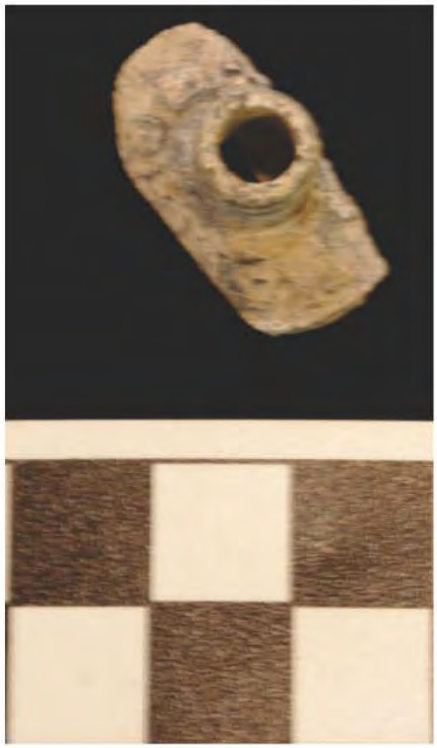
K. 19-123 L. 19-124

Photo 97: Marked Commercial Bottles from Period II Features

A. 24-43
"Rexall"

B. 5-4
"J.S. Merrell Drug Co."

C. 36-20
"Bromo Seltzer"

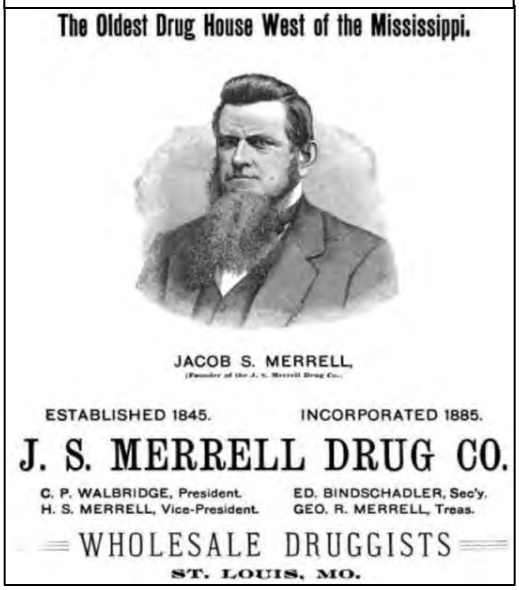


D. 5-47
Mentholatum Brass
Tube Top

E. 5-5
"Sloan's Liniment"

F. 36-146
Peroxide Bottle

Figure 102: Advertisement for J. S. Merrell Drug Company in 1901 (Antique Medicines n.d.)



A bottle found in Feature 5 was produced by the J. S. Merrell Drug Company, also located in St. Louis (Photo 97:B). This was one of the oldest pharmaceutical companies in St. Louis, established in 1845 (Figure 102). Jacob S. Merrell continued to run the company until his death in 1885 then Cyrus P. Walbridge, the company lawyer and son in law of Merrell, was made president. At that time, the company's name was changed from the Jacob S. Merrell to the J. S. Merrell Drug Company. The company sold wholesale drugs, medicines, druggists' supplies and glassware, surgical instruments, and paints. They were known for the purity of their goods and had an extensive stock located in a 4 story building at 620 Washington. In 1902, they built a new facility at the corner of 4th and Market, across from the city's court house, where they also sold "Merrell's Family Medicines" (Kargau 1903:423-424). The bottle found in Feature 5 represented one of the medicines produced by this company. This company lasted until at least 1921 according to the St. Louis City directories (St. Louis City Directory 1921).

The 22 bottles found in Feature 40 were produced by the Koenig Medicine Company of Chicago, Illinois. According to the Chicago City Directory (1886-1920), the Koenig Medicine Company was established by 1888 on 50 Madison Street and continued to exist at least until 1918.

Two blue bottles found in Feature 36 contained Bromo Seltzer (Photo 97:C). In 1888, Bromo Seltzer was invented by a druggist, Isaac E. Emerson, to settle upset stomachs and for headaches. In 1891, Emerson organized the Emerson Drug Company in Baltimore, Maryland, and began selling his medicine in a unique blue bottle. The bottling company he hired was unable to keep up with the growing demand. Emerson constructed his own bottling plant, Maryland Glass Company, which grew to be the largest producer of blue glass in the world. In 1956, Emerson Drug Company and the Maryland Glass Company were acquired by Warner-Lambert. In 2000, Pfizer acquired the company, who continues to produce Bromo Seltzer today (Scripophily n.d., Pfizer 2000).

A portion of a metal tube found in Feature 5, Zone B, Level 5, was marked "MENTHOLATUM" (Photo 97:D). In 1889, Albert Alexander Hyde with some pharmacist friends established The Yucca Company in Wichita, Kansas, which produced and marketed mostly laundry and toilet soaps, and shaving cream. They also developed a cough syrup from a blend of camphor and menthol known as Vest Pocket Cough Specific. Before the year was out, Hyde bought out the other partners, becoming the sole owner. Hyde became interested in menthol due to its ability to sooth burns and inflammation. After four years of experimentation his company developed "Mentholatum Ointment" in 1894, as a way of soothing chest pains associated with colds. It was immediately successful and brought in vast profits. Hyde donated

some of this money to the local community, especially to local churches and supported Christian missionaries. In 1903, the company was moved to Buffalo, New York, and its name was changed in 1906 to the Mentholatum Company. Through the years Mentholatum and other products of this company continued to be popular. The Mentholatum Company was acquired by the Japanese firm, the Rohto Pharmaceutical Co. Ltd. in 1975 (Mentholatum n.d.; Mentholatum Company Inc. n.d.).

A bottle from Feature 5 contained Sloan's Lineament (Photo 97:E). Andrew Jackson Sloan lived in Zanesfield, Ohio, where he was a horse harness maker and served as a veterinary surgeon, although he had little formal education. After serving in the Civil War, Sloan returned to Ohio healing horses and mending saddles. Sloan developed a strong smelling formula for relieving horses' sore shoulders from plowing. The formula was soon in great demand. In 1875, Andrew Sloan died. His son, Earl, moved to St. Louis to join his brother, Foreman, in 1871, where they sold their father's liniment. They soon discovered that the liniment worked just as well on people's sore muscles and started selling the product as "Good For Man And Beast". Foreman left the business in 1900, and in 1903, his brother went on to organize Dr. Earl S. Sloan, Inc., in Boston, adapting his father's honorary title as Doctor. Through extensive advertising, the company was very successful and Sloan's liniment was sold around the world. On May 29, 1913, he sold the company to William R. Warner & Co., but Sloan's liniment continues to be sold today for the relief of muscle pains (Rootsweb n.d.).

Two bottles found in Feature 36, one marked "aseptic" and another contained "peroxide" (Photo 97:F), were used to disinfect cuts. Hydrogen Peroxide was first identified by Louis Jacques Thenard in 1818, but a method of extracting 100% hydrogen peroxide was not perfected until 1894 by Richard Wolffenstein. Peroxide was found to be good for sterilizing surfaces and was used for cuts by the end of the 19th century (Bobbys Healthy Shop 2009). The peroxide bottle recovered had a continuous thread finish with its cap still in place. The cap indicates "TO OPEN TURN", suggesting that it was marked to allow consumers to know how to open this new type of closure, which was first introduced during the 1890s, but was widely used after 1920.

Hygiene Products

Only a small percentage of the artifacts from Period II features (3%, N=21, weighing 1,565.2g) were associated with hygiene. Although the use of most of these could not be determined from the small fragments recovered, but two bottles, in Features 16 and 19, represented a dental care product, Listerine mouthwash (Photo 98:A) . By the end of the 19th century, people became more concerned with oral health. Listerine was one of the products first developed by the Lambert Pharmacal Company, located in St. Louis, Missouri. In 1879, Listerine was developed and first marketed as a surgical antiseptic, but by 1895, it was given to dentists as an oral treatment. It gained such popularity that in 1914, Listerine was mass marketed to the public as a mouthwash to improve oral hygiene. Over the years, Listerine was advertised as being useful for other purposes. For example in the 1930s, Listerine claimed to prevent dandruff. From 1921 to the mid 1970s, it was sold as being a preventive and a cure for colds and sore throats, however, in 1976, the Federal Trade Commission ruled that the claims were misleading as Listerine had no affect on these afflictions. The Lambert Pharmacal Company merged with Warner in 1955, and in 2000, the Warner-Lambert Company was acquired by Pfizer (Museum of Learning n.d.; Pfizer 2000).

Photo 98: Dental Hygiene and Cosmetic Products from Period II Features

A. 19-33
Listerine
Mouth Wash

16-34

19-144

B. Hinds Honey and Almond Skin Cream

28-10

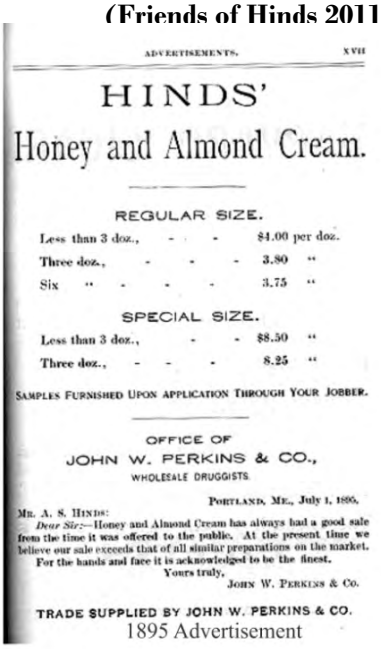
28-9

36-37

C. Cosmetic/Deoderant Jars

Six jars and bottles were associated with cosmetics (Photo 99). Two bottles of skin lotion found in Features 16 and 19 were of "HINDS HONEY AND ALMOND CREAM" produced by the A.S Hinds Company (Photo 98:B). In 1870, Aurelius Stone Hinds acquired a drug store in Portland, Maine. From this store he sold some of his preparations including "Honey and Almond Cream". These products became so popular that he established a company and marketed them across the U.S. and other countries. In 1907, the company was acquired by Lehn & Fink, the producers of "Lysol" (Hinds 1899; Friends of Hinds 2011). They further marketed the lotion as a skin cream (Figure 103).

Figure 103: Advertisements for Hinds Honey and Almond Cream (Friends of Hinds 2011)



ADVERTISEMENTS. XVII

HINDS'

Honey and Almond Cream.

REGULAR SIZE.

Less than 3 doz.,	$4.00 per doz.
Three doz.,	3.80 "
Six "	3.75 "

SPECIAL SIZE.

Less than 3 doz.,	$8.50 "
Three doz.,	8.25 "

SAMPLES FURNISHED UPON APPLICATION THROUGH YOUR JOBBER.

OFFICE OF
JOHN W. PERKINS & CO.,
WHOLESALE DRUGGISTS.

PORTLAND, ME., July 1, 1895.

MR. A. S. HINDS:

Dear Sir:—Honey and Almond Cream has always had a good sale from the time it was offered to the public. At the present time we believe our sale exceeds that of all similar preparations on the market. For the hands and face it is acknowledged to be the finest.

Yours truly,
JOHN W. PERKINS & CO.

TRADE SUPPLIED BY JOHN W. PERKINS & CO.

1895 Advertisement

CENTURY ADVERTISEMENTS—FOR THE TOILET

For hard, dry, rough, irritated skin

Use

Hinds' Honey and Almond Cream

Unequalled for Chapped Hands, Face and Lips.

Write for Sample Bottle and Hinds' Booklet of Directions for the Care of the Skin; both sent free to you. Hinds' Cream is easy to use and sure in its results. Heals soreness and eruptive conditions; makes the skin soft, clear and youthful without massage. Is simple to apply and delightfully refreshing. Positively guaranteed not to produce a growth of hair. Absolutely safe,—contains no grease, bleach or chemicals. Is by far the best preparation in the world for the complexion. Stops the smart after shaving and quickly heals cuts and tender skin. Do not accept substitutes;—they are not like Hinds' Cream, and will disappoint you. All dealers, 50 cents, or postpaid by us for the same amount.

A. S. HINDS, 26 West Street, Portland, Maine.

1908 Advertisement

The Ladies' HOME JOURNAL December, 1926

WHY LET YOUR SKIN CHAP?
—*prevent it!*

CHAPPING has little chance if your skin is *first* protected with Hinds Cream. Hinds Cream clothes your skin against chapping—soothes and protects it, restores the natural moisture and softness whipped out by cold and wind.

When you wash your face, dry it thoroughly. Then put on Hinds Cream—before you powder. This ten seconds of care will keep your skin petal-fresh through even the harshest weather.

Would you like a sample bottle of Hinds Cream to try? Fill in the coupon and mail it.

HINDS
Honey & Almond
CREAM

1926 Advertisement

A minimum of eight bottles were used for perfumes, colognes, or toilet water (Photo 99). By the end of the 19th century, perfumes and colognes were more popular as people became more conscience about hygiene and body smells. One of the bottles was marked "MELBA". Melba was developed by Francis W. Jones and an unknown German chemist. In 1893, they formed the German Oil and Chemical Company in Chicago, Illinois. Around 1905 or 1906, they developed the Melba line of products, although Jones claimed that it was developed about 1893. It was named for the great Australian soprano, Dame Nellie Melba, who took her stage name from the City of Melbourne, Australia; her real name was Helen Porter Mitchell. In 1912, Jones bought out his partner and changed the company name to Melba Manufacturing Company, trade-marking the name in 1916. At that time, the company was successful producing a wide range of cosmetics, perfumes, soaps, and toiletry items due in part to the French production being affected by World War I. In 1925, Jones died suddenly and his company was acquired by the V (Victor) Vivaudou Inc. and the Melba Company was renamed Parfumerie Melba Inc. This new company struggled, especially in the face of the Great Depression, and by 1941 it had been dissolved (Compactstory 2011; Cosmetics and Skin 2013). Therefore, the bottle from Feature 19 must date between 1905 and 1925.

Photo 99: Toilet Water and Perfumes

A metal rouge container was recovered from Feature 19, Zone A, Level 2. Rouge has been used for many years, but became widely commercially produced at the end of the 19th century. First becoming fashionable in France, it was used in the U.S. by the end of the century. Rouge was sold in many forms such as pomade (*rouge en pommade*) or rouge infusion (*rouge liquide*), but powder rouge (*rouge en poudre*) was sold in compacts similar to the one recovered from Feature 19 (Cosmetics and Skin 2010).

Two bottles found in Feature 19 were hair waving products (Photo 100:A-B). A portion of a plastic hair curler, from Feature 5, Zone A, Level 3, was used with these products to wave hair (Photo 100:C). Around 1920, instead of longer hair put up on the head, much shorter hair styles became popular (Figure 104), including the "Marcel Wave", which was created by the French hairdresser, Marcel Grateau, with the hair arranged in symmetrical waves over the head. This could be done more easily by the invention of the electric curling iron in 1924. Another popular hair style was the "American Bob" a close cut, straight style (Schlereth 1991). These shorter style haircuts no longer required the use of decorative combs. Hair products were introduced in order to keep these hair waves in place. One of these found in Feature 19 was Jo-Cur, produced by American Home Products. It was named for the French wave set worn by many famous actresses. Jo-Cur was applied using a comb to produce a wave set similar to that obtained at beauty parlors (Old-Time n.d.). The other bottle recovered from Feature 19 contained only a partial paper label, which indicated "WAVING AND WATER WAVING, LAUREL LABORATORIES" (Photo 100:A).

The only object associated with a toilet set was an undecorated ironstone shaving mug recovered from Feature 19 (Photo 100:D). The widespread use of running water to these homes would have made toilet sets unnecessary.

Figure 104: Shorter Hair Styles of the 1920s (Swing Fashionista 2009)
A. Bobbed, B.-D. Waved

A. B. C. D.

Photo 100: Hair Care Products and Shaving Mug from Period II Features

A. 19-35
Jo Cur Hair Waving

B. 19-36
Hair Waving

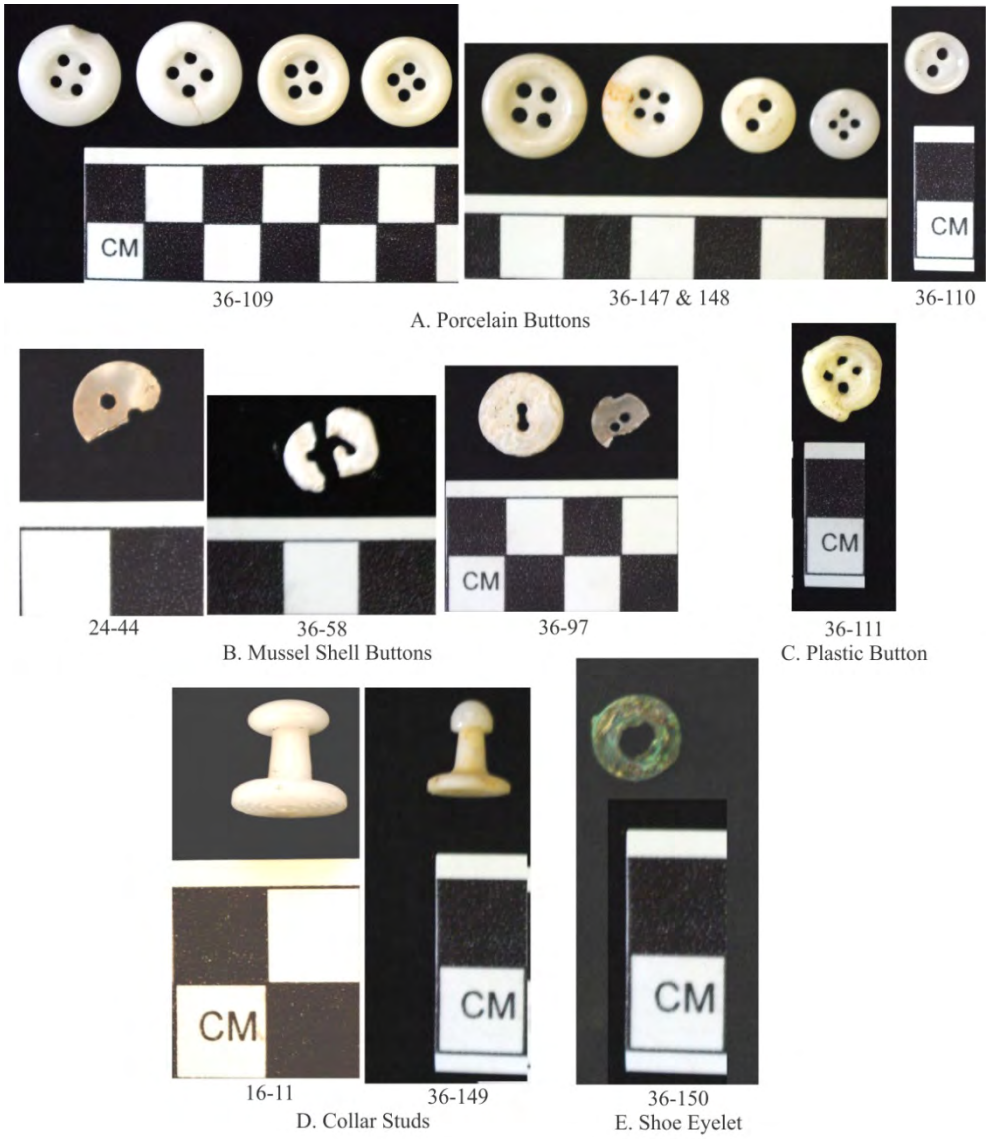
C. 5-26 Plastic
Hair Curler

D. 19-37 Shaving Mug

Personal Objects

A minimum of 86 (weighing 547.8g), or 14% of the artifacts associated with the Period II features, represented personal objects. Of these objects at least 31 of these were associated with clothing, including 19 porcelain buttons of which 15 had four sew throughs and 4 had two sew throughs (Photo 101:A). Also recovered were 8 mussel shell buttons with two sew throughs (Photo 101:B). By 1900, cheaper shell buttons, such as these, were becoming less common due to more durable and easily produced porcelain buttons and the introduction of plastic buttons. Shell buttons acquired after this time tended to be more expensive, decorative sea shell buttons. However, only plain mussel shell buttons were recovered from Feature 36. One plastic button with 4 sew throughs was found in Feature 36, Zone B (Photo 101:C). Plastic buttons became more popular after World War II due to improvements in plastics.

Photo 101: Clothing Items from Period II Features



Two collar studs also were recovered (Photo 101:D). One from Feature 16 was made of celluloid and the other from Feature 36 was made of porcelain. At the turn of the century, detachable collars were used with shirts (Figures 105). This allowed for shirts to be worn for several days, and the collar replaced more often as needed. A collar stud was used to hold the front and sometimes the back of the collar in place (History of Clothing 2013). Besides linen (Figure 106), celluloid, and rubber collars and cuffs were produced (Figure 107). It's possible the celluloid stud was used with a celluloid collar, but it could have been used on a linen collar as well. The 1902 Sears Roebuck Catalogue (1986:940), did not list celluloid collar studs, but sold bone ones for 5 cents for a dozen and porcelain ones for 5 or 8 cents apiece. However, they also have more expensive gold studs that sold for 90 cents to $1.10 apiece and gold filled ones for 15 to 25 cents apiece (1986:87).

Only one item related to a shoe was recovered; a brass shoe eyelet. This was found in Feature 36 (Photo 101:E).

Figure 105: Men Wearing High Collars in 1902 Sears Roebuck Catalogue (1986:1130)

Figure 106: Linen Collars and Cuffs Sold in 1902 Sears Roebuck Catalog (1986:992)

992 SEARS, ROEBUCK & CO., Cheapest Supply House on Earth, Chicago. CATALOGUE No. III.

Men's Linen Collars and Cuffs

OUR LINEN COLLAR AND CUFF DEPARTMENT IS COMPLETE IN UP TO DATE STYLES. QUALITY GOVERNS ....PRICE.....

Buy Your Collars at Wholesale Prices.
We save you money on Collars and Cuffs.

OUR COLLARS AT 10 CENTS are 4-ply pure linen, and warranted to be such. They are equal to any collars retailing at 15 cents each, and when you buy them from us at 10 cents, or $1.20 per dozen, you buy at the price your merchant pays at wholesale.

OUR CUFFS AT 14 CENTS A PAIR are of pure linen, fine quality 4-ply, the kind that retail for 20 cents a pair, correctly sized and strictly first class workmanship.

Collars are put up one dozen in a box, and cuffs one dozen pairs in a box. The price is the same for one or a dozen, viz.: If price is 10 cents each, the price for one dozen is $1.20.

A WORD ABOUT CHEAP COLLARS: We do not wish to sell cheap collars that are made of cotton or union linen, but for those who wish them we will furnish almost any style for 8 cents each, 96 cents per dozen. We do not recommend them, because we can sell you a pure linen, good quality, for 10 cents, equal to collars retailed everywhere at 15 cents each.

A REMINDER. Do not forget to give size for collars or cuffs. Your order will then have prompt attention.

IF BY MAIL, postage on collars extra, per dozen, 15 cents; each, 2 cents. Cuffs, postage extra, per dozen, 20 cents; per pair, 2 cents.

No. 34R20
Front, 1⅞-in. Back, 1⅝-in.
No. 34R20 Men's Linen Collars. Sizes, 14 to 18.
Each.....$0.10
Per dozen..... 1.20

No. 34R23
Front, 2¼-in. Back, 2-in.
No. 34R23 Men's Linen Collars. Sizes, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R28
Front, 2½-in. Back, 2⅜-in.
No. 34R28 Men's Linen Collars. Sizes, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R31
Front, 2⅛-in. Back, 1⅝-in.
No. 34R31 Men's Linen Collars. Sizes, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R35
Front, 2⅝-in. Back, 2¼-in.
No. 34R35 Men's Linen Collars. Sizes, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R40
Front, 3-in. Back, 2½-in.
No. 34R40 Men's Linen Collars. Sizes, 14 to 16½.
Each.....$0.10
Per dozen..... 1.20

No. 34R44
Front, 3-in. Back, 2¾-in.
No. 34R44 Men's Linen Collars. Sizes, 14 to 16½.
Each.....$0.10
Per dozen..... 1.20

No. 34R46
Front, 2½-in. Back, 2¼-in.
No. 34R46 Men's Linen Collars. Sizes, 14 to 16½. Each.....$0.10
Per dozen..... 1.20

No. 34R50
Front, 2-in. Back, 2-in.
No. 34R50 Men's Linen Collars. Sizes, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R58
Front, 2⅝-in. Back, 2⅜-in.
No. 34R58 Men's Linen Collars, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R66
Front, 1⅞-in. Back, 1½-in.
No. 34R66 Men's Linen Collars, 14½ to 19.
Each.....$0.10
Per dozen..... 1.20

No. 34R74
Points, 2⅜-in. Space, ⅞-in.
No. 34R74 Men's Linen Collars, 14 to 17½.
Price, each..... $0.10
Per dozen..... 1.20

No. 34R82
Points, 2⅞-in. Space, ⅝-in.
No. 34R82 Men's Linen Collars, 14 to 18.
Each.....$0.10
Per dozen..... 1.20

No. 34R54
Front, 3-in. Back, 2¾-in.
No. 34R54 Men's Linen Collars. Sizes, 14 to 16½. Each.....$0.10
Per dozen..... 1.20

No. 34R64
Front, 1⅝-in. Back, 1½-in.
No. 34R64 Men's Linen Collars, 14½ to 18.
Each.....$0.10
Per dozen..... 1.20

No. 34R70
Points, 2-in. Back, 1⅝-in. Space, 3¼-in.
No. 34R70 Men's Linen Collars, 14 to 17.
Each.....$0.10
Per dozen..... 1.20

No. 34R78
Points, 2½-in. Space, 1¼-in.
No. 34R78 Men's Linen Collars, 14 to 17½.
Price, each.....$0.10
Per dozen..... 1.20

WE can furnish you any of the above styles in our

EXTRA QUALITY LINEN COLLARS

Each.....$0.14
Per dozen..... 1.68

In ordering give regular style number, but allow 14 cents each.

MEN'S LINEN CUFFS AT 14 CENTS PER PAIR.
Sizes, 9½, 10, 10½, 11, 11½ inches.

LET US REMIND YOU AGAIN that cuffs quoted herewith are made 4-ply of pure linen, goods that we warrant to be perfect in workmanship and sizing. We can furnish any styles at 11 cents; per dozen, $1.32; made of cotton, quite frequently sold for linen, but do not recommend them, as we can sell you a regular 20-cent linen cuff at 14 cents per pair. If you buy one pair or one dozen pairs the price per pair is the same.

No. 34R200
Width, 3¼-in.
No. 34R200 Men's Linen Cuffs. 9½ to 11½.
Per pair $0.14
Per dozen pairs.. 1.68

No. 34R204
Width, 4-in.
No. 34R204 Men's Linen Cuffs. 9½ to 11½.
Per pair.....$0.14
Per dozen pairs.. 1.68

No. 34R210
Width, 3¼-in.
No. 34R210 Men's Linen Cuffs. 9½ to 11½.
Per pair.....$0.14
Per dozen pairs.. 1.68

No. 34R214
Width, 4-in.
No. 34R214 Men's Linen Cuffs. 9½ to 11½.
Per pair.....$0.14
Per dozen pairs.. 1.68

No. 34R218
Width, 4¼-in.
No. 34R218 Men's Linen Cuffs. 9½ to 11½.
Per pair.....$0.14
Per dozen pairs.. 1.68

No. 34R222
Width, 4¼-in.
No. 34R222 Men's Linen Cuffs. 9½ to 11½.
Per pair.....$0.14
Per dozen pairs.. 1.68

WE can furnish you any of the above style cuffs in our . . .

FINEST QUALITY LINEN.
Per pair.....$0.19
Per dozen pairs..... 2.28
In ordering give regular style numbers but allow 19 cents per pair.

BOYS' OR YOUTHS' LINEN COLLARS, 8 CENTS.
Sizes, 12, 12½, 13, 13½, 14 inches.

No. 34R250
Back, 1¾-in. Points, 2-in.
No. 34R250 Boys' or Youths' Fine Linen Collars. Sizes, 11 to 14 only.
Price, each..... 8c
Per dozen..... .....96c

No. 34R252
Back, 2⅛-in. Front, 2⅜-in.
No. 34R252 Boys' or Youths' Fine Linen Collars. Sizes, 12 to 14 only.
Price, each 8c
Per dozen.....96c

No. 34R254
Front, 1⅝-in. Back, 1½-in.
No. 34R254 Boys' or Youths' Fine Linen Collars. Sizes, 11 to 14 only.
Price, each..... 8c
Per dozen.....96c

Boys' or Youths' Linen Cuffs.
Sizes, 8, 8½, 9, 9½.

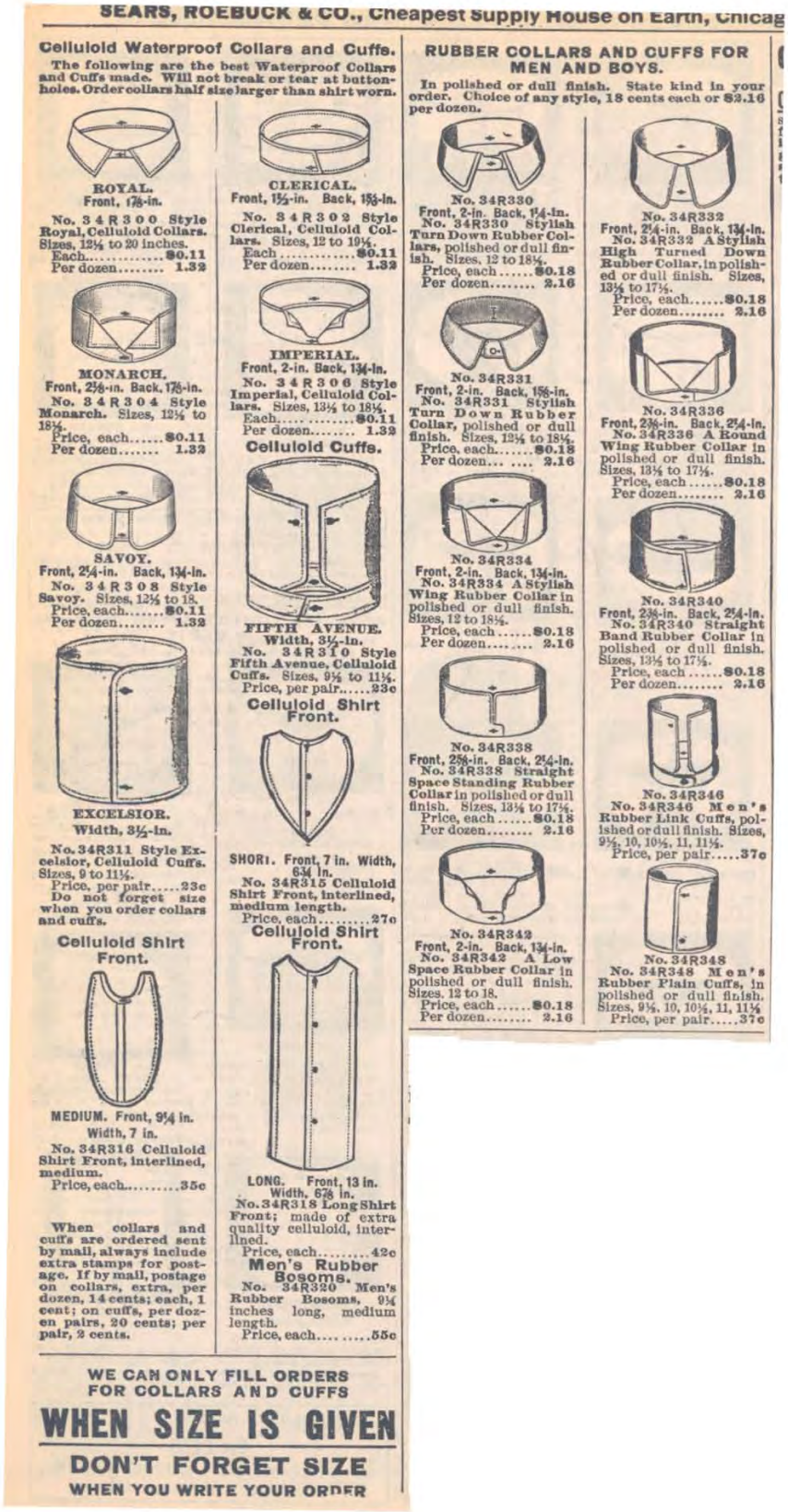
No. 34R260
Width, 3⅜-in.
No. 34R260 Boys' or Youths' Fine Linen Cuffs. Sizes, 8 to 9½.
Price, per pair...$0.14
Per dozen pairs.. 1.68

No. 34R261
Width, 3¼-in.
No. 34R261 Boys' or Youths' Fine Linen Cuffs. Sizes, 8 to 9½.
Price, per pair ...$0.14
Per dozen pairs... 1.68

No. 34R262
Width, 3¼-in.
No. 34R262 Boys' or Youths' Fine Linen Cuffs. Sizes, 8 to 9½.
Price, per pair...$0.14
Per dozen pairs.. 1.68

IF YOU FAIL TO GIVE SIZES OF COLLARS AND CUFFS WANTED WE CANNOT FILL YOUR ORDER.

Figure 107: Celluloid and Rubber Collars and Cuffs Sold in 1902 Sears Roebuck Catalogue (1986:993)



SEARS, ROEBUCK & CO., Cheapest Supply House on Earth, Chicag

Celluloid Waterproof Collars and Cuffs.

The following are the best Waterproof Collars and Cuffs made. Will not break or tear at buttonholes. Order collars half size larger than shirt worn.

ROYAL.
Front, 1⅞-in.

No. 34R300 Style Royal, Celluloid Collars. Sizes, 12½ to 20 inches.
Each.....$0.11
Per dozen..... 1.32

MONARCH.
Front, 2⅛-in. Back, 1⅞-in.
No. 34R304 Style Monarch. Sizes, 12½ to 18½.
Price, each.....$0.11
Per dozen..... 1.32

SAVOY.
Front, 2¼-in. Back, 1¾-in.
No. 34R308 Style Savoy. Sizes, 12½ to 18.
Price, each.....$0.11
Per dozen..... 1.32

EXCELSIOR.
Width, 3½-in.

No. 34R311 Style Excelsior, Celluloid Cuffs. Sizes, 9 to 11½.
Price, per pair.....23c
Do not forget size when you order collars and cuffs.

Celluloid Shirt Front.

MEDIUM. Front, 9¼ in.
Width, 7 in.

No. 34R316 Celluloid Shirt Front, interlined, medium.
Price, each.....35c

When collars and cuffs are ordered sent by mail, always include extra stamps for postage. If by mail, postage on collars, extra, per dozen, 14 cents; each, 1 cent; on cuffs, per dozen pairs, 20 cents; per pair, 2 cents.

CLERICAL.
Front, 1½-in. Back, 1⅝-in.

No. 34R302 Style Clerical, Celluloid Collars. Sizes, 12 to 19½.
Each.....$0.11
Per dozen..... 1.32

IMPERIAL.
Front, 2-in. Back, 1¾-in.
No. 34R306 Style Imperial, Celluloid Collars. Sizes, 13½ to 18½.
Each.....$0.11
Per dozen..... 1.32

Celluloid Cuffs.

FIFTH AVENUE.
Width, 3½-in.
No. 34R310 Style Fifth Avenue, Celluloid Cuffs. Sizes, 9½ to 11½.
Price, per pair.....23c

Celluloid Shirt Front.

SHORT. Front, 7 in. Width, 6¾ in.
No. 34R315 Celluloid Shirt Front, interlined, medium length.
Price, each.....27c

Celluloid Shirt Front.

LONG. Front, 13 in.
Width, 6⅞ in.
No. 34R318 Long Shirt Front; made of extra quality celluloid, interlined.
Price, each.....42c

Men's Rubber Bosoms.

No. 34R320 Men's Rubber Bosoms, 9¼ inches long, medium length.
Price, each.....55c

WE CAN ONLY FILL ORDERS FOR COLLARS AND CUFFS

WHEN SIZE IS GIVEN

DON'T FORGET SIZE

WHEN YOU WRITE YOUR ORDER

RUBBER COLLARS AND CUFFS FOR MEN AND BOYS.

In polished or dull finish. State kind in your order. Choice of any style, 18 cents each or $2.16 per dozen.

No. 34R330
Front, 2-in. Back, 1¼-in.
No. 34R330 Stylish Turn Down Rubber Collars, polished or dull finish. Sizes, 12 to 18½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R331
Front, 2-in. Back, 1⅝-in.
No. 34R331 Stylish Turn Down Rubber Collar, polished or dull finish. Sizes, 12½ to 18½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R334
Front, 2-in. Back, 1¾-in.
No. 34R334 A Stylish Wing Rubber Collar in polished or dull finish. Sizes, 12 to 18½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R338
Front, 2⅝-in. Back, 2¼-in.
No. 34R338 Straight Space Standing Rubber Collar in polished or dull finish. Sizes, 13½ to 17½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R342
Front, 2-in. Back, 1¾-in.
No. 34R342 A Low Space Rubber Collar in polished or dull finish. Sizes, 12 to 18.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R332
Front, 2¼-in. Back, 1¾-in.
No. 34R332 A Stylish High Turned Down Rubber Collar, in polished or dull finish. Sizes, 13½ to 17½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R336
Front, 2⅜-in. Back, 2¼-in.
No. 34R336 A Round Wing Rubber Collar in polished or dull finish. Sizes, 13½ to 17½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R340
Front, 2⅜-in. Back, 2¼-in.
No. 34R340 Straight Band Rubber Collar in polished or dull finish. Sizes, 13½ to 17½.
Price, each.....$0.18
Per dozen..... 2.16

No. 34R346
No. 34R346 Men's Rubber Link Cuffs, polished or dull finish. Sizes, 9½, 10, 10½, 11, 11½.
Price, per pair.....37c

No. 34R348
No. 34R348 Men's Rubber Plain Cuffs, in polished or dull finish. Sizes, 9½, 10, 10½, 11, 11½
Price, per pair.....37c

A small fragment of a rubber comb was found in Feature 29. This likely was used to comb the hair and not a decorative comb used to the hair in place. Glass beads also were recovered, with 6 green beads in Feature 19, Zone A, Level 7; 1 black bead in Feature 32, 1 clear bead fragment in Feature 30; and 1 green bead, 1 light blue, and 1 clear bead in Feature 36, Zone A, Level 5. Although these may represent jewelry, beaded dresses were popular during the 1920s (Figure 108). Beads provided some ornamentation to otherwise plain dresses and they gave weight to the lighter fabrics used causing them to drape to the wearers figure (Threads of History 2009). In addition to these artifacts, four pieces of jewelry were recovered. Broaches were found in Feature 19, Zone A, Level 2, and in Feature 5. The broach in Feature 5 was made of brass, glass beads, and cellulose (Photo 102:A). A brass backing to unknown jewelry was found in Feature 36, Zone C. A metal top to a watch fob was uncovered from Feature 5, Zone B, Level 5 (Photo 102:B). This fob was marked with an "O" and had an etched floral design. It could not be determined if this fob was used with a man's or woman's watch.

Photo 102: Jewelry from Period II Features

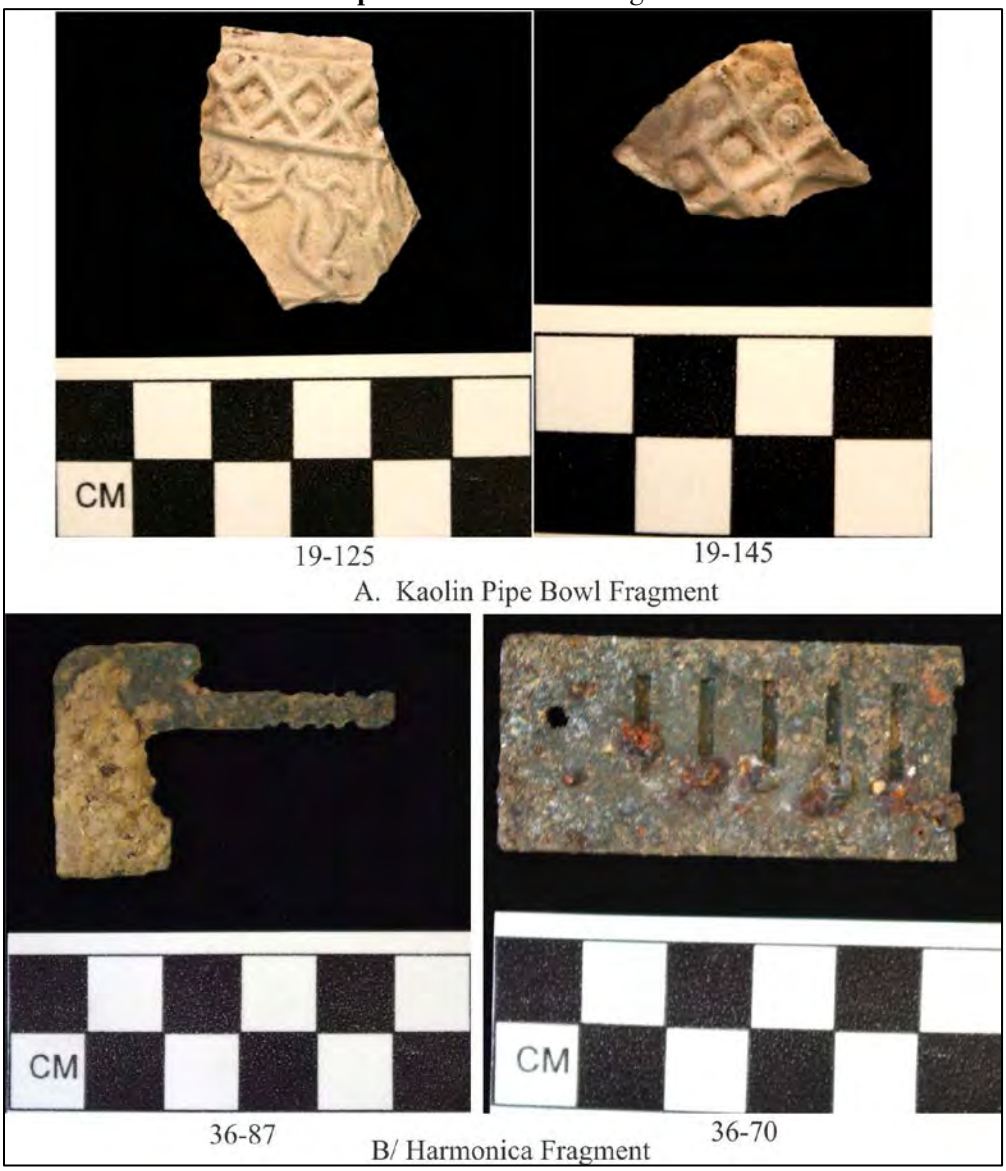
A. 5-7 Broach B. 5-48 Watch Fob

Figure 108: Examples of 1920s Beaded Dresses

(Salon of the Dames 2013) (Spicewood 2013) (Zazzle 2013)

Two fragments from a kaolin tobacco pipe were found in Feature 19. It had a molded dot and diamond pattern and an image of a stag (Photo 103:A). Several fragments from two harmonicas were found in Feature 16 and Feature 36, Zone A, Level 3 (Photo 103:B).

Photo 103: Kaolin Tobacco Pipe and Harmonica Fragments from Period II Features



The brass base from a shotgun shell was found in Feature 16, Zone F (Photo 104:A) and in Feature 36 Zone B, Level 1. Feature 36, Zone C, also had a large number of cartridge casings consisting of thirteen 45 caliber short shells (Photo 104:B) and three 78 caliber long shells (Photo 104:C). These could have been used with either revolvers or rifles. It is unclear as to why the large number of gun shells existed in this feature.

Photo 104: Gun Shells from Period II Features

A. 16-40 Shotgun Shell B. 36-153 45 Caliber Shells C. 36-154 78 Caliber Shells

A surprisingly small number of artifacts, a minimum of 14 objects, were associated with children, despite the largest number of children living within the mitigation area during this time. These included a porcelain doll leg found in Feature 16 (Photo 105:A) and a composition doll head found in Feature 19, Zone A, Level 5 (Photo 105:B). The first all composition doll was produced in 1909. Instead of bisque, it was made of mixture of glue and sawdust, which could be easily molded into shape (Figure 109). These dolls continued to be produced until about the 1940s, when hard plastic was developed. Hard plastic did not break and would not burn (Van Patten 2013). Other children's items include an undecorated toy plate found in Feature 5. Ten marbles were recovered: two in Feature 19, Zone A. Level 7, and the rest in Feature 36, Zones B and C. These include: 7 ceramic marbles (Photo 105:C) 1 unglazed redware marbles (Photo 105:D), 1 stoneware marble with an incised line around it (Photo 105:D), and 1 variegated brown glass marble (Photo 105:E). In Feature 36, Zone A, Level 3 was found a portion of a child's bicycle or tricycle pedal (Photo 105:F).

Figure 109: Example of Composition Dolls (Swan 2010)

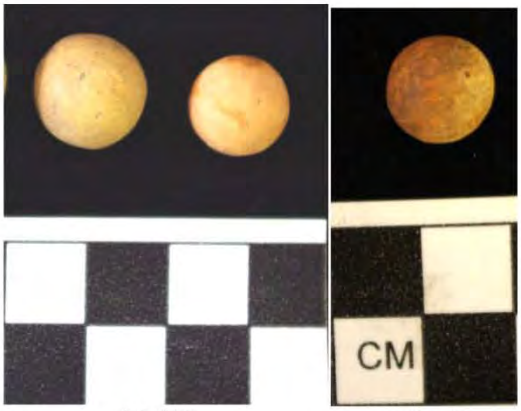
Photo 105: Children Items Recovered from Period II Features

A. 16-13 Porcelain Doll Leg

B. 19-146 Composition Doll Head Fragment

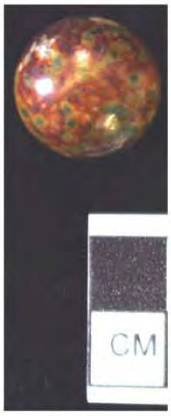
36-113 36-21

C. Ceramic Marbles



36-112 36-152

D. Redware Marble (Unglazed)



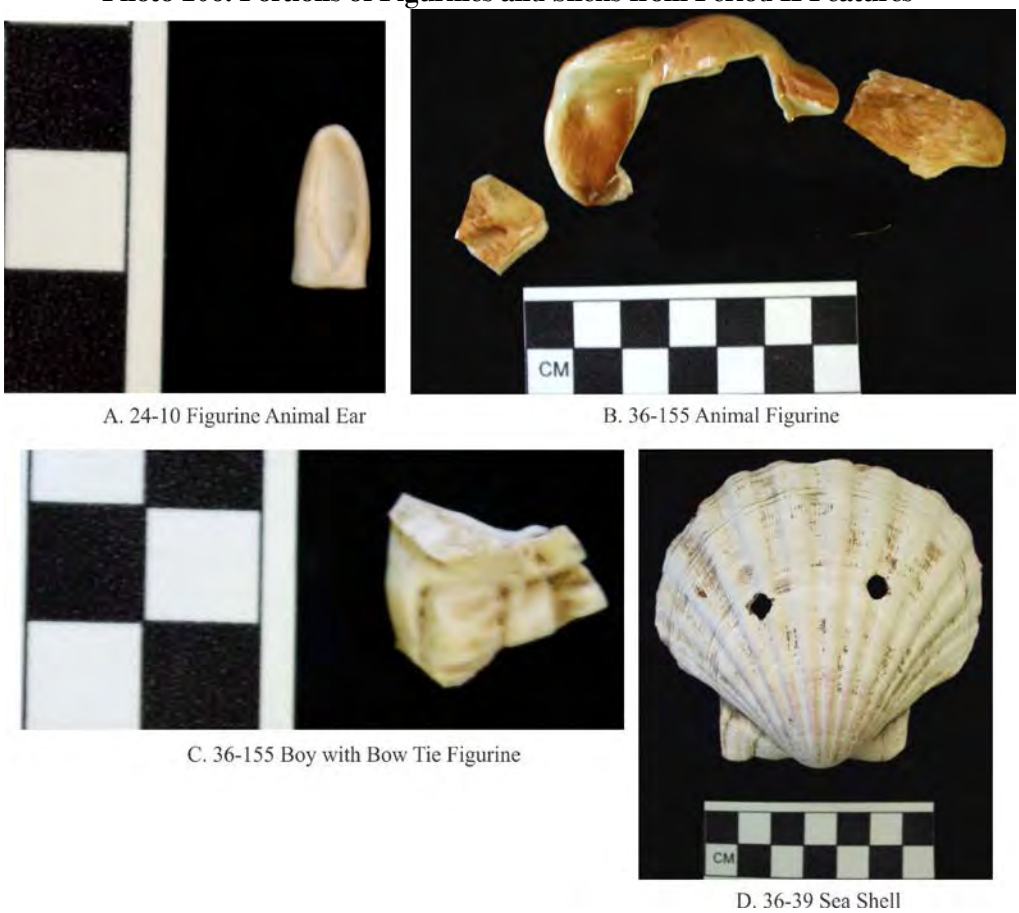
36-114
E. Stoneware Marble
with Incised Line

36-115
F. Glass Marble

36-71
G. Bicycle Pedal

Several decorative items were found associated with the Period II features. One figurine fragment of an animal ear, possibly a rabbit (Photo 106:A), was uncovered in Feature 24. Three figurines were discovered in Feature 36, consisting of an indeterminate animal (Portion 106:B), a portion of grass, and a boy with a bowtie (Photo 106:C). Also recovered from Feature 36 was a scallop shell with two holes drilled into it (Photo 106:D). This could have been a memento from a trip to the ocean. A white glass dish discovered in Feature 24 was made into a shape of a mussel shell. This could have been used to hold jewelry.

Photo 106: Portions of Figurines and Shells from Period II Features



A. 24-10 Figurine Animal Ear

B. 36-155 Animal Figurine

C. 36-155 Boy with Bow Tie Figurine

D. 36-39 Sea Shell

Household

Household objects consisted of a minimum of 91 artifacts or 15% of the artifacts recovered from the Period II features. Some objects were used to beautify the household including 12 flower pots or planters. Most of these (N=9) were made of undecorated and unglazed redwares (Photo 107:A-B). Another undecorated flower pot fragment from Feature 36, Zone C, was made of yellowware (Photo 107:C). A small fragment also from Feature 36 was made of stoneware that contained incised lines (Photo 107:D). This may be part of a jardinière, but not enough was recovered to be certain. Five fragments, found in Feature 28, represented an ironstone planter made in the shape of a cow (Photo 107:E).

Other household pieces consisted of a portion of a decorative glass bowl from Feature 36, Zone C. It was made of a layered glass with a white glass interior and a green glass exterior. The exterior appears to have been painted with a floral design (Photo107:F). Another item consisted of a portion from a brass picture frame found in Feature 16, Zone F (Photo 107:G).

Photo 107: Decorative Household Items from Period II Features

A. 19-128 Redware Flower Pot

B. 36-156 Redware Flower Pot

C. 36-157 Yellowware Flower Pot

D. 36-158 Stoneware Flower Pot, Jardiniere

E. 28-11 Cow Planter

F. 36-136 Decorative Glass Bowl

G. 16-41 Picture Frame

Other household goods represented cleaning products. These included two bottles of "LIQUID STOVE POLISH" from Feature 19 (Photo 108:A-B) and a bottle of "BLACK CAT STOVE ENAMEL" in Feature 36 (Photo 108:C). All of the stove polishes were produced by the James L. Prescott Company. In 1868, Prescott was hired as a traveling salesman for the C.W. Greenleaf & Company who manufactured Clarks Mirror Stove Polish. In 1870, despite the economic down turn that followed "Black Friday" with the collapse of the Wall Street stock market, and the loss of three young sons the previous year, Prescott purchased the Greenleaf Company. He introduced Prescott's Universal stove polish, which soon became very popular for its ability to shine stoves and the company thrived despite the poor economic times. With his surviving son, Amos, the company successfully introduced other products, and its sales extended across the country and overseas. James Prescott died in 1915, but the company continued to thrive under his offspring until about 1988 (J. L. Prescott Company 1945; James 2004).

Additional cleaning products included a bottle of Carbona found in Feature 24, Zone C (Photo 108:D). This product was developed in 1885 as a safer, non-flammable alternative to benzine, naphtha, and gasoline, which were generally used at the time. It served as a general household cleaner as well as for cleaning clothes (Figure 110). The Carbona Products Company was incorporated in 1908 to sell this cleanser, with nearly $35,000 sold in the first year alone. After an endorsement from "Underwriters Laboratories" certifying that it was "non-combustible" and "non-flammable", demand for the Carbona cleaning fluid dramatically increased, with sales worldwide by 1926. In 1994, Carbona was acquired by Delta Pronatura, based in Egelsbach, Germany, and continues to be produced today (Carbona n.d.).

Figure 110: Undated Advertisement for Carbona Cleaning Fluid (Carbona n.d.)

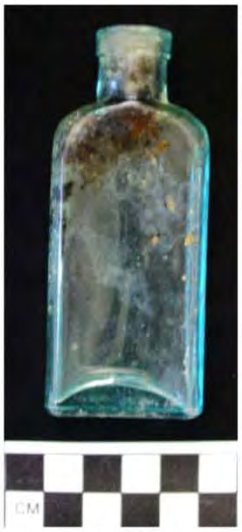
Photo 108: Household Cleaning and Other Household Products from Period II Features

A.-B. 19-38 Stove Polish
"Liquid Stove Polish"

C. 36-22 Stove Polish
"Black Cat Stove Enamel"

D. 24-46
Cleaning Fluid
Carbona

E. 19-39 Lysol Bottle



F. 36-40 Machine Oil
3-IN-ONE Oil Co.

G. 36-100 White Shoe Polish

H. 19-62 Ink Bottle

I. 5-6 Glue Bottle

A brown bottle found in Feature 19 contained Lysol (Photo 108:E). Lysol was developed in 1889 by Dr. Gustave Raupenstrauch to help end a cholera epidemic in Germany. In 1890, Lehn and Fink imported Lysol, which proved to be very successful as a household disinfectant. In 1912, they acquired the rights to manufacture Lysol in the U.S. and the overall rights to Lysol in 1922. The company proved to be very successful and produced various household and hygiene products. In 1968, Lehn and Fink were acquired by Sterling Drug and in 1994 by Reckitt & Colman, who continues to produce Lysol (Lehn and Fink Products Company 1925; Lysol 2012). Between the 1920s and 1960, Lysol was even sold as a feminine hygiene product and as a way of preventing unwanted pregnancies (Figure 111). Eventually, Lysol was proven not to be an effective contraceptive product, but not before some women had died from the use of this product in this fashion (Townsend 2009, The Forgotten History Blog n.d.).

Figure 111: Advertisements by Lysol as a Feminine Hygiene Product

(The Forgotten History Blog n.d.)

(Townsend 2009)

Other products include a bottle of 3-In-One Oil found in Feature 36, Zone A, Level 1 (Photo 108:F). The company was started in 1894 by George W. Cole of Asbury Park, New Jersey. In order to better care for and maintain bicycles, he mixed a lubricant with a rust preventative and a cleaner. Since that time, it has been used on various household appliances including sewing machines. Sale of the oil was such a success that the G. W. Cole Company was incorporated in 1899. The corporate charter was amended in 1905 and the name of the company changed to the 3-IN-ONE Oil Company. Around 1910, the cork stopper was replaced by a screw top cap. The bottle recovered was made on a semi automatic machine and had a packer finish that would have been sealed with a cork, so it probably dates between 1905 and 1910. After 1933, the company was acquired by several different businesses, but 3-IN-ONE oil continues to be sold today and is widely popular (3-IN-ONE Oil n.d.).

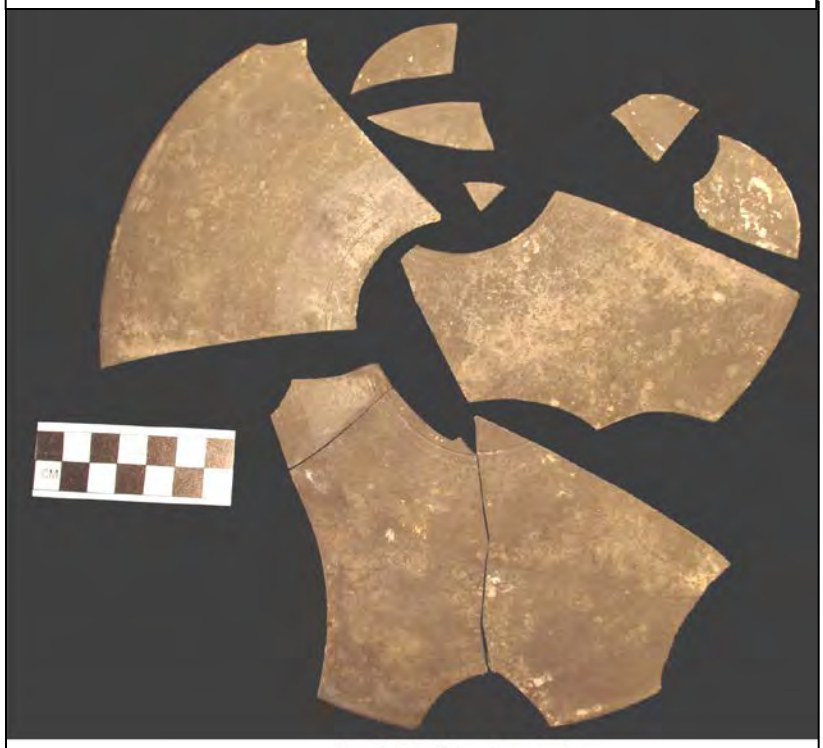
Also recovered was a bottle of shoe polish found in Feature 36, Zone A, Level 5 (Photo 108:G) It contained a white polish. White shoes were popular during the 1920s and 1930s.

A bottle of writing ink was found in Feature 19, Zone A, Level 1 (Photo 108:I) and a wooden pencil brass top was found in Feature 36. During the first half of the 19th century, wooden pencils were mostly produced in England and France, which were believed to be superior to the pencils made by the few American companies that existed. After the Civil War, however, American companies, primarily the Eagle Pencil Co., Eberhard Faber, American Lead Pencil Co., and Joseph Dixon Crucible Co., became more successful and mass produced pencils (Early Office Museum 2012).

Parts of metal paint cans were found with three coming from Feature 19; one from Feature 5, Zone A, Level 1; and one from Feature 24, Zone B. A bottle of glue was found in Feature 5 (Photo 108:J). Its base suggested that it had a "KWIK STICK PATENT", but this date could not be found.

Fragments of a shellac record were discovered in Feature 5, Zone A, Level 1 (Photo 109). Shellac records were first developed in 1896 by Fred Gaisberg as a better replacement for rubber records. In 1940, the use of vinyl records was developed when shellac was unavailable because of the Japanese raiding Southeast Asia at the start of World War II. However, shellac records were still produced in small quantities until about 1960 (The Record Collector's Resource n.d.).

Photo 109: Shellac Record from Feature 5



5-13 Shellac Record

Other household objects represented furniture hardware such as two drawer pulls (Photo 110:A), a door knob found in Feature 16, and a plastic curtain ring (Photo 110:B). Decorative detailing from furniture was found in Feature 36, Zone B, Level 1 and a rubber drain plug in the same feature from Zone A, Level 5 (Photo 110:C). Two mechanical parts found in Zone A, Level 2, could have come from household appliances (Photo 110:D). Parts of batteries were found, with three coming from Feature 16 and ten in Feature 36 (Photo 110:E). Most of the batteries appeared to be large, just over 8 inches (20 cm) long. These could have been used to operate door bells and other appliances.

More common (N=15) was parts of glass lamp shades (Photo 111:G-H) or glass and other objects associated with lamp chimneys (Photo 111:A-B). A portion of a brass tinkler from a lamp was found in Feature 5 (Photo 111:C) and brass straps from lamps were found in Features 19 and 36 (Photo 111:D-E). These were common on lamps produced at the end of the 19th and early 20th century (Figure 112).

Figure 112: Example of Lamps Sold in the 1897 Sears Roebuck Catalogue (Israel 1968:687)

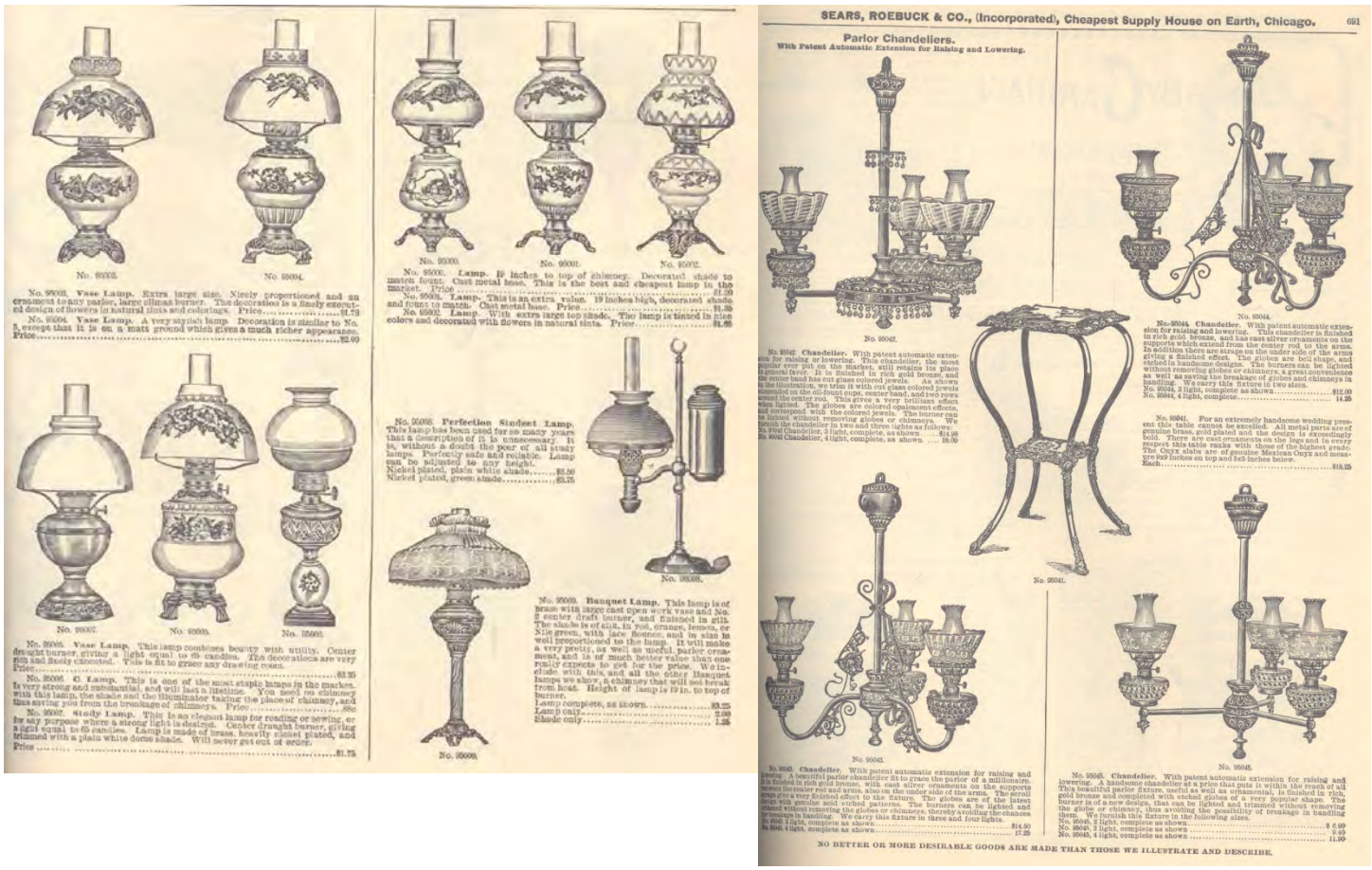


Photo 110: Various Household Items From Phase II Features

A. 16-32
Drawer Pull

B. 36-89 Plastic
Curtain Ring

C. 36-101 Rubber Drain Plug

D. 36-60 Mechanical Part

E. 36-167 Batteries

Photo 111: Lamp Chimney and Lamp Fixtures from Period II Features

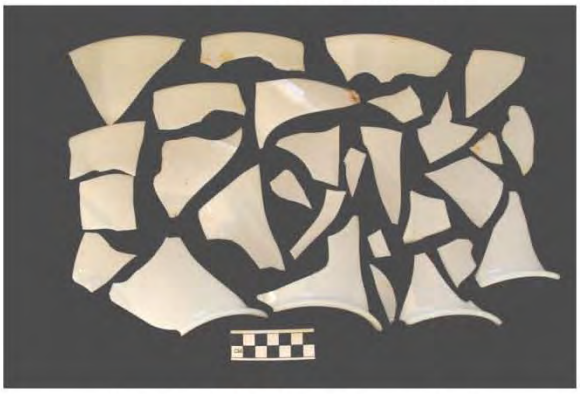
A. 36-74 Cloth Lamp Wick

B. 36-163 Lamp Chimney Hardware

C. 5-51 Brass Lamp Tinkler

D. 36-23 Lamp Strap

E. 19-130 Lamp Strap



F. 16-33 White Glass Lamp Shade

G. 19-64 Lamp Shade
With Molded Floral Design

H. 19-129 Lamp Shade
with Molded Floral Design

The wide spread use of electricity by this time was suggested by the presence of 4 electrical insulators, 2 fuses, and 1 porcelain wiring tube (Photo 112:A). Two small light bulbs were recovered from Feature 5 (Figure 12:B). In Feature 19, an attachment plug that could be screwed into a light fixture was recovered (Figure 12:C).

Photo 112: Electrical Parts from Period II Features

A. 16-30 Insulator

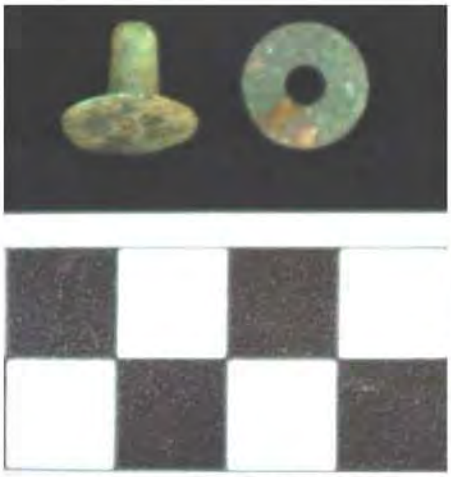
B. 5-17 Light Bulbs

C. 19-149 Attachment Plug

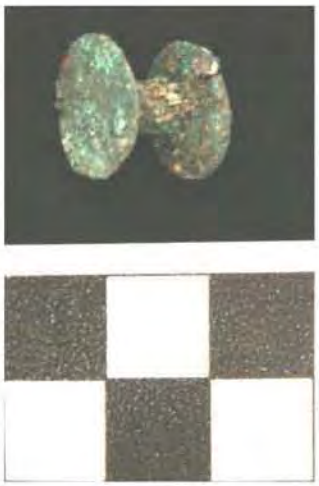
Transportation objects also were recovered, including a buggy step from Feature 36, Zone A, Level 2 (Photo 113:A, Figure 113) and three rivets associated with saddles or tack from Feature 19 and Feature 36 (Photo 113:B-E, Figure 114). However, other objects were associated with the introduction of the automobile, which was becoming more common by the 1920s. These included three automobile lights found in Feature 36.

Photo 113: Transportation Related Object from Period II Features

A. 36-61 Carriage Step



B.-C. 36-160 Brass Tack Hardware



D. 19-147 Brass Tack Rivet

E. 36-161 Iron Tack Hardware

Figure 113: Carriages Sold in 1902 Sears Roebuck Catalogue (1986:368, 376), With Steps Highlighted

OUR SOUTHERN BEAUTY, $38.25.

DON'T FAIL TO STATE WIDTH OF TRACK

$38.25

No. 11R227

GENERAL DESCRIPTION.

BODY—Piano body, 19x54 inches; concave risers and convex seat panels; seat 24x16 inches; stylish and of handsome proportions.

GEAR—Axles 1 1/16-inch; double collar fantail steel, with axle caps cemented, sanded and clipped. Three and four-leaf elliptic end springs with Bailey body loops. Can furnish Armstrong single leaf spring when ordered.

WHEELS—Are Sarven's patent, well seasoned hickory, with full bolted steel tires, regular ⅞-inch tread, 38-inch front, 42-inch rear (can furnish 40-inch front and 44-inch rear when ordered).

TOP—Two and one-half bow handy top as illustrated, but will furnish regular three-bow top when ordered. Quarters are deep cut leather with leather backstays and rubber roof.

UPHOLSTERING—We use a fine grade of fancy colored Keratol leather in our Southern Beauty, and upholstered in latest style as shown in illustration. Can furnish cloth cushion and back if ordered.

PAINTING—Body, black with artistic decorations and striping as shown, gear, carmine with neat striping. Can furnish rosewood body when ordered.

TRIMMINGS—Oxidized nickel dash rail, hub bands, seat handles and prop nuts, quick shifting shaft coupler.

TRACK—Either 4 foot 8-inch or 5 foot 2-inch track, as ordered.

No. 11R227 Price, as described at Brighton or Kalamazoo factory, $38.25

EXTRAS.

Genuine leather upholstering	1.50
Full leather top	3.00
Pole in place of shafts	1.50
Both pole and shafts	3.00
⅞-inch rubber tires	13.45

Weight, crated for shipment, about 500 pounds.

OUR $35.95 COMBINATION PLATFORM SPRING WAGON.

$35.95

DON'T FAIL TO STATE WIDTH OF TRACK

No. 11R1015

GENERAL DESCRIPTION.

BODY—The body is 7 feet long and 32 inches wide, with panels 8 inches deep. This body is extra strong, having side and end sills 3¼x1½ inches, mortised, with a 2¾-inch center sill, running full length, mortised in the cross sill. Drop end gate.

SEATS—In this wagon we furnish two high back, solid panel seats, as illustrated. They are large and roomy, removable, and ironed throughout with best Norway iron.

SPRINGS—In this, our half platform gear, the springs are made by D. W. Schuler & Son, of the best oil tempered spring steel, thoroughly tested. Front spring 1⅜ inches, four-leaf; rear spring 1¼ inches, four-leaf.

GEAR—The axles are 1 1/16-inch, double collar, made of the best refined steel, with axle beds cemented clipped and bolted to axles. The rear axle is coached, front axle is full fantailed, full circle bearing, short turn fifth wheel. Heavy double reaches, well ironed, full length, braced and bolted with wrought iron stay braces.

WHEELS—The wheels are Sarven's patent, best air seasoned, selected second growth hickory. 1-inch tires, full bolted to rims between each spoke.

TRIMMINGS—Seat and back cushions are nicely upholstered with the long wear genuine whipcord, imitation leather or genuine leather. Genuine leather $3.00 extra.

PAINTING—Body, black or Brewster green, nicely decorated; gear, green or carmine, neatly striped.

No. 11R1015 Price, complete $35.95

EXTRAS.

Canopy top with full length side and back curtains	12.00
Brake	4.00
Both pole and shafts	3.00
Seat and back cushions upholstered in genuine leather	3.00
Pole in place of shafts	1.50

Weight complete, crated for shipment, about 800 pounds.

Shipped from Eastern Ohio or Kalamazoo, Mich., from which point the customer pays the freight.

Figure 114: Saddles Sold in 1902 Sears Roebuck Catalogue (1986:395-396), With Rivets Highlighted

Our Special $6.30 Stock Saddle

No. 10R1395 13-inch Morgan tree, hide covered. **21-inch skirts, 1⅛-inch stirrup leathers to buckle,** with fenders 14 inches long, 7½ inches wide, 1⅛-inch tie straps, 4-inch woven soft hair cinches, 3-inch **wood stirrups. This is a good substantial well made saddle.** Weight, about 11 pounds; boxed for shipment, 21 pounds.

Our price.. **$6.30**

Our Cheyenne Cowboy Saddle.

No. 10R1451 A new and strictly up to date saddle, made of extra fine quality of oiled russet skirting leather on a strictly high grade 15-inch Hidalgo steel fork rawhide covered tree. This is one of the finest steel fork trees there is made for this grade of saddle. Narrow and rangey. Skirts 26 inches, round cornered sheepskin wool lined. Stirrup leathers 2½ inches wide to lace with fenders 16 inches long by 8 inches wide attached. Tie straps 1½ inches to tie. California strand white hard hair cinch. Single rig saddle, 2-inch wood brass bound stirrup; bound cantle, loop seat.

$19.90

Made in roll cantle if wanted, but will always send bound cantle unless ordered roll cantle. Weight of saddle, 25 pounds. Heavy oiled russet saddle skirting. Our special price **$19.90**

PERIOD III: 1930-1960

At total of 15 features likely dated to this period, but artifacts were found in only five of them, Features 2, 12, 17, 33, and 34. These features produced 1,223 artifacts, weighing 28,340.8g, from a minimum of 250 objects. Similar to the other two periods, the majority of the artifacts were associated with dining (Figure 115). However, unlike the previous features the next highest percentage of artifacts was household items instead of personal objects. Nearly equal small percentages of personal, hygiene, and health care products were recovered from the Period III features.

Dining

Serving of Food

Surprisingly the greatest percentage of dinnerwares continued to be made of semi-vitreous ironstones, with only three hotelware and five finer vitreous wares (Figure 116, Table 21). Hotelwares were never popular because of their thick appearance, but during the 1930s and 1940s, ceramic manufacturers introduced lighter vitreous wares and more colorful pieces.

Figure 115: Percentage of Artifact Types from Period III Features

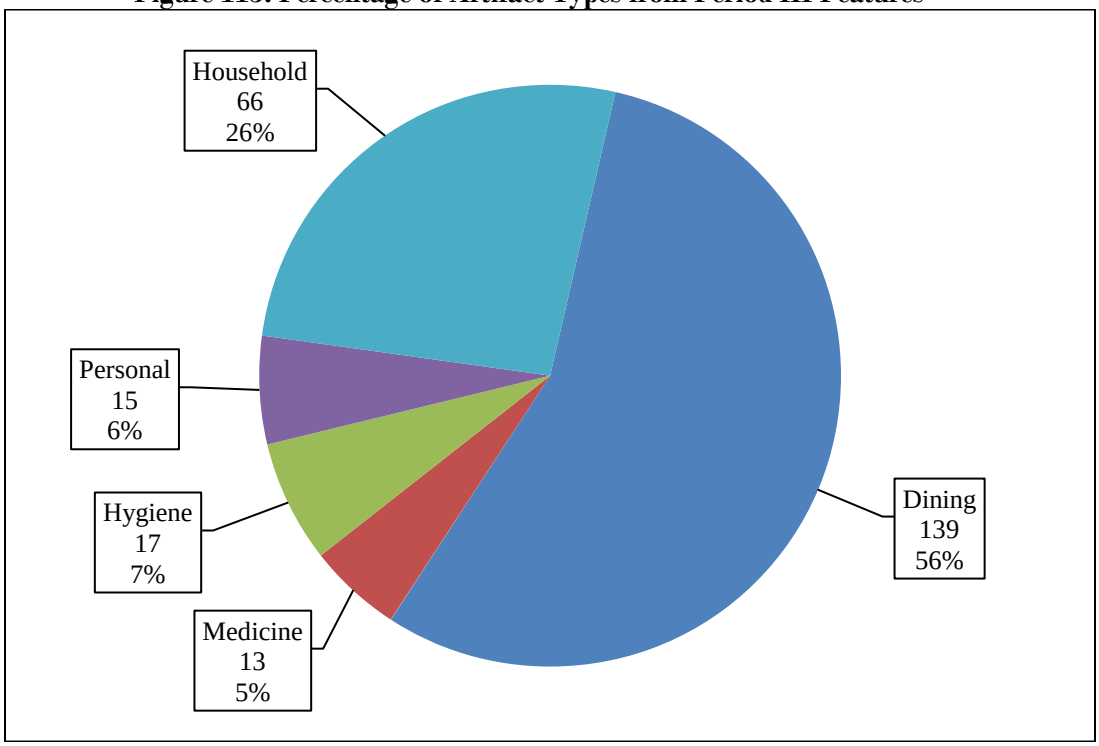


Figure 116: Percentage of Serving Vessel Types in Period III Features

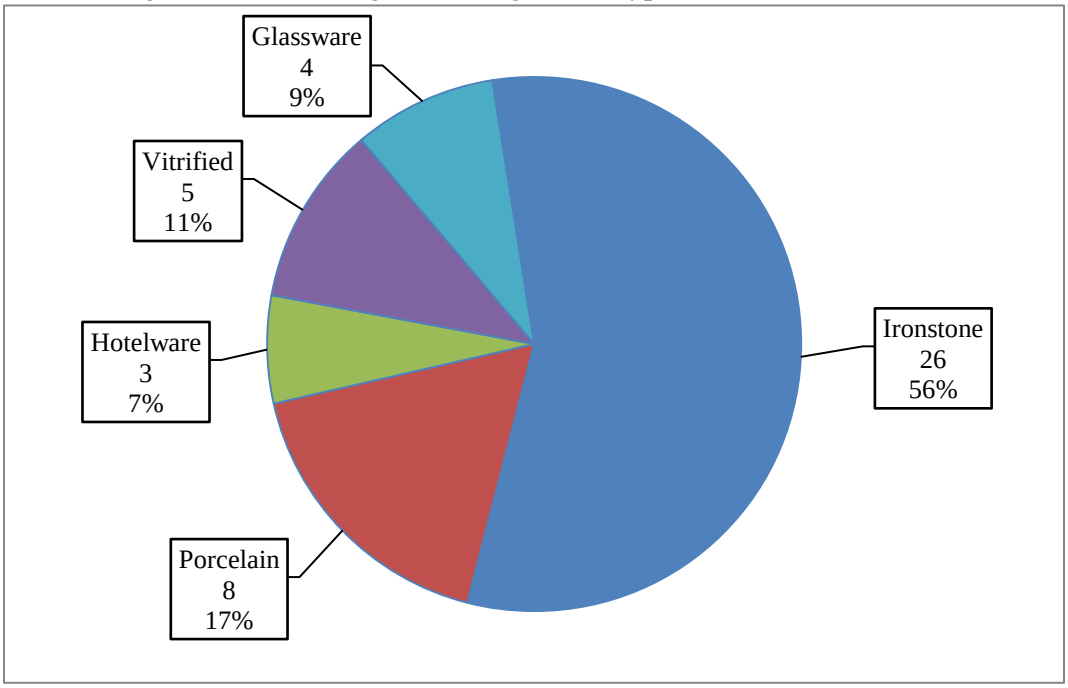


Table 21: Minimum Number of Dinnerwares

Ironstone
- 3 plates
- 2 bowls
- 4 serving bowls
- 1 pitcher
- 4 coffee cups
- 9 saucers
- 2 sugar bowls

Glasswares
- 1 candy dish
- 1 tumbler
- 1 wine glass
- 1 shot glass

Porcelain
- 2 tea cups
- 2 saucers
- 1 tea creamer
- 1 small serving plate
- 2 indeterminate tea vessels

Vitrified/Hotelware
- 5 plates
- 2 coffee cups
- 1 indeterminate vessel

Only two of the ironstone plates could be measured. These consisted of one from Feature 12 measuring 7 inches (18 cm) in diameter and one from Feature 33 measuring 8 inches (20 cm). Two ironstone bowls recovered in Feature 12 and 17 measured about 6 inches (14-16cm) in diameter. The four ironstone cups recovered were thicker and represented coffee cups.

Unlike during the previous two periods, a greater percentage of the ironstone dinner settings had decorated surfaces (Figure 117), with only nine vessels (35% of the ironstones) having undecorated surfaces (Photo 114).

Figure 117: Decoration on Ironstone Dinner Settings from Period III Features

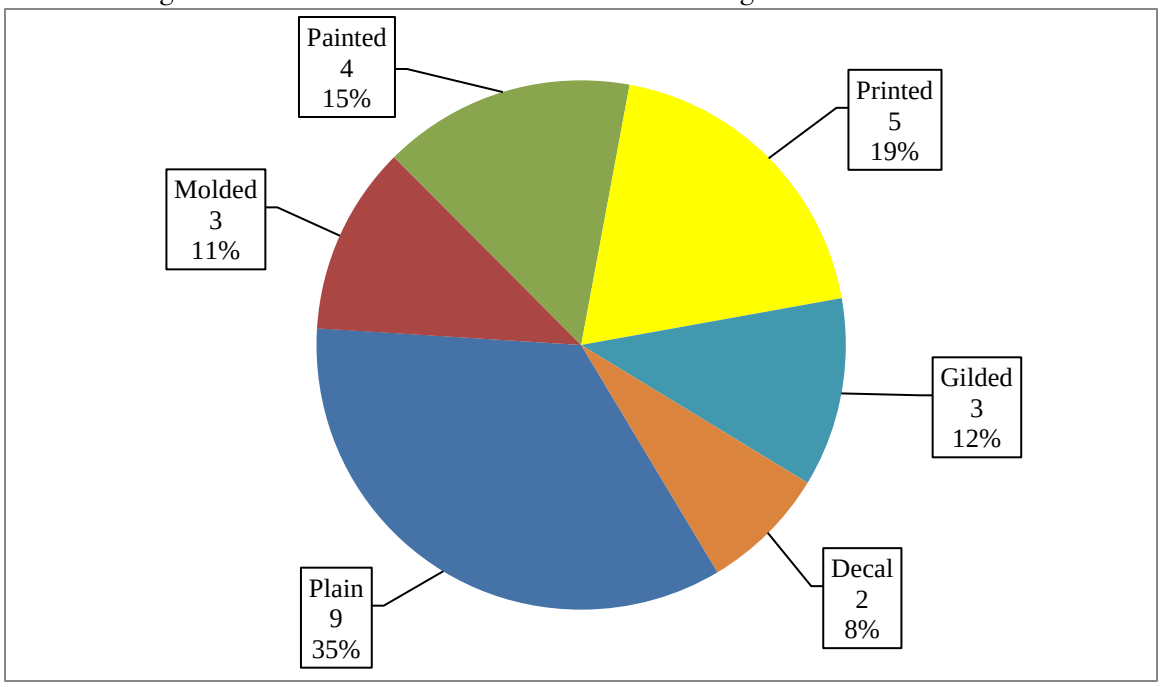


Photo 114: Plain Ironstones from Period III Features

12-15 Saucer 12-16 Plate 12-17 Bowl

17-4 Cup

17-25 Saucer

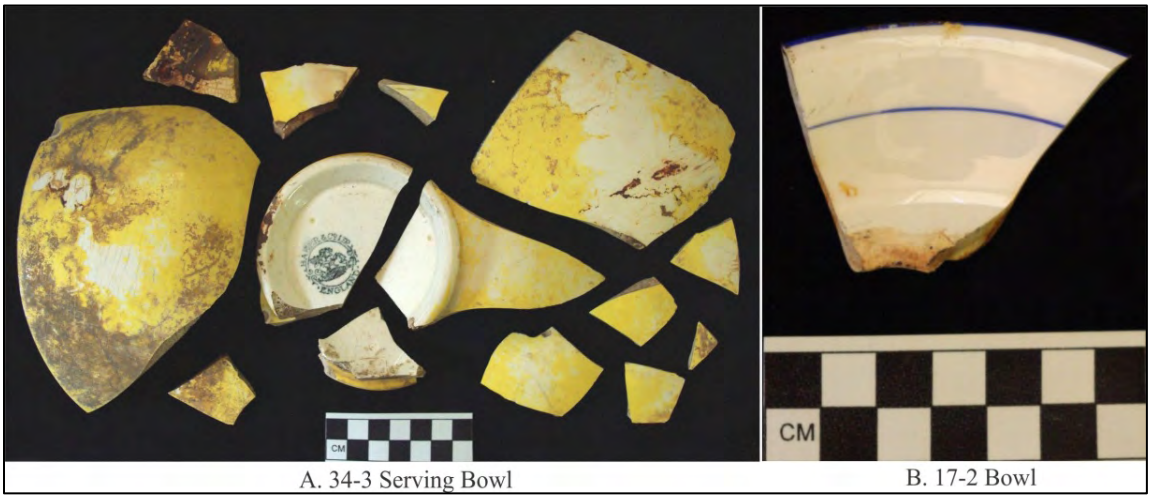
17-1 Saucer

A portion of a saucer found in Feature 12 had a fine molded wheat pattern. A serving bowl and a saucer, in Feature 34, had a fine molded floral design and likely came from the same set (Photo 115).

Photo 115: Molded Ironstone Vessels Likely from Same Set in Feature 34

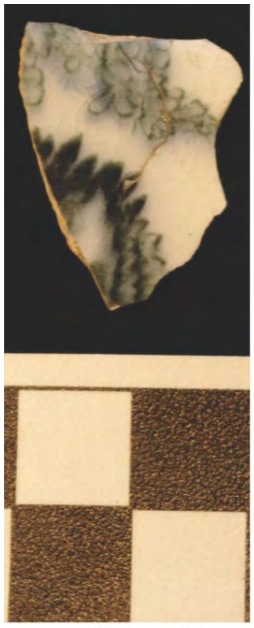
Four vessels had painted decorations. These include two serving bowls from Feature 34 with yellow painted glazed surfaces (Photo 116:A). A portion of a plate found in Feature 17 contained a copper tea leaf pattern that was popular from the 1850s to about 1900 (Wetherbee 1996). This piece was similar to the ones recovered in Feature 16, and could have been redeposited from that feature, which was cut by Feature 17. Alternatively, it may represent an heirloom piece kept for some time before being discarded. A bowl rim fragment also found in Feature 17 had two painted blue bands on and near its edge (Photo 116:B).

Photo 116: Painted Vessels from Period III Features

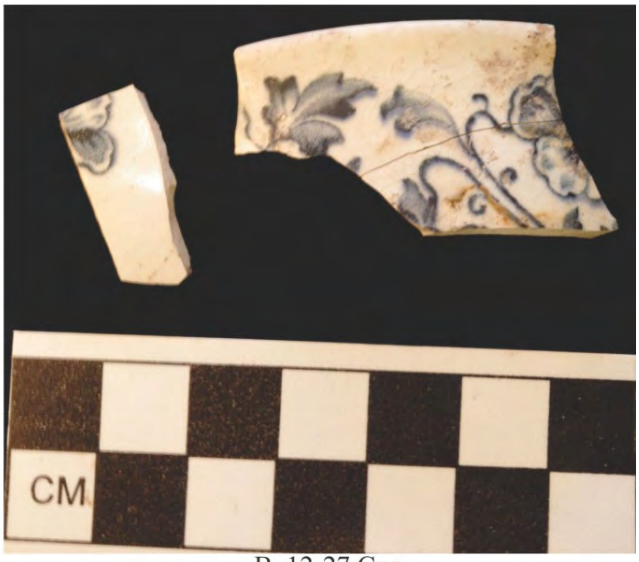


A slightly greater percentage of the ironstone dinner settings (19%, N=5) had a transfer print decoration. The majority of these came from Feature 12 with only one sherd found in Feature 33. A cup, sugar bowl, and an unidentifiable piece from Feature 12 had a floral print, but these were in different colors blue, bluish-green, and black (Photo 117:A-B). A cup from Feature 12 had a floral print that was painted over it in polychrome colors. The plate fragment from Feature 33 had a fine molded vine pattern at the edge with a floral print that was painted in polychrome colors (Photo 117:C).

Photo 117: Transfer Printed Vessels from Period III Features



A. 12-34 Indt. Vessel



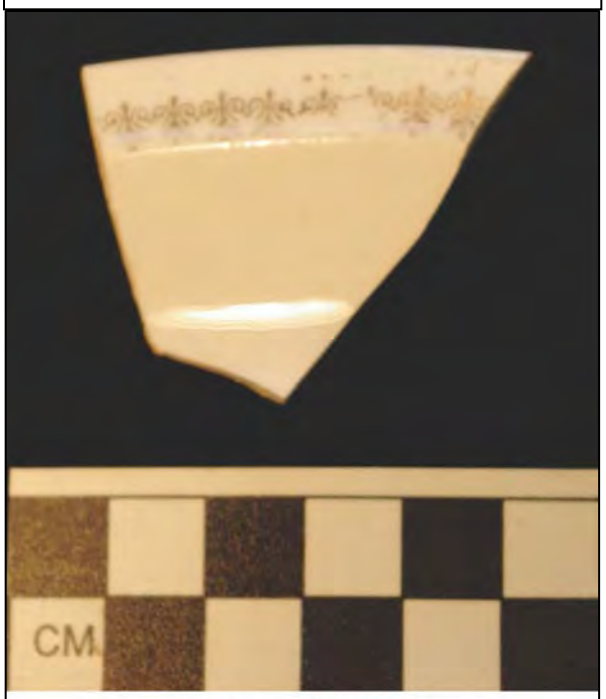
B. 12-27 Cup

C. 33-1 Plate

Another three pieces had some type of gilded decoration. These include a serving bowl found in Feature 12 with a fleur de lis pattern (Photo 118). A sugar bowl and a platter found in Feature 34 had a gilded band near the edge. The sugar bowl also had a transfer print floral decoration that was painted over its gold band.

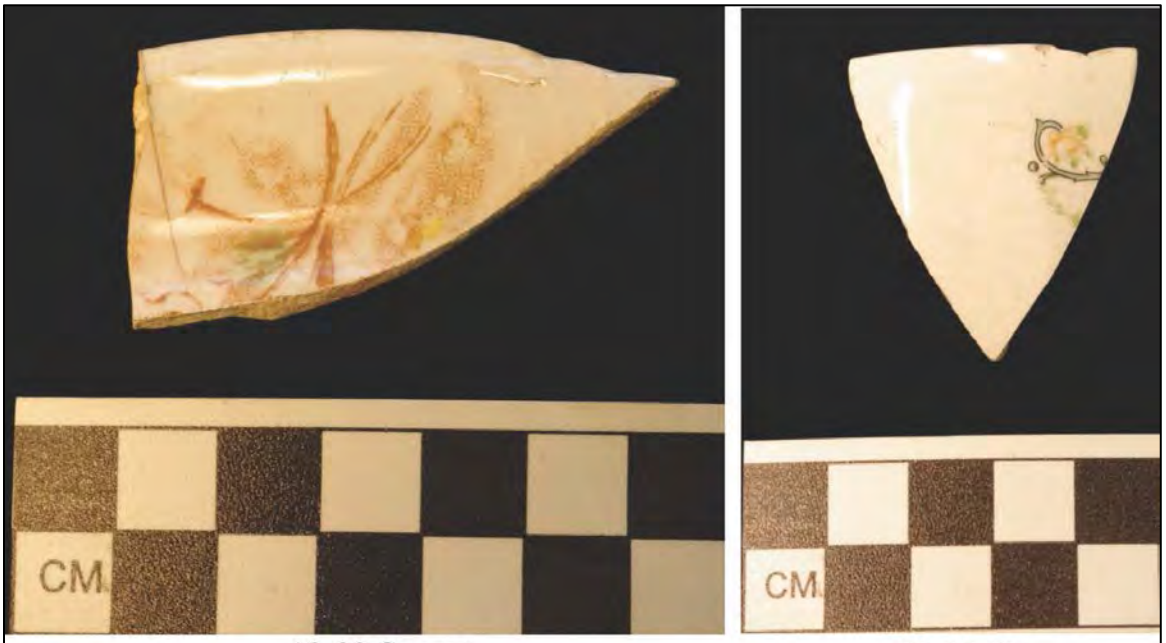
Only a cup and a saucer found in Feature 12 had floral decal decorations (Photo 119). As noted in the previous two sections, decals were especially popular on ceramics used after the 1930 and it was not expected that so few decal decorations would be recovered from ceramics associated with the Period III features. However, the sample from these features was small.

Photo 118: Gilded Ironstone Bowl from Feature 12



12-33 Serving Bowl

Photo 119: Decal Decorations on Vessels from Period III Features



12-32 Saucer 12-14 Cup

Only three ceramic vessels, from Features 12, 17, and 34, had manufacturer's marks (Table 18, Photo 120). Surprisingly, all of these vessels were from English ceramic manufacturers. These may have represented heirloom pieces that were kept for many years.

Table 22: Manufacturer's Marks on Ironstones Vessels Found in Period III Features

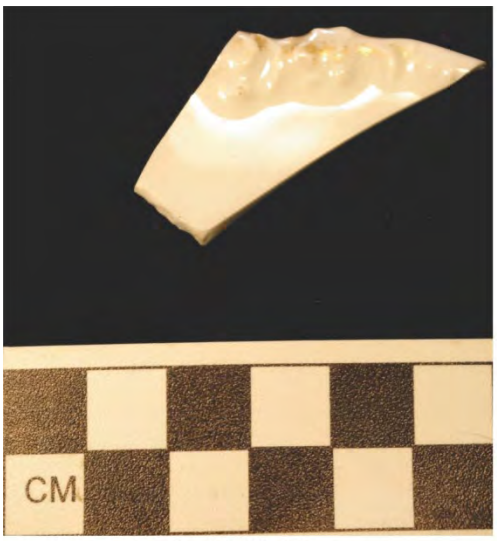
Quantity	Vessel	Manufacturer	City	Dates Used	Kowalsky & Kowalsky 1999: page number
1	plate	Arthur J. Wilkinson (Ltd.)	Burslem, Staffordshire	ca. 1896	372
1	serving bowl	(W.) Baker and Company Ltd.	Fenton Staffordshire	1893-1928	99
1	sugar bowl	unknown manufacturer	"…tall" (Tunstall) England	dates unknown	

Photo 120: Manufacturer's Marks on Vessels from Features

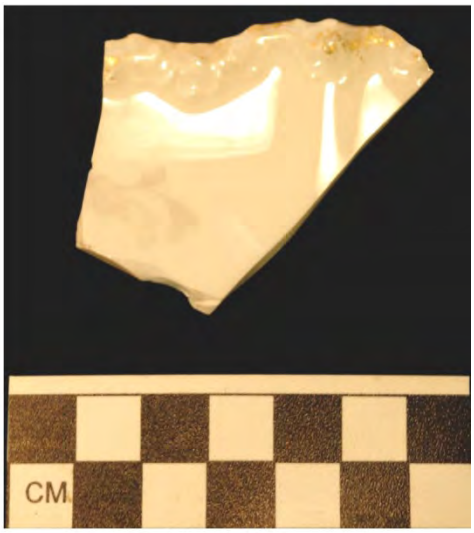
Only three dinner settings represented a vitreous hotelware; these include two undecorated coffee cups in Features 12 and 17, and a plate from Feature 12. This vessel was decorated with a gild band placed around the edge. It also contained a small portion of a manufacturer's mark from the Greenwood Pottery Company of Trenton, New Jersey, that was used around 1904 (Kovel and Kovel 1986:177M). Similar to the ironstone pieces, this vessel may have been kept for several years.

Four plates and an indeterminate vessel from Feature 12 were from finer vitrified pieces and could have been produced after 1930. One plate had a fine molded design with a gild placed over it (Photo 121:A). Another plate also had a fine molded design and a floral decal (Photo 121:B). The other three plates had floral decals (Photo 121:C). One of the plates contained a partial manufacturer's mark, but it could not be identified (Photo 121:D).

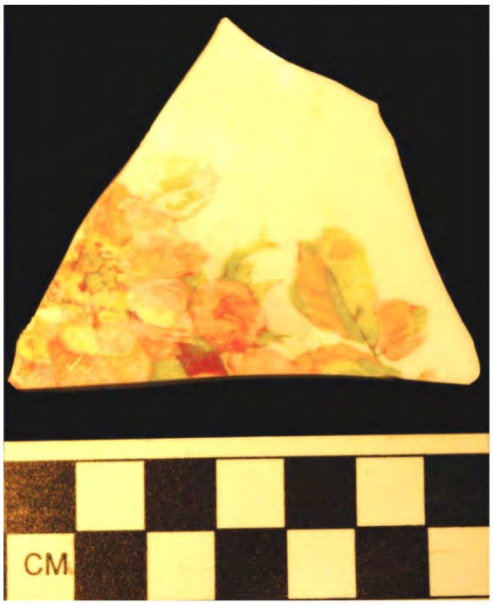
Photo 121: Vitrified Plates from Feature 12



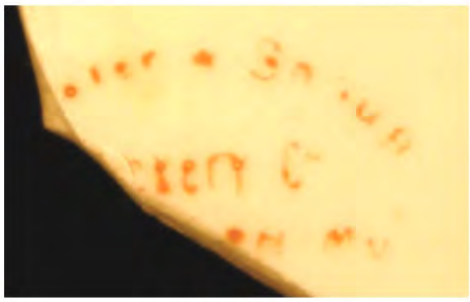
A. 12-30 Plate
Molded & Gilded



B. 12-20 Plate
Fine Molded, Gilded,
and Floral Decal



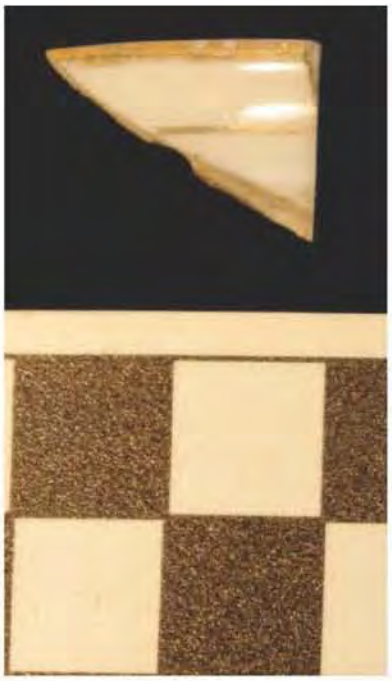
C. 12-42 Plate
Floral Decal



D. 12-42
Indeterminate Mark
"...OLER & BRAUN
...TTERY Co."

Porcelain settings represented 17% (N=8) of the serving vessels. Most of these were associated with tea sets including 1 plate, 2 cups, 2 saucers, 1 cream pitcher, and 2 indeterminate vessels. The plate recovered from Feature 34, Zone A, was a small serving vessel measuring 5 inches (12 cm) in diameter. It was undecorated. The rest of the porcelain vessels were decorated. Two cups and saucers came from Feature 12. One cup had two gild bands near and at its edge (Photo 122:A) and the other cup has a small portion of a floral decal. One of the saucers had a single gild band (Photo 122:C) and the other had a spongeware decoration near its edge and a gild band with a fine molded swirled design (Photo 122:D). The indeterminate vessel in Feature 17 had an unidentifiable painted pink decoration. Small fragments of a creamer were found in Feature 34 and contained an unidentifiable gilded decoration (Photo 122:B).

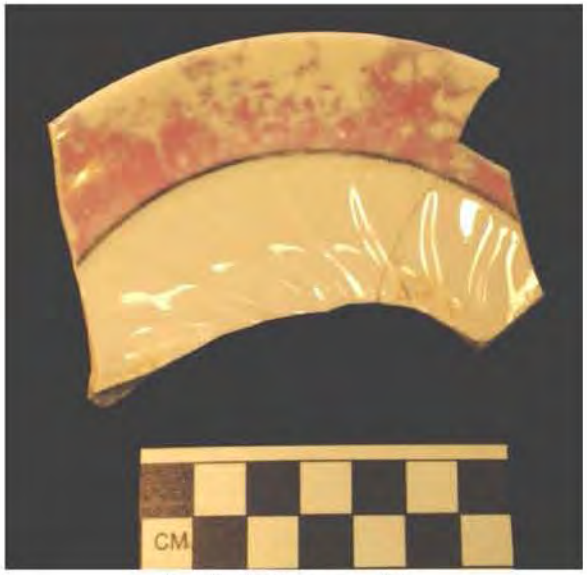
Photo 122: Porcelain Tea Pieces from Period III Features



A. 12-37 Cup with Gilded Bands

B. 34-8 Creamer Fragments With Gilt Print

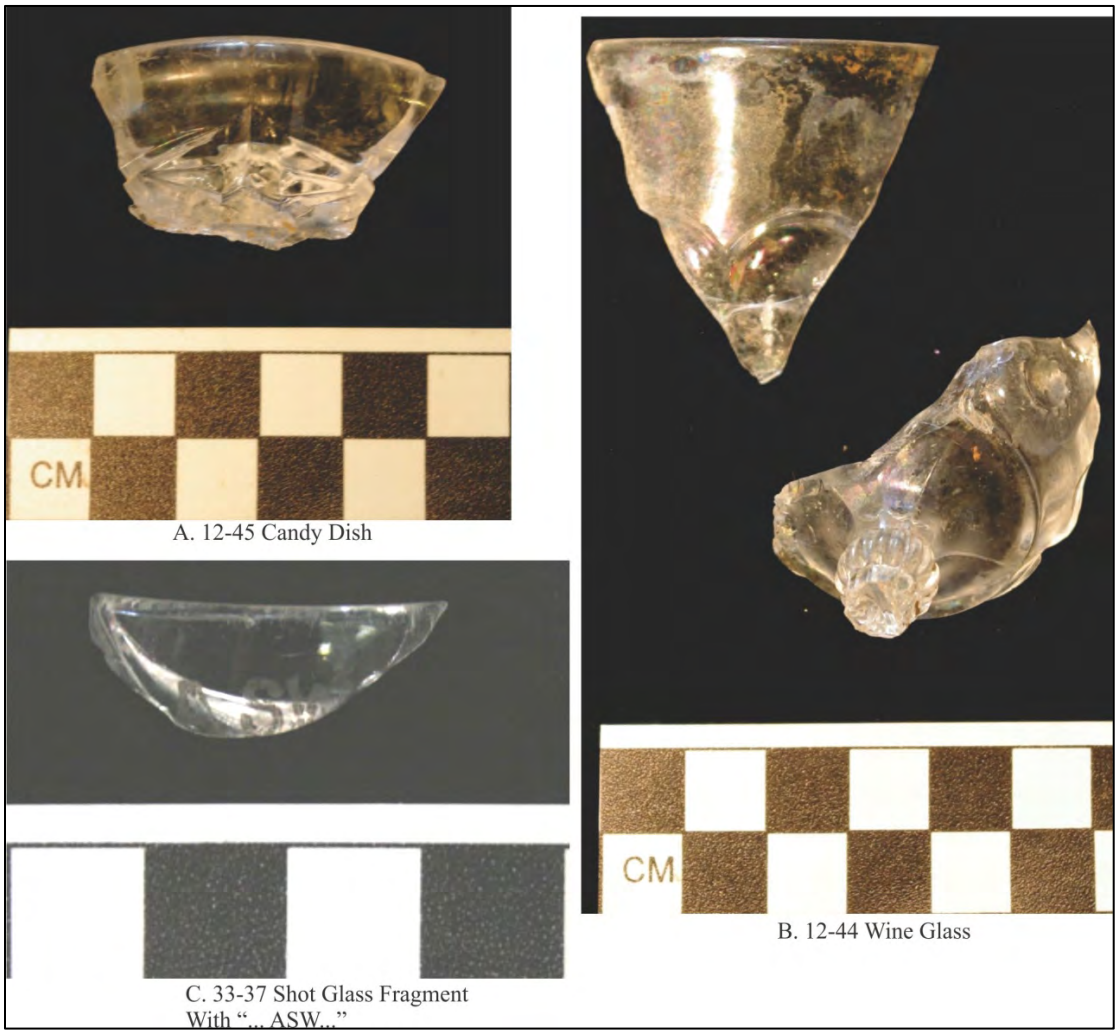
C. 12-19 Saucer with Gilded Band



D. 12-18 Saucer with fine Molded, Gilded, and Spongeware Pattern

Glasswares represented 9% (only four vessels) of the dining pieces recovered from the Period III features. These include a portion of a glass candy dish found in Feature 12 (Photo 123:A). This feature also contained a portion of a tumbler and a wine glass that had a fine molded star burst design (Photo 123:B). In Feature 33, a small portion of a shot glass was found that contained painted letters of "ASW", which was probably promoting some type of liquor.

Photo 123: Glassware from Period III Features



A. 12-45 Candy Dish

B. 12-44 Wine Glass

C. 33-37 Shot Glass Fragment
With "... ASW..."

In addition to the wine and shot glass, at least seven alcohol bottles were recovered. These include two similar beer bottles, found in Feature 34, Zone A, and Feature 33, with this bottle still containing a portion of a paper label. Unfortunately, the beer brand could not be determined, but it ended in ". . . ASIER" (Photo 124:A). A manufacturer's mark was present on the bottom of the bottle that indicated it was produced between 1929 and 1954 from the Owens Illinois Glass Company of Toledo, Ohio. A tin bucket found in Feature 17 could have been used for beer (Photo 124:B). Serving beer in tin or graniteware buckets was common (Figure 118), but the practice fell into disfavor about the time of Prohibition due to better bottling procedures, health concerns, and concerns of children drinking the uncapped beer (Kidden 2013). It is possible that this small bucket was not used to serve beer but was used as a lunch pail or had other uses.

Photo 124: Alcoholic Bottles from Period III Features

A. 19-33 Beer Bottle
"...ASIERS"

B. 17-16 Beer or Lunch Pail

17-14

17-15

17-54

C. Liquor Bottles

Figure 118: Beer Served in Pails, And a Man and a Boy Carrying A Bucket of Beer (Kidden 2013)

Liquor was served from two bottles in Feature 12, three bottles in Feature 17 (Photo 124:C), and one bottle in Feature 34. The bottle from Feature 34 contained the embossed wording of ". . . LAW FORBIDES THIS BOT..". As suggested in Period I, liquor bottles were embossed with "Federal Law Forbids Sale or Reuse of This Bottle" to discourage the use of these bottles by bootleggers between 1935 and the mid 1960s (Society for Historical Archaeology 2013b). All of the liquor bottles and the two beer bottles were made on fully automatic machines and dated after Prohibition.

Slightly more bottles (N=12) were used to distribute non-alcoholic drinks as alcoholic beverages. Four of these were milk bottles. One found in Feature 12 and another one in Feature 17 was produced by Pevely Dairy. The third bottle, from Feature 17, was produced by another indeterminate dairy; all that remained of its embossed label was ". . . S DAIR . . .". The fourth milk bottle, in Feature 33; also had a partial embossed label of ". . . IER DAIRY, ST. LOUIS", with the initials "AD" on its base. This dairy also could not be determined.

A jar from Feature 12 contained Horlick's malted milk. This company had been established by James and William Horlick. James Horlick was a pharmacist in England who experimented with ways of improving wheat and malt based nutritional supplements to improve the health of infants. Unable to sell his ideas in England, James moved to Racine, Wisconsin, to be with his brother, William, who moved to work in a relative's quarry. In 1875, the Horlick Food Company was established to manufacture infant food. In 1883, the brother's were issued a patent for a new formula of enhanced dried milk. It was originally marketed as "Diastoid," but changed the name to "malted milk" in 1887. In 1906, the company's name was changed to Horlick's Malted Milk Company. The product quickly was successful after its introduction, not only with children, but health conscience adults as well as with explorers. Its lightweight, non-perishable, and high-calorie content could easily be transported. Admiral Richard E. Byrd, in appreciation, even named a mountain range in Antarctica after the Horlick manufacturers (Wisconsinhistory n.d.; Wisconsingeneology n.d.; History of Beverage n.d.).

Six soda bottles were recovered, most of them from Feature 17, but one was found in Feature 12 as well. Only three of these bottles were embossed indicating their manufacturer. These include a bottle produced by the Tip Top Bottling Company (Photo 125:A), which was located between 1424 and 1432 North Jefferson Avenue. This company was in operation between 1908 and 1940 (St. Louis City Directory 1900-1940).

Another bottle was made by C. Damhorst Soda Water Company of St. Louis (Photo 125:B). This company was established by Casper Damhorst. Prior to that time, he worked as a teamster for the H. Grone and Company soda bottler and later had his own saloon before establishing his own soda bottling company in 1882. In 1901, Augustave A. Wepfer took over the Damhorst soda company, but he maintained its original name. Upon Wepfer death in 1910, the soda works was taken over by his daughter, Marion J. Wepfer. She had been educated at Sacred Heart convent and the Loretto Academy in Florissant, Missouri. Marion continued to run the company until it was closed in 1933. During its existence the C. Damhorst Soda Water Company was in operation at various locations across the city, all of them far to the east of the project area, and represented one of the oldest soda works in St. Louis (St. Louis City Directory 1870-1937; Missouri Genealogy Trails 2013).

A third bottle was produced by the Bohemian Bottling Works of Detroit, Michigan (Photo 125:C). This company was in operation during the 1930s (Detroit City Directories 1880-1958). It was during the 1930s and 1940s that sodas began to be sold nationally, eventually causing the demise of many of the local soda bottlers.

Photo 125: Soda Bottles from Period III Features

A. 17-32 Soda Bottle
Tip Top Bottling Co.
St. Louis, MO

B. 17-52 Soda Bottle
C. Damhorst Soda
Water Co
St. Louis, MO.

C. 17-53 Soda Bottle
Bohemian Bottling Works
Detroit MI.

Most of these bottles were produced on fully automatic machines and had crown finishes, except for the unmarked bottle found in Feature 12, which was made on a semi-automatic and had an older style blob top. It's unlikely that this type of soda bottle continued to be produced after 1930 and may have been found or represented an heirloom piece and was later discarded into this ash pit. Portions of 14 crown caps were found within Features 2, 12, 17, and 34, including a celluloid crown cap liner discovered in Feature 17.

A utensil was recovered from Feature 12. It consisted of an aluminum fork with a plastic handle, which came into use after 1950 (Photo 126).

Photo 126: Aluminum Fork with Plastic Handle from Feature 12

12-24 Fork with Plastic Covered Handle

Food Preparation and Storage

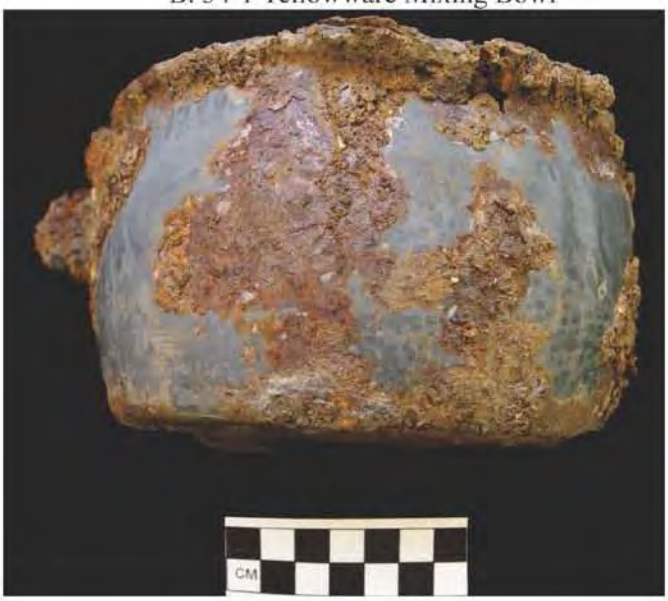
A minimum of 44 artifacts were associated with food preparation. Two yellowware and one stoneware mixing bowls were found in Feature 34, with matching yellowware pieces for the two bowls also found in adjacent Feature 33. The stoneware bowl had a slipped and glazed interior and exterior with a reddish brown color. One of the yellowware bowls had a molded geometric and large shell pattern (Photo 127:A), and the other one blue and white slipped annularware bands (Photo 127:B).

A blue graniteware sauce pan was uncovered in Feature 17, Level 2 (Photo 127:C). Enameled or granitewares were first mass produced during the 1870s. Among the early innovators of this new technique were Frederic and William Niedringhaus, who arrived in St. Louis from Germany in the 1850s. They established a business hand producing kitchen utensils, but by the 1870s, they were using machines that could stamp out utensils from a single sheet of metal. During a visit back to Germany in 1874, William found a store displaying metal utensils covered with a white enamel. He brought the process back to St. Louis and on April 10, 1874, produced the first piece of graniteware. It was called graniteware because ground granite was used to coat the metal vessels. Soon graniteware vessels were being painted or spattered with blue paint, with this type of ware known as blue enamel. In 1891, the brothers purchased 3,500 acres east of St. Louis. In 1896, the growing community was incorporated as Granite City due to the success of the Niedringhaus brothers' business (Village Profile n.d.). Enameled wares were widely popular between 1880 and 1940 for a variety of utility vessels (Figure 119) such as the sauce pan found in Feature 34. Although retinned pieces sold for two to three times less than enameled pieces (1902 Sears Roebuck Catalogue1986), these were not as durable and tended to rust quickly, and the enameled pieces were within the price range of most consumers.

Photo 127: Mixing Bowls and Graniteware Sauce Pan from Period III Features

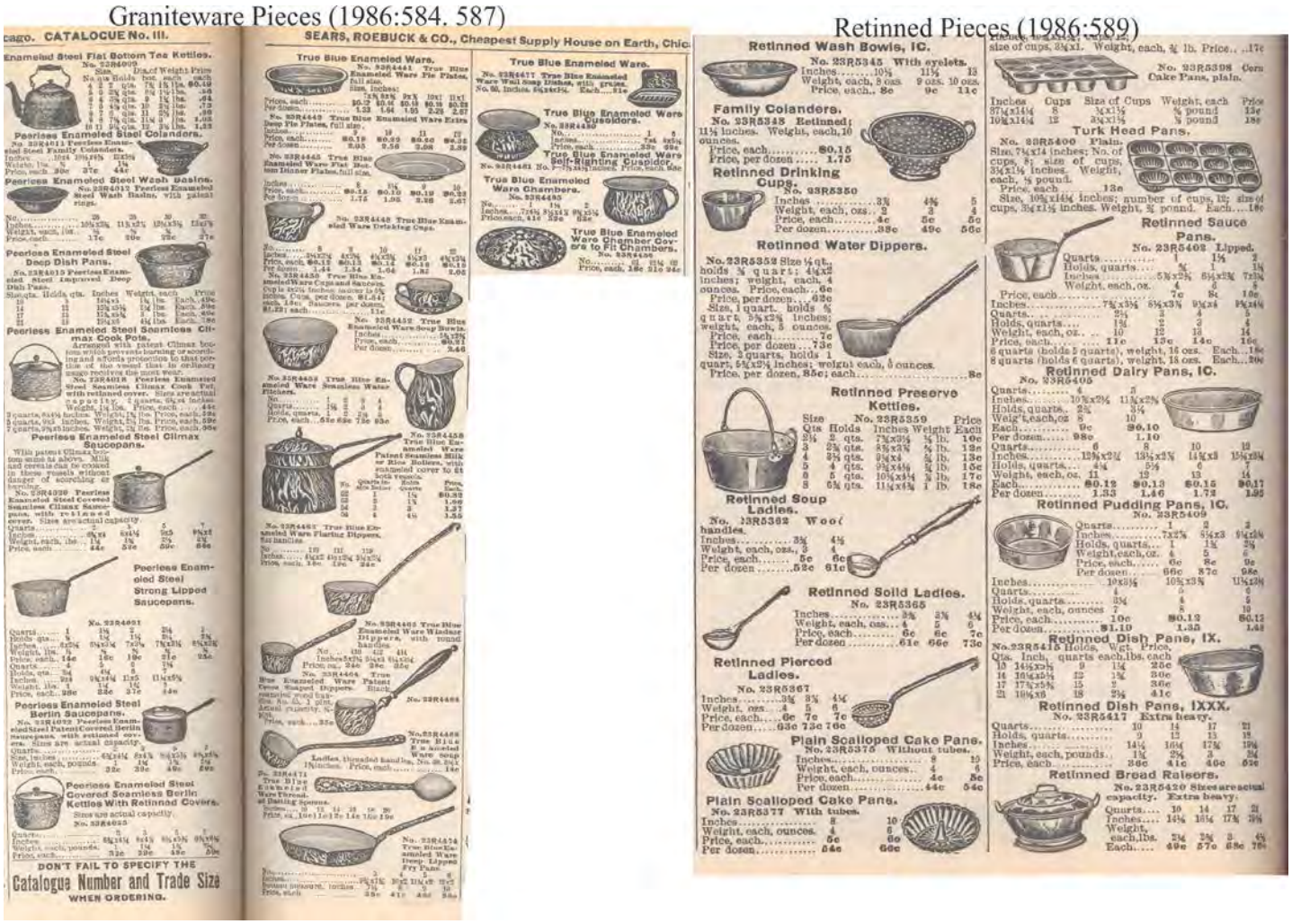
A. 34-2 Yellowware Mixing Bowl

B. 34-1 Yellowware Mixing Bowl



C. 17-47 Sauce Pan

Figure 119: Prices of Enamel Graniteware and Retinned Wares Sold in 1902 Sears Roebuck Catalogue

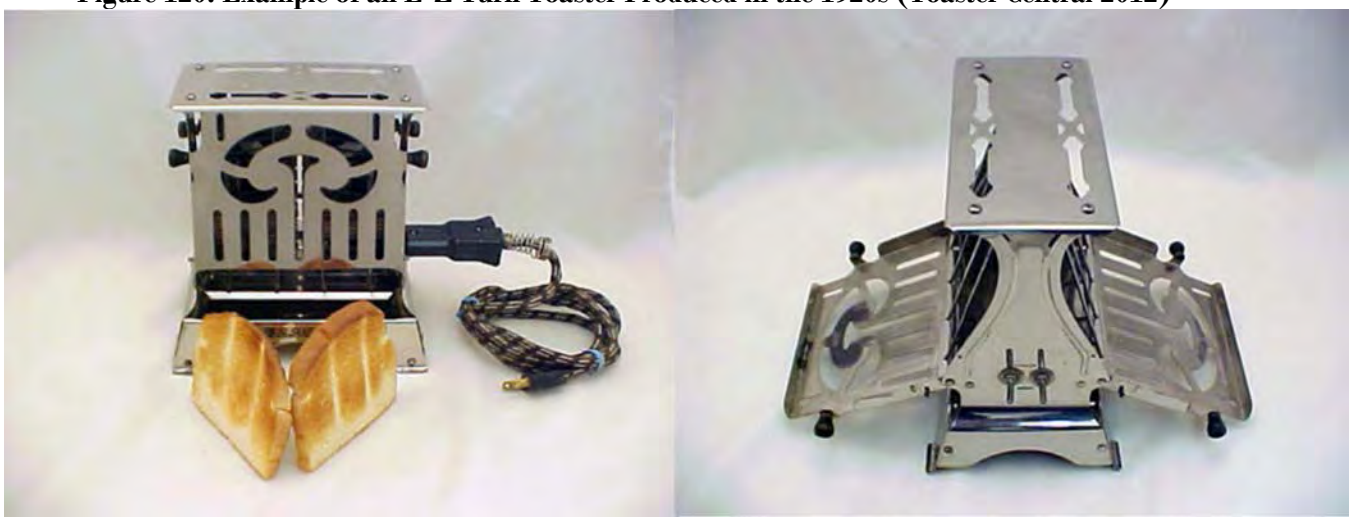


A complete toaster was recovered from Feature 33, Zone B (Photo 128). After the development of electricity, a search was on for a filament that could withstand high temperatures without becoming damaged or starting fires. In 1905, Albert Marsh discovered that an alloy of nickel and chromium, known as Nichrome, could withstand these temperatures. After its discovery, several inventors developed prototypes for electric toasters which could use Nichrome to heat bread to 310 degrees Fahrenheit. None of these were commercially successful until Frank Shailor of General Electric submitted a patent for his toaster known as D-12 in 1909. However, the toast was heated on a rack of electric coils; when one side of the bread was toasted it had to be flipped by hand to do the other side. In 1914, Hazel B. Copeman invented a toaster that could heat bread on both sides and Charles Strite developed the pop-up toaster in 1919. A variety of toasters were introduced during the 1920s, but the pop-up toaster did not sell well until after 1926 when sliced bread of standard sizes were introduced, making the spring loaded pop-up toaster more practical (The Great Idea Finder 2007). The toaster recovered from Feature 33, is similar to an E-Z Turn Toaster produced during the 1920s (Figure 120), prior to the wide acceptance of pop-up toasters.

Photo 128: Toaster from Feature 33

33-49 Toaster

Figure 120: Example of an E-Z Turn Toaster Produced in the 1920s (Toaster Central 2012)



Only one stoneware jug (Photo 129) was recovered from the Period III features, but no crockery vessels were discovered within the Period III features. Stoneware crockery vessels were less popular after 1930 due to the growing use of packaged foods. Period III features also produced a minimum of 11 canning jars at least five of these were "Atlas E-Z Seal Jars" (Photo 130:A-D). These differed from the other canning jars, which had a white glass liner separating the zinc screw top lid (Photo 130:E-F), in that they were fastened with a lightening fastener. In 1882, Henry Putnam of Bennington, Vermont, patented this type of fastener for fruit jars which held a glass lid in place with a metal clamp (Figure 121). The clamp also made it easier to open and seal the jars, hence the name "Lightning". The Atlas Company improved on the Lightening fastener by adding a raised lip (Photo 130:B) to keep the lid from cracking (Society of Historical Archaeology 2013c; Lief 1965:8-9). These canning jars became less popular during the 1930s when a vacuum seal cap using a rubber gasket was developed in 1929 (Lief 1965:32). The presence of these jars could suggest that the older style of canning jars continued to be used by the users of the Period III features, or these older styles were being replaced by the newer canning jars.

Photo 129: Stoneware Jug in Feature 17

17-43 Stoneware Jug

Figure 121: Putnam's Patent for Lightening Fastener (Society for Historical Archaeology 2013c)

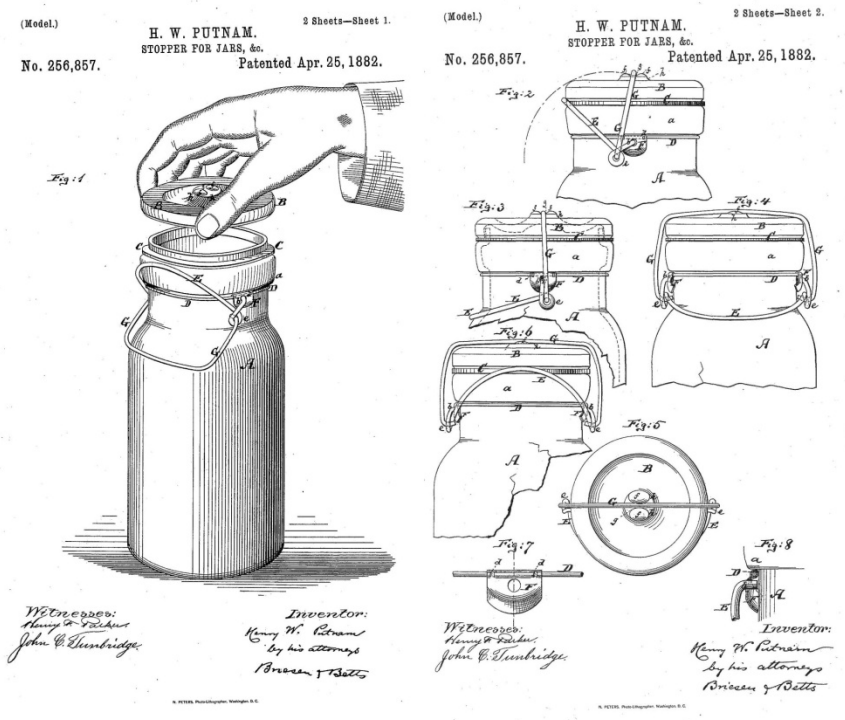


Photo 130: Canning Jars from Period III Features

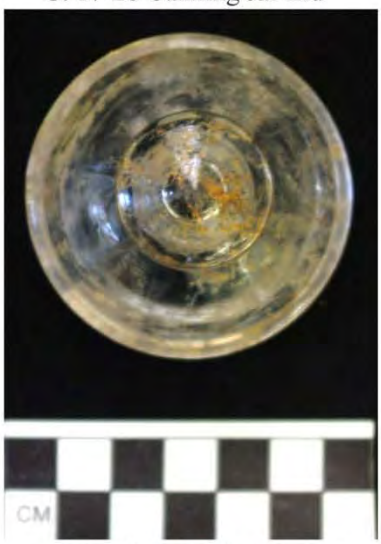
A. 17-48 Canning Jar
"Atlas E-Z Seal"

B. 17-27 Canning Jar

C. 17-28 Canning Jar Lid

E. 34-12 Canning Jar Liner

F. 17-29 Canning Jar Liner
"Boyd's Genuine
Porcelain Lined Cap"



D. 17-5 Canning Jar Lid

Not surprising, a number of commercially produced extracts and condiments were recovered from the Period III features. These include 4 extract bottles, 7 ketchup bottles, 2 Durkee jars, 2 horseradish jars, 1 salad dressing, 1 "Maggi" sauce stopper, and 5 unidentifiable condiment bottles. All of these containers were produced on a fully automatic machine and most (N=12) had a continuous thread finish, suggesting that these techniques finally dominated the condiment and food packing industry. Other finishes on these vessels include one extract bottle from Feature 17 with an extract finish (Photo 131:A), a ketchup bottle found in Feature 12 with a string rim finish (Photo 132:A). and another ketchup bottle found in Feature 17 with a crown finish (Photo 132:H). The finish was missing from the remaining 7 bottles. Manufacturing's marks were found on 18 bottles (Table 23).

Table 23: Manufacturer's Marks on Extract and Condiment Bottles Found in Period III Features

Quantity	Mark	Company	City	Dates Used	Toulouse (1971) Page Number
1	"Ball"	Ball Brothers Glass Mfg. Co.	Muncie, IN	1888-present	66-67
2	"O" in circle	Owens Bottle Co.	Toledo, OH	1911-1929	393
1	"I" in diamond	Illinois Glass Co.	Alton, IL	1916-1929	264
3	"H" over "A"	Hazel Atlas Glass Co.	Wheeling WV	1920-1964	239
9	"I" in diamond & circle	Owens Illinois Glass Co.	Toledo, OH	1929-1954	403
2	"F" in hexagon	Fairmont Glassworks Inc.	Indianapolis, IN	1945-1960	201

Of the four extract bottles found in Features 12 and 17 (Photo 131), a small fragment of one bottle from Feature 17 indicated that it was produced by the J. R. Watkins Company. Joseph Ray Watkins founded Watkins Incorporated in 1868 from his home kitchen in Plainview, Minnesota. His first successful product was liniment offering relief from sore muscles. By 1885, his company was so successful that he moved it to Winona Minnesota, which had five railroads and a port on the Mississippi River. At that time, the company was renamed J. R. Watkins Medical Company. At the start of the 1900s, the company expanded into an array of natural consumables (Figure 122) including various medicinal salves, vegetable oil soap, and rose perfume. In 1895, he introduced vanilla extract and soon was producing other natural extracts and spices. The company was sold in 1978 to Irwin L. Jacobs, who continues to sell Watkins' products (J. R. Watkins Naturals 2013).

Figure 122: J. R. Watkins in an Advertisement Espousing Natural Ingredients in His Products (J. R. Watkins Naturals 2013)

Photo 131: Extract Bottles from Period III Features

Ketchup bottles included four in Feature 33 that were made by the Brooks Catsup Company (Photo 132:D-G). Another bottle of catsup from Feature 17 had a crown finish (Photo 132:H) and was produced by the P. J. Ritter (Conserve) Company of Philadelphia. This company was established in 1854 by Phillip J. Ritter. As a company advertisement claims, "Our preserved Fruits, Jellies, Jams, Catsup, Etc. can be bought in the largest cities from nearly all the Retail Grocers to whom we sell direct, or through our agencies". Catsup was one of their biggest products. The company's name was changed in 1918 to the P. J. Ritter Company, thus the catsup bottle found within Feature 17 dates after this time. On January 7, 1957, the company merged with Brooks Foods, Inc., with nearly one-third of catsup sold in the U.S. under the Ritter/Brooks names. In February, 1967, the two companies were purchased by Curtice-Burns (Securities and Exchange 1959; The World's Largest Catsup Bottle n.d.).

Additional condiments included two bottles from Feature 12 of Durkee sauce (Photo 133:A). This company was founded in 1850 by Eugene Durkee in Buffalo, New York. The bottles likely represented "Durkee Salad Dressing", but advertisements indicated that this sauce also could be used to spice up fish, meat, and sandwiches. It was in a uniquely shaped bottle, patented on April 17, 1877, to ensure that all of the salad dressing could be removed (Figure 123). The Durkee Company also produced a variety of other sauces and spices and continues to operate today (Durkee n.d.). Durkee used a unique manufacturer's mark (Photo 133:B), copying the British registry mark used between 1842 and 1883 to prevent the copying of popular art or technology. This was likely done to deceive American consumers into believing they were purchasing an English product, which dominated the dining room until the start of the 20th century.

Photo 132: Ketchup Bottles from Period III Features

A. 12-5 Ketchup Bottle

B. 17-31 Ketchup Bottle

C. 33-10 Ketchup Bottle

33-28

33-7

D. - G. Catsup Bottles
"BROOKS"

H. 17-7 Catsup Bottle
P. J. Ritter Co.

Photo 133: Additional Condiment Bottles from Period III Features

A. 12-2 Durkee Jars

B. 12-2 Durkee Jar Mark

C.-D. 33-13 Maggi Sauce Stoppers

E. 33-30 Horseradish Jar

F. 33-9 Maull's Horseradish Jar

Figure 123: Early 1900s Durkee Advertisement
(Letterhead and Billhead Catalogue n.d.)

E. R. DURKEE & Co.,
135, 137 & 139 WATER STREET, NEW YORK,
IMPORTERS AND GRINDERS OF SPICES,
MANUFACTURERS OF MUSTARD, SAUCES, EXTRACTS, &c.

Proprietors of the following articles, so long and favorably known to the public, the excellence of which will be fully maintained.

Every genuine packet bears the registered Trade Mark of the "Gauntlet," as well as a facsimile of our written signature.

E. R. DURKEE & CO'S SELECT SPICES AND MUSTARD,
WITH TRADE-MARK OF THE GAUNTLET, ABSOLUTELY PURE AND ACTUAL WEIGHT GUARANTEED.

THEY are not only absolutely free from every species of adulteration and from all dust, dirt, etc., but are carefully ground in our own mills and under our personal supervision from the finest and best varieties we can import; they excel *all* others, therefore, in strength, richness, quality of flavor, and cleanliness.

THEY cost more than common spices, which, besides being largely adulterated, and short in weight, are always ground from the cheapest, dirtiest, and most inferior goods; they yield the merchant a smaller profit, because "pure goods never pay as well as adulterated," yet they are, by far, the cheapest and most satisfactory to use. Insist on having *Durkee's Select Spices*, in unopened cans, and you will not be disappointed.

E. R. DURKEE & CO'S CHALLENGE BAKING POWDER.

The acid quality wholly of grape cream tartar. No purer, stronger, better, or healthier one ever made or can be made.

IT has not now and never has had in it since its introduction in 1850 a grain of alum, terra alba, phosphates, or any other indigestible or injurious substance, and no *chemist or competitor* has ventured openly to make statements to the contrary.

OUT of over twenty of the leading kinds analyzed by the several U. S. Government chemists, Durkee's Baking Powder was in every trial shown to contain the greatest amount of leavening power; and for this reason, and for its superior qualities in other respects, it was pronounced the best, and the Government has ordered it for several successive years. Sold only in cans, from four ounces to ten pounds, all warranted full weight.

E. R. DURKEE & CO'S SELECT FLAVORING EXTRACTS.

Every bottle guaranteed to hold the quantity indicated by the label.

FROM articles of luxury used by a few, Durkee's Extracts have become a necessity among all well-to-do people. Originally they were of excellent quality and had to be sold at high prices, but now the country is flooded with cheap and disgusting compounds put up and sold under fictitious names, as double and treble distilled Extracts. Nine-tenths of them are short in measure, and so weak and inferior as to be without value.

LEMON.—In buying Durkee's Lemon you get a strong and genuine *extract*, made directly from the fruit, and not a weak and worthless *essence* made by dissolving low-priced or rancid oils in spirits.

VANILLA.—We guarantee the Vanilla to be made wholly of the best cultivated Mexican Vanilla Beans, that not an atom of tonqua or any substitute for vanilla is used in it, and that it is the strongest and best in market.

E. R. DURKEE & CO'S SALAD DRESSING & MEAT SAUCE.
WHOLESOME, DELICIOUS, ECONOMICAL, AND NUTRITIOUS.

For Lobster, Chicken, and all other Salads, Cold Meats, Raw Tomatoes, Cabbage, Salmon, Fish, &c. *Prepared with extreme care and only from the freshest, purest, and choicest condiments.* In handsome patent taper bottles, with screw tops. Two sizes: large, holding 17 ounces; small, 8½ ounces.

IT has on its own intrinsic merits so won public favor that it is now more extensively used both as a dressing and a table sauce by the best hotels, clubs, restaurants, boarding-houses, steamboats, and families throughout the United States and Canadas than any other table condiment, and connoisseurs everywhere pronounce it by *far* the best and most tasty and agreeably seasoned dressing that has ever been placed on the market.

IT IS ECONOMICAL, because there is no wastage; you use only so much as you need at the time, while with home-made dressings, it not unfrequently happens that more is made than is required and must be thrown away.

E. R. DURKEE & CO'S CHALLENGE SAUCE.
FOR ALL KINDS OF MEATS, SOUPS, GRAVIES, FISH, GAME, &c.

Pleases the taste; promotes digestion; stimulates the appetite.

FOR piquancy, delicacy, and richness of flavor, and for tonic and invigorating properties it is unsurpassed. Connoisseurs pronounce it *the only really good American Sauce*, and in many respects greatly superior to any imported. It is a strictly first-class Sauce, and the steadily increasing sales of the *Challenge Sauce*, without advertising, indicate its popularity.

E. R. DURKEE & CO'S CELERY SALT. DESICCATED CELERY.

FOR flavoring soups, gravies, game, oysters, cheese, etc. This new and popular table preparation is much stronger, quite as pure in its flavor, and is at the same time a far more convenient and economical form for all flavoring purposes than the plant itself.

Put up in attractive *patented* bottles, with perforated metallic tops, expressly designed for table use.

We guarantee every article bearing our name and trade-mark of the Gauntlet to be pure and of the best quality and authorize dealers to refund the price paid in every case where consumers have reason to be dissatisfied.

THESE GOODS ARE SOLD BY ALL DEALERS IN FINE GROCERIES.

Photo 134: Food Packing Jars from Period III Features

A. 12-6 Pickle Jar

B. 17-6 Pickle Bottle

C.-D.. 33-29 Olive Jars

E. 17-56 Jelly Jar

F. 17-12 Jelly Jar

G. 33-12 Food Packing Jar

H. 33-31 Food Packing Jar

I.-L. 33-11 Food Packing Jars

Two bottle stoppers found in Feature 33 were marked "Maggi" (Photo 133:C-D). Maggi Sauce was created by Julius Maggi in Switzerland. In 1872, he took over his father's food mill and altered the business. By 1884, he was producing a powdered pea and bean soup and in 1886, he introduced Maggi Sauce. Maggi is a dark, concentrated seasoning sauce, of hydrolyzed vegetable protein, serving as a substitute for meat flavoring. It was sold in bottles or as dried cubes. In 1897, he moved to Singen, Germany, and incorporated his business. Maggi was acquired by Nestlé in 1947 (CooksInfo 2013).

Also found in Feature 33 were two bottles of horseradish; one of these indicated that it had been produced by Maulls (Photo 133:E-F). In 1905, Louis Maull established the Louis Maull Cheese and Fish Company, which sold products to restaurants and groceries in St. Louis. In 1920, they established their own line of manufactured foods and condiments, including creating a recipe for barbecue sauce in 1926, which continues to be the main product of this company today (Maull's n.d.). The horseradish bottles likely dated after 1920.

Packaged food containers recovered consisted of 2 pickle jars (Photo 134:A-B), 2 olive jars (Photo 134:C-D), 2 jelly tumblers (Photo 134:E-F), and 6 unidentifiable food packaging jars (Photo 134:G-L). These all had a continuous thread finish, except for a pickle jar found in Feature 12, which had a double ring finish. This jar was further unusual in that it was triangular shaped (Photo 134:A). In addition, at least 24 tin cans, which held foods, were recovered from the Period III features.

Botanical Analysis of Period III Features by Kathryn Parker

Feature 34 was described as a backyard trash/ash disposal pit, associated with a 1930-1960 domestic residence. The flotation sample was dominated by seeds, with lower frequencies of unburned wood, and occasional miscellaneous items such as woven textile and a possible wooden button (Table 24). Although abundant, seed densities were still far lower than in samples from privy Features 14, 15 and 16. Plentiful seeds from several weedy taxa, especially goose grass and lambsquarters, were assessed as recent on the basis of moist and flexible perisperm, and excluded from further analysis. Of 125 seeds that appeared most likely to be associated with Period III activities, 120 were identified. These included, in descending order of abundance: blackberry/raspberry, elm (*Ulmus* sp.), grape, spiderflower (*Cleome* sp.), elderberry, and cucumber or cantaloupe (*Cucumis* sp.).

Blackberry/raspberry, grape, and elderberry seeds all represent small fruits consumed and used in various ways, as they had been for generations. A single cucumber or cantaloupe seed provides evidence for an edible domesticated garden crop, and six seeds (four uncarbonized and two carbonized) of cleome, reflect a popular flowering annual planted for its colorful blooms.

Thirty winged seeds of elm (29 unburned and one burned) are most likely products of dispersal from trees growing in the vicinity of Block 3. All five elm species either native or introduced in Missouri have winged seeds, but the Feature 34 specimens, round and flat like a flying saucer, are most similar to those of slippery or red elm (*U. rubra*).

Table 24: Botanical Remains from Sampled Feature 34

Sample Provenience	Feature 34, Zone A, E1/2
Total Flotation Volume (liters)	10.0
Total Seeds (N)	125
Breakdown by taxon (N)	
Cleome sp. (spiderflower)	6
Cucumis sp. (cucumber/cantaloupe)	1
Rubus sp. (blackberry/raspberry)	72
Sambucus canadensis (elderberry)	5
Ulmus sp. (elm)	30
Vitis sp. (grape)	6
Unidentifable	5
Total Wood Fragments (N)	106
Total Wood Wt. (grams)	3.25
Breakdown by taxon (N)	
Juniperus virginiana (Eastern red cedar)	9
Bark	1
unidentifiable twig	10
Miscellaneous Materials (N)	6
Blue painted wooden object (button?)	1
Twined fibers	1
Woven textile	4

Note: Most seeds are uncarbonized. All wood fragments are uncarbonized.

Wood fragments totaled 106 uncarbonized fragments (3.25 g), most of them unidentifiable twigs and sticks. The nine fragments identified were from a common evergreen, Eastern red cedar (*Juniperus virginiana*).

Miscellaneous materials were few, including remnants of woven textile (maximum 2 mm in diameter), several pieces of a possible blue painted wooden or composition button, and a fragment of twined or twisted heavy thread or thin string.

Faunal Analysis of Period III Features by Lucretia S. Kelly

Period III yielded the largest number of faunal remains, 377 NISP weighing 2438.6 grams and several specimens were recovered from flotation and have been included with the excavated material. All the faunal material from Features 17 (water closet) and 34 (ash/trash pit) were mammal bones. Four taxa were identified including a possible sheep (cf. Ovis aries), sheep/goat, swine, and cattle (Table 25).

Table 25: Faunal Remains from Period III Features

	NISP	MNI	Weight (gm)	NISP burned	NISP weathered	NISP sawed
Mammals						
cf. Ovis aries	1	1	8.8	0	1	1
Ovis/Capra	5	1	29.7	0	5	0
Sus scrofa	1	1	32.3	0	1	1
Bos Taurus	62	5	1397.0	0	44	38
medium-large mammal	64	-	12.7	7	0	0
large mammal	120	-	155.9	3	117	24
very large-large mammal	119	-	695.8	2	116	55
very large mammal	5	-	106.4	0	4	3
Total	377	8	2438.6	12	288	125

Cattle bones were by far the most numerous for the taxa identified: 62 NISP representing a minimum of 5 individuals. About 70% are weathered and 61.3% are sawed. Table 26 lists the butchering units associated with the elements recovered in the ranked retail value order of 19th century cuts (Schultz and Gust 1983). The majority are from the fore and hindshanks, which are ranked 9th and having the least retail value. A number of carpals and tarsals also were recovered and may have been riders on the shanks. Several have been sawed indicating the distal legs were cut just above the metapodials. No metapodials were recovered.

Table 26: Beef Butchering Units and Associated Elements from Period III

Butchering Unit	Elements Present	NISP
Sirloin	ilium	1
rib/chuck	thoracic vertebra	1
Arm	proximal humerus, scapula glenoid	5
Neck	cervical vertebra (atlas)	1
hindshank/hock	tibia, calcaneous, astragalus, tarsals	22
foreshank/hock	radius, ulna, distal humerus, carpals	22
Foot	unspecified tarsals, carpals	2

A number (NISP = 8) of very large-large mammal sawed long bone segments or “rings” were recovered. Because they are only a small portion of a long bone shaft, they could not be specifically identified to element or taxon, but most likely represent round steaks or ham steaks depending upon whether they are swine or cattle. Cuts that include the ribs are also present, but because the taxon and the position of the ribs could not be identified from the rib shaft fragments, the butchering unit(s) could not be determined.

Little can be said about the age of the cattle represented. Only one loose molar fragment was recovered and only a few long bones possessed epiphyseal surfaces from which to determine fusion. All were from joints that fuse between 3½ - 4 years of age and all were unfused. Therefore the cattle represented were younger than 3½ years.

Five sheep/goat specimens were recovered and all are metapodial shafts from immature individuals. One was a proximal metacarpal. An unfused distal tibia (epiphysis and diaphysis) from a probable sheep also was recovered. Popkin et. al. (2012:1784) list the fusion rates of sheep and there is a wide variance depending upon sex. They list the range from Zeder (2006) for both males and females, and distal tibiae and distal metacarpals/metatarsals all fuse between 18 and 30 months.

Only one swine specimen was identified from Period III, and that was an unfused distal humerus. It had been sawed and is weathered. This would be from a young individual of less than one year of age (Payne and Bull 1982:56) and would represent a picnic shoulder unit of pork (Lyman 1979:541).

Health Care

Only a minimum of 13 objects associated with health care, weighing 811.9g, were found in the Period III features (Photo 135). These include 9 bottles, 2 jars, 1 vial, and 1 metal pill box. Most of the bottles were produced on a fully automatic machine except for one found in Feature 12 which was made on a semi automatic machine and had an extract finish. The medicine bottles had 3 continuous thread, 1 patent, 1 extract, 1 double ring, and 1 bead with collar finishes. This would suggest that, unlike the condiments, most of these bottles still used a cork sealers, indicating that the producers of medicines were slower to turn to a continuous thread finish. Two of the bottles from Features 12 and 33 had manufacturing marks with an I inside a diamond that was surrounded by a large circle. This was the mark of the Owens Illinois Glass Company in Toledo, Ohio, between 1929 and 1954 (Toulouse 1971:403). Another bottle from Feature 34 had a mark of “ILLINOIS” for the Illinois Glass Company of Alton, Illinois, used between the 1910s to 1929 (Glass Bottle Marks 2013). The vial from Feature 17 had a “B” used by the Buck Glass Company of Baltimore, Maryland, between 1909 and 1961 (Toulouse 1971:57). Two bottles had graduated number marks and could have been sold by a pharmacy (Photo 135:C). The other bottles appear to have been commercially prepared.

Two jars, from Features 12 and 17, once contained vaseline produced by the Chesebrough Manufacturing Company of New York (Photo 135:D-E). In 1859, Robert A. Chesebrough from Brooklyn, New York, came to Pennsylvania to investigate oil wells hoping to make a fortune in this new industry. He discovered a gooey substance known as “Rod Wax” that was causing the drilling rigs to seize up. Chesebrough noticed that oil workers would smear the substance on their skin to help heal cuts and burns. After months of experimenting with this substance, Chesebrough developed petroleum jelly. By 1870, he was marketing petroleum jelly as vaseline, which immediately became popular. People used it to heal their skin, mothers used it to alleviate diaper rash, and workers in the extreme cold used it to relieve dried, chapped skin. Commander Robert Perry took vaseline with him on his trip to the North Pole because it would not freeze. By the late 1880s, Chesebrough was selling Vaseline Petroleum Jelly at the rate of

one jar per minute. In 1955, Chesebrough Manufacturing Co. merged with Pond's Extract Company to form Chesebrough-Ponds, Inc, and vaseline continues to be popular today (Vaseline.com n.d.).

Two bottles from Feature 33 held antiseptics, including one that once contained Campho Phenique (Photo 135:F). In 1867, Joseph Lister showed that phenol could clean patient's skin before and after surgery to reduce infection. In 1884, the Campho-Phenique Liquid was developed as an antiseptic. In 1944, this company was acquired by Sterling Drug and, in 1984, the business was sold to the Mentholated Company of New York, who continues to produced Campho-Phenique today (Campho-Phenique 2012).

The other bottle contained mercurochrome (Photo 135:G). This product was invented in 1889 by Ira Remsen of John Hopkins University and made commercially available by Dr. H. A. B. Dunning of Hynson, Westcott and Dunning in New York City. It was first developed as a urinary antiseptic, but soon was used by physicians and later the general public as a general antiseptic to cure wounds (Hynson, Westcott, & Dunning Inc. 1932).

The metal case once contained aspirin. Friedrich Bayer and Johann Friedrich Weskott established a dye company in Wuppertal, Germany, on August 1, 1863. Although dyes remained their biggest operation, after 1881, they developed other chemicals. Through the efforts of their chemist, Felix Hoffmann, the "drug of the century", aspirin, was developed in 1899. As part of the Treaty of Versailles that ended World War I, the Germans were forced to give up their claims to aspirin and it continues to be produced across the world today. In 1915, aspirin started to be made in tablets instead of powder and by the 1930s was being sold in tin boxes that held 12 tablets each (Bayer n.d.), similar to the one recovered from Feature 33.

Photo 135: Medicines from Period III Features

Hygiene Products

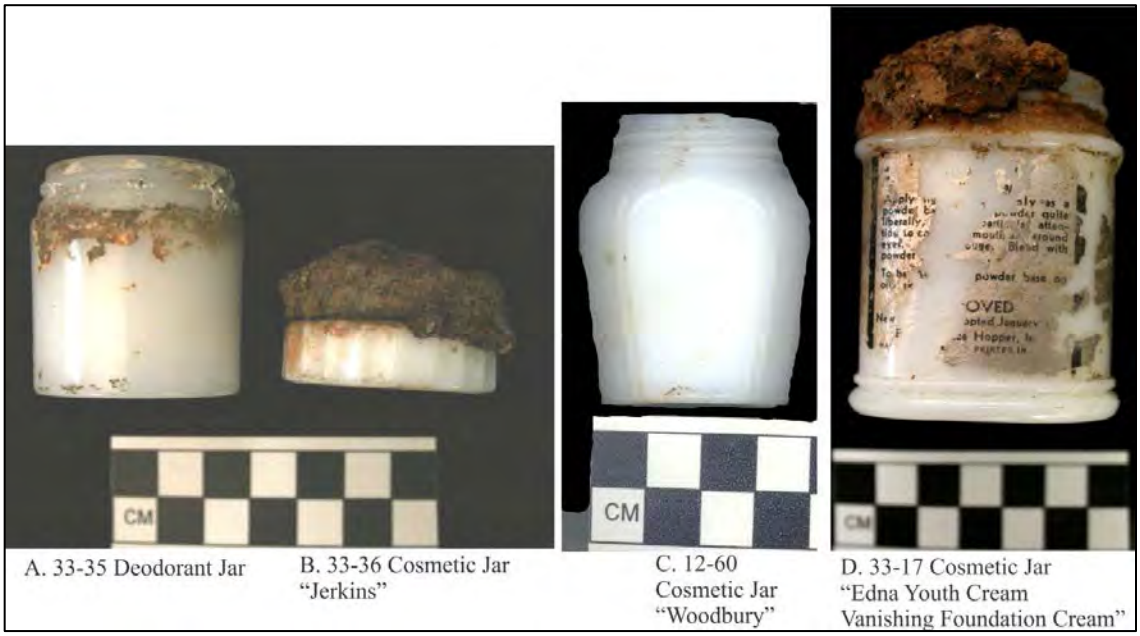
A small percentage (7%) of artifacts was associated with hygiene, including a minimum of 17 pieces, weighing 996.5g. These items include a top from a collapsible tube of toothpaste in Feature 34 (Photo 136). Toothpaste was sold in collapsible tubes introduced by Colgate and Company in 1896 and improved upon in 1908 (Colgate 2009). However, this tube as marked with "LPCo" suggesting that it was not associated with Colgate and Company but the Lambert Pharmacal Company established in 1885 in St. Louis (Museum of Learning n.d.; Pfizer 2000). This was the same company that produced Listerine mouth wash discussed during the Period II artifacts.

Photo 136: Toothpaste Tube Top

34-22 Tooth Paste
Plastic Lid
"LPCO"

Seven of the jars consisted of white glass used for cosmetic or deodorant jars (Photo 137). One of these from Feature 33 was made by "JERGENS" (Photo 137:B). The Andrew Jergens Company was established on April 5, 1882 by Andrew Jergens Sr. and Charles H. Geilfus in Cincinnati, Ohio. They initially sold soaps, including a coconut oil soap specially formulated to perform in hard water. In 1901, they acquired the John H. Woodbury Company and Robert Eastman Company. The John H. Woodbury Company was established during the 1870s in Cincinnati, Ohio. Its main product was Woodbury soap, but they extended into other cosmetic products. Jergens maintained Woodbury's name on products. One cosmetic jar found in Feature 12 had "WOODBURY'S" on its base (Photo 137:C), but this jar likely dated after its acquisition by Jergens. The company became one of the largest producers of personal care products in the world. In 1988, Jergens was acquired by the Kao Corporation of Japan and in 2004 the Andrew Jergens Company name was changed to Kao Brands Company (Combs and Cook 2006).

Photo 137: Cosmetic and Deodorant Jars from Period III Features



A. 33-35 Deodorant Jar
B. 33-36 Cosmetic Jar "Jerkins"
C. 12-60 Cosmetic Jar "Woodbury"
D. 33-17 Cosmetic Jar "Edna Youth Cream Vanishing Foundation Cream"

Another bottle was labeled “EDNA . . . YOUTH CREAM VANISHING FOUNDATION CREAM” (Photo 137:D). This was a line of cosmetics named for the famous actress Edna Wallace Hopper (Figure 124). Although she refused to reveal her age, Edna Wallace was born on January 17, 1872 in San Francisco. She quickly achieved fame as an actress by playing Lady Holyrod in the popular London stage production of “Floradora. During the 1890s, she married, but soon divorced, a fellow actor, DeWolf Hopper. DeWolf suffered from a birth condition that left him bald and he had to wear hairpieces. His skin also had a blue tinge due to medicines that he took for a throat condition. Despite his looks, his acting attracted women and he would eventually have six wives and countless mistresses, including the famous gossip columnist, Hedda Hopper. In the 1920s, Edna had a facelift, which was filmed. For nearly eight years she would show the film and give beauty tips. One of her tours caught the attention of Claude C. Hopkins, an advertising agent for American Home Products. They developed a line of cosmetics using Edna’s name. She died on December 14, 1959 in New York City from complications with pneumonia (Vintage Powder Room 2011).

Figure 124: Edna Wallace Hopper and Her Advertisements, Including One For Youth Cream (Vintage Powder Room 2011; Cosmetics and Skin 2013)

Don't Envy Me

Youth and beauty are at your command
By Edna Wallace Hopper

Stay a Girl

Cultivate Your Beauty and Retain Your Youth

By Edna Wallace Hopper

I MADE myself a famous beauty and the rage. I have lived for 40 years a glorious career. Now I remain at my height—as young and beautiful as ever. The envy of thousands who see me daily on the stage.

All that because I searched the world for aids to youth and beauty. I found the best that science offered. Then all the later, better helps.

Now those supreme helps are at every woman's call.

Learn what these helps do for women. You owe that to yourself.

My Youth Cream

My Youth Cream is a remarkable creation, combining many factors. It contains products of both lemon and strawberry. Also all the best helps science gave me to foster and protect the skin.

It comes in two types—cold cream and vanishing. I use it as a night cream, also daytimes as a powder base. Never is my skin without it. My velvet complexion shows what that cream can do.

The cost is 60c per jar. Also in 35c tubes.

My Facial Youth

Is a liquid cleanser which I also owe to France. Great beauty experts the world over now advise this formula, but their price is too high for most women.

It contains no animal, no vegetable fat. The skin cannot absorb it. So it cleans to the depths, then departs. My Facial Youth will bring you new conceptions of what a clean skin means. The cost is 75c.

My Face Powders

They are supreme creations. No face powders you have used can compare. Any face powder branded Edna Wallace Hopper is exquisite. They come in two types. One is a heavy, clinging, cold cream powder, in square box, $1.00. That is the type I like best. The other is light and fluffy, in round box, 50c.

All toilet counters supply Edna Wallace Hopper's beauty helps. If you send the coupon I will mail you a sample of any one you choose. Also my Beauty Book. Clip coupon now.

For Trial Size — 63 LHJ

Mail to Edna Wallace Hopper, 536 Lake Shore Drive, Chicago. Enclose 10c postage and packing on each sample wanted.

☐ Youth Cream | ☐ Facial Youth

Name.....

Address.....

In addition to trial size ordered above we will include Free, without postage or packing charges, Free sample of either

☐ Youth Cream Powder or ☐ Face Powder

White—Flesh—Brunette

(Check kind and shade desired)

Another eight bottles represented perfumes, cologne, and after shave (Photo 138). Most of these were recovered from Feature 33, although one perfume bottle, found in Feature 34, was embossed with "Ambrosia" on its base. According to The Encyclopaedia of Perfume (Perfume Intelligence n.d.), Ambrosia was produced by at least three companies, including Emma Beecham starting in 1925, Louis Pierce starting in 1930, and Allan B. Wrisley Co. starting in 1948.

The aftershave bottle found in Feature 33 had embossed on its base "J B W CO., USA" (Photo 138:C). This was from the J. B. Williams Company of Glastonbury, Connecticut, that was founded by James Barker Williams. Williams while partner of a general store experimented with soap formulas producing a better quality soap to sell. His soap became so successful that in1840, he quit the store and established a company to manufacture "Williams Genuine Yankee Soap". He eventually started producing other types of soaps, blacking polish, and inks. His eldest son, David Williams, started another company producing laundry soap powder known as "Ivorine". The two companies merged in 1885 and incorporated as the J. B. Williams Company. By the turn of the century, the company concentrated on shaving soaps and lotions producing such products as Aqua Velva, Lectric Shave, Kremi, Conti, and Skol. In 1957, the company was sold to Pharmaceuticals Inc., but a group of J. B. Williams Company former employees purchased the buildings and equipment and continue to supply Pharmaceuticals Inc. with the same products under the name of Glastonbury Toiletries Inc. The company was closed in 1977 (Ransom and Herzan 1983). The aftershave bottle dated between 1885 and 1957.

Photo 138: Perfume, Cologne, and After Shave Bottles from Period III Features

One hair care bottle found in Feature 17 still contained its label, indicating that it was "Jewel Waveset" (Photo 139). This product could be used at home for finger and water waving. During the 1930s and 1940s, longer hair styles again were in fashion. But the hair typically was not held in place with combs, but was pinned, or formed into curls or waves using products such as the one found in Feature 17 (Figure 125).

Figure 125: Women's Hairstyles During the 1940s

Photo 139: Hair Care Product from Feature 17

17-21 Hair Care Bottle
"Jewel Waveset for
Finger Waving and
Water Waving"

Personal Objects

A similar small percentage (6%) of personal objects was recovered as artifacts associated with hygiene. A minimum of 15 personal objects were found weighing 205.9g. Clothing related pieces consisted of three porcelain buttons one from Feature 17 with two sew throughs, and two from Feature 33 with 4 sew throughs. One of these also had a blue color.

A fragment of a black rubber comb was found in Feature 17, Level 1, and a large plastic hair comb was found in Feature 34, Zone A (Photo 140:A). These were likely associated with a personal hair care set. The larger combs were needed to maintain longer hair.

Other personal items included two tobacco cans found in Feature 33, Zone A, and Feature 34, Zone B (Photo 140:B); a brass money clip in Feature 34, Zone A (Photo 140:C); a fishing weight from Feature 34, Zone A (Photo 140:D); and green tented lens from sun glasses found in Feature 33 (Photo 140:E). James Ayscough experimented with tinted lenses to be used in glasses in 1752. It was believed that blue or green tinted glasses could correct various types of vision impairments, but protection from the sun's rays was not a concern. During the 19th and early 20th century, a yellow amber or brown colored lens was prescribed for people with syphilis because one of the symptoms was sensitivity to light. In 1929, Sam Foster introduced the first inexpensive pair of sunglasses, named Foster Grant, selling them from a Woolworth on the Boardwalk of Atlantic City, New Jersey. In 1936, Edwin H. Land patented Polaroid filtered sunglasses and the following year, Ray Ban developed antiglare aviator sunglasses, which became widely popular with celebrities and the public, as well as served an important role with pilots during World War II. Sunglasses since that time have been widely popular with the public and sold today as protection for the eyes from the harmful effects of sun rays and UV light (Glasses History n.d.). The green tinted sun glasses uncovered were likely produced after 1929.

In Feature 12, a portion of a dog porcelain figurine was uncovered (Photo 140:F). It is uncertain if this was associated with a child, but two items were uncovered that were used by children. These include fragments of a rubber ball found in Feature 33, Zone A (Photo 140:G), and a pair of children scissors in Feature 34, Zone A.

Household

A larger percentage of household objects (26%, a minimum of 66 pieces, weighing 2686.2g) were recovered from the Period III features. These included three redware flower pots found in Features 17, 33, and 34; and a porcelain vase found in Feature 12 (Photo 141:A). The vase had fine molded ribs with a gilded edge. A floral design was painted on its body.

Other household products included a black shoe polish bottle in Feature 12 (Photo 141:B). An ink bottle recovered in Feature 33, with a pressed geometric design (Photo 141:C). This feature also contained a graphite pencil lead and a metal paint can.

A large number of batteries (N=39) came from Feature 17 (Photo 141:D). These measured about 2 ¾ by 1inches (7 by 3 cm). It is unclear how these batteries were used or why such a large number were found in this feature. These could have been associated with a radio. Another battery of the same size was recovered from Feature 33.

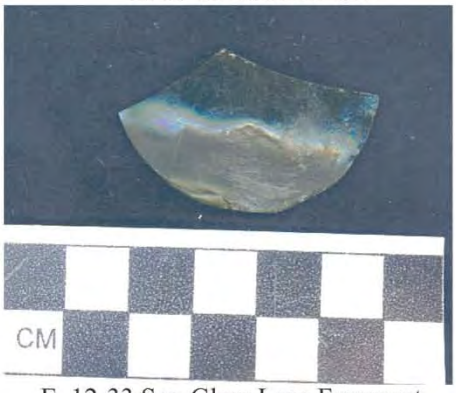
Photo 140: Personal Items from Period III Features

A. 34-24 Plastic Comb

B. 33-39 Tobacco Can

C. 34-25 Money Clip

D. 34-30 Fishing Line Weight

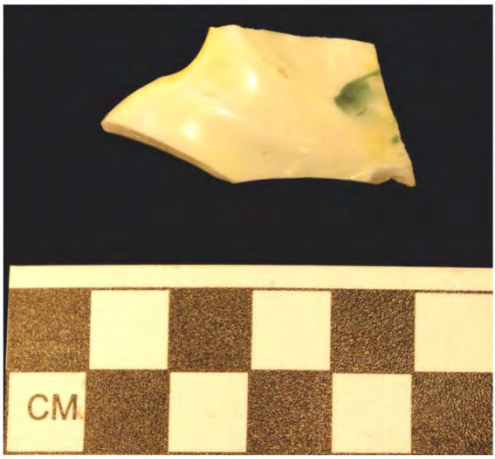


E. 12-33 Sun Glass Lens Fragment

F. 12-61 Dog Figurine

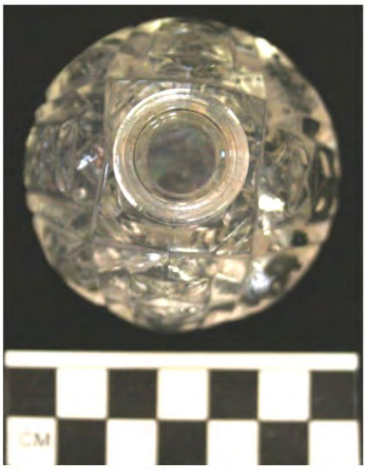
G. 33-42 Rubber Ball Fragments

Photo 141: Household Items from Period III Features



A. 12-21 Porcelain Vase

B. 12-59 Black Shoe Polish



C. 33-21 Ink Well

D. 17-22 Battery Parts

E. 34-33 Iron Woman's Head

Feature 17 contained a brass piece associated with unidentifiable furniture hardware and a picture hanger. A portion of an iron figure of a woman's head was recovered in Feature 34 (Photo 141:E). This could have been associated with a statue (Figure 126) or was part of a lamp (Figure 127).

Figure 126: Examples of Female Sculptures (Jennmaur Gallery 2010)

Ca. 1920 by Bruno Zach of Austria | 1924 by Allan Clark, American | Early 1900s, Hans Muller of Germany | 1930s Artist Unknown Czechoslovakia

Figure 127: Examples of Lady Lamps, Early 1900s

(Warren n.d.) | (Ransome 2008) | (Preservation Station 2013)

Also recovered from Feature 17 were a part of a lamp made from aluminum, a fragment of a lamp chimney, and a part of a glass lamp shade. The lamp shade had a molded floral decoration painted blue on the inside portion of the shade (Photo 142).

Photo 142: Lamp Shade from Feature 17

17-63 Lamp Shade

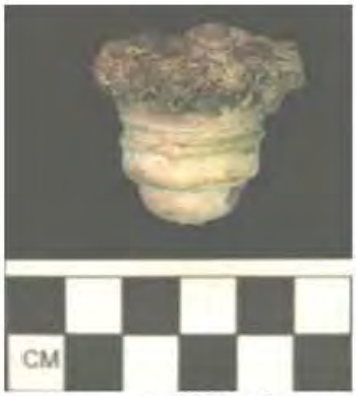
More common were objects associated with electricity. These included seven porcelain and glass fuses (Photo 143). One from Feature 12 was marked "TRICO COLORTOP" (Photo 143:G). This fuse company was founded in 1917 by Oscar Jung in Pewaukee, Wisconsin. Jung left his job as electrician at Joseph Schlitz Brewing Co. in Milwaukee and developed a line of fuses, starting the Trico Fuse Co. In the late 1930s, the company diversified by adding lubrication and coolant products to be used on machine tools and metal-cutting equipment. In 1950, Oscar Jung changed the name of the company to Trico Manufacturing when he dropped the fuse business to concentrate on the production of lubricants and coolants, so the fuse had to date prior to this time (Millard 2005).

Another fuse from Feature 33, Zone A, was a "BUSS ELECTRICITY SAFETY VALVE" developed by the Bussmann Company. This company was formed by Harry Bussmann and his brother in 1923 and continuous to exist today. The company now has over 3,000 patents on electrical devices, although fuses are the main part of their business (Braeuner 2013).

A third fuse, also recovered from Feature 33, Zone A, was marked "ROYAL CHRYSTAL". This was produced by the Royal Electric Manufacturing Company established in Chicago, Illinois, by 1913 (Gish 2013).

Other electrical pieces consisted of two porcelain insulators found in Feature 17, and a two wire cleat found in Feature 34. The cleat was embossed on its side with "MACOMB" (Photo 143:H). This type of cleat was produced by the Illinois Electric Porcelain Company between 1910 and 1919. The company was established in 1910 in Macomb, Illinois, and it continued to operate until 1953 (Gish 2013). A complete light bulb was found in Feature 33 (Photo 143:I) and a fuse, from an automobile, was recovered from Feature 34 (Photo 143:J).

Photo 143: Electrical Parts from Period III Features



A. 33-24 Fuse

B.-F. 33-44-47 Fuses

G. 12-25 Fuse
"Trico Colortop"

H. 34-32 Two Wire Cleat
"Macome" Co.

I. 33-23 Light Bulb

J. 34-31 Fuse

HISTORICAL USE OF FEATURES WITHIN THE MITIGATION AREA

A total of 40 features were uncovered during the mitigation operations. The construction of the features and artifacts associated with them provided some clues into when these materials were used and discarded. Further, it was possible to associate some of the remains with the families who resided on the property within the two sites by using the U.S. Census and St. Louis City Directories.

SITE 23SL2328

Site 23SL2328 was defined by MoDOT as existing on the southeastern portion of the project area within City Block 4879. A total of 13 features were identified within the mitigated portion of this site.

Feature 1, a cistern, was discovered behind the residence at 4354 Papin Street, however, according to the 1909 and 1951 Sanborn maps (Appendix F, Figure F6 & F7), census records and the city directories, this residence was variously shown as 4354 and 4356 Papin Street. It consisted of a two story home first occupied in 1884 by Elizabeth Pfeifer, the widow of George F. Elizabeth, who was born in Maryland, but her parents were German immigrants. She worked as a seamstress. Living with her were at least four grown children: Henry G., who worked as a butcher and a plasterer; Walter, who worked as a lather and plasterer; Olivia, who worked as a dressmaker; and Amelia, who worked as a dressmaker. Both of the daughters, like their mother, worked out of their home. According to the 1900 census, two other daughters, Anna and Georgia, were living at home and working as stenographers. The census also indicated that a grandson, Otto Walters, age 21, was staying with the family, but his profession was illegible. Elizabeth owned the home free of any mortgage.

City directories and the U.S. Census no longer list anyone at this address after 1904, although a residence is shown at this location on the 1909 and 1951 Sanborn fire insurance maps. The artifacts associated with the cistern seemed to date prior to 1905 and could be associated with the Pfeifer family. Unfortunately, few habitational debris was recovered other than fragments of a liquor bottle, a plain saucer, an ironstone chamber pot, and lamp chimney hardware. A great deal of construction debris was within this cistern and could have been deposited there when buildings on this property were razed about 1905, possibly so that Tower Grove could be widened and turned east to connect to the existing Briggs Avenue, whose name was changed to Tower Grove.

The mortar lined cistern was placed some distance from the residence, but was near an outbuilding shown on the 1909 Sanborn and could have been used as a secondary water source collected off of this building (Appendix F, Figure F6). According to information from Metropolitan St. Louis Sewer District (MSD), the house was hooked up to the sewer line on August 21, 1899 with a 6 inch line (MoDOT Historic Preservation Section 2012). However, no privy used prior to this time was found within the portion of the yard within the mitigation area,

but the western section of this property is now under the sidewalk along Tower Grove Avenue and the privy could have been on the southwest corner of the property.

Features 2, 3, 4 and 6 were discovered behind the one story residence at 4352 Papin Street (Appendix F, Figure F6). The archival review indicated that this residence was first occupied by James H. Goodwin in 1888. He was a brick layer. Only two years later, the City Directory revealed that Elizabeth McGinnis, the widow of John, was residing within this home. Over the years, there were numerous families living at this location that rented the property (U.S. Census 1900-1940). Many of the residents were German immigrants or the children of German immigrants. According to MSD information, this property was hooked up to the sewer line on May 13, 1899. At that time, the property was owned by Elizabeth Bartmann, who rented out the residence. This was the only rental property that she owned in this area.

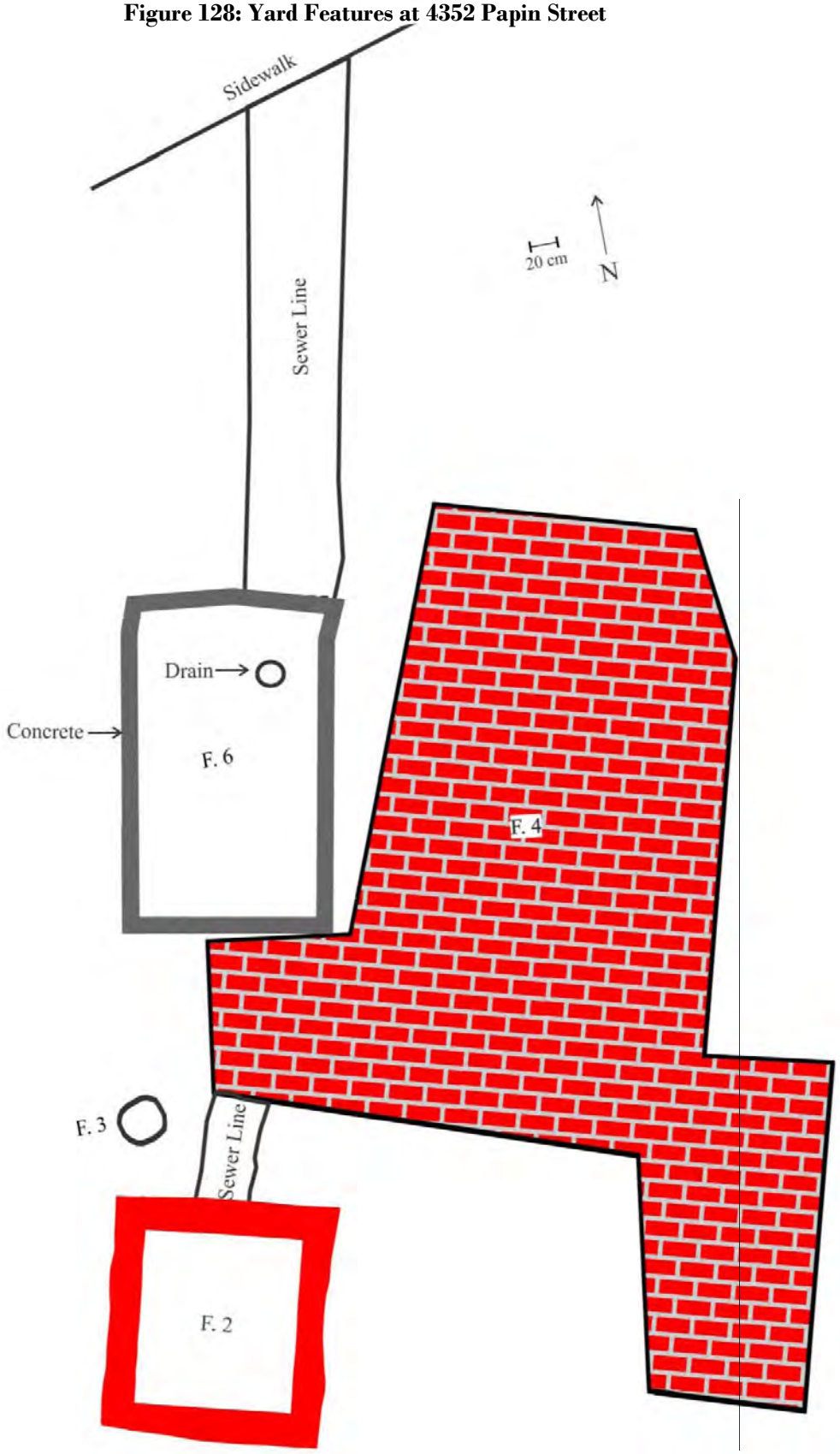
Feature 2 was the remains of a brick lined water closet with walls that inslant to a clay sewer line. The water closet was likely constructed when this property was hooked up to the sewer line in 1899. At this time, various renters lived on the property. The only artifact found within this feature was a metal crown cap from a soda bottle. As suggested above, crown caps were first used in 1892 and became widely adopted by 1910-1920. A clean fill was dumped into this feature when the inlet and outlet pipes were connected, likely when the exterior restroom (Feature 6) was constructed.

Feature 4 represented a brick patio with a walkway on its southeastern side leading to the alley and one on the western side leading to exterior restroom, Feature 6, and water closet Feature 2 (Figure 128). This feature was likely built when the residence was constructed. It ended on its southwestern side at Feature 2, suggesting both were constructed at about the same time. The home was originally rented by James Goodwin, who was a brick layer, and he may have constructed the brick patio.

Sometime during the early 20th century, possibly the 1930s-1940s, a concrete foundation for an exterior bathroom, Feature 6, was built just north of Feature 2. This was placed on the western edge of the brick patio. A sewer line runs through the feature leading north, presumably to the residence that once existed on this property near Papin Street, and to Feature 2 on the south (Figure 128). These two features may have been connected at this time, but Feature 6 probably was a modern replacement for Feature 2. It is unclear if this residence ever had an interior bathroom.

Feature 3 was identified among Features 2, 4 and 6 (Figure 128). The feature was not excavated, but might have been a lamp post lighting the area of exterior bathroom Feature 6 and patio Feature 4. It also is possible that the post was support post for a building that would have been constructed around water closet Feature 2.

Figure 128: Yard Features at 4352 Papin Street



Feature 5 was the remains of a deep brick lined privy/water closet located at the southeastern corner of the property behind the one story residence at 4350 Papin Street. This home was built by 1892 and its first occupant was Nicholas Burns, who worked as a carpenter. However, the following year, the house was acquired by John Martin. Martin worked as a laborer and, according to the 1900 census, he had a mortgage on the property. The census further indicated that he and his wife, Kate, were Irish immigrants who arrived in 1887 and 1885, respectively, and had married in 1890. Martin was living at the residence between 1893 and 1908. By 1910, Solomon Ketchum was renting the property. Solomon was born in Missouri, but he did not know where his parents were born. He worked as a watchman for the railroad. He lived on the property with his wife, Annie, and their three sons and a daughter. The two eldest sons, Harry, age 18, worked as a tacker for a sash and door company, and William, age 14, helped a huckster, who sold items from a wagon. By 1913, Veronica Scherer, the widow of John, had purchased the residence, which she owned free of any mortgage according to the 1920 census. She had been born in Germany and came to the U.S. in 1884. Living with her in 1920 were her two sons, Joseph, who worked as a glazer for a sash and door company, and Julius, a laborer for a contractor. Also living with Veronica were her daughter, Anna, and son in law, Archer King, who was a jeweler for a whole sale jewelry company. The Scherers continued to own the property until 1940. At that time, only Joseph, now a greens keeper at a local golf course, was living with his mother. The 1940 census suggested that they owned their home, but it was evaluated at a low $1200.

MSD did not have a listing for when this residence was hooked up to the sewer line but it likely was connected about 1899, similar to the neighboring properties, when John Martin owned the home. Feature 5, a privy/water closet located at the back of the property, had a sewer pipe running through the bottom and a vertical pipe placed behind the south wall. The sewer pipe was likely connected when an interior restroom was placed in the home likely during the 1920s, according to the artifacts in Feature 5, when Veronica Scherer owned the property. In 1930, the residence was evaluated at $3000, which was on the higher side for properties in the area, suggesting that she may have been able to afford these improvements. A 1954 7-Up soda bottle was found near the top of the vertical pipe and was likely deposited when the buildings on the property were razed during the late 1950s or early 1960s for the construction of I-64/40.

Feature 7 was located behind the two story house that once stood at 4348 Papin Street, owned by Mary Munchow. Her deceased father, Charles Muchow, had acquired land and established a residence just east of the mitigation area near the southern end of Boyle Avenue by 1870. The family would go on to acquire three tracts on the northeastern portion of the mitigation area, where houses were never constructed. Apparently she had a home built at this location by 1898, which she used as rental property. The first residents living here were William and Mary Hawkins, who had immigrated to St. Louis from England in 1870. They lived at other locations in St. Louis, but rented this property between 1898 and 1907. Living with them in 1900 was their daughter, Charlotte, a school teacher, and son, George, who was a steam engineer. By 1910, John Martin, who had lived at 4350 Papin Street, moved to the adjacent residence at 4348 Papin Street. He apparently had acquired this property from Mary Munchow and had a mortgage on it. He likely rented his original home at 4350 Papin to Solomon Ketchum

before selling it to Veronica Scherer by 1913. In 1910, living with Martin was his wife, Katherine, their son, John Jr. age 17, who was a driver for a dairy company and daughter, Nora age 14, who worked as a nurse for a private family. Two younger children, Helen and James, also lived with the family. The family continued to own the residence through the 1930s; however in 1930, the two story home was evaluated at a low $900, suggesting that the family had fallen on to hard times and possibly the home was in need of repairs or upgrading. For example, his original one story home, now owned by Scherer, was evaluated at $3000. The house at 4348 Papin was apparently abandoned by 1940 as no one is listed at this location on the census.

Feature 7 represented a deep, brick lined water closet with a square shaped opening and inslanting walls to a brick lined floor and sewer pipe. This residence was hooked up to the sewer line on May 29, 1899 and the pipe was likely used to flush contents into the sewer line. It is likely that sometime after John Martin acquired the property, he had an indoor lavatory installed as the two ends of the sewer pipe in Feature 7 were no longer open, but connected. It is unclear as to when this may have occurred since no artifacts were found in this feature.

Features 8 – 11 represented the remains of post holes. These were probably from a fence used to separate the properties at 4348 and 4344 Papin Street (Appendix F, Figure F6 & F7).

Features 12 and 13 were found behind the residence at 4344 Papin Street (Appendix F, Figure F6). Feature 13 was a rectangular shaped brick lined ash pit and Feature 12 was a midden, formed between the ash pit and the alley. This may represent an earlier pit used to discard cinder/ash and trash from the house, or more likely represents remains cleaned out of the ash pit and dumped behind it as well as items dropped as the ash pit was being cleaned out. The two story brick flat at this location appears to have been constructed in 1903 by Sebastian Bazis as a residence and rental property. He is listed as living at this location only one year during 1904. Also listed at this location at that same time were John and Martin Aughivan. The building continued in use as a two family flat until the construction of I-64/40. Various families are shown as residing at this location, none of them staying longer than one or two years.

Since the residence was constructed in 1903 and hooked up to the existing sewer line on November 27, 1903, the home was likely constructed with an indoor lavatory. No outside privy was identified in the backyard area. The ash pit was probably necessary to burn excess rubbish since a privy was not available to discard trash and the city lacked adequate trash pick up until the 1930s. Feature 12, the midden, did contain Period II remains dating between 1905 and 1929. No artifacts were found in the ash pit to suggest when it was last utilized.

*SITE 23SL*2329

Site 23SL2329 was defined by MoDOT as being within City Block 4878, representing the southern portion of the mitigation area, between Newstead and Tower Grove Avenues. Within this block, a total of 24 features were uncovered.

Features 32, 33, and 34 were uncovered on the southeastern corner of the property behind that residence at 4322 Papin Street (Appendix F, Figure F4). This one story brick home was first owned by Ernst Hegel, who had a tanning operation, Hegel & Gatermann, at 2208 Chouteau. Hegel lived at this location between 1886 and 1891. After that time, various families rented this residence, usually staying two years or less. Among these families was Mrs Charles A. Anshutz, who rented the residence in 1903. She owned a business along with Charles S. Wise, which specialized as contractors for well drilling and prospecting. By 1910, Mathew and Rose Wappel rented the residence. They came to the U.S. from Hungary in 1897. Living with them were five of their children, four of them born in Hungary and joining their parents in the U.S. in 1905. Mathew worked as a laborer for a terra cotta company as did one of his sons. Another two sons worked as drivers for the newspaper. Similar to the Wappel, renters of this property had low paying jobs as teamsters, laborers, clerks, chauffeurs, policeman, and carpenter.

In 1920, William Held purchased the house and lived at that location with his wife and three children. Held's father was born in Germany and his wife emigrated from Germany in 1890. He worked as a teamster for a brewery, his son worked as a laborer in a tobacco factory, and daughter as a helper in a pharmacy. Also renting a portion of the home was Emery Helge, along with his wife and two year old son. Emery worked as a clerk in a packing house. By the 1930 census, the Held family were no longer renting a portion of their home, which was evaluated at that time at $4,000. However, his family still had low paying jobs with William working as a teamster for the city and his two sons, living with William and his wife, working as a street paver for the city and a shoe worker for a shoe company. By 1940, the Held family had left the residence and it was again being rented by William Crowder, his wife, and their 18 year old son who was completing High School. William worked as a truck driver for a long distance moving and storage company.

The three features identified at the southeastern edge of the property consisted of three side by side rubbish pits, placed along the eastern edge of the property. Artifacts associated with these features dated between the 1920s and 1940s, and could be associated with the Held family. No earlier features were identified at this location. Although the residence was constructed by 1886 and not hooked up to the sewer line until 1898, no privy was identified. However, it could exist on the southwestern corner of the property, outside the excavation trench. The discovery of an unmarked fiber optic line did not permit the extension of this trench further to the west.

Features 14, 15, 31, and 35 were identified on the next property to the east at 4318 Papin Street (Appendix F, Figure F4). A residence was constructed on this lot by 1886 and was first owned by Thomas Walsh. Thomas had various odd jobs including a clerk at Richardson Drug Company between 1886 and 1887, a porter between 1888 and 1897, and a private watchman

between 1898 and 1903. According to the 1900 census, Thomas and his wife Ellen had emigrated to the U.S. from Ireland, and they owned their home free of any mortgage. They were married for 22 years and had 8 children, seven of them still living with the family in 1900. The two eldest sons, James (age 19) worked as a machinist, and Thomas (age 16) worked as a shovel maker, although he was out of work for 10 months during that year. This could suggest that Thomas had only recently acquired his job, possibly after graduating from High School. It is unclear as to when the Walsh family left this property, but the family is no longer listed at this location on the city directory after 1903. By 1910, John Samuelson is renting the property. It is unclear if this residence is still owned by the Walsh family at this time or not. Samuelson worked as a baker in a bakery. He came to the U.S. in 1882 from Sweden. His wife Hannah, born in Ohio, had been married before. In 1910, two step daughters and three children were living with the family. The step daughters, Mary Wetring, age 18, and Irene Wetring, age 15, worked as starchers in a laundry. The family continued to rent this residence until 1920. However by 1930, the home had been acquired by Arnold A. Berndt, who owned the home free of any mortgage. It was evaluated at $2000. Arnold was born in Missouri but his parents had emigrated from Germany as had his wife's Theresea, parents. The 1940 census indicated that Arnold had stayed in school only until 5th grade; his wife attended school until 8th grade. He worked as a weaver or laborer in a wire mill making $1500 per year working 49 weeks. At this time, the residence had dropped slightly in price to $1800.

Features 31 and 35 were rectangular shaped post molds possibly used to support an outbuilding at the rear of the property (Appendix F, Figures F4 & F5). Unfortunately, no artifacts were found at this location to indicate when they were used. The other two features, 14 and 15, contained artifacts dating prior to 1909 and were associated with the Walsh family. Feature 15 was a cedar lined, vaulted privy, representing the original privy constructed on the property by 1886. According to records from MSD, Walsh hooked this property up to the sewer line on July 13, 1898. At that time, Feature 14 may have been built and connected to the sewer line. An unusual aspect of this privy/water closet is that it was placed half on the property at 4318 Papin Street and half on the property at 4316 Papin Street. Walsh did originally own both properties and may have just connected the one to the sewer line in 1898 for the use of both households. It also could be that because he owned both properties, the property lines were not closely observed. The pipes leading to this privy/water closet appeared to be connected to the residence at 4318 Papin, coming through the westernmost portion of the vault (Photo 144). Artifacts recovered from both features dated prior to 1904 and could be associated with the Walsh

Photo 144: Base of Feature 14, Facing West

family.

Features 16 and 17 were discovered at 4316 Papin Street (Appendix F, Figure F4). Feature 16 was a cedar lined vaulted privy. However, Feature 16 had been severely disturbed by the construction of Feature 17, a brick lined water closet; excavations during highway construction to bury remains associated with the nearby residences; and more recently by the installation of a fiber optic line. The residence at 4316 Papin Street was constructed in 1893, slightly later than the adjacent residence at 4318 Papin Street. The first occupants of this building were Frank and Otto Burmeister, who worked as a laborer and a marble worker, respectively. It seems more likely that this residence was constructed for Thomas Walsh and the Burmeisters were just renting the property. Walsh paid for a sewer line to be connected to this residence on May 22, 1903. Various families were listed as renting this home during these early years, living at this location for only 1 to 3 years.

By 1910, Julius (also listed as Justice) Engel had acquired this property free of any mortgage. Engel and his wife, Mary, had come to the U.S. from Germany in 1891. Julius worked as driver for a cut stone company and later for a contracting business. The family had five sons after coming to the U.S. By 1920, three of them worked as helpers at a wire factory. The Engel family continued to reside at this location until at least the 1940s. By 1930, Julius had died and two of the sons, William and Edward, continued to reside here with their mother, Mary. The census suggested that their residence had about an average value for the mitigation area in 1930 at $2500, but it had dropped in value to $1000 in 1940, which was on the lowest end of the properties in the mitigation area. This could suggest that the Depression hit this family hard. The 1940 census also suggests this as William Engle worked as a stone derickman for a stone company for only 25 weeks earning $1000 for that year, and his brother Edward worked as a truck driver for an excavating company for 41 weeks earning $1300 in 1940.

Feature 16 is similar to the wood lined vaulted privy, Feature 15, and may represent the original privy constructed for this residence in 1893. The similarity in the construction of these two privies could suggest that both properties were owned by Walsh. This feature did contain similar early artifacts as discovered within Feature 15 including a canning jar liner, with the manufacturer's mark of the Hero Fruit Jar Company used between 1884 and 1900, and a plate with the same luster tea leaf design, popular between the 1850s and 1900, similar to other pieces found in Feature 15. However, other artifacts dated between 1904 and 1915. Most of these suggested that the privy was filled in when Walsh paid for a hookup to the sewer line in 1903. The later artifacts in this feature are likely due to contamination caused by the construction of Feature 17 and the later highway disturbances.

Feature 17 may have been constructed in 1903. This water closet was not very deep (88 cm), had a convex floor and was connected to the sewer line with a clay pipe. Most of the artifacts found within this pit dated between 1930 and 1933 suggesting that at the start of the 1930s, the Engel family may have installed an indoor bathroom and the inlet and outlet sewer pipe in this pit was connected at that time and the pit refilled with current artifacts.

Features 18, 19, 20, 21, and 22 were uncovered in the next property to the east at 4314 Papin Street (Appendix F, Figure F4). A residence was constructed at this location by 1888. This property was acquired by Michael Kelly, who owned it free without a mortgage. He only had recently arrived in the U.S. along with his wife, Jostland, in 1880 from Ireland, getting married that same year. The Kellys had 8 children, but only 4 survived by 1900. Michael worked as a laborer, while his two eldest sons worked as secretaries. A boarder, James Kelly, likely a relative also from Ireland, was living with the family in 1900. By 1910, Michael Kelly had died and his wife and four children continued to reside at the home. According to the 1920 census, Jostland also had died, but instead of the property being inherited by one of the three older brothers, the daughter, Katherine, acquired the residence and two of her brothers were living with her. By that time, Katherine's husband, Michael Michel, had died, and her son and two daughters also were living with the family. Katherine continued to own this land until the 1940s, however, by 1930 she was again married to Carl Hirschhausen, a machinist working for the city. Living with the family were Katherine's three children and one of her brothers. At that time, the residence was worth $2000 and by 1940 it actually increased in price to $3,000. Hirschhausen appears to have survived better than most of his neighbors during the Depression by repairing trucks for the City of St. Louis Street and Sewer Department. The 1940 census suggested that he worked through the year and earned more than anyone else in the neighborhood at $4420.

Feature 22 may have been the original vaulted privy constructed in 1888 as no sewer line was connected to it and its floor was unlined. It had been severely disturbed by later construction, which also destroyed most of its fill. No artifacts were observed in the exposed wall. The fill was not excavated because of the danger of collapsing the overlying concrete foundation and only approximately 20 cm of the fill remained intact.

Privy/water closet, Feature 19, had brick lined walls and floor. This residence was hooked up to the sewer on July 13, 1898 by Michael Kelly, which is probably when Feature 19 was constructed. Most of the artifacts within this feature dated to the 1920s and it is likely that the home was improved after Katherine married Carl Hirschhausen and indoor bathrooms were installed. The inlet and outlet pipes were connected by a curved pipe placed within the bottom of this feature. Shortly afterwards, Hirschausen constructed a garage, with a concrete foundation (Feature 18), on the back portion of this property covering the older Features 19 and 22. Features 20 and 21 represented remains of post used to support the garage roof. Most of the artifacts found within Feature 19 dated to the 1920s and probably associated with the Hirschhausen family, most likely when they connected the inlet and outlet sewer pipes and filled this feature.

Four features, **29, 30, 36, and 40**, were indentified on the western portion of Block 5 behind properties at 4370 and 4372 Papin Street (Appendix F, Figure F8 & F9). The original house at 4372 Papin Street was one of the earliest residences in this area, constructed in 1884. This home was built for Frederick Husemann, who worked as a carpenter. It is unclear if this house was constructed for him or if he built it. Husemann was born in Germany and came to the U.S. in 1844. His wife, Annie, was born in Canada and came to the U.S. in 1857. They had 6

children, 5 still living at the time of the 1900 census, 3 boys and 2 girls. All of the sons followed their father, working as carpenters. The Husemann family continued to own this land until at least 1904.

By 1908, the property was acquired by Frank Vazis. He was born in Illinois, but his mother and father had emigrated to the U.S. from Germany. His wife, Anna, came to the U.S. from Germany in 1887. They had 4 children, all sons. Vazis operated his own shop where he fixed rubber tires for automobiles. He appears to have razed the Husemann's residence at 4372 Papin and had a new home constructed at this location (Appendix F, Figure F9). He also had a flat constructed immediately to the east at 4370 Papin, but the first occupants of this building were not listed until 1916, indicating that it was constructed later, just prior to that time. The first residents at 4370 Papin were Richard Knichel and Louis Vazis (St. Louis City Directory 1916), the 16 year old son of Frank Vazis. Louis worked as a clerk and no job was listed for Knichel. By 1920, the Vazis family, now having five sons, moved into the building at 4370 Papin. The eldest son, Louis, worked as a mechanic on cars at his own shop, probably associated with his father's vulcanizing business. They rented their original home at 4372 Papin Street to two families. Over the years various families rented this residence and the 1930 census indicated that they paid a monthly rent of $33. By 1930, most of the Vazis family had moved out of 4372 Papin, but one son, Frederick, age 28, was married and rented the property $35 a month from his family. He worked as an automobile mechanic and his wife, Delphine, worked as a telephone operator. In 1940, both residences were being rented by two families in each home. They all paid $20 in monthly rent, likely to the Vazis family.

The features behind both residences included a large (186 by 160 cm) and deep (344 cm) privy/water closet (Feature 36) likely used by the families living at both 4370 and 4372 Papin Street. This may have been the original vaulted privy constructed when Fredrick Husemann acquired the property in 1884, later modified and connected to the sewer lines on July 13, 1898, which was paid for by Husemann. The inlet pipe was connected to the northwestern side of the privy/water closet and the outlet pipe on the southwestern side. Supporting this date for the construction of this sewer line was a cache of at least 22 bottles (Feature 40) of the Koenic Medicine Company, which was established in Chicago by 1888 and continued to exist until 1918. However, it is unclear as to why so many bottles from this one company were present at this location. The outlet and inlet pipe were later connected, likely during the early 1920s as suggested by some of the artifacts.

On the southeast corner of the property were two shallow pits (Features 29 and 30) filled with ash and artifacts, likely used by the residents to dispose of ash from ovens and to burn trash. Artifacts found within the features date between 1890 and 1910, suggesting that they were most likely associated with the Frederick Husemann use of the property.

Feature 27 represented a concrete retaining wall that was between the properties at 4370 and 4366 Papin Street (Appendix F, Figure F8). The retaining wall was necessary because these two yards were on hill top that sloped towards the east. The concrete retaining wall likely was

constructed during the 1920s or 1930s. This retaining wall could have been constructed at the time that Frank Vazis took over the property at 4370 Papin Street.

Features 26 and 28 were on the property behind the one story brick residence at 4366 Papin Street (Appendix F, Figure F8). This residence, constructed by 1898, was later than many others on this block. Information supplied by MSD suggests that this property was owned by Charles Metz who connected this property to the sewer line in 1898, probably as the house was being constructed. According to the 1900 census, Metz lived across Papin Street at 4365 Papin Street. During these early years, the property was rented by various families including Edward and John Sauer in 1899, the latter serving as a clerk; Daniel Gould in 1900-1903, who was a butcher; and Edmund Zinn in 1904 who was a sculptor. By 1910, the property was purchased by Joseph Dick who worked as a laborer in a brewery. He came to the U.S. from Germany in 1893. Living with him was his wife Katherine and two daughters. They had a mortgage on this property, but by 1920 it had been paid off. The 1930 census indicated that Joseph Dick had died, and his wife and one of their divorced daughters, Emma, were living at this residence, along with two grandsons. At that time, the property was worth about $2000, which was slightly on the low end of the average property values for the area. By 1940, Emma had married Walter Jasmund and living with them was their three children, one of the stepsons, and Katherine Dick. Walter worked as a mill wright for an asbestos shingle company, but made only $713 working for 46 weeks. His stepson was out of work for most of 1939, only recently getting an unspecified job. They were listed as paying rent of $15 per month, but may have been paying it to Katherine, who still lived with them.

No outside privy was found at this location, but this is not unusual since the residence was hooked up to the sewer line in 1898 when it was being constructed. This building was likely built with an indoor bathroom. Feature 26 represented a brick patio that likely was constructed at the same time as the residence. The bricks of the patio were removed with the trackhoe to be certain that no features were located under them. A midden, Feature 28, was found on the western edge of the property near the retaining wall, Feature 27. The materials within the dump area appeared to date to the 1910s to 1930s, and are associated with the Joseph Dick family.

Feature 24, is a water closet with brick lined walls and floor was identified behind the one story brick residence at 4364 Papin Street (Appendix F, Figure F8). This house was first occupied in 1898 by a renter, Christopher Sprehe, who was a watchman. According to information supplied by MSD, the property was hooked up to a sewer line at that time for Charles Metz, who owned the residence. By 1900, John Steven acquired the property and had a mortgage on it. Similar to the original neighbors at 4370 and 4372, Steven worked as a carpenter. He was born in Switzerland and came to the U.S. in 1868. His wife, Frederika, had been born in Illinois, but her parents were from Germany. However, between 1901 and 1903, Jacob Stoery was living in the home. He also worked as a carpenter. In 1904, Henry Bender was living at this location and worked as a blacksmith. It is not clear if any of these individuals purchased the property or not, but more likely only rented. By 1909, Michael Pfeiffer had acquired the residence and owned it by 1910 free of any mortgage. Michael was the brother of George F. Pfeifer, who acquired the residence just east of Tower Grove Avenue at 4354 Papin Street. In 1900, Michael rented the upper floor of the store on the adjacent lot at 4362 Papin

Street. He came to the U.S. from Germany in 1887 with his wife and four of their children. The Pfeifers went on to have 11 children in all, 7 of them were still alive according to the 1910 census. However, by this census, Michael also had died and his widow lived at the residence at 4364 Papin Street with five of the children. The eldest two sons worked for a sash and door company and the eldest two daughters were filler and labellers for a chemical company. By 1914, Mary Thiemann acquired this residence which she owned free from any mortgage. The 1920 census indicated that she was 64 years old, divorced, and living alone, but by 1930 her single daughter, Emma, age 47, was living with her. Emma made a living cleaning private homes. In 1930, their residence was valued at only $1500. By the 1940 census, Mary had died and her daughter continued to own the house living there alone. The census indicated that the daughter was unable to work. Despite this, the home value had risen to $2000.

The residence was connected to the sewer line for Charles Metz on July 13, 1898, probably when this building was constructed. However, unlike the house at 4366 Papin Street, this one was not constructed with an indoor bathroom, but had an exterior water closet, Feature 24. This water closet was connected to the residence by a line attached to its northwest side and an outlet pipe connected to the southwest side. Artifacts within the fill dated primarily to the 1910s and 1920s, but two bottles did have an Owens Illinois Glass Company mark used between 1929 and 1954. Artifacts within this feature were most likely associated with the family of Mary Thiemann. The artifacts and house values suggest that during the 1930s a lavatory was constructed inside the homes, and the inlet and outlet pipe within Feature 24 was connected.

Features 23 and 25 were located on the eastern portion of Excavation Block 5 behind 4362 Papin Street (Appendix F, Figure F9). Block 5 was originally planned to expose any yard features associated with two stores at the corner of Papin Street and Tower Grove Avenue. The store at 4360 Papin Street was constructed by 1887 and the one at 4362 Papin Street by 1899. These buildings were likely constructed for Charles Metz, but in 1898 both buildings were acquired by Frederick Fisk (also spelled Fick), who operated a butcher shop in one and a grocery in the other. He and his wife were both born in Germany and came to the U.S. in 1887 and 1889, respectively. The Fisk family rented portions of both buildings over the years to various other families. According to the 1930 census, the store at 4360 Papin Street was evaluated at $15,000, the highest amount for any building within the mitigation area at that time. However, by this census Frederick had died and his wife had died by 1940. Their son, Carl, inherited both properties, but the building at 4360 Papin Street had decreased in valuation to one of the lowest for the neighborhood at only $1,200. This could suggest that the Depression had hit this family very hard, but they continued to own both buildings, renting the one at 4362 Papin Street to two families, one of which operated a confectionary store at this location. The son of the other family worked as a service station attendant. During the 1930s, a service station had been placed behind the two stores.

Feature 23 represented the remains of a restroom facility that was constructed with a concrete foundation, with a vertical pipe on the eastern side. Feature 25 represented a retaining wall between the residence at 4364 and the commercial properties at 4360-62 Papin Street (Appendix F, Figure F9). The bathroom and retaining wall were likely built during the

construction of the service station in the 1930s. The 1951 Sanborn map does show a small rectangular building, likely this restroom facility, near this location (Appendix F Figure F9). No artifacts were found associated with this restroom facility or near the retaining wall.

The residence at 4362 Papin Street was connected to the sewer line on July 13, 1898 by Charles Metz and on October 19, 1898, Frederick Fisk paid for the installation of another line. This could indicate that the building at this location was constructed by 1899 with interior bathrooms. However the building at 4360 Papin Street was not connected up to the sewer line until March 29, 1901, nearly 14 years after it was constructed, suggesting that this residence should have had an exterior privy. However, no evidence of a privy was found behind either building. The ground does appear to have been cut down in order to accommodate the service station constructed in the 1930s. It is possible that any earlier privies in the backyard were destroyed at that time and the construction of the retaining wall, Feature 25, was necessary since so much soil had been removed from this area.

HISTORIC USE OF FEATURES IN EXCAVATION BLOCK 1

Features 37, 38, and 39 were discovered at this location. This block was placed behind the oldest residence at 657 Tower Grove Avenue that was constructed by 1876 (Appendix F, Figure F1). However, no evidence of residential features or debris was found within the trench. Instead, Features 37-39 appear to have been associated with the Hy-Grade Water and Soda Bottling Company (Appendix F, Figure F2). This company was first placed at this location in 1936, with major expansion made in 1946, and it continued to exist until 1960 (St. Louis City Directory 1936, 1946). The three features coincide with the warehouse and loading dock area of the company. The building was constructed with steel columns and trusses and had a concrete floor and plastered walls (Appendix F, Figure F2). Features 37 and 38 were smaller support posts, possibly for the loading dock itself, while Feature 39 was most likely a deeper pit for the one of the steel columns supporting the building. Since no artifacts were associated with any of these features, this block was not assigned a site number.

MITIGATION AREA LAVATORY ARCHITECTURE AND ST. LOUIS CITY SEWER HISTORY

Lavatory architecture helps determine dates of usage; this is especially true in urban settings where the type of lavatories may give more information about dates of use than the artifacts found in it. Stottman (2000) believes the ways in which lavatories are constructed are reflective of perception of cleanliness of the time, and the laws and ordinances regulating sanitation practices passed by cities were guided by these perceptions. The changes in construction style can be traced and dated through the city ordinances and building codes.

The City of St. Louis had laws covering the construction of privies from early times. Laws passed in 1836 called for all venues where money is won or lost to have their own out-house under a penalty of $500 fine. Further, the ordinances stated that the constable will inspect all privies and out-houses ensuring no "nuisances exist" and if so they will be reported to the Board of Health (Board of Alderman 1836:108). These early laws indicate a concern for the city's environment as well as a concern about the health hazards from improper disposal of human waste.

By 1850, inspections of privies remained on the books and further laws also were imposed, including those prohibiting the disposal of waste from privies on city grounds and limiting when privies could be cleaned (Krum 1850:308). Emptying of the vaults could only occur from September 15th through June 15th, between the hours of 7 PM and 3 AM, thus eliminating the unpleasant odors during the hottest months of the year and during waking hours. This would help limit the unpleasant odors and gases associated with this activity to times when people would be least affected. Stottmann (2000) looks at sanitation practices in the context of the out of sight out of mind theory of cleanliness of this time. He states, in part, that the depth of a privy and its construction reflect the belief of those governing and living in the area that if something could not be seen, it was safe. By extension, limiting the times in which privies could be cleaned would serve to keep the unpleasantness of the waste out of sight as it was brought back to the surface. During the 1850s, the proper construction of privies was beginning to be a concern with laws mandating that all tenements used as dwellings will have a "suitable privy" that is at least 10 feet (about 3 meters) deep with walls constructed of brick or stone (Krum 1850:305-306). While this law only applied to the larger, multi-family residences, single family homes that were using tubs or other vessels in a privy must empty them at least every two days.

As the population of St. Louis grew, new privy ordinances were put into place during the 1880s. In the 1881 codes, for example, the emptying of privy tubs and vessels was now to be done daily (Sullivan 1881). The prohibition against emptying privies during the summer months or during the day continued (Sullivan 1881:483). It also was mandated that vaults or privies "located on a line of any street or alley through which there is a public, private or district sewer" must be connected to that line. Any privy within the city limits of St. Louis not connected to the sewer would be considered a "nuisance" and the owner would be subject to a $20-$500 fine (Sullivan 1881:482, 494). This push for public works as a means of waste disposal is common in cities and comes from a change in disease theory. The out of sight, out of mind belief is replaced by germ theory and an understanding that by stopping the spread of germs through contamination of food and water, diseases could be better controlled (Arnott 1996:2-3).

This awareness of how diseases were spread through the ground water likely resulted in a revised ordinance of 1887. The required privy depth also was changed at that time from at least 10 feet required in 1881, relating to the out of sight out of mind theory of cleanliness, to an 8 foot maximum. This limit on depth probably came with the realization that the deeper privies were contaminating the surrounding groundwater. To further protect against the privy wastes migrating from the vaults into surrounding resources, it also was mandated that the floors and walls of any privy connected to the sewer system must be waterproof stating that:

> All privy vaults which shall hereafter be connected with the sewer system of the city shall be so constructed that the bottom and sides will be impervious to water, and to this end shall he built of hard brick, with full joints, laid in hydraulic cement mortar, composed of two parts sand to one part cement…The walls shall not be less than nine inches in thickness. The bottom of the vault shall be so formed as to throw all matter cast into said vault to the sewer opening.
>
> (Anonymous 1887a)

The connections to the sewer lines were to be made with 6 inch diameter iron or semi-vitrified clay pipes with a trap between the sewer and the vault, with a vertical shaft extending to the ground surface where it was to be protected by a grate.

Further, if the Health Commissioner found a privy that was not properly constructed or connected to the sewer system or "in any other state or condition which is dangerous or detrimental to the public health", then he may require reconstruction of the privy (Sullivan 1881:494). The 1887 revisions also outlined the fines that may be levied in the amount of $10-$200 for violations and that each day the problems remain will be viewed as a new offence (Anonymous 1887b). With more people connecting to the sewer lines, new ordinances also were necessary to alleviate problems with the sewer lines becoming clogged. For anything connected to sewer line, including privies, it was prohibited to dump any items that would clog the system (Sullivan 1881:485).

While all home owners may not have complied with the 1881 sewer line connection mandate, other ordinances seem to be designed to "encourage" compliance. For example, one required the licensing of privy cleaners which included a fee of $100 and a bond of $1000 (Sullivan 1881:908). These fees would have caused the cost of privy cleaning to rise significantly and make the cost of hooking into the sewer line more attractive. Those licensed were required to perform the service "without creating a nuisance, and in as inordorous a manner and as free from foul odors and gasses as possible" (Sullivan 1881:909).

The homes associated with privies along Papin Street were first known to be occupied between 1884 and 1903 (Table 27). Sewer lines were brought into the area by 1898 and most of the homes were connected to the lines by 1903. Following the statues put into place, it is likely that the earliest privies built are probably Features 15, 16, and 22, which were all located on properties that were known to be first occupied before sewer lines were available. All of these had open floors and showed no indication they were ever connected to the sewage system.

Table 27: Attributes of Vaulted Privies, Privy/Water Closets and Water Closets in the Mitigation Area

Fea. #	Type	Site#/ Excavation Block #	1909 Address	Date Home Built	Date Sewer Line Installed	Planview Shape	Planview Length x Width (cm)	Profile Depth (cm)	Profile Shape	Consruction Type
2	Water Closet	23SL2328/ 4	4352 Papin	1888	1899	Rectang-ular	166 x 150	98	Outslanting Wall & Convex Floor	Brick Walls and Floor, Sewer Pipe
5	Privy/Water Closet	23SL2328/ 4	4350 Papin	1892	?	Rectang-ular	166 x 138	222	Straight Walls	Brick Walls and Floor, Sewer Pipe
7	Water Closet	23SL2328/ 4	4348 Papin	1898	1899	Square	120 x 120	140	Outslanting Wall & Convex Floor	Brick Walls and Floor, Sewer Pipe
14	Privy/Water Closet	23SL2329/ 3	4316-18 Papin	1893/1886	1903/1898	Rectang-ular	191 x 92	220	Straight Walls	Brick Walls and Floor, Sewer Pipe
15	Vaulted Privy	23SL2329/ 3	4318 Papin	1886	1898	Rectang-ular	136 x 120	126	Straight Walls	Wood Walls
16	Vaulted Privy	23SL2329/ 3	4316 Papin	1893	1903	Rectang-ular	140 x 94	88	Straight Walls	Wood Walls
17	Water Closet	23SL2329/ 3	4316 Papin	1893	1903	Rectang-ular	140 x 136	96	Straight Wall & Convex Floor	Brick Walls and Floor, Sewer Pipe
19	Privy/Water Closet	23SL2329/ 3	4314 Papin	1888	1898	Rectang-ular	132 x 122	166	Straight Walls	Brick Walls and Floor, Sewer Pipe
22	Vaulted Privy	23SL2329/ 3	4314 Papin	1888	1898	Rectang-ular	136 x 60 (Continues North)	58 (Truncated)	Straight Walls	Brick Walls
24	Water Closet	23SL2329/ 5	4364 Papin	1898	1898	Oval	134 x 126	116	Straight Walls	Brick Walls and Floor, Sewer Pipe
36	Privy/Water Closet	23SL2329/ 5	4372 Papin	1884	1898	Rectang-ular	186 x 160	344	Straight Walls	Brick Walls and Floor, Sewer Pipe

These privies were located respectively at 4318 Papin occupied by 1886, 4316 Papin occupied by 1893, and 4314 Papin occupied by 1888. In addition, a second privy/water closet or water closet was identified on each property that did conform to the later privy requirements, indicating replacements were necessary to follow changing privy ordinances and to bring them up to code so they could be connected to the sewer lines that came through later. Feature 16 was replaced and superimposed by 17, Feature 14 likely replaced Feature 15 and Feature 19 would have replaced Feature 22. Artifacts, dating to Period I, 1884-1904, also bear out this early use for Feature 15. However, most of the artifacts within Feature 16 date after 1904. This could be due to this pit having been cleaned out and filled in at a later date. However, this feature also was badly disturbed by both the later construction of Feature 17, and during the construction of I-64/40. It is possible that the artifacts present were associated with these activities rather than the time Feature 16 was in use. Unfortunately, Feature 22 was severely disturbed by later construction on the property and no artifacts were recovered.

The remaining 8 brick lined privy/water closets and water closets in the mitigation area had sewer pipes connected to their lower portions. These pipes served to flush some of the contents into the sewer system, which had been established in the area by 1898. Similar systems are discussed by Sagur (1876), the sanitary superintendent of Brooklyn, New York. He describes masonry privy vaults that are hooked into the city sewer system as having pipes placed 2 or more feet above the bottom of the privies. Water for cleaning the privy of waste came from rain water from the roof of the house, not through a connection to the houses water disposal. The water would aid in the "putrefactive processes", the breakdown the human waste (Sagur 1876:185). While Sagur states it did not eliminate the need to clean out the privies it would convey some of the waste into the sewer system. Within the mitigation area it is unclear if storm water, waste water from the homes, or both were used to flush out the sewer lines because the areas around the residences were removed during the construction of I-64/40. St. Louis ordinance did have instructions for connecting houses or other buildings to sewer lines:

> …there shall be in said drain a trap so constructed as to bar the passage of air from beyond the trap into the house by an obstacle equal to at least one inch in depth of water. Between said trap and the foot of the soil pipe there shall be connected with the said drain an inlet pipe for the admission of fresh air, and the soil pipe within the house shall be continued above the roof and left open so that the whole drain may be thoroughly and constantly ventilated (Anonymous 1887a).

Of the 8 brick lined features with sewer pipes present, four (Features 5, 14, 19 and 36) likely served as vaulted privies before they were converted to water closets. All were associated with residences that were first known to be occupied before sewer lines came to the area (Table 27). It is unclear whether the brick floors of these privy/water closets were part of the initial construction of the privies or if they were added when they were converted to water closets as all the floors lie within the side walls not beneath them.

The deepest is Feature 36 at 3.44 meters (11.2 feet) in depth. Its architecture indicates it was built about 1884 when the residence at 4372 Papin Street was first occupied. The privy was turned into a water closer after the installation of sewer lines in 1898 in compliance with the 1887 ordinance. It is unknown if the floor of the vault was added at that time or during the initial

construction of the feature, but an inlet pipe was placed on the north side and an outlet on the south side. There also was an up vent pipe, following the 1887 requirement, in the northwest corner. Of the early privies, this one appeared to be in use for the longest period of time. Artifacts within it date primarily to Period II, 1905-1929, likely due to the vault having been cleaned out in order to connect the inlet and outlet pipes when it was no longer in use.

Feature 5 was 2.22 meters (7.3 feet) deep and had a pipe that entered the bottom of this privy/water closet from the north and exited to the south toward the alley. The loose soil texture present in the feature suggests the contents were suspended in water. Meyer and Austin (2008:57) found similar fill in a St. Louis privy/water closet and believed this loosely compacted, artifact rich fill indicated that the contents were suspended in a mostly water environment. There was a vertical pipe located behind the south wall, which probably served as a vent pipe. The artifacts recovered from Feature 5 placed its last use in Period II, 1905-1929. The south and west walls had either collapsed or were removed, possibly when the inlet and outlet pipes were connected.

Feature 14 straddled a property line so it is unknown if it replaced Feature 15 at 4318 Papin Street, or was a new construction in 1893 at 4316 Papin when that residence was first known to be occupied. The vault was lined along its walls and floor with brick with a depth of 2.2 meters (7.2 feet). It had an inlet pipe on the north and exit pipe on the south indicating it was connected to the sewer line in 1898. The exit pipe was covered by two bricks leaving a very small gap at the top, so it would have drained very slowly out to the sewer line in the alley. The bricks may have been used as a guard against large objects entering the sewer system. It is possible that the bricks were placed there after the privy/water closet was no longer in use to seal off its contents since an enclosed pipe was never installed in the feature. Artifacts in Feature 14 primarily date to Period I, 1884-1904. Since Feature 14 was the only feature that did not have its sewer pipes enclosed, this would mean that it was never cleaned out when a lavatory was placed inside the residence. Because of this, artifacts dating to its original date of use would have remained intact in the bottom of the feature. This would further suggest that another sewer pipe was constructed to serve the lavatory within the residence or that a pipe was connected to another adjacent pipe, possibly the one that eventually passed through Feature 17.

Feature 19 was located at 4314 Papin Street. The vault had brick walls and a brick floor that was lined with concrete. It was the shallowest of the privy/water closets at 1.66 meters (5.4 feet), however, its full depth is uncertain as the construction of garage Feature 18 over the top of the feature likely reduced its depth. It had an inlet pipe on the north wall and an outlet pipe at a lower elevation on the west wall indicating it was connected to the sewer line in 1898. No vertical vent pipe was found near this feature, but a vertical pipe existed at the southwest corner of the garage just before this sewer line entered the alley sewage system. The inlet and outlet pipes were later connected with a solid pipe, probably during the 1920s, after the home owner, Katherine Kelly, married Carl Hirschausen, and they probably renovated their home with an indoor lavatory. Shortly after this event, both Features 19 and 22 were covered by a concrete foundation for a garage.

Four water closet features were identified; Features 2 (.98 meters, 3.2 feet), 7(1.4 meters, 4.6 feet), 17 (.96 meters, 3.15 feet) and 24 (1.1 meters, 3.6 feet). These features were all less

than 5 feet in depth averaging 1.11 meters (3.6 feet). This could indicate that they were the last of the lavatories constructed. It also suggests that they were never used as vaulted privies but immediately attached to sewer line. The shallow depths would be troublesome for build up odors if not cleaned or flushed regularly. This would be especially true in the hot summer when cleaning of privies had not been allowed since 1850. The convex bases of Features 2, 7 and 17 may have been an innovation allowing these privies to be flushed out more easily.

Feature 2 probably was built at the time the sewer line was installed in 1899 replacing an earlier privy dating to 1888. Feature 2 was U-shaped with a pipe entering on the north and exiting on the south, with two rods placed at the southern opening, likely to prevent large objects from entering the sewer system. A crown bottle cap was the only thing found within the fill which does little to date the feature other than it was deposited after 1892. The fill in this feature was very loose, and like that in Feature 5, possibly indicating that a watery fill was present. It also is possible that a clean fill was rapidly deposited within this feature, when the inlet and outlet pipes were connected, and the water closet was replaced by an indoor lavatory.

Feature 7 was U-shaped in profile, and had a pipe running though the bottom of the feature. The pipe entered from the north and exited to the south. The feature was located at 4348 Papin, which was first known to be occupied in 1898 and connected to the sewer line in 1899. The architecture of the feature would indicate that its initial use was as a water closet. However, with occupation of the residence apparently before connection to the sewer lines, an alternative lavatory would have had to be used. It is possible that the residents at 4348 Papin used a neighboring privy, such as Feature 5, or Feature 7 had a short use as a vaulted privy. If it did serve as a vaulted privy, it was constructed in anticipation of the being connected within a short amount of time, with the U-shaped bottom that would have helped flush the bottom out. Although no artifacts were recovered to provide a definitive date, similar to Feature 5, it is likely that the sewer pipes were connected and the vault filled during the 1920s.

Feature 17, located at 4316 Papin Street, likely represents the replacement of wood lined vaulted privy Feature 16 at the time sewer lines were brought to the property in 1903. Like Feature 15, conversion of Feature 16 into a privy that met with current codes would have been more costly than building a new one. Feature 17 is U-shaped with a pipe running into the northern wall and exiting to the alley on the south. The soils in Feature 17, like those in Features 2 and 5, were very loose and indicated the soils were suspended in water. Unfortunately, the north side of the feature had been removed when a trash pit for residential debris was excavated at this location during the initial construction of the interstate.

The water closet at 4364 Papin Street, Feature 24, was the only oval shaped lavatory feature found in the mitigation area. The residence was first known to be occupied in 1898, the same time the property was connected to the sewer line indicating that it was built with intent of immediate flushing into the sewer system. The sewer pipe entered the water closet on the west wall and curved to exit on the south, towards the alley. The pipes were later connected by a curved pipe when a lavatory was placed inside the home probably after 1930. Although most of the artifacts within this pit dated to the 1910s and 1920s, some dated after 1930. It is possible that most of the fill within this feature was replaced after the pipes had been connected.

Archival information suggested that the families had some financial success during the 1920s and artifacts associated with the features suggested that by 1930s, most of the inlet and outlet pipes associated with the water closets were enclosed. This was likely due to the homes being renovated and indoor lavatories being installed. Since the sewer lines already extended from the house the lavatories were connected to these pipes and the pipes were connected within the older water closets. Indoor lavatories represents changing ideas concerning sanitation and desire for more convenience. It also reflects improved trash removal from homes, although, some families perceived the need to have ash pits to reduce the bulk waste that needed to be hauled away. However, the rental property at 4352 Papin was improved only by having a flush toilet with a concrete foundation installed in the backyard. Since this system was enclosed it was placed slightly closer to the house, but still would have required renters to make cold treks to this facility during the winter time.

The lack of artifacts and night soils within many of the privies/water closets is common in urban settings. The Geismer study (1993:68) shows urban privies do not form "classic privy deposits." In the populated city settings, laws requiring frequent cleaning and prohibiting the disposal of items that would clog the sewer system were put on the books. While all residents may not have strictly abided by these no dumping ordinances, it likely limited the amount of refuse being placed into privy. In addition, 8 of the 9 privies with sewer pipes appear to have been cleaned out so the inlet and outlet pipes could be connected after the installation of indoor lavatories, thereby keeping the sewer system clean. The artifacts recovered most likely date to the time this work was completed rather than the dates the privy was actually used. This seems to be proven out within Feature14 where the pipes were never enclosed and earlier artifacts were present.

COMPARISON OF THE FEATURE ARTIFACTS BY TIME PERIODS

The artifacts recovered suggested that the features were filled during three different periods of time:

Period I: 1884-1904
Period II: 1905-1929
Period III: 1930-1960

These periods correspond to changes that were taking place in the greater American society. A comparison of these artifacts could show how these changes impacted families, especially within this one neighborhood in St. Louis. A minimum of 334 objects were associated with the Period I features, 609 objects with Period II features, and 250 objects with the Period III features. The slightly smaller number of artifacts during Period III could reflect residents' inability to purchase many consumer goods during the Depression and World War II. However it should noted that by the 1930s, regular trash collection with motorized vehicles became more common and most of the area's residents had an interior bathroom by this time and no longer had a privy hole to discard household rubbish. Most of the artifacts associated with this period were in holes dug in the backs of yards to discard excess rubbish.

An overall comparison of the different artifact types was conducted. However, since the number of features containing artifacts differed for each time period (Period I-5 features, Period II-11 features, Period III-5 features), the percentages of minimum number of vessels will be compared, not the total number of artifacts. Household goods were excluded from this comparison because they may not reflect changes in use over time, since they represent household products (e.g., stove polish, furniture polish, shoe polish, ink jars, and oil) as well as parts of household furniture and lighting fixtures. The presence of these items may reflect whether home renovations took place, different types of furniture with older or less expensive furniture breaking more often, or just random discard patterns.

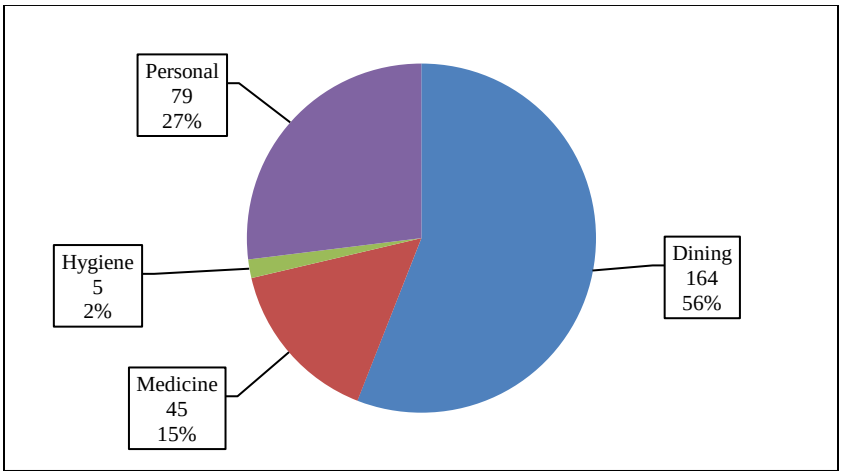
DINING ARTIFACTS

Of the items compared, not surprising, the greatest percentage of artifacts from all three time periods were associated with dining (Figure 129). Dining objects, unlike other materials, were utilized several times during each day so they have a greater chance of breaking and being discarded. The percentage of dining items does increase over time (Figure 129).

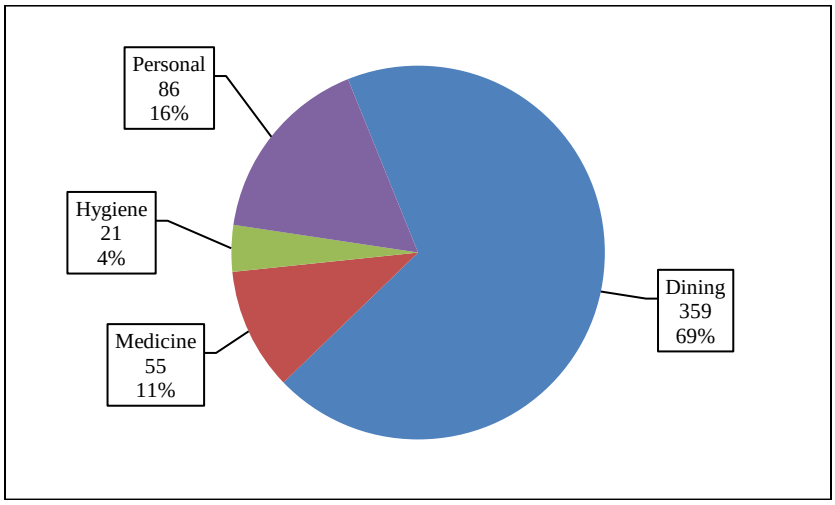
Dinnerwares consisted predominately of semi-vitreous ironstones during all three periods (Figure 130). Even though more durable hotelwares were introduced by 1890, these pieces were not popular with home consumers because of their thick appearance. This may be reflected by the general lack of hotelwares during the first two periods. However during the third period, there were a greater number of porcelains, hotelwares, and finer vitreous wares.

Figure 129: Artifacts Types Recovered from Various Periods

Period I



Period II



Period III

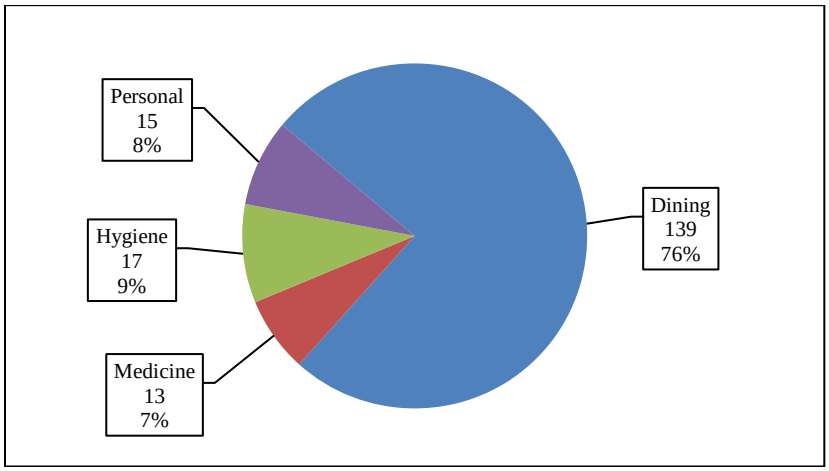
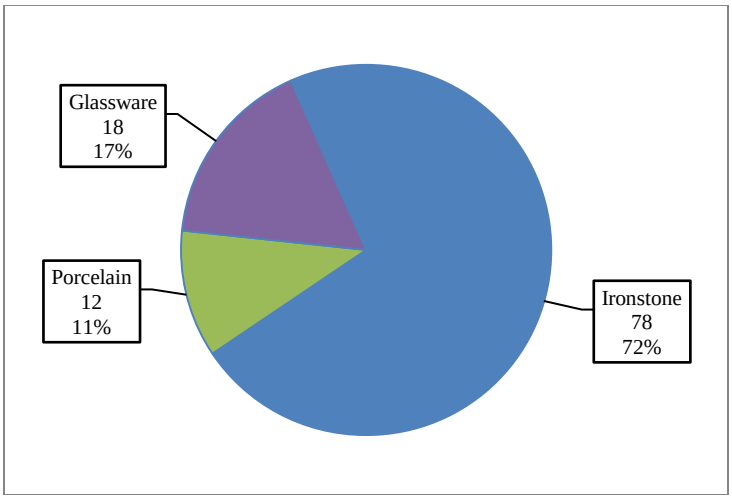
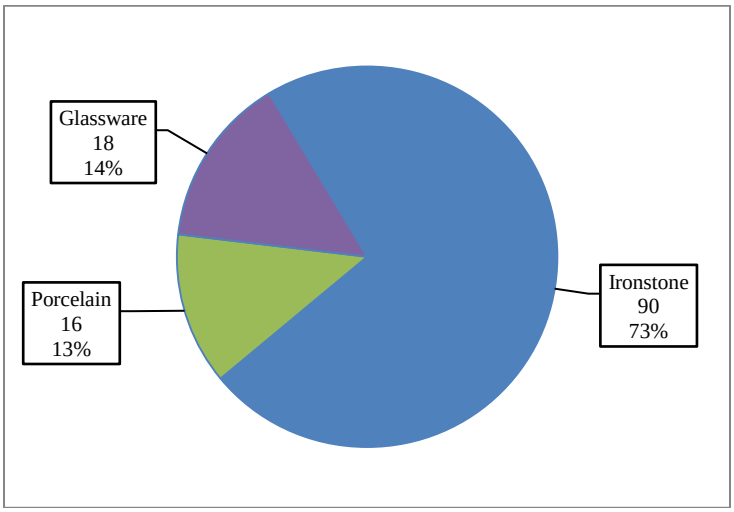


Figure 130: Various Dinnerwares by Periods

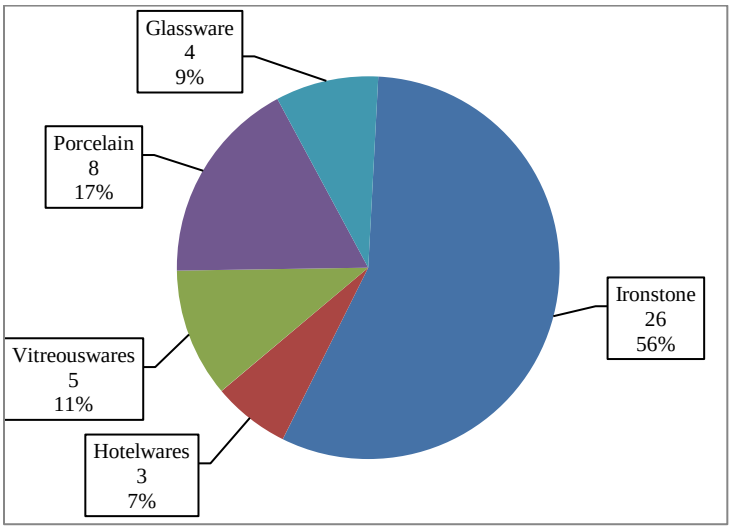
Period I



Period II



Period III



By 1936, ceramic manufacturers improved on hotelwares and were producing finer vitreous wares to appeal to home consumers. These vitreous wares could be made cheaply and included colorful fiestawares and vitreous wares with floral decals. The larger percentage of older style ironstones associated with the Period III features could suggest that it took time for the newer vitreous innovations to become popular or that these residents just could not afford these newer pieces. It may also reflect their conservative buying patterns. This conservativeness also may be reflected in the ornamentation present on ironstone vessels.

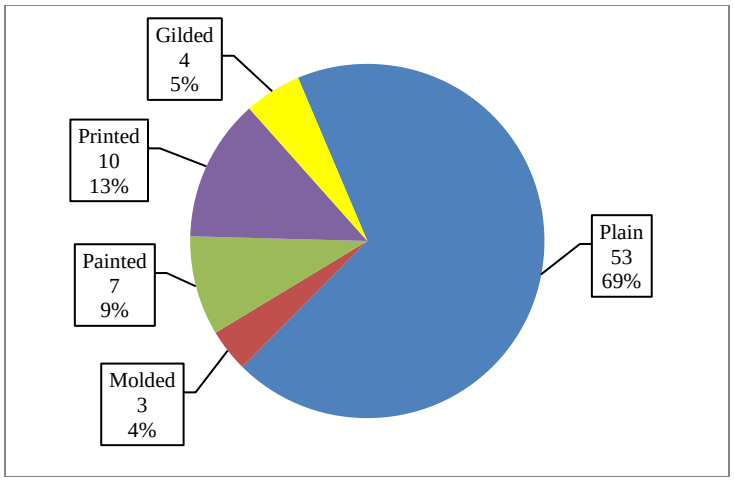
For Period I, the majority of the ironstones (69%) had undecorated surfaces (Figure 131). By the 1890s, ceramic manufacturers had introduced cheaper ways of decorating vessels making them appear more expensive, including applying a liquid gild and decal decorations. These decorations, however, represented only 5% of the Period I ironstone vessels. Painted and transfer print decorations were higher at 9% and 13%, with only two thin molded designs. Plain and broad molded designs were favored after 1850, but by 1880 there was a return to more decorated dinner settings. Painted and printed decorations were limited to only portions of the vessels as oppose to the whole surface as it had been prior to 1860 (Miller 1980, 1991; Wetherbee 1996). The painted decorations associated with the Period I ironstones consisted predominately of copper colored tea leaf patterns, which were popular during the 1850s to 1900 (Wetherbee 1996). All of these came from Feature 15 and were likely used by the Thomas Walsh family and may represent pieces from a matching set. Ironstone vessels with transfer print designs consisted mostly of floral patterns, except for a saucer from Feature 14, Zone A, Level 1 that had a geometric edge decoration typically used on scenic Willowwares. Although this pattern was most popular during the first half of the 19th century, it was reintroduced at the end of the century and acquired in modest amounts (Bockol 1995).

In contrast, a greater percentage of the Period II ironstones were decorated (46%, Figure 131). A higher percentage of these decorated pieces were gilded (24%), but only one sherd had a decal decoration. Transfer printed pieces represented 12% of these ironstone vessels and another 10% of the ironstone vessels had a painted decoration. A plate and a saucer from the wood lined privy, Feature 16 had the same copper tea leaf pattern discovered in Feature 15 and could have come from the same set. Both tracts were initially owned by the Thomas Walsh family, but the majority of artifacts found in Feature 16 dated between 1904 and 1915, when this property was rented by various families. This mixture of artifacts could represent when Feature 16 was no longer used, but filled in. The tea leaf patterns could be associated with an older fill in the feature, or been displaced from the surface or even from the nearby Feature 15.

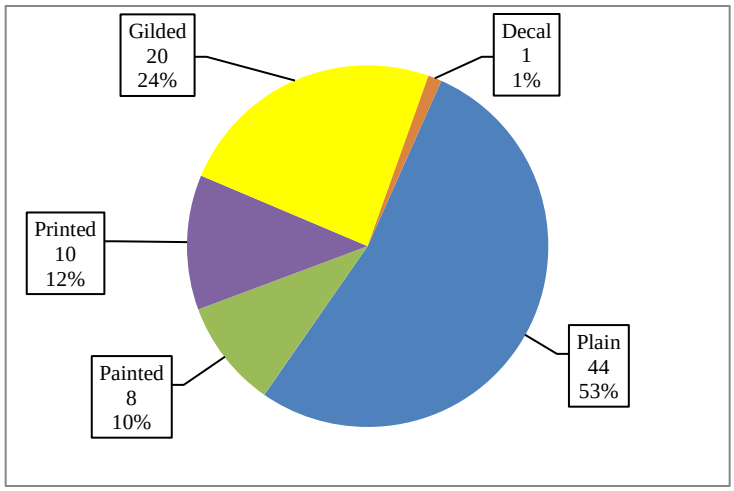
By Period III, a greater percentage of the vessels were decorated (65%), with nearly equal amounts of molded, painted, transfer printed, and decal decorations. However, slightly more of these pieces had transfer printed patterns; all of them with floral designs. Overall, the transfer prints reflected the popularity of floral designs by the 1880s.

Figure 131: Various Ironstone Decorations by Periods

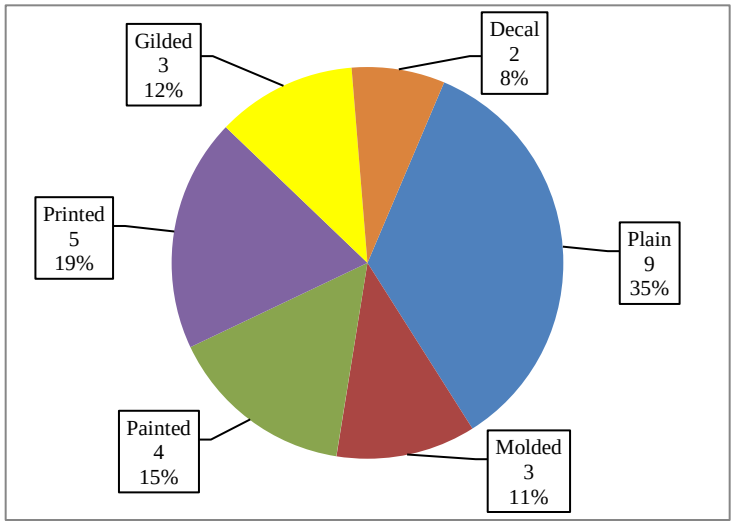
Period I



Period II



Period III



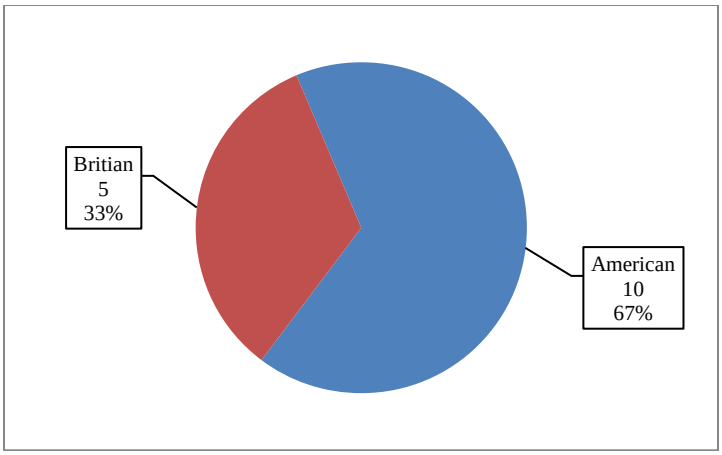
Manufacturer's marks on the ironstone suggested that during Period I residents preferred slightly more American manufactured dinner settings as compared to English ones (Figure 132). By Period II, however, the vast majority of ironstones settings were produced by American firms with only one made in England. Most consumers preferred English tablewares throughout the 19th century. Even as late as 1897, the Sears catalog was selling mostly English dinner settings with a warning of "genuine English semi-porcelain ware, not first or second grade American, but the genuine English" (Israel 1968:678). As a result many American firms associated with ironstones associated with the Period I features copied English manufacturers marks to fool consumers into thinking they were purchasing English ceramics. All of the American ceramics except for two pieces copied the British seal. However, by the end of the 19th century, American manufacturers gradually took over this market by introducing new shapes and decorations, and were able to mass produce ceramics. Tariffs also were imposed on imported goods and a movement was popular, especially among working class families, to buy American products over foreign goods. These measures resulted in the passage of the McKinley Tariff Act in 1891, which required foreign manufacturers to show their country of origin. By the 1902 edition of the Sears Roebuck catalog (1986), American wares were advertised in bold letters and represented a larger portion of the sets being sold. American pieces ranged in price from $4.98 to $8.58 for a 100 piece set, while similar British sets sold from $6.89 to $11.75 for 100 pieces. Only two American marks (used by unknown manufacturers) found in Period II features used the British seal, but another five marks boldly displayed that they were produced in the "U.S.A.".

Only three marked ceramics were associated with the Period III features, but surprisingly all of these came from England (Figure 132). These were from three different features, Feature 12, 17, and 34. According to the 1940 census, residents associated with these features struggled through the Depression. The marks may have been associated with ceramics kept by the family for some time before finally breaking, instead of recently purchased, more expensive, British wares. However, one of these pieces from a plate found in Feature 17 had a copper tea leaf design and likely was redeposited from Feature 16 or even from Feature 15.

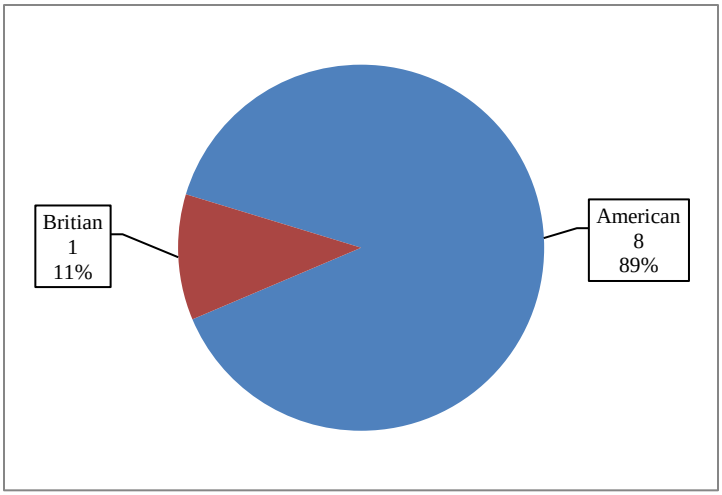
As indicated above (Figure 130, page 299), there was an increase in the use of porcelains over time. The majority of these pieces were associated with tea sets including fine tea cups, saucers, small plates, small serving bowls, a sugar bowl, and cream pitchers. In addition, salt and pepper shakers found in Feature 19 had a copper luster decoration. For all three periods, the porcelains were predominately decorated with the newer innovations of gild and floral decals (Figure 133), which could suggest that these pieces were less expensive to purchase. Unfortunately, manufacturers' marks were not on most of these pieces. However, the salt and pepper shaker from Feature 19, associated with Period II artifacts, was marked with "Made in Japan". Marked with Japan, instead of Nippon, indicating that these pieces dated after 1921 (Nisson 2012). After that time, Japan started to produce cheaper porcelains.

Figure 132: Ironstones Produced by American and British Manufacturers

Period I



Period II



Period III

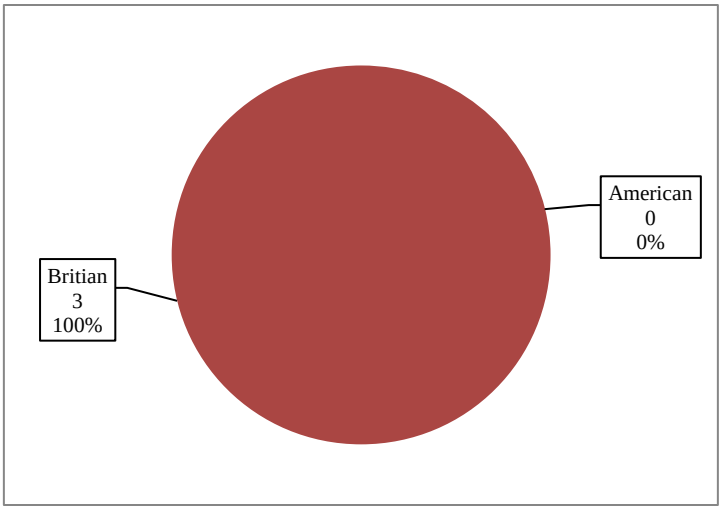
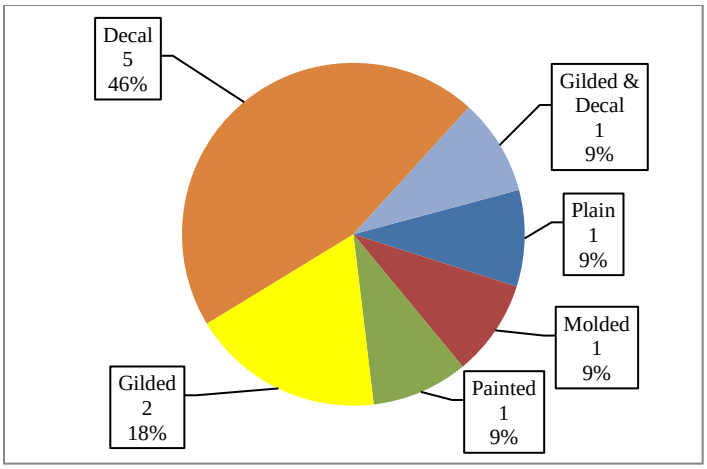
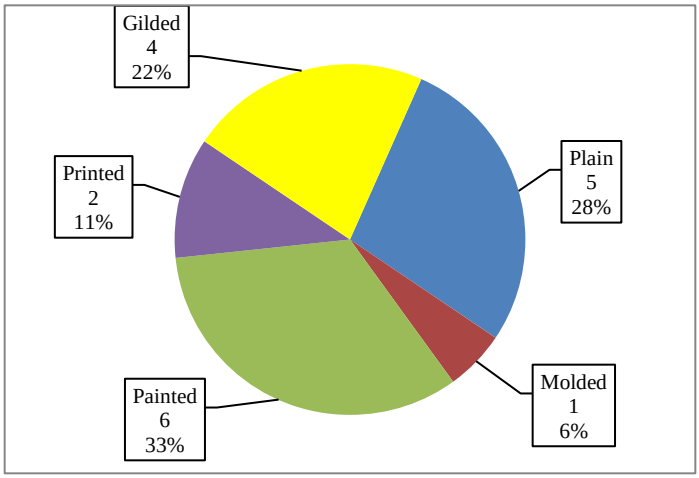


Figure 133: Porcelain Decorations

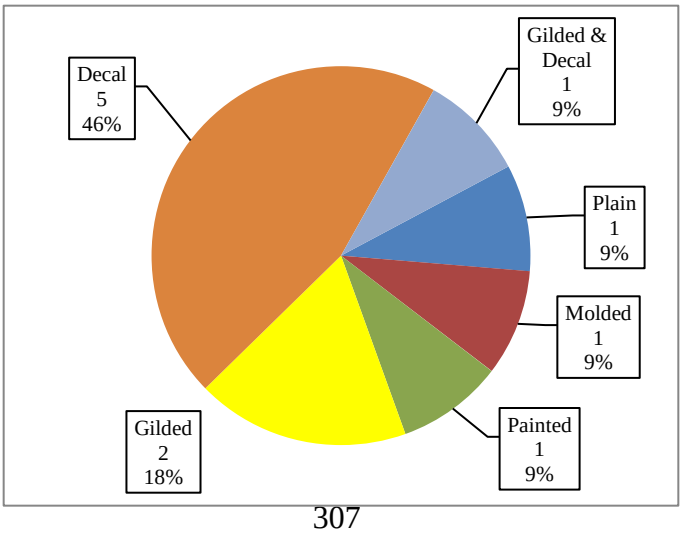
Period I



Period II



Period III



Another plate found in Feature 12, associated with Period III, was made in France. Similar to the Japanese ceramics, the French started selling cheaper porcelains by the 1930s. This plate did have a floral decal pattern as opposed to more expensive painted settings.

Figure 130 (page 299) revealed that glasswares associated with serving foods decreases over time, Period I 17%, Period II 14% and Period III only 7%. These could suggest that the use of glasswares associated with the serving of food became less popular with the residents over time, especially after 1930. During the 1930s, pressed glass and Depression glass with a variety of colors were again popular, but these tended to be dropped from the dinner table after 1940 (Green 2000:112). Regardless, the small numbers of glass serving vessels suggest that these pieces were never very popular with the residents of the mitigation area, or that they could not be afforded.

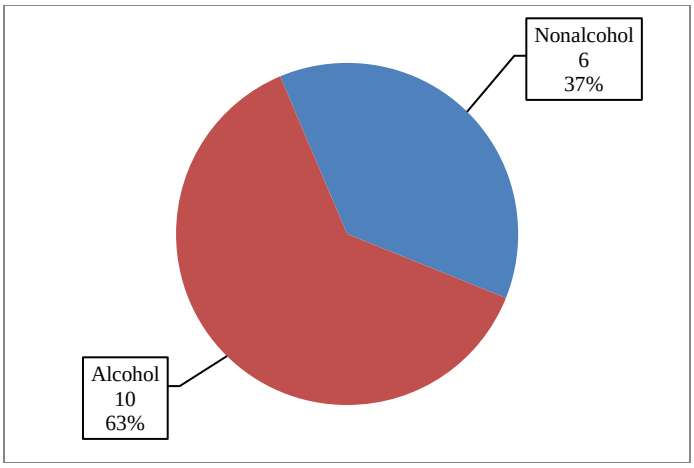
Drinks were served in tumblers with 10 found in Period I features, 5 in Period II features, and only 1 in Period III features. After 1940, drinking glasses were made of other materials besides just glass, including tin and plastic, with glass tumblers becoming less popular. Water goblets were popular for more elaborate dinners, especially for guests. However, only 4 water goblets (3 from Feature 15 and 1 from Feature 29) in Period I features and 1 (from Feature 16) associated with Period II features were recovered. The few goblets could reflect the families' poor economic standing and inability to purchase more expensive glassware dinner pieces. In addition, only one beer stein was found in Feature 15 associated with Period I features, one beer mug from Feature 16 associated with Period II features, a wine glass was found in Feature 12, and a shot glass in Feature 33 associated with Period III features.

A comparison of the alcoholic versus nonalcoholic bottles recovered indicated that only during Period I were more alcoholic beverages consumed (Figure 134). The last part of Period II and the first part of Period III were during Prohibition. The majority of the alcoholic bottles associated with the three periods were bottles used for some type of hard liquor most likely bourbon or scotch, with only a small percentage of beer or wine (Figure 135). As suggested by the drinking glasses, wine does not appear to have been an important part of most meals nor was beer, although beer could have been consumed in buckets similar to the one recovered from Feature 17 associated with Period III, which were not as likely to break and be discarded at the site.

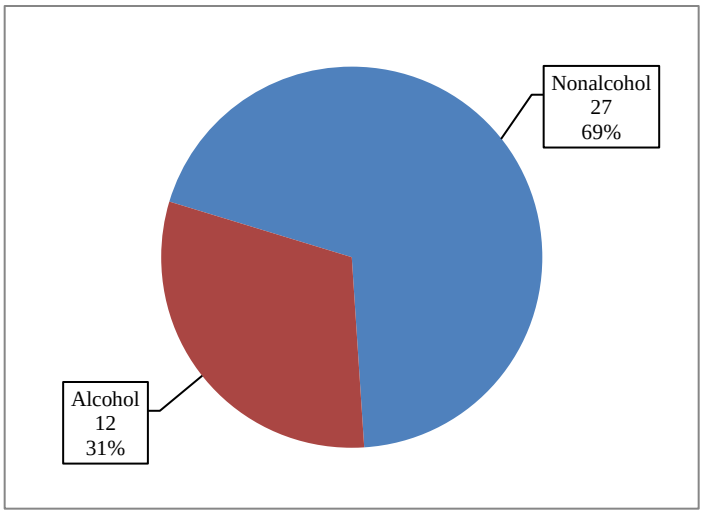
For Period II and III features, the alcohol bottles were distributed evenly among several features, but the majority of the bottles associated with the Period I features came from Feature 14 (2 wine and 4 liquor bottles) with only one liquor bottle found in Feature 1 and one wine bottle in Feature 15. Both Features 14 and 15 were used by the Thomas Walsh family. The family lived at this location until about 1903.

Figure 134: Alcohol versus Nonalcoholic Drinks

Period I



Period II



Period III

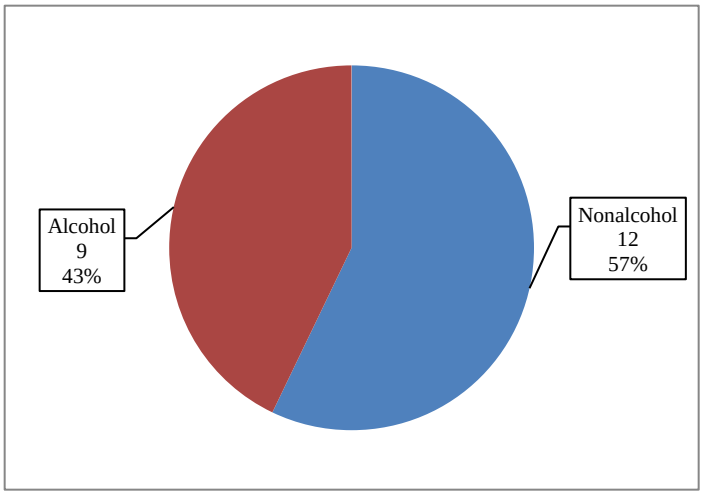
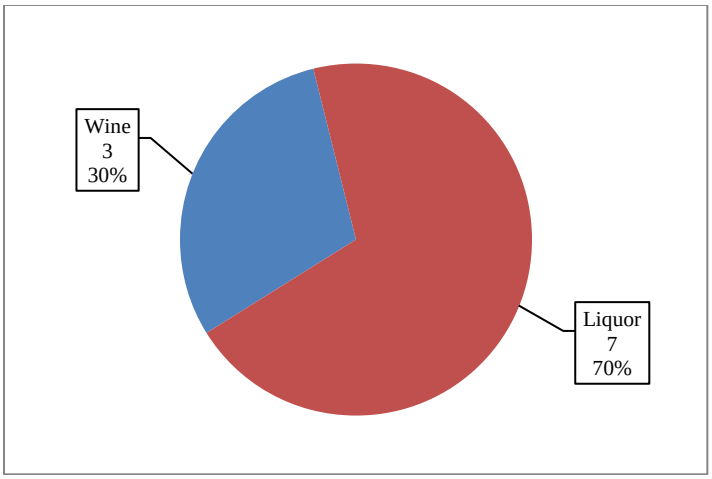
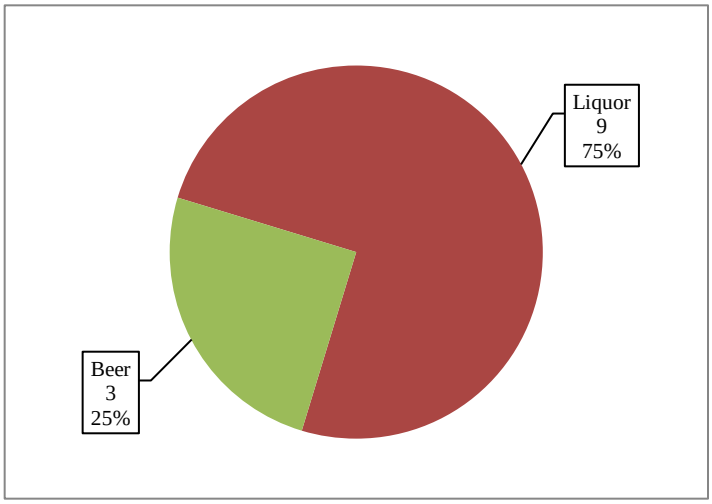


Figure 135: Percentage of Various Alcoholic Beverages

Period I



Period II



Period III

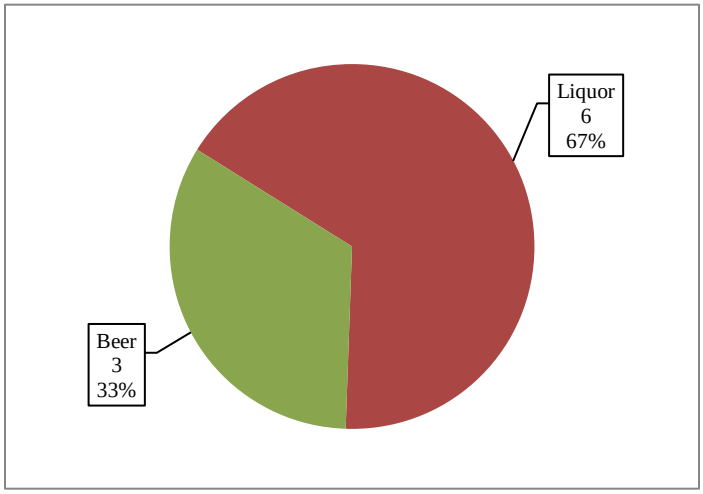
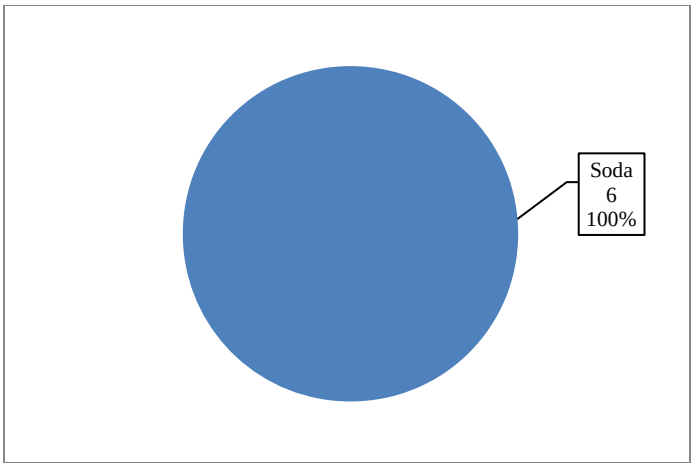
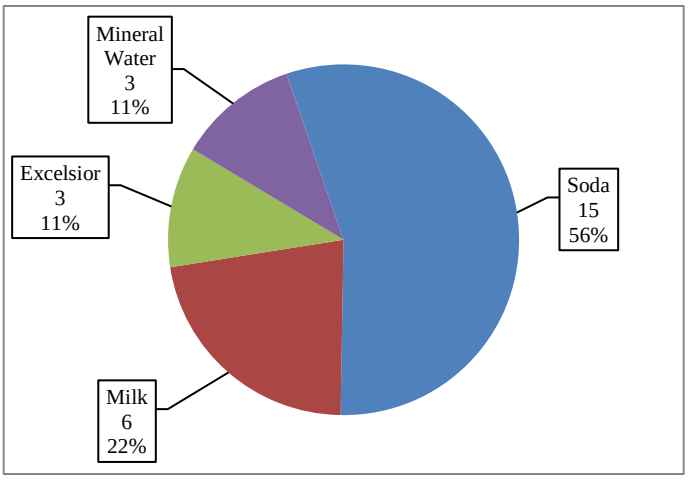


Figure 136: Percentages of Various Nonalcoholic Beverages

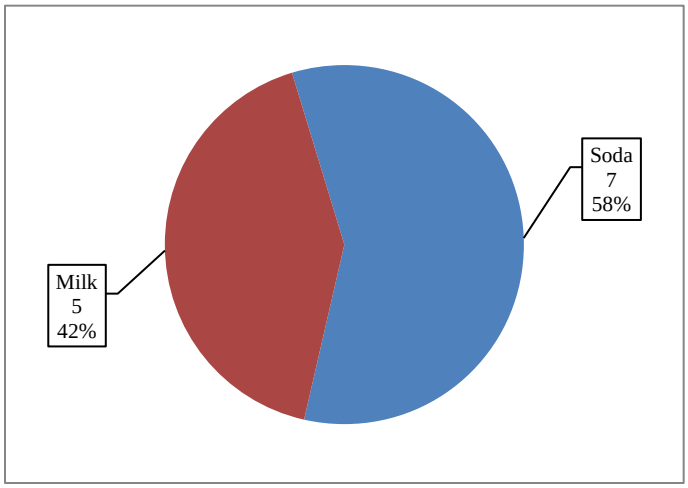
Period I



Period II



Period III



Nonalcoholic beverages consisted mostly of locally produced soda bottles (Figure 136). However, the amount of milk actually consumed is underrepresented. No milk bottles were found in the Period I features. Although returnable milk bottles had been developed by 1890 (Lockhart et al. 2007), it appears that only after 1903-05 that many of the St. Louis dairies adopted this new innovation. Before this time, milk was just dipped into a family container. Health reformers during the 1910s and 1920s encouraged people, especially children, to drink more milk (Green 2000). Although this corresponds with the Period II features, only a low percentage of the nonalcoholic beverages (15%, N=4) represented milk bottles, despite this time having the greatest number of children living within the mitigation area. This could be due to most milk bottles being returned. A greater percentage of milk bottles were associated with the Period III features (Figure 136), possibly suggesting that working class families took longer to accept the health benefits of milk touted by reformers.

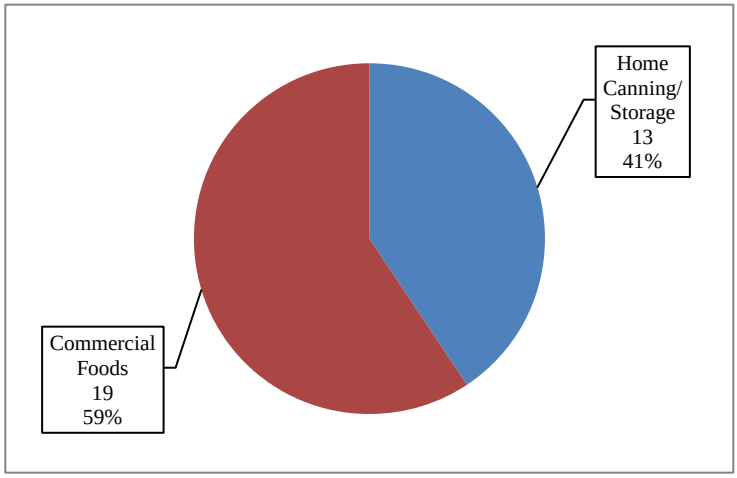
The greatest diversity of nonalcoholic beverages was recovered from the Period II features (Figure 136). Besides soda and milk, other bottles contained excelsior and mineral water. Both of these were drunk as safer alternatives to the city's water, but also were thought to have curative powers. The excelsior water was produced by the Mound City Bottling Company located in St. Louis, but the mineral water recovered from Features 5, 19, and 24 were Pluto water from a mineral spring in French Lick, Indiana. It's possible that these bottles could have been acquired by the users of these features visiting the resort in French Lick, but it is more likely that the bottles were acquired from local stores. Pluto water was nationally sold and advertised.

Other artifacts were associated with the kitchen. Stoneware and yellowware mixing bowls were found in Period I and III features, while Period II contained a single small glass mixing bowl in Feature 24 and two stoneware bakers found in Feature 19. Non-vitreous yellowwares and semi-vitreous stoneswares dominated use in the kitchen since the early 1800s. These cheaper sets were produced by American ceramic manufacturers who were not able to compete with the British manufacturers of dinner settings. Granitewares also were introduced during the late 1800s but they were not widely popular because of their appearance and inexpensive prices. Only one graniteware sauce pan was found in Feature 17, associated with the Period III features.

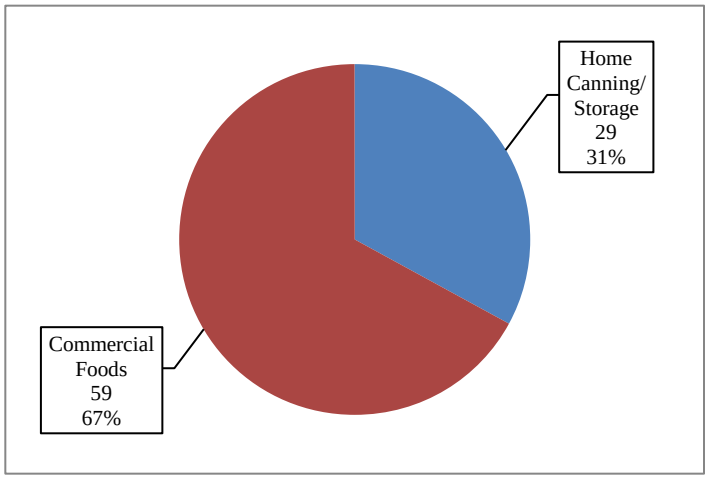
All three periods tended to have more commercially produced extracts, condiments, and packaged foods than foods home canned or stored in stoneware crockery or jugs (Figure 137). The percentage of commercially produced foods actually increases through time. This was somewhat unexpected because home canning appears to have been more popular during the Depression and World War II years due to shortages, rationing, and people making sacrifices. Period III features do include the years after the World War II during the late 1940s and 1950s, when there was a greater abundance of commercial products.

Figure 137: Home Bulk Storage and Canned Foods Versus Commercially Produced Foods

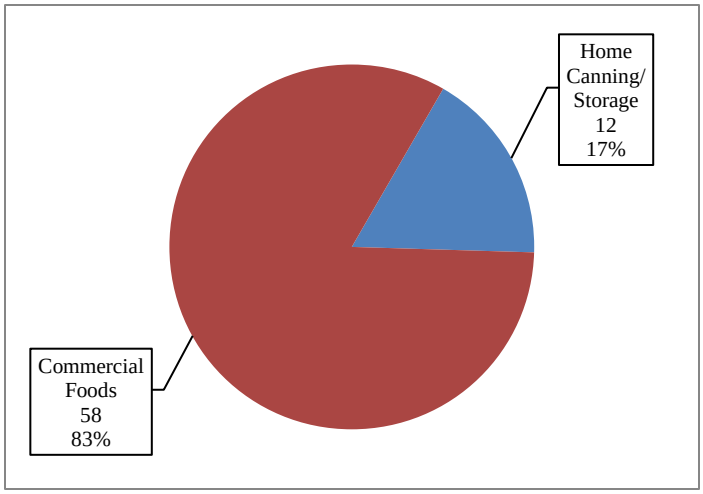
Period I



Period II



Period III



For all three periods regional or ethnic condiments were purchased, such as tabasco sauce and pepper sauce from the Southwest and Southern U.S., and olives and olive oil generally associated with people from the eastern Mediterranean. The greater abundance of commercially produced foods likely reflects the fact that this area was utilized by urban dwellers who could not grow their own foods and purchased them from a grocery instead of a food market. After 1900, an increasing number of commercially produced foods were available for American consumers.

Discussion of Fauna Consumed for the Three Periods by Lucretia S. Kelly

All the identifiable faunal remains from the three periods designated within the I64/Tower Grove Mitigation Area are from domestic animals, except for one cottontail rabbit bone and one turkey bone. The faunal assemblages are small with Period III having the largest of the three. Cattle, swine, sheep (goat), and chicken are the domestic animals represented.

Period I had no sheep/goat remains and Period II had only one. Period III yielded the largest number, albeit still a small number. All the bones are from the lower leg (distal tibia and metapodials) and none have been sawed except for the sheep tibia. These bones may be butchery waste as little consumable meat would be attached to them.

Periods I and II had chicken, although fewer chicken bones were recovered in Period II. No eggshell was recognized and the identified chicken bones appear to be adult individuals. It appears that chickens may not have been raised on the properties and were purchased for consumption rather than for egg production.

Only in Period II do swine remains make up the largest percentage of NISP identified below the class level. This period however has the smallest assemblage and therefore the significance of that percentage may not be great. Period III had the largest assemblage and only one swine bone was identified. When all three periods are combined, swine remains make up only 7.5% of the mammal NISP identified to a taxon below class.

Cattle remains were most numerous in Periods I and III, particularly III where they comprise 89.9% of the mammal NISP identified to a taxon below class. The number of mammal bones that are sawed increases at a steady rate from 26.6% NISP in Period I to 30.4% in Period II to 33.2% in Period III. When this area of St. Louis was first occupied, there was a slaughterhouse, butcher shop, and grocery store. The faunal remains recovered seem to reflect the inhabitants purchased their meat from butcher shops throughout the time periods represented with little or no livestock being kept in the city. The presence of fewer faunal remains from Period II may reflect the poorer economic status of the families that moved into the area during this time. The cuts of meat that are represented in Period III are of a general low retail value, but the families were able to eat more meat, particularly beef, than in Period II. This is, however, a rather tenuous observation because of the small size of the assemblages that may be biasing the data.

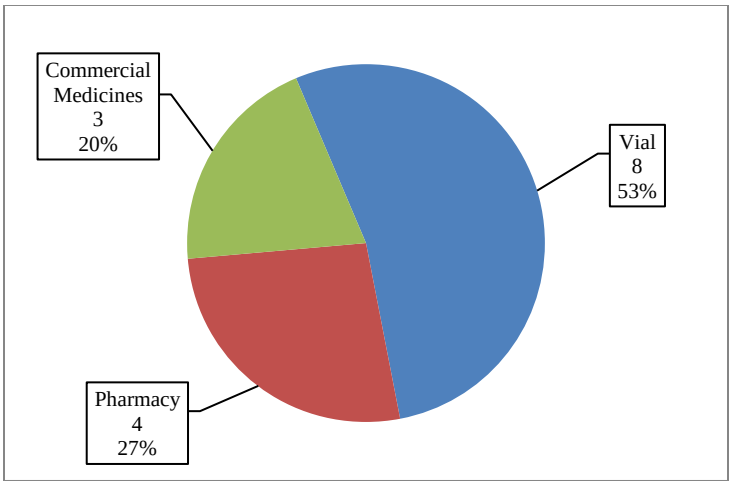
HEALTH CARE ARTIFACTS

In addition to artifacts associated with dining, health care artifacts also were associated with all three periods. These items, however, decreased in percentage over time (see Figure 129, page 300). This may be due to improvements in health care and affects of the government's effort to get rid of fraudulent medicines. Another possibility is that people just could not afford to purchase medicines during the Depression and may have relied more on home remedies. During Period I, the greatest percentage of health care products was represented by vials (Figure 138). These could have been dispensed by doctors, local pharmacies, or held commercially produced medicines; however, the vials may have been part of homeopathic medicines. Supporting that at least some of the vials were related to homeopathic medicines is the fact that one of the pharmaceutical bottles came from Luyties Homoeopathic Pharmacy. All of the vials were found in Features 14 (five vials) and 15 (3 vials), in addition the Luyties bottle also was recovered from Feature 15. The original users of these two privies were the family of Thomas Walsh, but it is unclear if this family just preferred homeopathic medicines, or if this a common trait among other Irish immigrants.

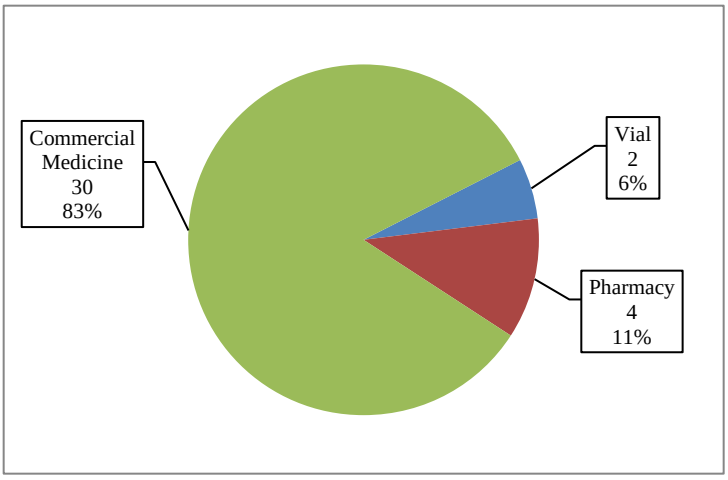
Period II and III features had similar low percentages of vials and medicine bottles dispensed by local pharmacies, but had a greater percentage of commercially produced medicines. The vast majority of commercial medicines consumed by the residents of the mitigation area appear to have been legitimate products still used today, such as Bromo Seltzer for upset stomachs and headaches, aspirin to relieve head and joint pains, Sloan's Lineament to relieve sore muscles, Mentholatum used as a chest rub to relieve cold symptoms, antiseptics to aid in the healing of cuts, Vaseline to relieve chapped hands and heal the skin, and cod liver oil. However, some of the cod liver oils were mixed with large quantities of alcohol to improve the taste of the oil. One fraudulent medicine, recovered from Feature 14 associated with Period I, was Dr. Kilmer's Swamp Root. Although it was primarily supposed to cure kidney, liver, and bladder ailments, this medicine also was touted as being able to cure 36 other diseases, everything from bad breath to syphilis to malaria to sore backs. It was only after 1906 and the 1920s that the federal government started passing laws to protect the public from fraudulent medicines. Medicines like this Dr. Kilmer's Swamp Root were eventually dropped from the market.

Figure 138: Types of Medicines

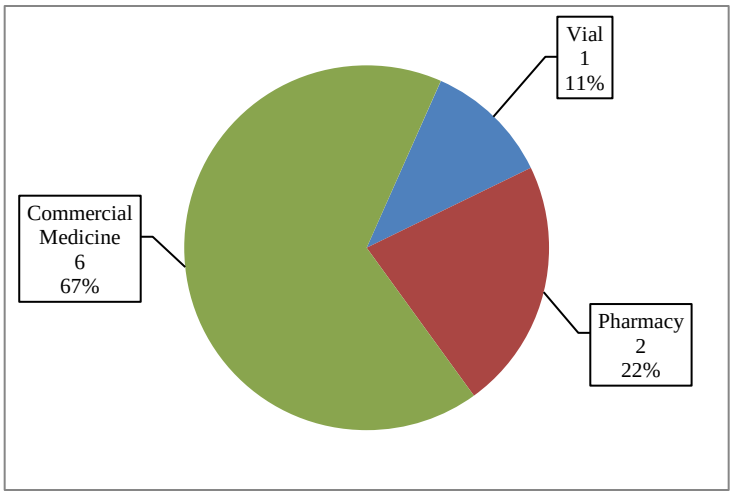
Period I



Period II



Period III



HYGIENE ARTIFACTS

Concerns over proper hygiene also became important by the start of the 20th century. A number of national marketers developed hygiene products to help people stay and look healthy. These products represented only a small percentage of the artifacts recovered from the various periods, between 2% and 9% (see Figure 129, page 298), but they did increase in percentage over time, suggesting an increasing use of these products. Toilet sets such as chamber pots, water pitchers and basins, and shaving mugs were more common with the Period I features (Figure 139), with only one shaving mug associated with the Period II features. The decrease in toilet sets is likely due to the homes having running water and sinks by 1905, no longer requiring the need of pitchers and wash basins. Overall very few dental hygiene products were associated with any of the features. This could suggest that the residents of this area were not as concerned by dental health or used common household products such as baking soda. They do appear, however, to have been more concerned about personal appearances, with a greater percentage of cosmetics and perfumes associated with both Periods II and III.

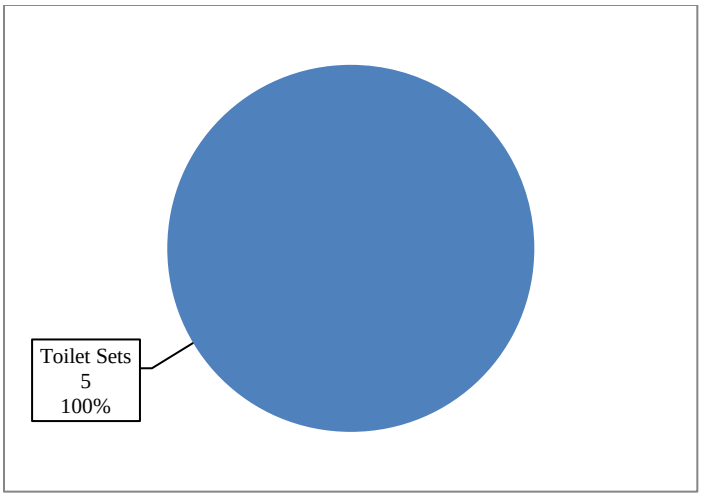
PERSONAL ARTIFACTS

Personal objects represented the second most common artifacts in the Period I and II features, but these did reduce in percentage over time (Figure 129, page 300). A diversity of personal objects was recovered from all three periods (Figure 140). Clothing remains represented the most common objects associated with most of the periods, except for Period I, when mostly children items were found. It is not surprising that clothing items were found in higher percentages since most of these remains represented individual buttons that may have been lost during the use of privies. It was not possible to identify more than one button from a single article of clothing, but it also is likely that worn clothing was discarded into these features as well.

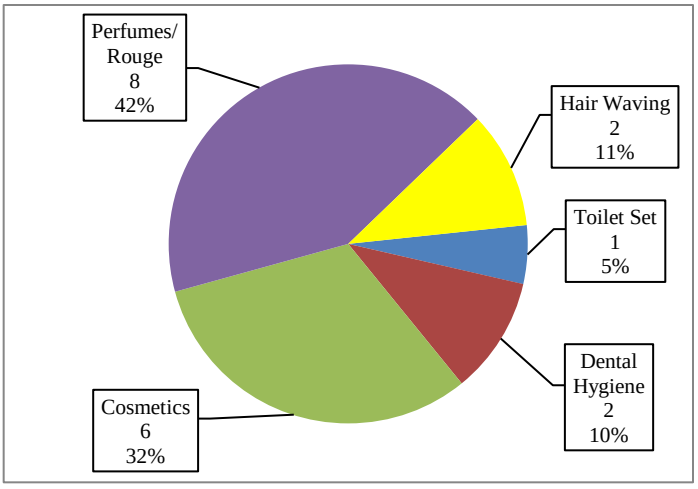
Also common were children's artifacts, representing the highest percentage of artifacts during Period I (Figure 141). It is surprising that a greater percentage of children's items were not associated with the Period II features, since according to the 1910 and 1920 U.S. Census, the greatest number of children who were school age or younger lived within the mitigation area. For the first two periods, children's objects consisted predominately of marbles that could be used by all children. The next most common objects were used primarily by girls, dolls and toy tea sets. Only two children's objects were associated with the Period III features, consisting of a rubber ball and a pair of children's scissors. There were fewer children living within the mitigation area according to the 1930 and 1940 census, but the few toys may reflect the affects of the Depression on families who could not afford to spend their expendable income on toys.

Figure 139: Hygiene Products

Period I



Period II



Period III

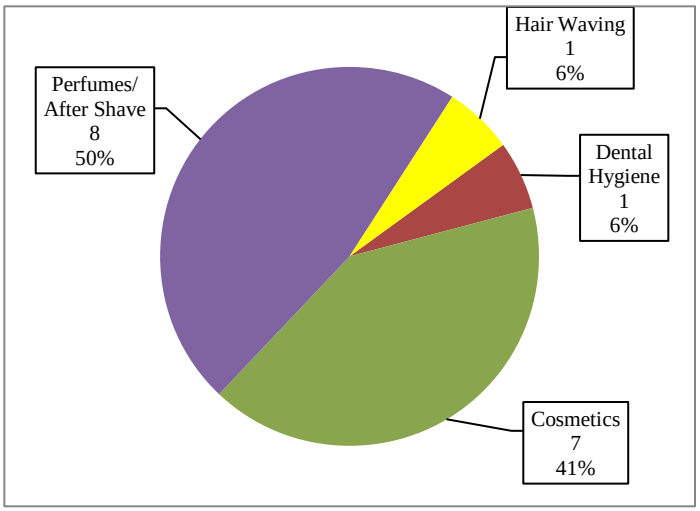
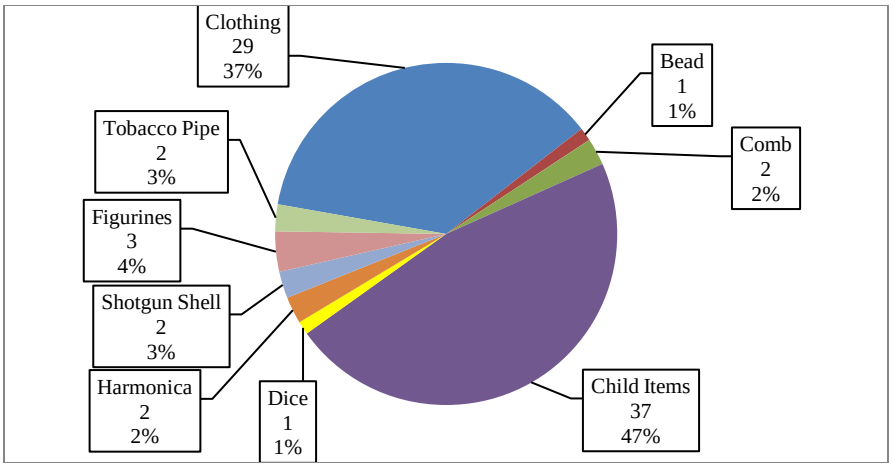
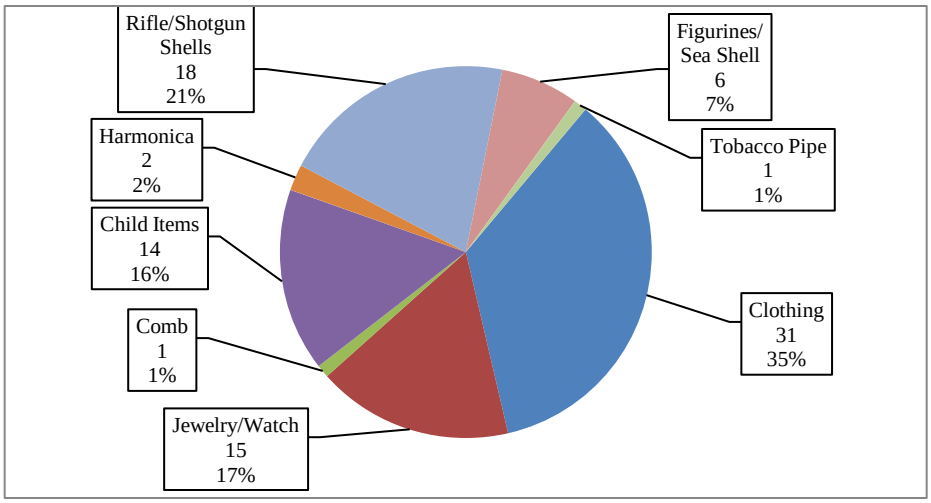


Figure 140: Various Types of Personal Objects

Period I



Period II



Period III

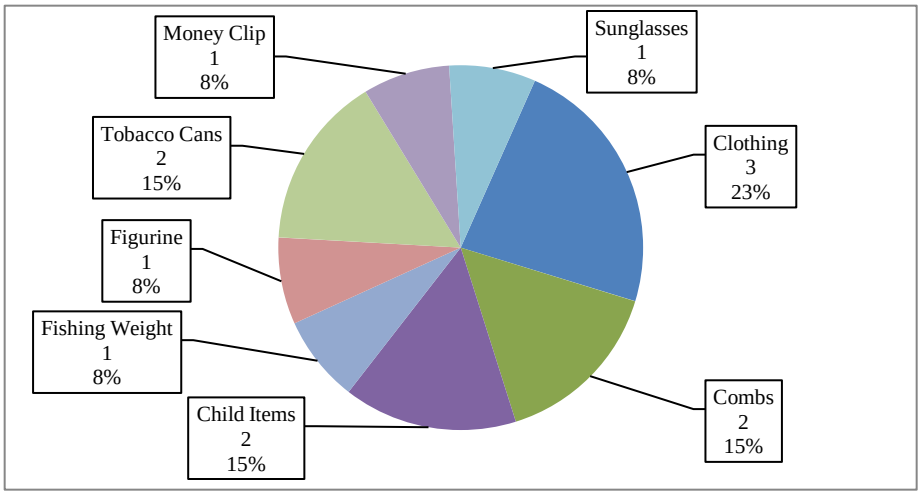
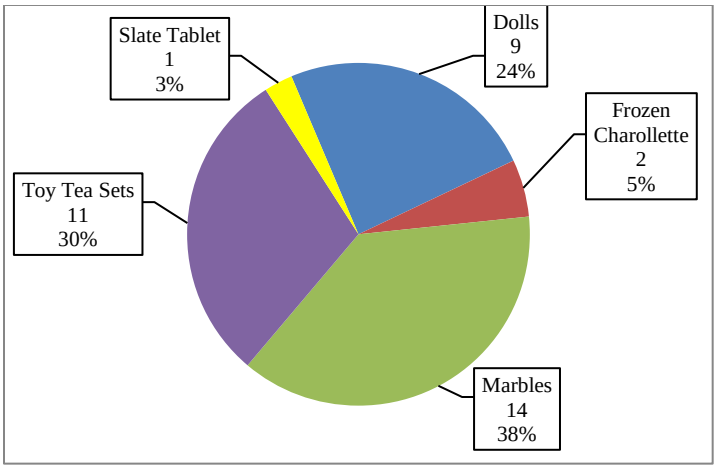
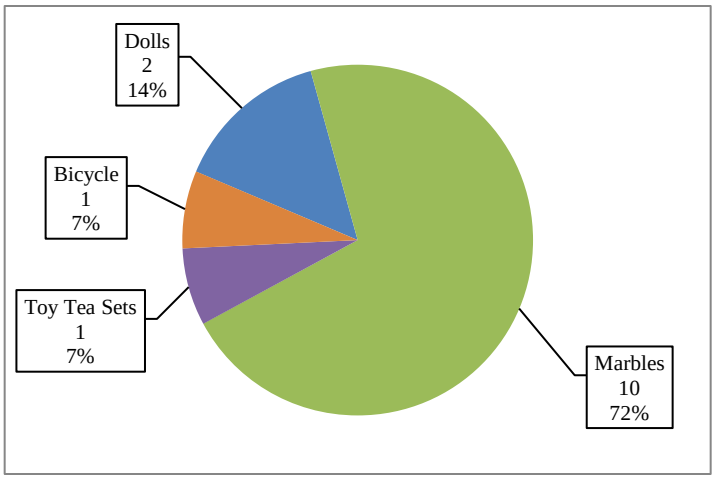


Figure 141: Children's Objects

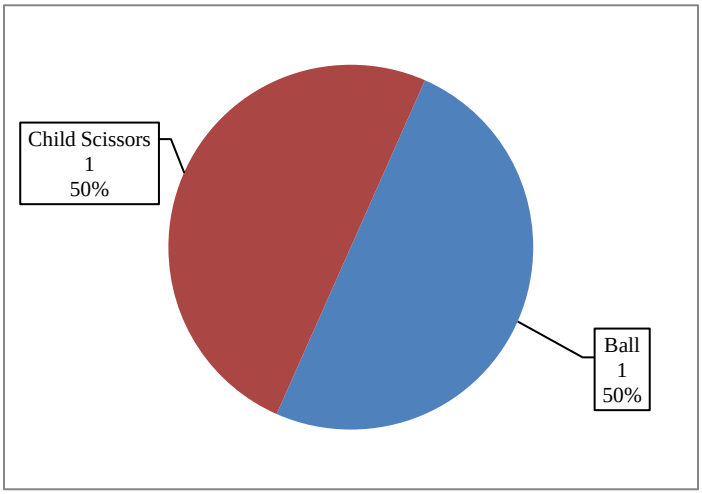
Period I



Period II



Period III



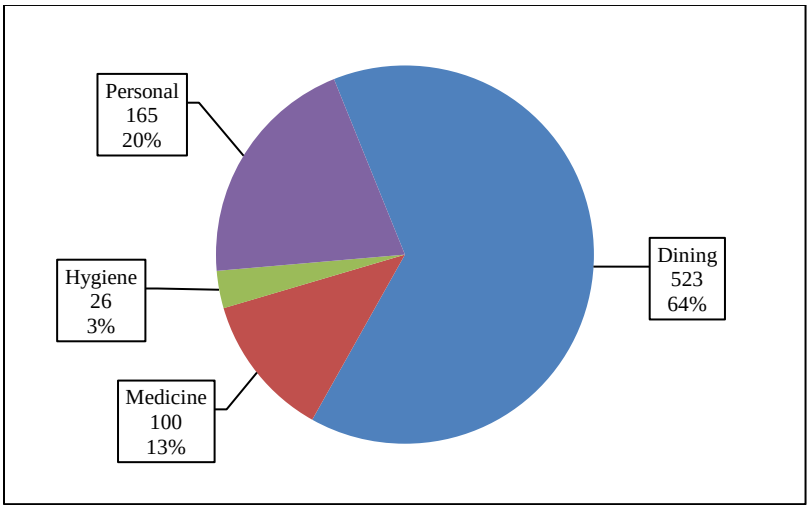
COMPARISON TO OTHER ST. LOUIS CITY SITES

Artifacts from the mitigation area, consisting of sites 23SL2328 and 23SL2329, were compared to other historical sites excavated in the City of St. Louis. Although most of these sites date to the 19th century, two sites contained materials from about the same time as the current project area. These include the Multi Modal Site (23SL1215) (Harl et al. 2003) and the Missouri Botanical Garden (MBG) Trash Dump Site (23SL2326) (Harl et al. 2011; Harl et al. 2012). Both of these sites were located within the Missouri Botanical Garden property, only one mile south of the present mitigation area. The Multi Modal Site produced remains dating between 1896 and 1930 located in two privies within the backyards of Shotgun style houses that were rented by working class families. The MBG Trash Dump Site produced artifacts dating between 1900 and 1930 that were located in a large trash dump deposited along the bank of a creek behind utility buildings used in the operation of the garden. These materials were associated with wealthier families predominately representing the first two directors of the Missouri Botanical Garden: Dr. William Trelease (director from 1889-1912) and Dr. George T. Moore (director from 1912-1953) who lived on the property. These comparisons are significant in that they not only represent a similar time period, but the artifacts associated with the Multi Modal Site are from working class families similar to the residents who lived within the mitigation area, while the artifacts from the MBG Trash Dump Site provide a comparison with materials associated with wealthier families. For this comparison, only artifacts from the first two periods of the mitigation area will be used, which date to about the same time as the artifacts from the other two sites (1886-1930).

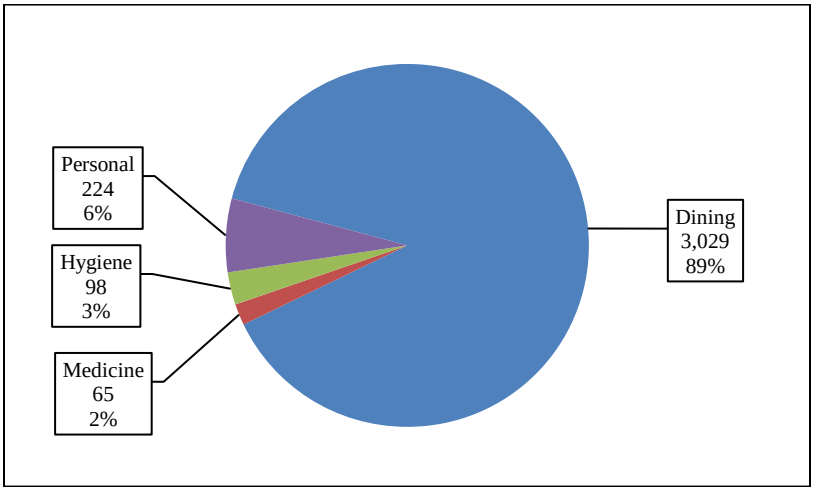
As expected, the percentage of dining objects dominated all three sites (Figure 142). Health care objects were most prevalent at the MBG Trash Dump Site (15%), possibly suggesting that at this time wealthier families could afford to acquire more medicines from pharmacies or commercially produced, than poorer working class families. Only 2% of the artifacts represented medicines from the Multi Modal Site. A higher percentage of medicine bottles (12%) were found within the mitigation area, however, if the 22 bottles found in the sewer line are discarded, the percentage drops to only 10%. A higher percentage of hygiene products also were associated with the MBG Trash Dump Site, again suggesting that wealthier families could afford these products. What is more surprising is the large percentage of personal items found within the mitigation area, which is the second greatest percentage next to dining artifacts. This was unexpected since it could be assumed that wealthier families would have been able to afford a greater number of personal objects than working class families. However, the greatest portion of these objects was related to clothing and children artifacts. A greater number of children did live within the mitigation area than at either the Multi Modal or MBG Trash Dump Sites. Further, the fill from the Trash Dump Site was mostly collected by the staff of the Missouri Botanical Garden and the construction crew, and it was not screened. Thus, it is likely that buttons and other small personal items were missed or just not collected. This could account for the lower percentage of personal artifacts at the MBG Trash Dump Site.

Figure 142: Comparison of Artifacts Types

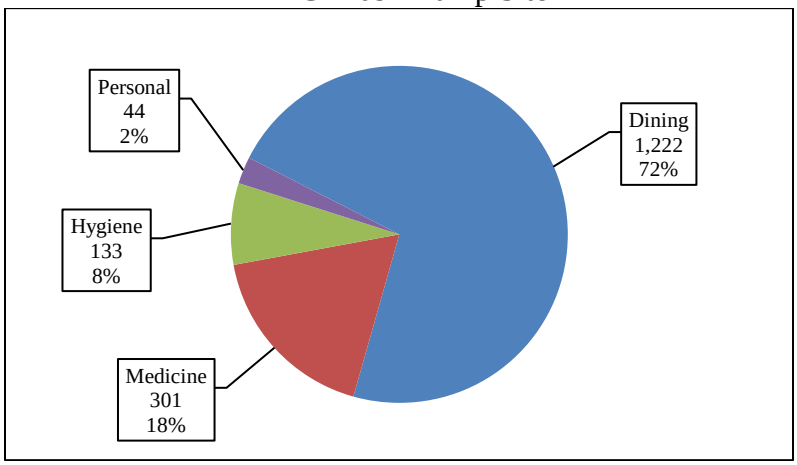
Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site



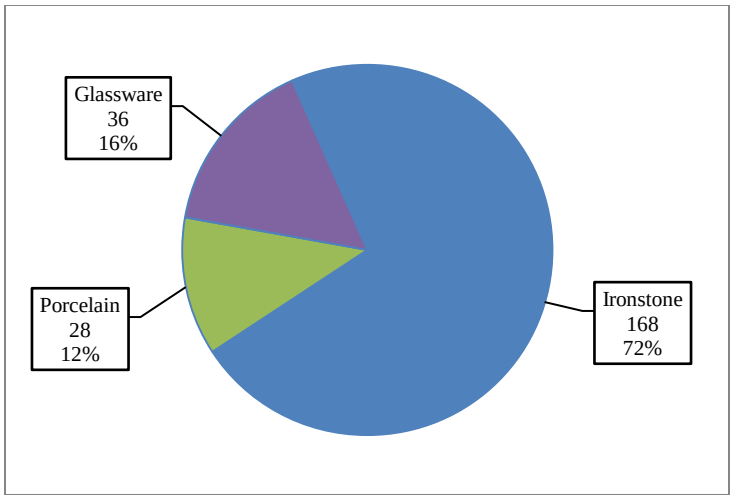
DINING ARTIFACTS

Tablewares consisted predominately of ironstones for both the mitigation area (72%) and the Multi Modal Site (79%), but represented only 50% of the tablewares associated with the wealthier families at the MBG Trash Dump Site (Figure 143). This could suggest that there was a greater preference for these cheaper wares by working class families or an inability to purchase newer pieces. However, at the Multi Modal Site, the second highest percentage consisted of hotelwares, while at the mitigation site it consisted of glasswares. Both pieces were cheaply produced by the start of the 20th century.

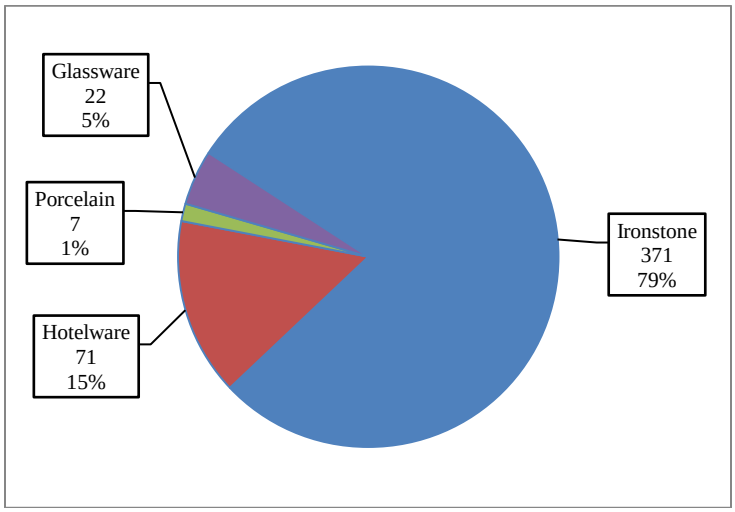
Manufacturer's marks on ironstone vessels revealed that most of these dinner pieces at all three sites were produced by American firms (Figure 144), but 32% of the marked ironstone from the MBG Trash Dump Site came from England. By 1900, American firms were finally able to take over the U.S. ceramic market from English producers. Also due to tariffs, English dinnerwares were generally more expensive by this time. The greater presence of these goods associated with the Trash Dump Site could further suggest the economic standing and ability to afford these more expensive pieces. No English ceramics were used at the Multi Modal Site, but 25% of the marked ironstone recovered from the mitigation area was produced by English firms. However, all of these pieces were associated with ceramics that were produced before 1900, when American companies finally took over the market. Thus, similar to the Multi Modal Site, it is possible that cheaper American ceramics were preferred by working class consumers within the mitigation area. This was probably due to the higher costs of the English ceramics, but also may reflect the "buy American" emphasis popular at the start of the 20th century due to a growing sense of American pride. It also may have been a way that American workers could insure their own job security by purchasing goods produced by their fellow workers.

Figure 143: Comparison of Dinnerware Types

Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site

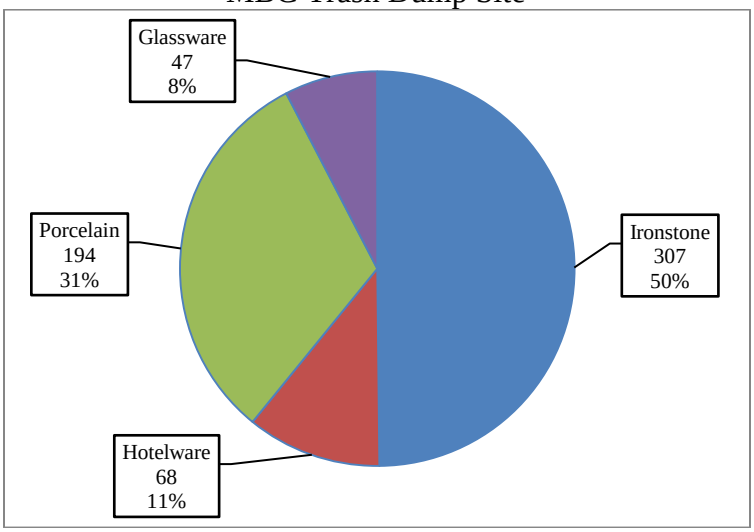
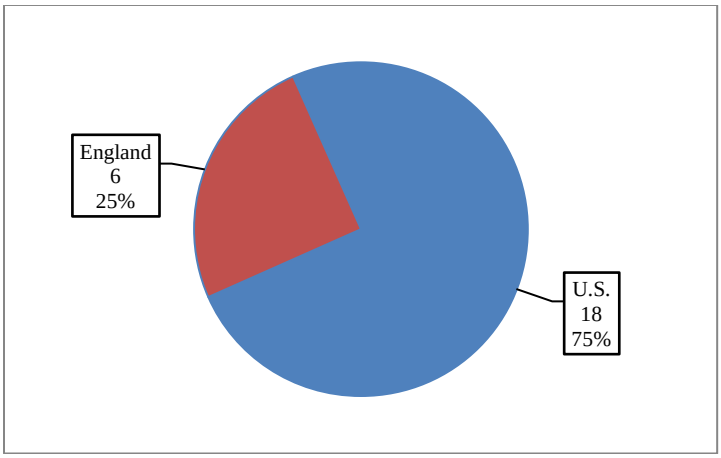
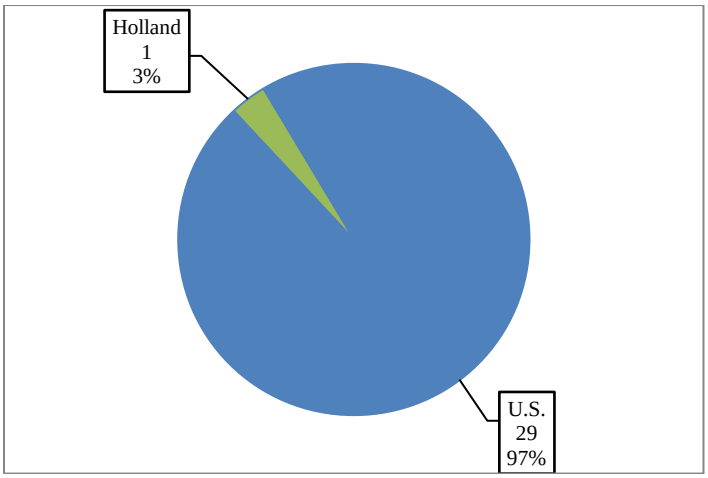


Figure 144: County of Origins for Ironstone Ceramics

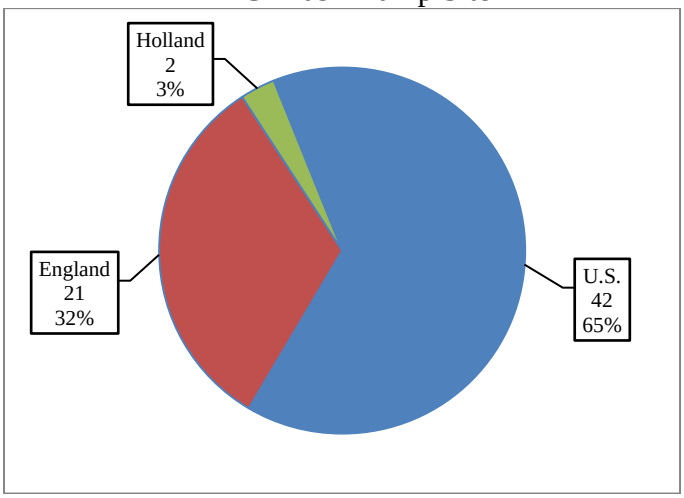
Sites 23SC2328/2329



Multi Modal Site



MBG Trash Dump Site

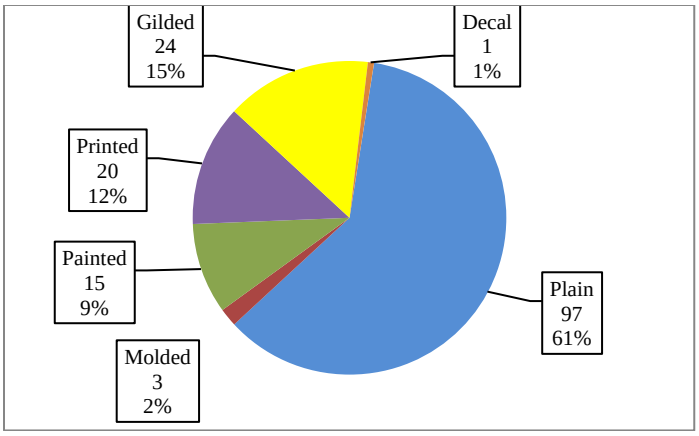


The residents of the mitigation area also appear to have been conservative in their choices of decorations on ironstone vessels. The majority of the ironstone tableswares at the mitigation area (61%) were undecorated (Figure 145). They also seemed to have preferred older styles of decorations, including painted and transfer print pieces. Although a slight majority of the ironstones at the MBG Trash Dump Site were undecorated (29%), newer decorations of gilded and decal patterns were common. The Multi Modal Site had a higher percentage of undecorated ironstones (35%), but they had nearly equal percentages of finely molded pieces and transfer print decorations. Gilded table settings represented 17% of the ironstones, nearly the same percentage as used at the mitigation area (15%). Gilded decorations were popular during the first half of the 20th century, because it could be more cheaply applied to ceramics, but resembled more expensive dinner settings painted with gold. It was suggested that the working class families of the Multi Modal Site preferred gilded ceramics similar to wealthier families as a way of reflecting family success, albeit these pieces were cheaper imitations of the more expensive vessels (Harl et al. 2003:150-151). Even though decals reduced the cost of decorating ceramics, these decorations were more stylistic than painted or printed pieces, and do not appear to have been popular with working class consumers until after 1940. Decal decorated tablewares were not common at either the Multi Modal or the mitigation area. Also, it is possible that working class consumers tended to hold on to their older tablewares longer than the wealthy families at the MBG Trash Dump Site, who could afford to purchase newer pieces. Overall, the types of tablewares and their decorations suggested that the residents of the mitigation area were even more conservative in their choice of dinner settings than the occupants of the Multi Modal Site.

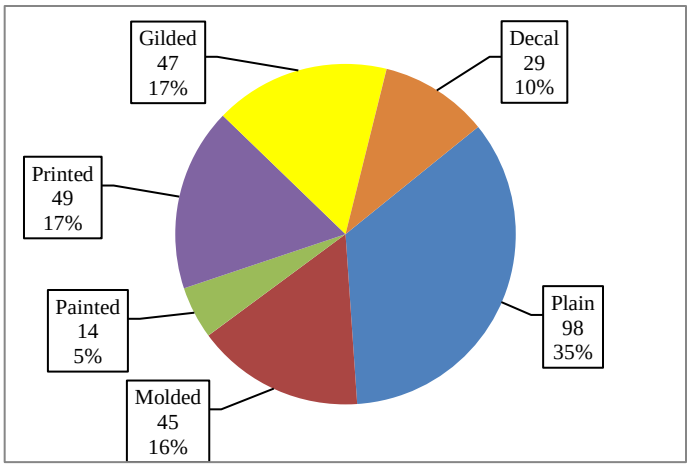
There was a greater percentage of more expensive porcelain vessels associated with the wealthier families at the MBG Trash Dump Site than at either the mitigation area or the Multi Modal Site (Figure 143). However, even working class families were willing to spend some of their discretionary funds on porcelains, especially at the mitigation area. Having a nice tea set for social entertaining was believed to be important even among poorer families (Wall 1991; Geismar 1982). The majority of the pieces recovered from the mitigation area were associated with tea sets, but two pieces, found in Feature 19, were a salt and pepper shaker marked with “Made in Japan”. These were the only marked porcelains recovered from this site. The Multi Modal Site had five porcelain pieces marked indicating that one came from Germany, one from Austria, and three from France. Porcelain associated with the MBG Trash Dump Site came from a wider variety of regions including 12 from Germany, 4 from Austria, 1 from Salesia, 7 from France, 1 from Holland, and 3 from Nippon/1 from Japan suggesting that these families could afford these more expensive pieces from a variety of countries.

Figure 145: Decorations on Ironstone Vessels

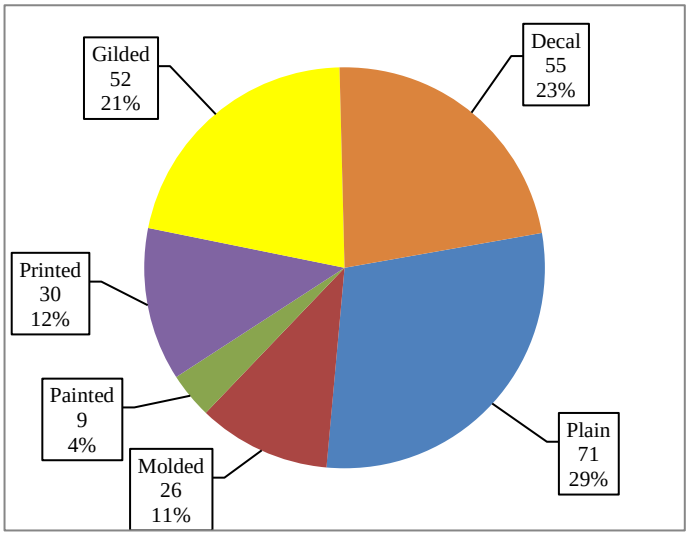
Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site

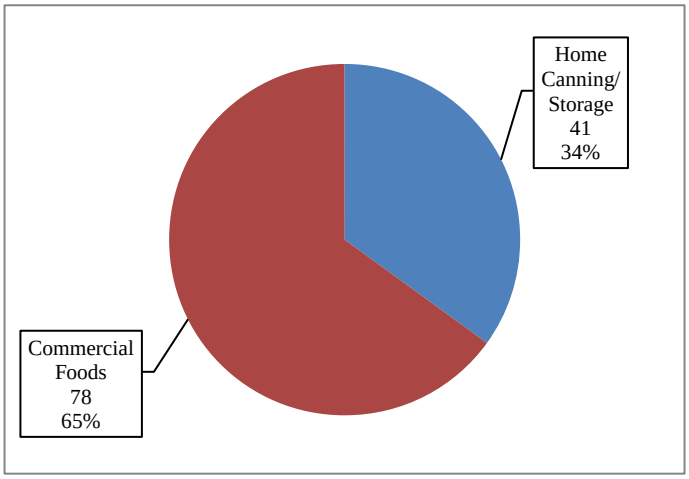


Food products acquired at these three sites consisted predominately of commercially prepared foods, condiments, and extracts. By the start of the 20th century, food products were being sold on a nationwide or even internationally. Grocery stores carrying these packaged foods replaced neighborhood markets where foods produced by local farmers were once sold. As a result, housewives no longer had to rely on canning fruits and vegetables in order to preserve them for longer use, and stoneware crockery jars and jugs were decreasingly needed to store bulk foods. A nearly equal percentage (10-11%) of canning jars or storage crockery vessels were associated with the working class Multi Modal Site and the wealthier families at the MBG Trash Dump Site (Figure 146). However, home prepared stored foods represented a higher proportion (34%) recovered from the mitigation area, despite the ready presence of a grocery store at 4360 Papin, on the northeastern portion of site 23SL2329, and also later at 4330 Papin on the northwest portion of this same site. Similar to dinnerwares, this could reflect the more conservative nature of the residents of the mitigation area due to their poor economic standing or possibly their ethnic background. Commercially produced foods allowed for a wider range of spices, extracts, and condiments to enhance the taste of food. These products were recovered at all three sites. Also present were similar quantities of olive oil (Site 23SL2328/2329-4 bottles, Multi Modal-1 bottle, and MBG Trash Dump-6 bottles) and sauce/powder or Tabasco sauce (Site 23SL2328/2329-6 bottles, Multi Modal-1 bottle, and Trash Dump-3 bottles) suggesting that by this time regional and ethnic foods were becoming widely available.

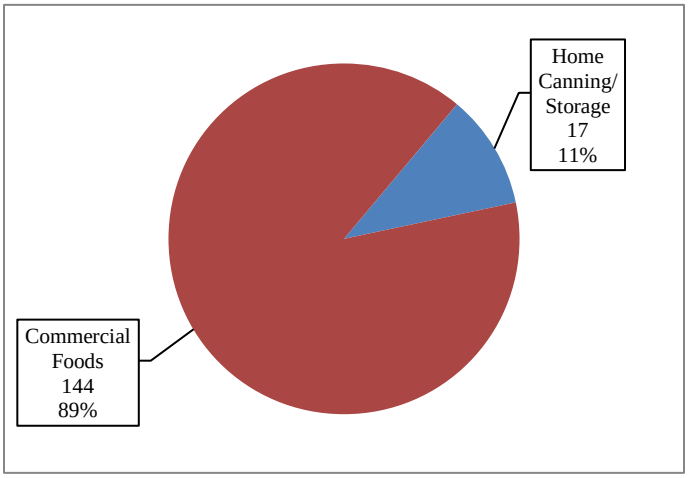
All three sites had a slightly higher percentage of nonalcoholic beverage bottles than alcoholic (Figure 147). The percentages of alcoholic beverages were slightly greater for the working class families at the Multi Modal Site and the mitigation tract. However, the types of alcohol beverages used were different at these two working class sites (Figure 148). At the Multi Modal Site beer was more common, but within the mitigation tract liquor bottles (most likely scotch or bourbon) were more common. The MBG Trash Dump Site also had a greater percentage of liquor bottles. Only a small amount of wine bottles was found at all three sites. It would be expected that the MBG Trash Dump Site would have a higher percentage of wine bottles, since many of the etiquette books of the time recommended wine drinking was an important part of social entertaining. This site, however, was the only one to have the more expensive champagne bottles.

Figure 146: Commercially Prepared Food Products Compared to Home Canned/Stored

Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site

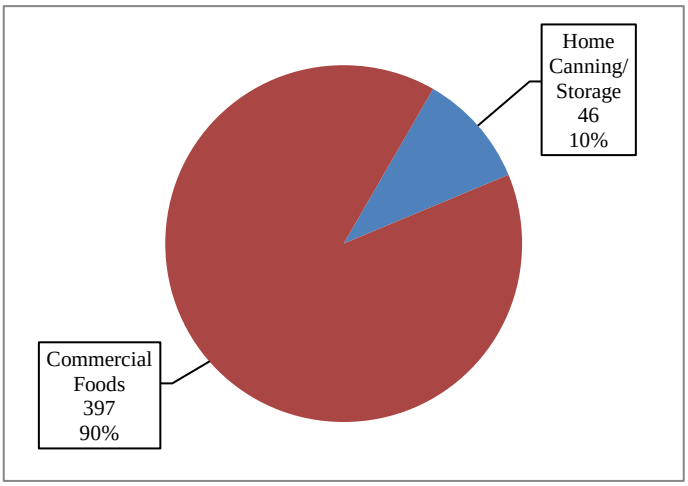
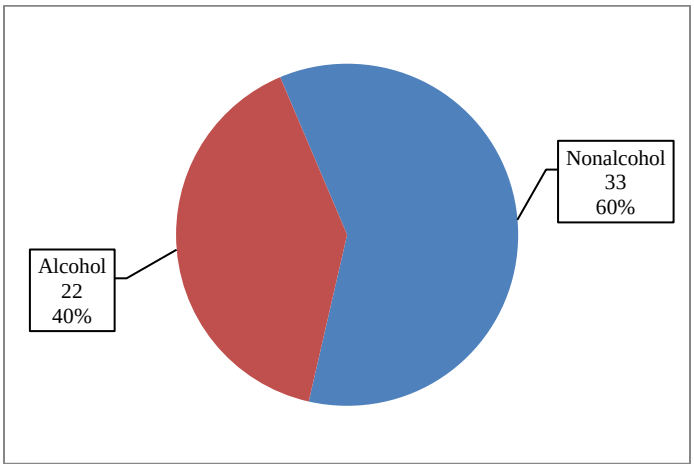
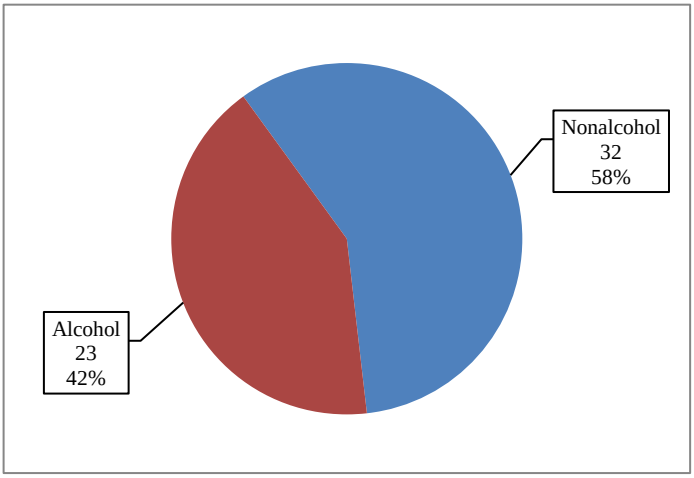


Figure 147: Nonalcoholic Compared to Alcoholic Beverages

Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site

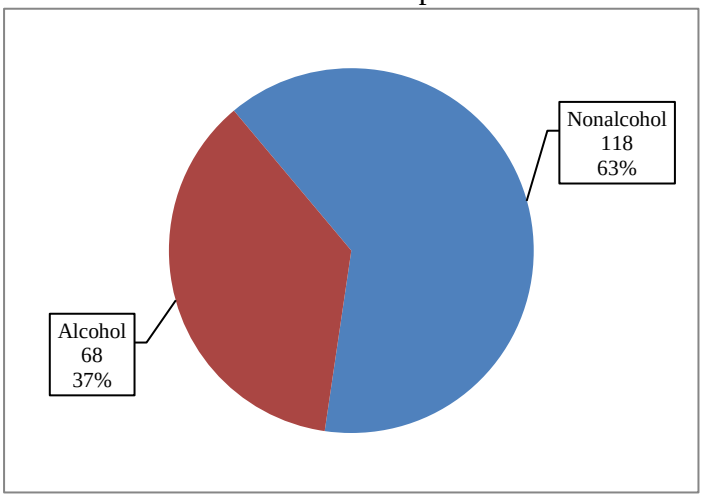
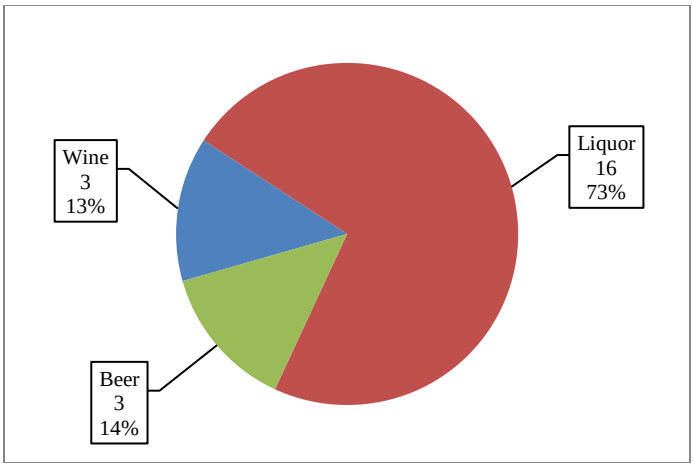
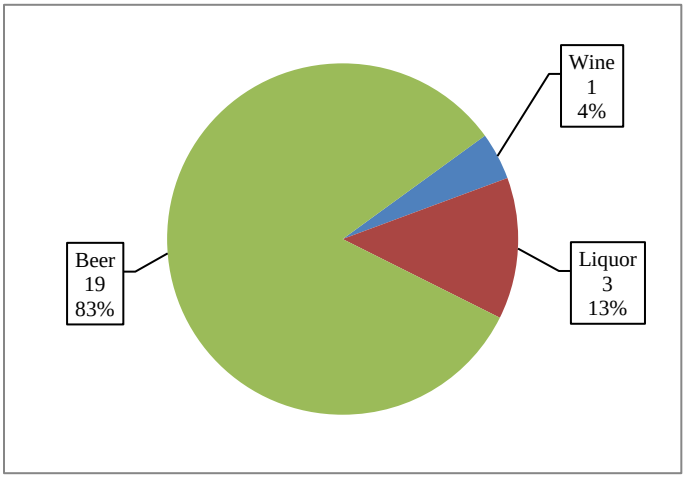


Figure 148: Alcoholic Beverages

Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump

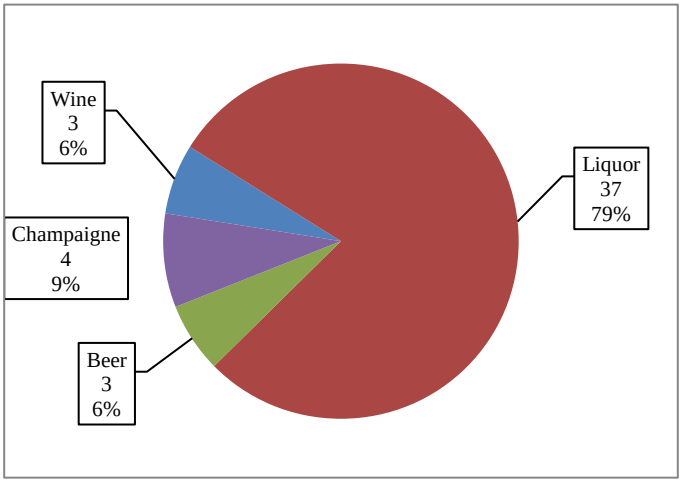
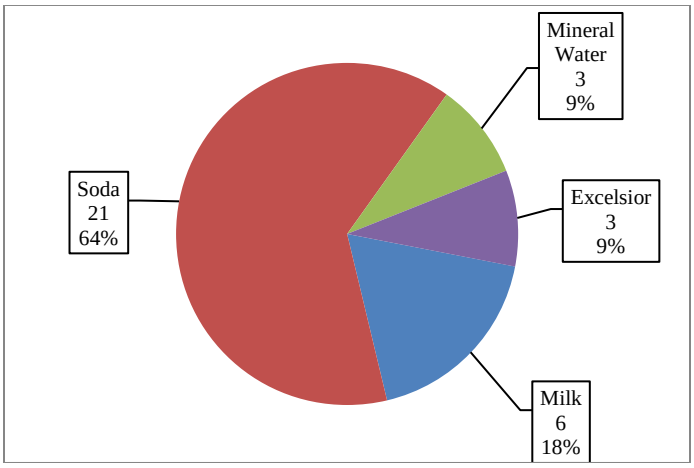
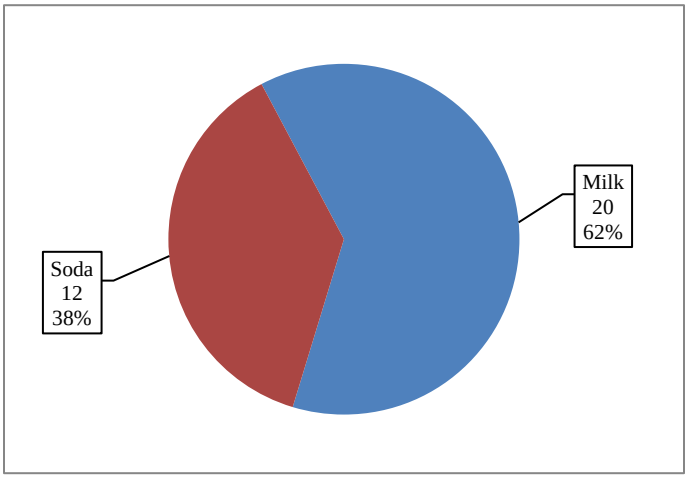


Figure 149: Nonalcoholic Bottles

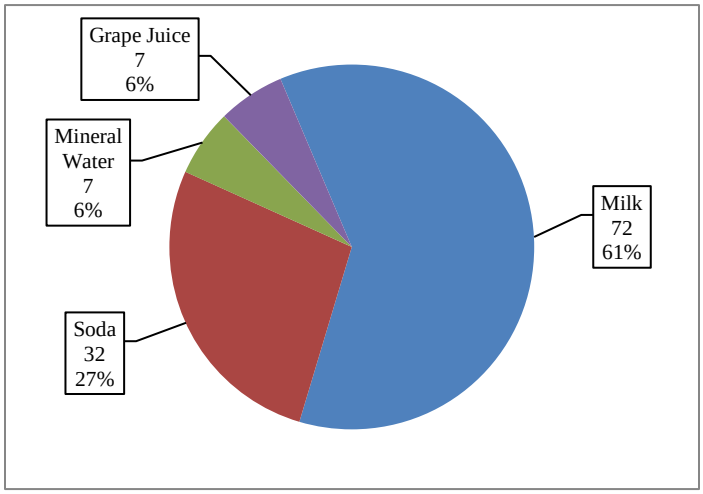
Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site



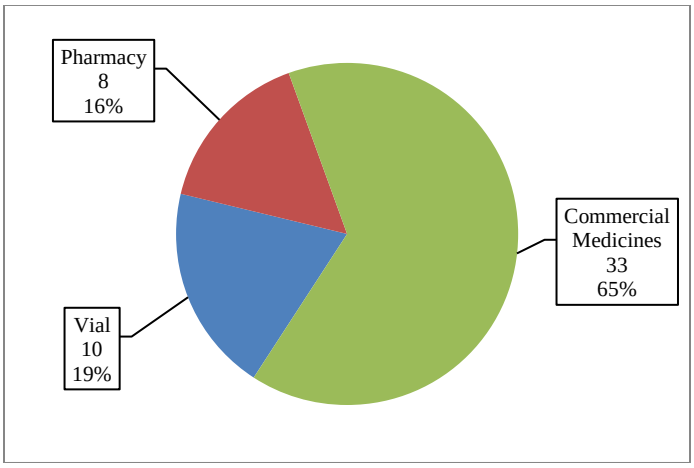
Of the nonalcoholic bottles (Figure 149), milk was more common at the Multi Modal and the MBG Trash Dump sites. As suggested above, these percentages actually represented a small portion of the milk actually consumed at all three sites since most bottles were returned to the dairies. Social reformers of the 1910s and 1920s pushed for healthier diets and increased milk drinking, especially for children (Green 2000). Despite the large number of children living within the mitigation area during the first three decades of the 20th century, milk bottles actually represented a small percentage (18%, N=6) of the nonalcoholic beverages. A greater percentage (64%) of soda bottles were recovered from the mitigation area. Also found at this location was three bottles of mineral water and three bottles of excelsior water. The latter could have been mixed with alcoholic drinks, but it may have been consumed, similar to the mineral water, as an alternative to the city water or to promote good health. Mineral water was not found at the Multi Modal Site, but it was recovered from the MBG Trash Dump Site. In fact, Pluto Water from the mineral springs of French Lick, Indiana, was common at both the mitigation area and the Trash Dump site suggesting the wide appeal of this brand. The MBG Trash Dump Site also had mineral water from Abilene, Kansas, and Santa Barbara, California, as well as a jewelry dish from the Apollinaris mineral springs in the Eifel region of Germany. This could suggest that these wealthy families could afford to travel more widely, visiting these various mineral resorts. The MBG Dump Site also had Welsh's grape juice bottles, not present at the working class sites, suggesting that the wealthier families did adhere more to the health changes suggested by the social reformers than the working class families.

HEALTH CARE ARTIFACTS

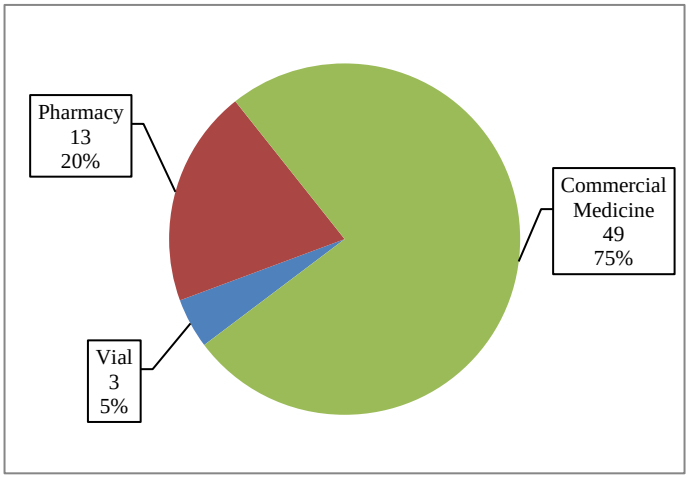
A greater of percentage of health care products also was acquired by the wealthy families of the MBG Trash Dump Site (see Figure 142). At the start of the century, working class sick tended to cure themselves through the use of home remedies rather than seeking a physician. "For example, in the Midwest the purge continued as a nineteenth-century remedy for various ailments, and such natural laxatives as bran, prunes, and sauerkraut were served with and for regularity. Everyone knew that baking soda cured a stomachache, belladonna helped ease heart palpations, castor oil doubled as a laxative, and salt was used for brushing teeth and as a general disinfectant" (Schlereth 1991:283). However, commercially patent medicines with their promises of curing almost any disease were widely popular. These medicines touted that they used only "natural ingredients" or relied on the "latest scientific knowledge". In reality, these medicines tended to consist predominately of alcohol, or now illicit drugs of opium, morphine, or cannabis, which tended to provide temporary relief from the symptoms and did not actually cure any diseases.

Figure 150: Medicine Types

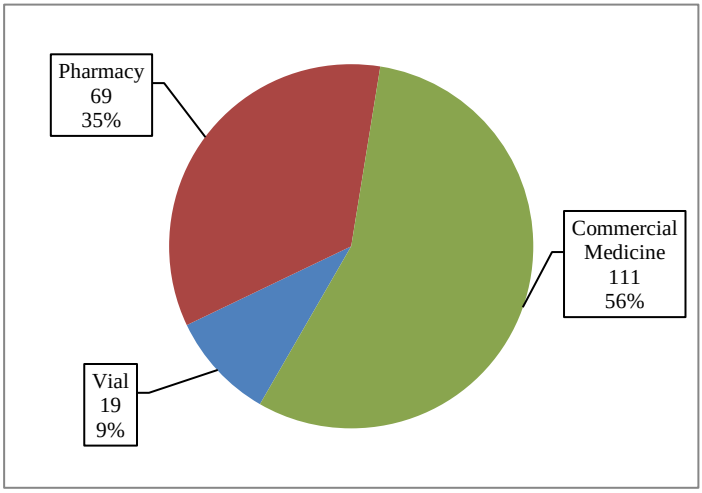
Sites 23SL2328/2329



Multi Modal Site

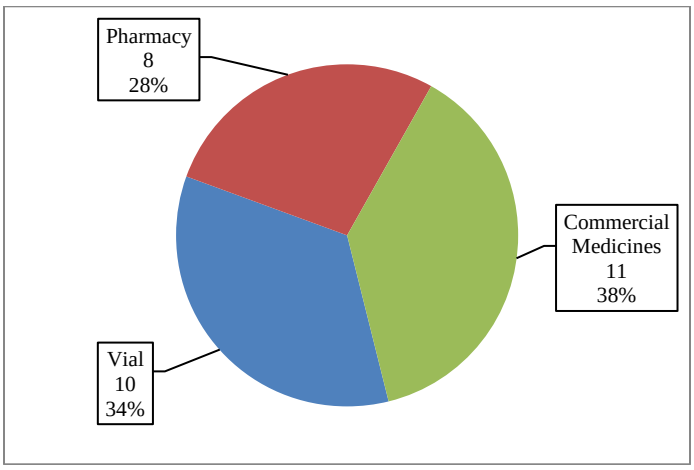


MBG Trash Dump Site



Overall, commercial medicines were used in the largest percentages at all three sites (Figure 150). This shows the influence that the patent medicine industry had on all members of society at the start of the 20th century, including the wealthy and poor. The percentage of prescription bottles obtained from a local pharmacy was higher at the MBG Trash Dump Site, possibly suggesting the wealthier families were more likely to trust doctors and visit pharmacies for cures than working class families. The mitigation tract did have a larger percentage of vials than found at the other two sites, however, the largest percentage of these were from two features whose fill was predominately associated with one family, the Welsh family. This is especially true if the 22 bottles from the Koenic Medical Company found in the sewer line are disregarded (Figure 151).

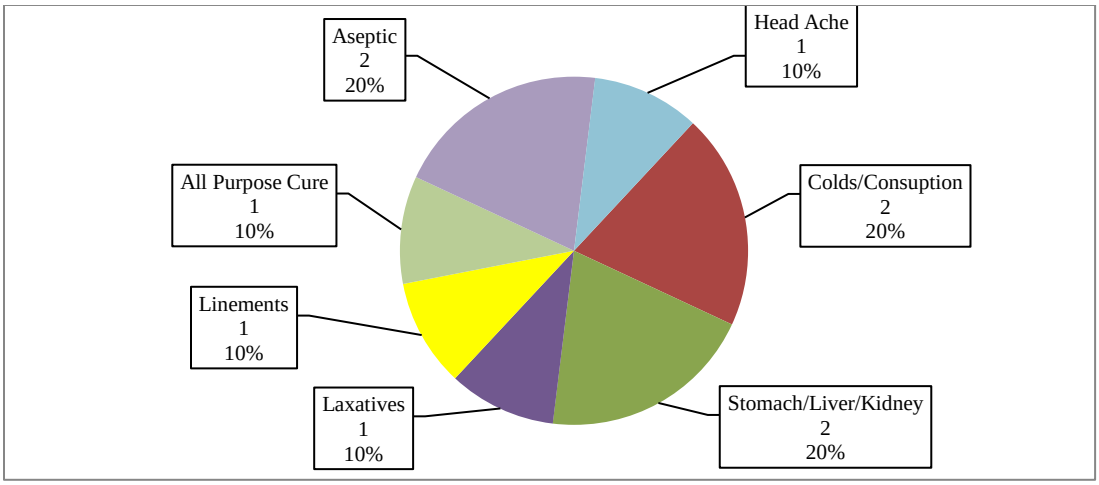
Figure 151: Types of Medicine Bottles from Mitigation Area Excluding the 22 Koenic Medical Company



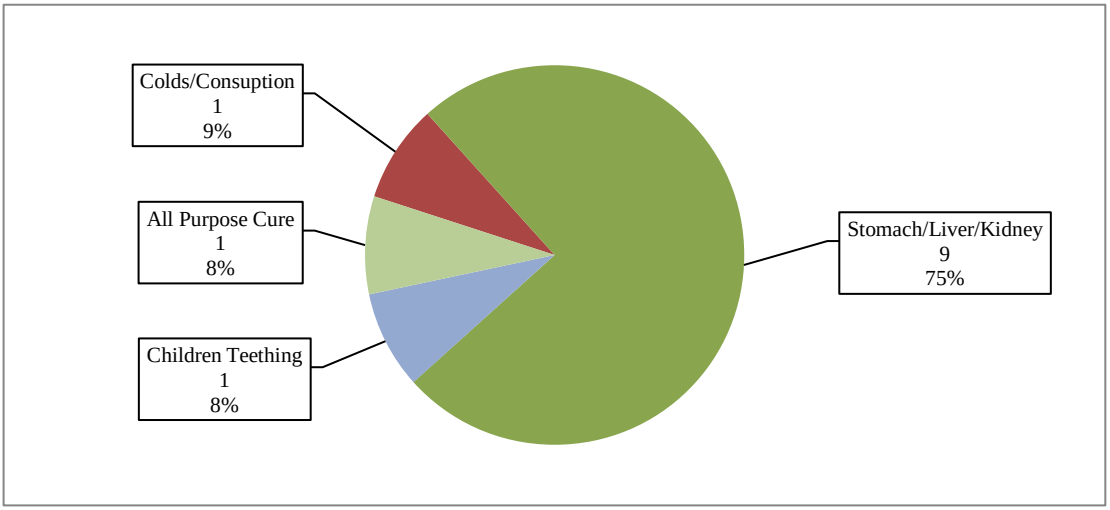
The kinds of diseases people were attempting to cure were suggested by some of the bottles. Wealthier families at the MBG Trash Dump Site not only purchased the greatest quantity of medicine bottles, but these were used to prevent the greatest variety of diseases, including specialty medicines such as Lydia E. Pinkham's Vegetable Compound for female problems and non-threatening symptoms such as red eye (Figure 152). The highest percentages of medicines used at all three sites were associated with curing stomach ailments (Figure 152). All of the bottles from the mitigation tract and Multi Modal Site, and 13 of the bottles from the MBG Trash Dump Site consisted of Bromo Seltzer. This would suggest the wide spread success of this product, which continues to be sold today. It would seem that upset stomachs associated with heartburn and acid indigestion was a common affliction caused by the diet of both the working class and wealthier citizens.

Figure 152: Kinds of Diseases Cured by Medicines

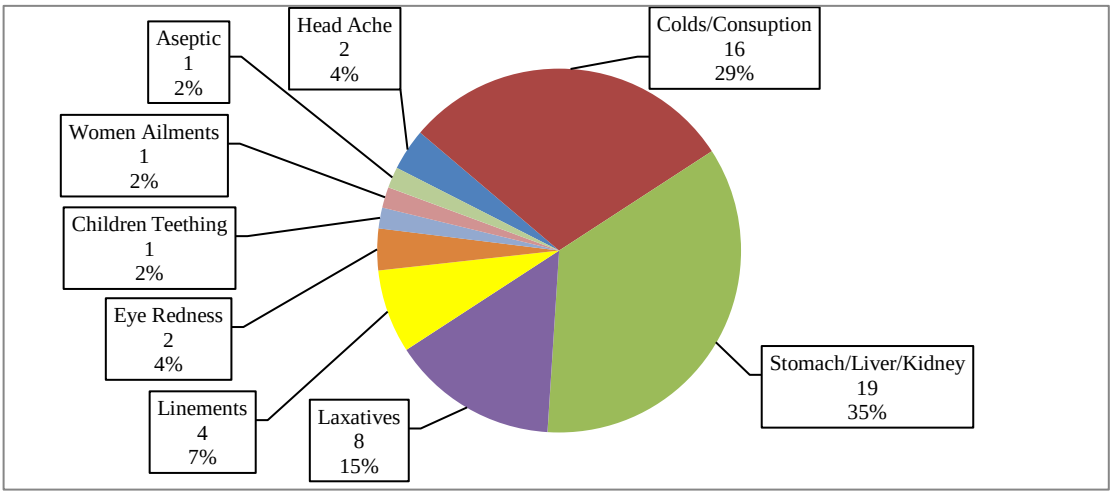
Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site



Other medicines used more deceptive claims for curing a wide variety of diseases. For example, a bottle of Dr. Kilmer's Swamp Root recovered from the mitigation area was suppose to cure kidney, liver, and bladder ailments, but it also was marketed as a cure for 36 other diseases. A bottle of Liquozone from the Multi Modal Site was a germicide and bactericide that could cure a wide variety of diseases such as:

> Asthma, Gallstones, Abscess-Anemia, Goiter-Gout, Bronchitis, Hay Fever, Influenza, Blood Poison-La Grippe, Bowel Troubles-Leucorrhoea, Coughs-Cold, Malaria-Neuralgia, Consumption, Piles-Quinsy, Contagious Diseases, Rheumatism, Cancer, Catarrh, Scrofula, Dysentery-Diarrhea, Skin Diseases, Dyspesia-Dandruff, Tuberculosis, Eczema-Erysipelas, Tumors-Ulcers, Fevers, Throat Troubles.
>
> (Adams 1905)

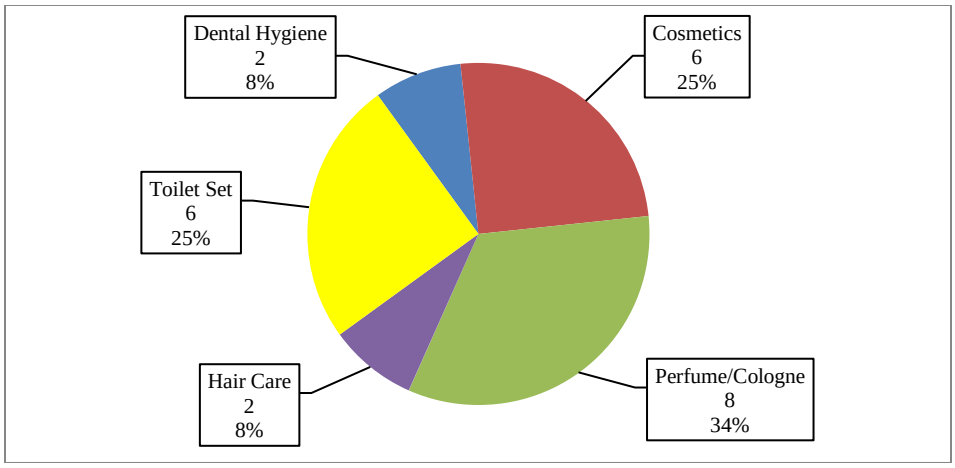
Both medicines contained large amounts of alcohol and did not really cure any disease. Working class families may have purchased medicines that could cure a wide variety of diseases as a cheaper alternative to medicines for specific diseases acquired by the wealthier residents of the MBG Trash Dump Site. However, this is not to say that the rich did not fall victims to the outrageous claims of the patent medicine producers. Mrs. Winslow's Soothing Syrup was found at both the Multi Modal Site and the MBG Trash Dump Site. This medicine was popular with parents since the mid 1800s for stopping children from crying while they were teething as well as supposedly curing a variety of childhood ailments. After the passage of the 1906 Food and Drug Act, parents were horrified to learn that the two main ingredients in this syrup were alcohol and morphine. Another bottle found at the MBG Trash Dump Site was Piso's Cure for Consumption, whose main ingredients consisted of cannabis and chloroform.

HYGIENE ARTIFACTS

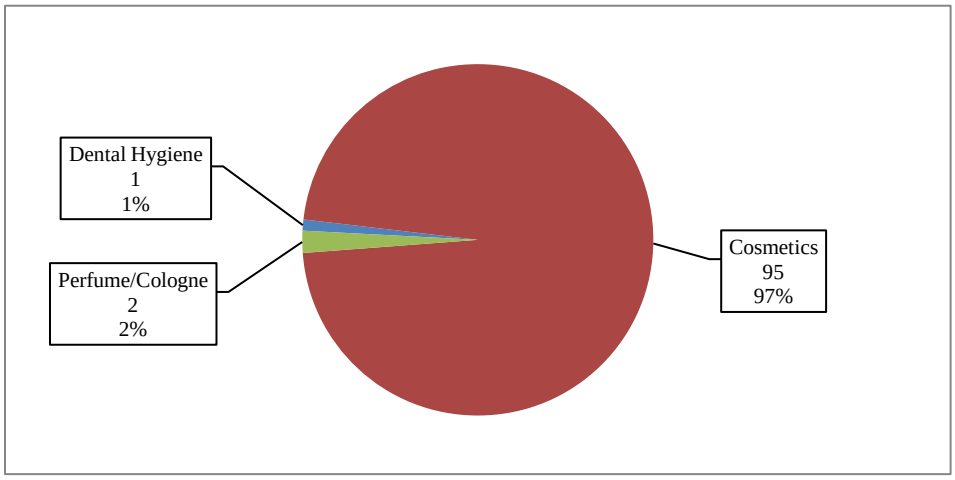
The artifacts further indicated that a larger percentage of hygiene products were acquired by the users of the MBG Trash Dump Site than at the working class sites (see Figure 142). The greatest percentage of hygiene products at the MBG Trash Dump Site and Multi Modal were cosmetics; mostly facial creams (Figure 153). Although a large percentage of these also were recovered from the mitigation tract, a greater percentage of perfumes/colognes were recovered from this location. However, this represented only 6 bottles versus 19 at the Trash Dump Site. Only two perfumes/colognes bottles were recovered from the Multi Modal Site. The bottles found at the working class sites represented only cheaper varieties of these products, with more expensive bottles recovered from the MBG Trash Dump Site, including colognes/perfumes produced by Richard Hudnut and Edourad Pinaud. A number of national marketers developed hygiene products to help people stay and look healthy. Products associated with dental care were found in greatest percentage at the MBG Trash Dump Site and could suggest that wealthier families acquired more of these products. However, it does not mean that working class families did not take care of their teeth, but they might not have purchased commercially prepared dental products. For example, baking soda, salt, or ash could have been used for tooth paste. However, it should be noted that two bottles of Listerine mouth wash were recovered from the mitigation features and a bone tooth brush from the Multi Modal Site.

Figure 153: Hygiene Products

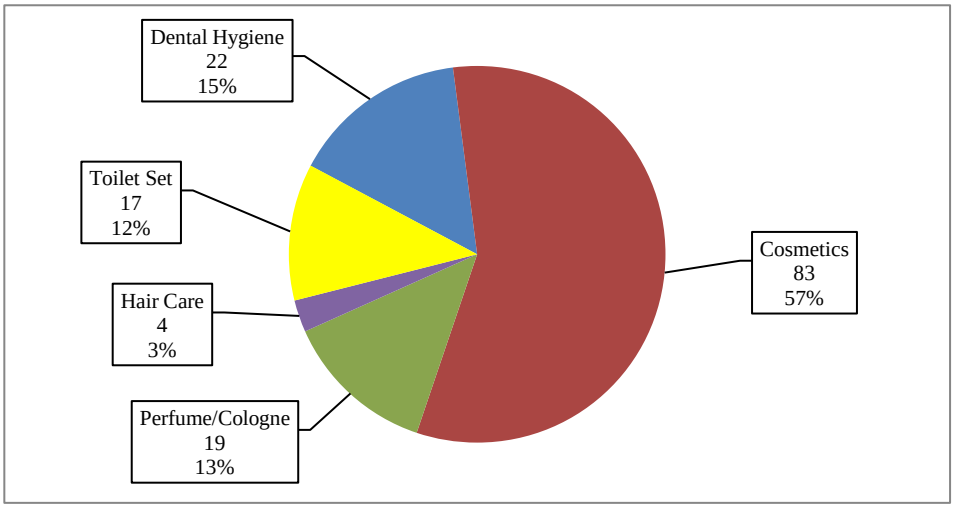
Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site



PERSONAL ARTIFACTS

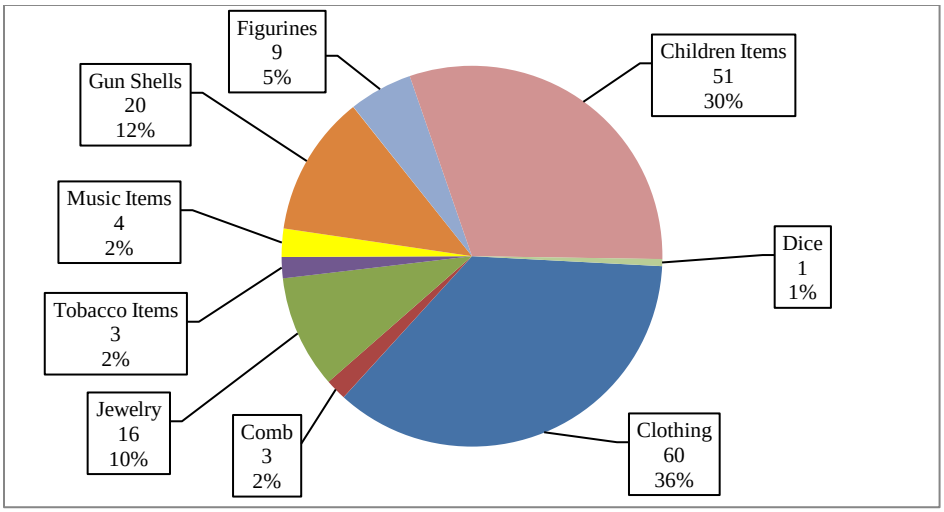
A larger percentage of personal items were recovered from the mitigation tract than either the Multi Modal or MBG Trash Dump sites (see Figure 142). With the exception of the Trash Dump Site, most of the personal items recovered were associated with clothing (Figure 154). However, as indicated above, artifacts at the Trash Dump Site were not screened, and were collected predominately by the Missouri Botanical Garden staff and construction workers. The clothing items at all three sites were associated primarily with ready-made clothing produced in factories by the start of the 20th century.

Also common at all three sites were artifacts related to children. A higher percentage of children's items were recovered from the MBG Trash Dump Site (Figure 155), possibly due to wealthier families being able to afford these expendable items more than the working class families. Not surprisingly, the majority of the children's items consisted of marbles, dolls, and toy tea sets. The only toys recovered from the MBG Trash Dump Site were related to girls, consisting of dolls and toy tea sets; however, the censuses suggested possibly 19 boys and only 8 girls lived on this property (U.S. Census 1900-1920). This would indicate that caution should be taken when determining the gender of children on a site based only on toys present. Although only 11% of children artifacts were recovered from the Multi Modal Site, only a slightly smaller percentage was found within the mitigation tract (30%), than discovered at the MBG Trash Dump Site. This could be due to the large number of children living within the mitigation area. This location also produced a pedal from a bicycle. The fill from Feature 36 could be associated with the family of Frank Vazis who owned a vulcanizing shop and may have been able to afford this more expensive piece.

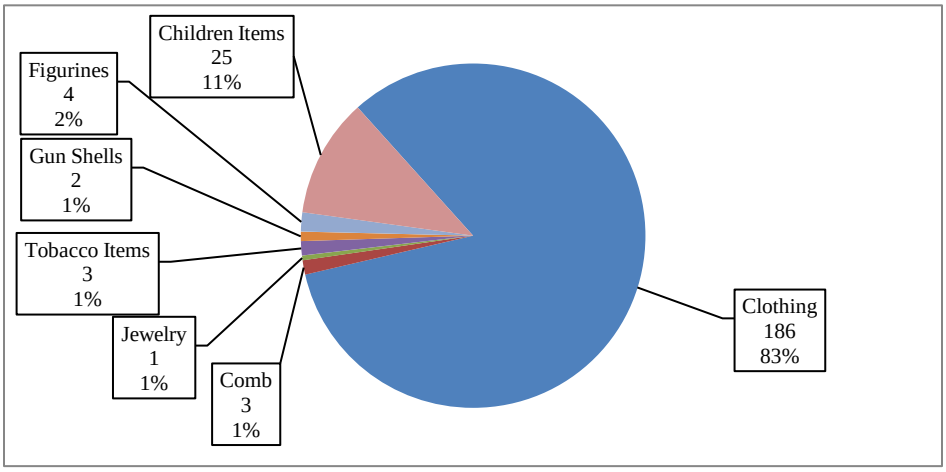
Less common personal items included decorative hair combs, present in only small numbers at the mitigation tract and the Multi Modal Site. By the 1920s, shorter hair styles were popular no longer requiring hair combs to keep the hair up on the head. All of the combs were the cheaper black rubber or plastic imitation tortoise shell combs. Also uncommon were tobacco pipes. The ones recovered included a rubber stem found in the mitigation area and a bone stem at the Multi Modal Site, both of these used on brier and meerschaum pipes popular at this time. The MBG Trash Dump Site also produced two porcelain pipe bowls associated with multi-piece pipes produced in Germany. This could further suggest that the users of that dump were well traveled. However, at least one older style kaolin pipe was recovered from all three sites. These pipes may have still been popular with working class people because of their inexpensive prices as well as ethnic preference. This was especially true of people of Irish heritage, where these pipes continued to be produced into the 20th century.

Figure 154: Personal Objects

Sites 23SL2328/2329



Multi Modal Site



MBG Trash Dump Site

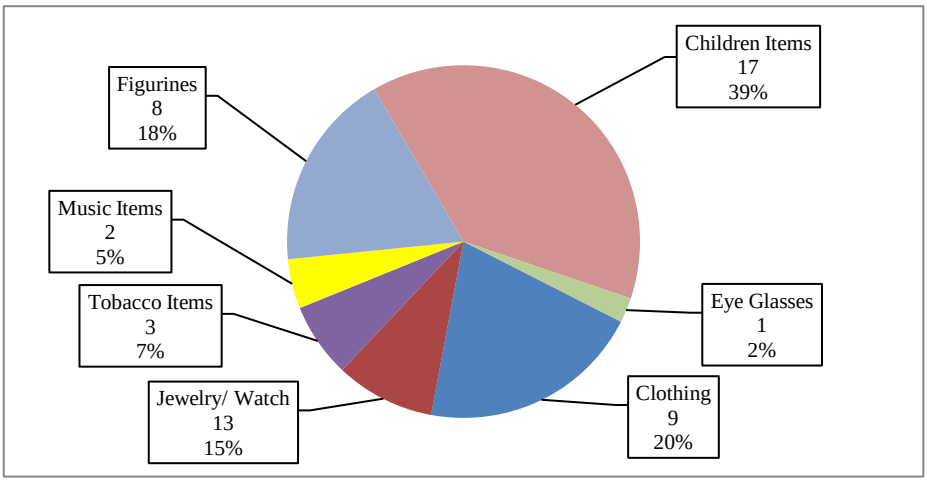
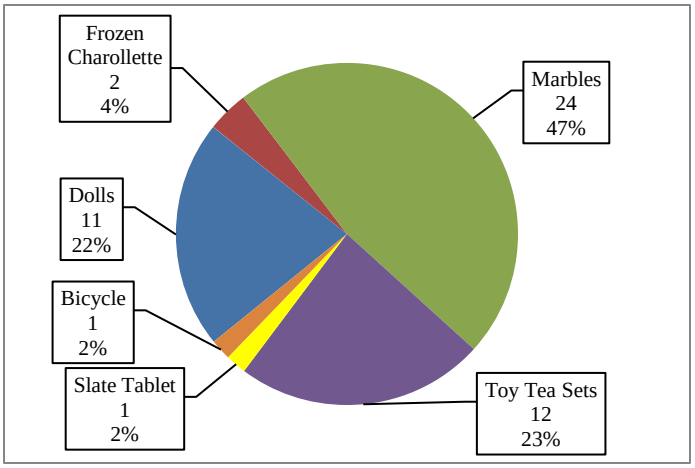
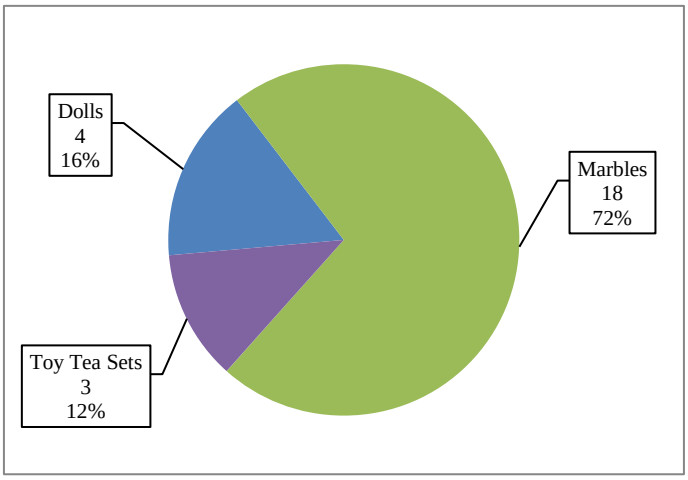


Figure 155: Children Artifacts

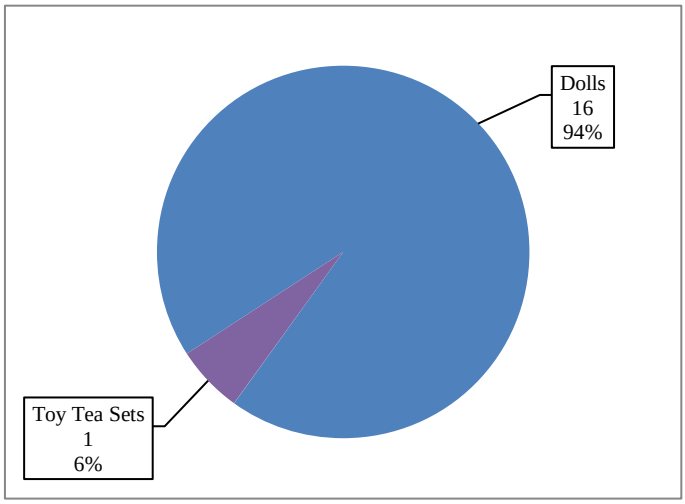
Sites 23SL2328/2329



Multi Modal Site

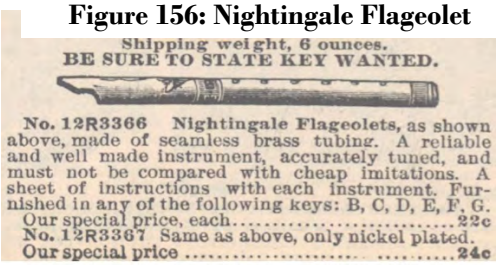


MBG Trash Dump Site



Musical items consisted of at least four harmonicas found within the mitigation tract. Harmonicas were cheaply produced during the late 1800s and would have been widely available. The 1902 Sears Roebuck Catalogue (1986) had harmonicas for as little as 7 cents. The only other musical instrument found was a Nightingale Flageolet recovered from the MBG Trash Dump Site that was played by people of all ages (Figure 156). This also was an inexpensive musical instrument representing the forerunner of a modern day recorder. The mitigation tract and MBG Trash Dump Site also produced interior parts from music boxes. The 1895 Montgomery Ward catalog suggested that music boxes varied in price from as little as 45 cents for a small 2 1/4 inch box with 18 notes to as much as $35 for a large 21 by 14 by 8 1/2 inch box with 58 notes (Figure 157).

Figure 156: Nightingale Flageolet


Shipping weight, 6 ounces.
BE SURE TO STATE KEY WANTED.

No. 12R3366 Nightingale Flageolets, as shown above, made of seamless brass tubing. A reliable and well made instrument, accurately tuned, and must not be compared with cheap imitations. A sheet of instructions with each instrument. Furnished in any of the following keys: B, C, D, E, F, G.
Our special price, each.....22c
No. 12R3367 Same as above, only nickel plated.
Our special price 24c

(Sears Roebuck Catalogue 1986:212)

(The Flageolet Site 2010)

Figure 157: Music Boxes in 1895 Montgomery Ward Catalogue (Emmit 1969:243)

Music Boxes.

Cannot send through the mail, neither will we send them C. O. D. subject to examination, as they are delicately constructed, and we cannot afford to take the responsibility of having inexperienced parties handle them.

We now import our entire line of music boxes, buying of the leading manufacturers of Switzerland, and a careful inspection of description and prices given below will convince the most skeptical that we are headquarters for this line of goods.

25730.

25730 Round Nickel Case, 2¾ inches in diameter, decorated top and bottom, 18 notes, one air, operated by turning small crank on top. Weight, 10 ounces. Price, each $0.45

25731.

25731 Square Wood Case, size, 4x3½ inches, decorated top, 18 teeth, operated with crank, plays two airs. Weight, 16 ounces. Price, each $0.75

25732 Highly Polished Mahogany Case; size, 4¾x3½x2⅜, inteior glass cover to protect works, covers decorated with pretty chromos; self-acting cylinder, 2½ inches long with mainspring, winds like a watch, with attached key, has 36 notes, plays 2 airs. Weight, 16 ounces. Each.....$2.65

25736 Imitation Rosewood case, highly polished; size, 12x6½x4½; covers richly decoroted, bevel edges and white lines inlaid in top, also on front of box; interior glass cover; spring lever movement, starting and "change" levers, 3⅜ in. cylinder, plays 6 airs. Weight, boxed, 8 pounds. Price.....$8.10

25740 Imitation Rosewood Case, size, 18x8½x5½ in., 7½ in. cylinder, cylinder tune indicator, zither attachment. Plays 10 airs. Weight, boxed, 25 lbs. Each..$16.80

25741 Imitation Rosewood, same style as 25740, size, 20¼x9x5¾, with 9¼ inch cylinder tune indicator, zither attachment; plays 12 airs. Weight, boxed, 30 lbs. Each.....$25.00

25742 Imitation Rosewood, same style as 25740, 23½x9½x9, 13 inch cylinder, plays 10 airs, has zither attachment, speed regulator, tune indicator; a very fine instrument. Each.....30.00

The Capital Music Box.

The Musical Box shown in cut is a new invention of American manufacture and is constructed upon a new system which admits of an unlimited number of tunes being obtainable at a reasonable cost for each; this feature alone insures its popularity. The construction is substantial, and cases are finished in oak or mahogany and highly polished. It has an improved and extra large spring movement which permits it to run much longer than the ordinary style. The tune cylinders are made of metal, each plays on piece, and an endless variety of music can be furnished. Zither attachment can be applied at an additional cost of $1.00.

25743 Capital Musical Box as described above, sizes 14½x11½x7, 44 notes in comb. Price, including one tune, each $18.25
Extra tunes, each 0.30
Weight, boxed, about 25 lbs.

25744 Capital Musical Box as described above, size, 21x14x8½, 58 notes in comb. Price, including one tune. Each.....35.00
Extra tunes. Each..... 0.40
Weight, boxed, about 50 lbs.
List of tune cylinders furnished upon application.

A small number of figurines were found at all three sites. These consisted of images of animals or children (Table 28). None of the figurines appear to have been of serious topics, instead reflected events from childhood stories or animals, often in whimsical poses. In addition, a scallop shell with two holes drilled in it was recovered from the mitigation area, and white glass with mussel shell shapes were recovered from this site as well as from the Multi Modal Site. The MBG Trash Dump Site contained more figurines and also had more expensive pieces of plaster statues, not present at the working class sites.

Table 28: Figurines Recovered from the Three Sites

Sites 23SL2328/2329	Multi Modal Site	MBG Trash Dump Site
sitting bird	sitting rabbit	cat head
animal ear	floral petals	standing bear
unknown animal	lady clutching a bird	pig or cow at trough
boy with bowtie		four rabbits on three leaf clovers
hooded girl (Little Red Riding Hood?)		barrel
human hand		frog sitting on a tree stump
		child crying
		child holding a ball
		ladies shoe

CHANGING IDEAS AT THE START OF THE 20TH CENTURY AND INSIGHTS INTO THE RESEARCH QUESTIONS

Architecture of the various lavatories identified within the mitigation area reflects people's changing perceptions concerning sanitation (Stottman 2000; Ford 1994). During the 19th century, miasma theory predominated, where disease was thought to be spread by the putrid vapors associated with decay or unclean conditions. Laws were passed by 1850 to protect citizens from these smells and sights. Vault privies were to be constructed over 10 feet deep, similar to Feature 36, and the walls are to be lined with limestone or brick (Krum 1850; Sullivan 1881). These pits were left open on their bottoms so that the fluids would wash out. This kept human waste out of sight for as long as possible. When privies became full, regulations further protected the public from these "offensive effluvia" by limiting when privies could be cleaned out to only during the night time and not during the hottest days of summer (Krum 1850:308).

During the first half of the 1800s, early properties within St. Louis had privies constructed within shallower pits lined with cedar boards. The cedar was believed to cover over some of these putrid smells and the new home lots afforded more places for the construction of other pits once the original ones became unusable. Despite regulations passed after 1850, evidence from the mitigation area (Features 15 and 16), indicated this practice continued into the late 1800s as the city's population expanded into new areas. As suggested by Ford (1994:51):

> . . . the issue of 'public' versus 'private' right was a constantly contested field which often pitted the economically and politically marginal against the economically and politically entrenched. The rate of physical sanitary reform proceeded slowly at the national level. This was due in part to the resistance of public intervention in private affairs . . . greater individual independence and little government intervention was slow to change. Recognition of this resistance, paraphrased as 'general indifference'.

As a result, although fines were defined by St. Louis ordinances concerning privy construction, these rules were not strictly enforced.

With the advancements in germ theories, city administrators passed new laws during the 1880s requiring the replacement of vault privies with systems that were completely enclosed with brick and hydraulic mortar. These vaults also were required to be less than 8 feet deep to prevent the spread of germs into the surrounding ground water. Liquids were flushed out of these water closets by an inlet pipe and a lower exit pipe using water either supplied from waste water sent out of the homes or by rain water. The outlet pipes were typically partially covered, such as Feature 14 by bricks or Feature 2 by metal rods, to prevent large objects from travelling into the outlet pipe causing it to clog. While during the mid 1800s most privy faults were oval shaped to hold more waste, by the late 1800sm water closets were generally rectangular shaped. However oval shaped ones, similar to Feature 24, were occasionally produced reflecting a carryover of older ideas concerning vault construction. Water closets also used other innovations such as inslanted walls to promote the transfer of liquids out of the vault. By the 1900s, water closets had smaller vaults with convex floors reflecting another change in sanitary practices as more people could take advantage of regular trash collection and no longer had to discard trash into vaults of water closets.

Artifacts recovered from the features also reflected changes in American society with the onset of the Industrial/Consumer Age of the 20th century. However, some ideas from the last half of the 19th century associated with the Victorian era continued to be practiced. The last half of the 19th century was dominated by Victorian ideology. Beginning in the 1840s, society was split along gender lines, more than it had been previously (Schlereth 1991). After the 1840s, men served as the main source of income for the family. Through influences of the earlier "Protestant ethic", it was believed that by working hard, the husbands would achieve financial and social success. Although males are generally attributed as having dominant power in Victorian society (representing the main economic providers and having legal control of property), women had a crucial role that is often down played.

It was the wife's responsibility to manage the home environment, keeping it free from the evil influences that could result from an unclean place. An important tenant of Victorian ideology was that a person's environment not only affected their health and mental well being, but could impact their morality as well. A person frequenting smoky pool halls or saloons was affected both physically and morally by these surroundings (Wells 1868). Evil influences could be dispelled by open, clean spaces.

Housewives also decided how the house would be decorated, reflecting proper tastes and family ethics, and managed the household budget. Women further were responsible for making certain that children were properly educated in all of the correct rules of behavior. They also preserved the moral fabric of the family by making certain that the husband did not stray from his family duties, spending his income at gaming or in drink. Thus, it was believed that through the husband's hard work and economic support, and a wife's supervision of the physical and moral environment, that a family would achieve economic, social, and moral success.

By the start of the 20th century, these ideas began to change, primarily due to industrialization. At this time, new innovations were rapidly being introduced and were readily accepted, such as electric lights, cars, moving pictures, and, by 1930, radios. Developers of these innovations, such as Edison and Ford, were glorified by the media and the public. These new inventions improved people's lives and allowed Americans to compete in the world market. These various products had to compete with each other in order to appeal to the public. As suggested during the description of the artifacts, many of the successful companies used advertising and distributed free samples to attract customers.

Various products were introduced at the start of the 20th century improving the daily toil of housewives to keep their homes clean, now considered even more important with the general acceptance of germ theory, and to feed their families. "An important side effect of all these 'labor saving' devices was the disappearance of hired help and diminishing role of woman role as household manager. This gradual loss of status helped to undermine the satisfaction many women formerly found in homemaking and encouraged them to seek satisfaction elsewhere by seeking employment in other places" (Museum of American Heritage 2010). The impact that these changes had on the working class families of the mitigation tract are reflected in the research questions presented in the Methodology Section.

RESEARCH QUESTION #1

As suggested in Research Question #1 (on page 56-57), dining was an everyday activity for the families, but social dining by inviting relatives, friends, coworkers, or bosses was an important event. At these times, the family expressed to guests their values, affluence, proper behavior, and even their morality. It was important for the family to have ornate dinner settings, to serve proper foods and drinks, and to show proper dining etiquette. Guests were willing and expected by others to reciprocate in the near future with a dinner party of their own. These dinner events became a form of social competition, especially among the wealthy, as hosts tried to surpass previous dinner events in order to receive greater social recognition (Jameson1987). However, the large percentage of gilded dinner settings found at the Multi Modal Site suggests that social dining was important even to urban working class families.

This form of social competition appears to not have been as important to the working class families of the mitigation tract. Tablewares used at this site were similar to those found in rural areas, consisting predominately of semi-vitreous ironstones, and mostly undecorated, or older styles with painted or transfer print patterns. For example, excavations of a rural farmstead in Monroe County, Missouri, which was occupied between 1910 to 1949, produced similar tablewares as the mitigation tract. These dinner settings consisted of predominately ironstones with 55.2% undecorated, and 27.6% with only fine molded, 6.9% painted, and 6.9% decal decorations (Harl 2008:69). This could suggest that similar to rural areas, the residents entertained mostly relatives and close friends. Having showy table settings would have been perceived as being too extravagant and threatening to these relationships. Another possible explanation is that the families within the mitigation tract just could not afford to purchase newer table settings despite their reduced prices, or just preferred the older styles. It also is possible that the dinner settings reflected their ethnic heritage, with many residents being German immigrants or the children of these immigrants. Although they preferred American made ceramics, most residents acquired older styles, held onto their pieces longer, or they did not participate in the same social competition as the occupants of other sites.

For most of the 19th century, meals were served in the "Old English style" in which food was placed on the table and guests helped themselves, of course within the rules of proper manners (Lucus 1994:82). Around 1870, "à la Russe" style of serving foods became popular. In this "Russian" style of service, tables were decorated with elaborate center pieces and foods were served in courses by servants. Smaller plates of various sizes and specialty dishes were used to serve the appropriate foods. Larger dinner plates of 10 inches, once used to hold different foods, became less popular. This method freed the host to spend more time socializing (Lucus 1994:84). Since a large quantity of foods had to be transported from the kitchen and served, it required a number of servants. Most people could not afford servants, especially those within the mitigation area, so a version known as "American" style was used by them. In this style, various courses were placed on the table one at a time, or placed on a nearby buffet or side table. The host would then divide the foods into portions and give them to guests who passed the dishes around the table. The host did not have as much time to socialize, but the pace of the meal was dictated by them (Lucus 1994:83).

The plates recovered from the mitigation tract consisted of various sizes with most of them smaller than 10 inches. Also, specialty dishes for serving certain foods were popular. Within the mitigation tract about 16% of the serving vessels consisted of pressed glassware that resembled more expensive etched glassware. However more extravagant pieces such as oyster forks, relish forks, or even wine glasses were generally lacking from this site. Porcelain pieces did make up 12% of the table settings from Period I and II features, but except for a salt and pepper shaker, these were all associated with tea sets.

As suggested by Wall (1991), tea drinking was an important form of social entertaining for most of the 19th century primarily due to English influences on early American society. It was important for housewives to have a nice porcelain tea set for social entertaining, with tea sets found at the most remote frontier settlements (South 1977:23). Social tea drinking continued to be popular into the first half of the 20th century. Having a nice tea set also was important with working class families of the mitigation area, even though like the dinnerwares the tea settings were not extravagantly decorated. A higher percentage of porcelain vessels were found with the Period III features (24%), but after 1940 ceramic manufacturers started to produce a cheaper and finer vitreous settings for the dinner table.

Victorian's believed that drinking alcohol could not only harm a person's health and mental well being, but ultimately could impact on a person's morality (Wells 1868). Although there was a temperance movement that did ultimately led to the passage of Prohibition in 1919, most etiquette books into the 1900s recommended serving wines during meals, with the appropriate wine served according to the course (Wnuk 2000). The residents of the mitigation area did consume a large quantity of alcoholic beverages. However, these only consisted of a small number of wine bottles, with a larger quantity of liquor bottles, likely containing bourbon or scotch. The percentage of alcohol bottles was slightly higher at the mitigation tract and at the Multi Model Site than at the MBG Trash Dump Site, associated with wealthier individuals. This could suggest that recreational drinking of alcohol was more common among these working class residents.

Although regional differences occurred, most people at the end of the 19th century consumed English inspired foods of "Roasted joints and fowl with heavy gravies, raw oysters, piquant relishes, scalloped side dishes, loads of butter and sugar, fruited sauces, and lots of sweets" (Green 2000:156). Social reformers as early as 1890 encouraged people to stop eating hearty (and heavy) cooked breakfasts and instead eat healthier, fiber rich, lighter cereals to help counterbalance the heavier meals consumed at supper and dinner (Figure 158). By the end of the century, a wide variety of commercially produced breakfast cereals were available (Schlereth 1991). In 1916-1917, fears that a worldwide food shortage could result due to World War I, President Woodrow Wilson had Herbert Hoover, the head of the newly created U.S. Food Administration, to send out teams of surveyors to learn about American eating habits and to encourage people to eat less (Green 2000:158). Social reformers after 1915 also pushed for people to eat healthier. Wealthy and middle class citizens did appear to heed these concerns, but not the working class and immigrant families.

Figure 158: Advertisement for Egg-O-See, Cold Cereal, ca. 1895
(Schlereth 1991: Figure 6.7)

Milk, because it contained so many crucial vitamins, was pushed as one of the necessities for a good diet, especially for children. Prior to the 20th century, however, milk came from unclean dairy cows or was dipped from containers that were heavily contaminated, resulting in many Americans avoiding milk. But with the Pure Food and Drug Act of 1906 requiring better sanitation practices at dairies as well as pasteurization, and better sealed bottles, milk was widely accepted by 1920. Information from the mitigation tract, however, suggests that the working class immigrant families did not consume as large of quantities of milk as the working class families at Multi Modal Site and the wealthier families at the MBG Trash Dump Site. Instead, this site contained a larger percentage of soda bottles. Welch's Junior, grape juice for children, only was found at the MBG Trash Dump Site, further suggesting that the social reformers were more successful with wealthy families than with the working class and immigrant families, such as those living within the mitigation area.

Packaged foods were more readily accepted by the working class families than by the wealthy families because "it implied slothfulness. Moreover, many women did not want to give up control over food processing even if they wanted the free time that processed food promised. Working women preferred commercially prepared foods because they typically did not have the time nor space to prepare and store foods" (Green 2000:180). As suggested by Schlereth (1991:163), commercially prepared foods "had a threefold impact: They introduced hitherto unknown foods (or foods eaten only by the wealthy) to a wide American market, they provided easier access to diverse food in isolated regions; and they enabled middle- and working-class women to escape some of the time-consuming work of daily food preparation".

Evidence from the mitigation area suggested that these households purchased a wide variety of commercially prepared foods. However, this site did have a higher percentage (41%) of canning jars, and stoneware crockery jars and jugs, than recovered from either the working class families at the Multi Modal Site (11%) or the wealthy families at the MBG Trash Dump Site (10%). In rural areas, larger percentages of canning jars than commercially packaged foods is typically found than in urban areas, as farming families could store their excess foods for future use. Further, this allowed farmers to express their conservative views and show their independence from the greater society and commercialism, even if they had to depend on commercially mass produced canning jars to express this independence (Steward-Abernathy 1992). Within the mitigation area, it would have been difficult to grow their own foods in the small yards associated with these homes. Families may have purchased excess or bulk foods from the market or grocery store, and used canning jars to save these foods for future use. This could have been a way for the housewives to save money. It also may reflect the possible rural backgrounds of the immigrant housewives, who would have been more use to canning foods than wives born in urban areas. It was expected that a greater percentage of canned foods would occur during the third period due to the Depression and World War II, when home gardening (Victory Gardens) were encouraged as a way of preventing shortages. Instead, home stored foods represented only 17% of the food products, versus 41% for Period I and 31% for Period II features. This could reflect the wide availability and acceptance of commercially prepared foods after 1930. Floral analysis of the flotation samples further provided insights into diet of the working class families in the mitigation tract. Although the condiments and food packaging jars suggested that regional and ethnic foods were acquired by the residents of the mitigation tract, the analysis of food remains produced different results.

Floral Discussion by Kathryn Parker

Abundant and diverse uncarbonized seeds were recovered from flotation samples of late 19th through early 20th century privy features, and a mid-20th century pit used for disposal of household refuse. The privies were associated with two sequential periods of occupation marked by broad socio-economic and demographic changes in an urban St. Louis neighborhood. When the neighborhood was first developed, 1884-1904 (Period I), residents appear to have been middle class home owners (Joe Harl, personal communication). In subsequent years, from approximately 1905-1929 (Period II), working class immigrants, primarily from Germany and Ireland, moved into the area, and many of the dwellings became single or multi-family rentals. Before 1929, economic conditions in the neighborhood seem to have improved briefly, but then declined with the Great Depression of the 1930s. No privies from the 1930-1960 eras (Period III) were encountered during the mitigation investigations, but analysis of botanical remains from the household trash disposal pit provides some comparative data from this period.

Elevated concentrations of unburned seeds, especially those of small fruits, are widely recognized as a salient attribute of historic privy deposits (see, for example, O'Steen and Raymer 1995; Landon 1997; Parker 2008, 2002, 1999a&b, 1996). Findings from the mitigation tract botanical analysis are consistent with previous studies, yielding abundant uncarbonized seeds of edible fleshy berry-like fruits, and lower quantities of other cultivated and wild plants, including flowering ornamentals and weeds. It must be underscored here that the distribution and ubiquity of various seed taxa in privy samples are products of complex deposition variables. Clearly, small seeds of raspberry/blackberry, elderberry, tomato, mulberry, and strawberry may have arrived in privies through human fecal deposits. Dumping of kitchen wastes from cooking and processing often provided a second pathway, contributing to the accumulation of small fruit seeds, while adding larger ones, like those of grape, apple, peach, and cherry to privy deposits. Natural dispersal mechanisms, such as rodents, insects and wind, may have added further seed variety and diversity.

Patterns of seed abundance and distribution in privies also are heavily influenced by the quantity of seeds a plant typically produces. Some plants like raspberry and blackberry are prolific seed producers, and a handful of raspberries can yield hundreds of seeds, while the same numbers of grapes or apples have only a fraction of that number. Availability and use criteria for a given plant resource comprise yet additional variables. All of the fruits represented: raspberry/ blackberry, strawberry, tomato, grape, mulberry, peach, plum, cherry, and elderberry, whether cultivated or wild, could have been obtained locally, and all have multiple culinary uses. All may have been eaten fresh, processed and preserved in various ways, and used as the primary ingredient in beverages and tonics (Leighton 1987; Ziemann and Gillette 1887). Another attribute shared by many fruits are relatively durable and indigestible seeds, which increase the potential for preservation in uncarbonized form.

Foodways of residents in the mitigation tract appear to have remained relatively constant throughout the late 19th/ early 20th centuries, at least with regard to consumption of tomatoes and other fruits (Table 28). Whether households were middle or working class, Northern European immigrant or native-born, these kinds of edible plant resources were available and most likely affordable to all (if not home-grown).

The cumulative botanical data from privy contexts across the Midcontinent offer tantalizing insights into foodways of urban populations at a transitional time in the nation's history as America became an industrial nation. As indicated in Table 29, several plants found at the mitigation tract also were identified in flotation samples from generally contemporary middle and working class privies across the Mississippi River in East St. Louis, Illinois (Parker 1999a&b). Seeds of six berry-like fruits: tomato, blackberry/raspberry, mulberry, elderberry, grape, and strawberry, were present in all St. Louis and East St. Louis privy contexts. Apple seeds were recovered from five of the eight privies, while large seeds of cherry, plum, and peach were recovered sporadically, probably because of chance rather than routine discard. Cultivated squash/pumpkins would have been widely available. However, there was little evidence for use of this garden cultigen, with seeds in only two East St. Louis samples, and a small rind fragment in the mitigation tract's Feature 14. Cantaloupe or cucumber, also a member of the squash/pumpkin family, was represented by one seed from the 1930s trash pit.

Beyond this region, a similar array of fruit/berry taxa in high frequencies was recorded from privies in Minneapolis and Pittsburgh (Parker 2008, 2002, 1996). This data underscores the central importance of locally grown fruits and garden products in diets of urban dwellers, before the 21st century proliferation of food choices from every part of the globe. Acquisition of plant foods as part of national or international exchange networks was not indicated in any of the mitigation tract's privy samples, even though St. Louis in the late 19th and early 20th centuries was a major Mississippi River town, with connections to national and world markets.

Like the St. Louis area privies, upper middle class privy contexts in Augusta, Georgia (O'Steen and Raymer 1995), had no evidence for non-local plant foods. In contrast, along with predictable seeds of locally available fruits and garden crops, Pittsburgh privy samples yielded seeds of figs and a few pits from the European olive, presumably linked to immigration of people from southern Europe into the Eastern United States (Parker 2008). Upriver, past St. Louis, a series of mid to late 19th century Minneapolis privies contained peanut hull, Brazil nut, coffee bean, and coconut shell (Parker 1996), reflecting products acquired via Mississippi River shipping, or by rail to the American Midwest from national and international sources.

The complete absence from St. Louis residential privies of food items acquired through long distance trade does not necessarily mean that those items were unavailable or never consumed, however. By the late 19th century, many plant-based products such as tea, tobacco, cornmeal, and spices were purchased in processed form, and are not typically detectable in macrobotanical assemblages. As for presence/ absence of a specific plant taxon, especially if that taxon occurs at low frequency (is comparatively rare), factors including differential deposition, sampling error, and simple chance strongly affect recovery. Nonetheless, in the context of the mitigation tract, privy contents in which nonlocal plant taxa were entirely absent, despite otherwise rich and diverse assemblages, implies household economies that remained locally focused across a span of several decades.

Table 29: Plants Represented in St. Louis, Missouri, and East St. Louis Illinois, Late 19th Through 20th Century Privies

Feature and Provenience	St. Louis, Tower Grove, Feature 14	St. Louis, Tower Grove, Feature 15	St. Louis, Tower Grove, Feature 16	St. Louis, Tower Grove, Feature 19	East St. Louis, Bareis House, Feature 8	East St. Louis, Shotgun /Pass House, Feature 4	East St. Louis, Shotgun/ Pass House, Feature 11	East St. Louis, Shotgun/ Pass House, Feature 6
Approximate Time of Occupation	1884-1904	1884-1904	1905-1929	1905-1929	1875-1895	1900-1910	1905-1915	1910-1930's
Socio-economic Association	middle class	middle class	working class	working class	upper middle class	working class	working class	working class
Cultigens and Probable Cultigens								
Apple	X		X			X	X	X
Cantaloupe/ Cucumber								
Cherry		X	X					
Cucurbits (pumpkin or squash)	X						X	X
Grape	X	X	X	X	X	X	X	X
Peach	X	X						
Plum			X			X	X	
Strawberry	X	X	X		X	X	X	X
Tomato	X	X	X	X	X	X	X	X
Possible Cultigens								
Blackberry/Raspberry	X	X	X	X	X	X	X	X
Elderberry	X	X	X		X			
Mulberry	X	X	X	X	X	X	X	X
Ornamental Flowering Plants								
Holly			X					
Morning glory			X					
Rose family			X					
Sunflower			X					
Herbaceous Wild Plants								
Dock					X			
Goosefoot					X			
Jimson weed					X			X
Knotweed	X							
Nightshade family	X							X
Plantain				X				
Other Plants								
Grass			X					
Hickory or walnut		X		X				
Trees and Shrubs								
Eastern red cedar								
Oak	X					X		
Pine	X	X	X	X	X	X	X	X
Poplar/willow						X		
Sycamore				X				

Faunal Discussion by Lucretia S. Kelly

It has been shown that beef made up the largest portion of the meats consumed by affluent 19th century urban households (Martin 1986). In a late nineteenth century working class neighborhood in Detroit, however, Martin (1999) found beef was represented more than pork and there were small proportions of chicken bones. What was different from the St. Louis sample examined here was fish bones were plentiful in the Detroit neighborhood. It is interesting that no imported foods such as marine fish or shellfish were found in the St. Louis deposits. Martin (1986:258) states that "Because of larger markets and more efficient transportation systems operating in cities, the remains of imported foodstuffs are more common finds." These include things like Atlantic mackerel, Atlantic cod, and oyster and quahog clam shells.

This contrasts with rural areas of southern Illinois, Missouri, Kentucky, and Tennessee where people coming out of a self-sufficient Upland South foodway tradition relied much more heavily on pork and poultry and had limited use of beef and sheep (Martin and Richmond 1992, McCorvie 1987, Price 1985).

Faunal analysis of the Strehly house in Hermann, Missouri (Madrigal 1988) suggests households located in smaller towns that would not be considered urban might have had a subsistence pattern between rural and urban practices. Somewhat affluent German immigrants occupied the Strehly house during the 19th century. Pork was the most important meat consumed. Beef was eaten but it was purchased from retail shops, whereas according to Madrigal (1988) at rural sites this was rarely the case. And, wild animals accounted for a smaller portion of the Strehly assemblage than contemporary rural sites (Madrigal 1988).

It appears then that site location, e.g., urban vs. rural, may transcend factors such as wealth with regards to the kinds of foods consumed. The cultural tradition of a site's occupants, Upper South vs. Yankee of the New England area, for example, could also be a key factor (Martin 1990, Martin and Richmond 1992), although that does not seem to be the case in the St. Louis neighborhood examined in this study.

RESEARCH QUESTION #2

Insights into Research Question #2 (see page 55 and 56) concerning healthcare also were obtained. At the start of the 20th century, mistrust of doctors and hospitals, and acceptance of science and new innovations led to a wide range of commercially produced patent medicines that could be used to cure a variety of illnesses. Old Victorian ideas of nature being equated with wholesomeness and health continued to resonate with the public in the 20th century, and resulted in several medicines claiming that they were produced from natural products. Resorts sprang up around mineral springs where a person could bath, restoring their good health or even purchase the mineral water to drink. By 1920, people were becoming aware that instead of promoting good health, many of these medicines actually had the opposite effect. Several products contained now illicit drugs or large quantities of alcohol, which simply masked the symptoms and did not cure the disease. In order to protect the public from these fraudulent and dangerous medicines, the U.S. government passed the 1906 Food and Drug Act and a series of other

legislation over the years, making medicines safer. At the same time, stricter standards were established for becoming a medical doctor and health care in general improved leading to a greater trust of doctors and hospitals. However, poor and immigrant families usually could not afford the cost of visiting a doctor or a hospital, and would often resort to home remedies or fall to the claims of the patent medicine producers (Green 2000).

At the mitigation tract, similar to the working class families at the Multi Modal Site, only a small percentage of the medicine bottles (16 and 20%, respectively) were obtained from a pharmacy, with a larger percentage associated with the wealthier families at the MBG Trash Dump Site (35%) suggesting their greater trust of doctors. The working class families had a larger percentage of commercially produced patent medicines. However, it appears that both wealthy and poor families were victims to the fraudulent claims of the patent medicine producers. One medicine capable of curing a wide variety of diseases was recovered from the working class sites of the mitigation tract (Dr. Kilmer's Swamp Root) and Multi Modal (Liquizome). This was probably due to these families attempting to reduce their health care costs, while a greater number of medicines to cure specific diseases were acquired from the MBG Trash Dump Site. A number of vials (N=10, 19%) were found in Features 14 and 15 within the mitigation area associated with the Thomas Walsh family. A bottle from a homeopathic pharmacy, also discovered at this location, suggested that the Walsh family may have tried homeopathic medicines to stave off diseases.

Unfortunately within the mitigation tract, only a small number of medicine bottles indicated the diseases that they were suppose to cure. One of the most common medicines found were used to cure cold symptoms and Bromo Seltzer used for sour stomach and acid indigestion. Bromo Seltzer also was the most common medicine found at both the Multi Modal and MBG Trash Dump sites suggesting that both wealthy and the poor suffered from stomach ailments caused by the foods consumed. This could hint that the social reformers were not completely successful at changing people's food consumption behavior.

RESEARCH QUESTIONS #3

Research Question #3 (see page 58) suggested that a growing market of elixirs, machines, cosmetics, and other personal hygiene products were developed at the start of the 20th century. As an outgrowth of the Victorian times, it was believed that personal success and good clean living would be reflected in a person's physical appearance (Figure 159). However, people found that living a good clean life, exercising, and eating healthy did not always reflect in a perfect appearance and a hygiene industry developed by the end of the 19th century to assist them.

Figure 159: Victorian Ideas of How Behavior and Environment Can Impact on a Person's Health, Physical Appearance, and Morality (Wells 1868:553-554)

THE TWO PATHS.

The following contrasts, illustrative of the effects of a right or a wrong course of life upon an individual, are submitted to our readers. They tell their own story. In the one case we see a child, as it were, develop into true manhood; in the other, into the miserable inebriate or the raving maniac.

Fig. 761.

Fig. 762.

Two boys (figs. 761 and 762) start out in life with fair advantages and buoyant hopes. With them it remains to choose in what direction they shall steer their barks. Fig. 763 represents the first as having chosen the way of righteousness,

Fig. 763.

Fig. 764.

the upward path. He lives temperately, forms worthy associations, attends the Sunday-school, strives to improve his mind with useful knowledge, and is regarded in the community as a young man of excellent character and promise.

In fig. 764, on the contrary, the other boy is represented as having unwisely chosen the downward course, thinking he will enjoy himself and not submit to what he considers the strait jacket of moral discipline. He becomes coarse and

Fig. 765.

Fig. 766.

rough in feature, slovenly in his dress; he smokes and chews, drinks, gambles, attends the race-course, spends his nights at the play-house or the tavern, disregards all parental authority and admonition, and develops into the full-grown rowdy,

Fig. 767.

Fig. 768.

and as such he sets at naught all domestic ties and obligations, leaving his wife and children to beg, starve, or eke out a wretched subsistence by the most exhausting and inadequately

Professional help could be obtained with the development of the first beauty salons. A variety of facial creams were developed to help women's complexion or get rid of sore chapped skin, although these products were sometimes marketed to men as well (Figure 160). Deodorants were widely sold for the first time to mask common body smells, as an understanding of how the human sweat glands function became known in the late 19th century. It was believed at the start of the 20th century that sweat should not be spoken of, so deodorants were sold under less offensive names such as Mum (1888), Everdry (1902), and Hush (1908) (Schlereth 1991:284). A share of the grooming market was geared towards men, with Gillette introducing the safety razor in 1895. Men could control their own appearance at their own schedule, no longer needing a trip to a barber for a shave. During World War I, Gillette gave away millions of razors to keep the armed forces, "looking clean shaven, trim, athletic, energetic, and youthful". Men also were encouraged that they would work better and look healthier if they would, "eat Force breakfast food, use Pebeco tooth paste, wear an Ingersoll watch, and smoke Tuxedo pipe tobacco (Ty Cobb did) or Lucky Strike cigarettes (Douglas Fairbank's favorite), after which one chewed Pep-O-Mint Life Savers" (Schlereth 1991:165-166). Colognes and perfumes were widely popular by the late 1800s to mask odors, but perhaps more importantly, provided a person with a unique and pleasant smell. These were often advertised as containing floral essences reflecting a continuation of ideas that flowers promoted good health and wholesomeness.

Figure 160: 1911 Advertisement for Pompeian Massage Cream for Both Women and Men (Period Paper 2010)

Hygiene products accounted for only 3% of the artifacts from the mitigation tract. A similar low number was found at the Multi Modal Site, with a higher percentage of hygiene products (8%) associated with the wealthier families of the MBG Trash Dump Site. This appears to be especially true of dental hygiene products as only two Listerine mouthwash bottles and a tube of tooth paste also made by the Lambert Pharmacal Company of St. Louis were found within the mitigation tract. While at the Trash Dump Site, dental hygiene artifacts, represented 15% (N=22) of the hygiene items recovered.

White glass jars associated with cosmetics or deodorants, and perfume and cologne bottles, were represented in higher percentages within the mitigation tract, albeit only in low numbers as compared to the MBG Trash Dump Site, further revealing that the working class families of the mitigation area generally did not spend as much of their expendable income on these products. This could indicate that they depended on various home remedies for personal hygiene than commercially sold products. It would be expected that during the Depression and war years associated with Period III that even fewer hygiene products would be found, however, these products represented a higher percentage (9%) than from Period I (2%) or Period II (4%) features. Similar to the use of commercially produced foods, it is possible that after 1930, a greater variety of commercially made hygiene products was available for the public and people were willing to spend some of their expendable income on these products.

RESEARCH QUESTION #4

Research Question #4 (see page 58) was concerned with personal artifacts. Surprisingly, a large percentage of personal artifacts (20%) were recovered from the mitigation tract than at most sites dating to the late 19th and early 20th centuries, where typically less than 10% occur. At the Multi Modal Site, these represented only 6% of the artifacts recovered and the wealthier families at the MBG Trash Dump Site had even a lower percentage of personal goods at 2%. The low percentage at the Trash Dump Site could be due to most of the artifacts being collected by employees of the Missouri Botanical Garden and the construction crew, who did not carry out thorough excavations or screened the fill. As a result, many small personal artifacts, especially clothing remains, were probably overlooked. Most of the personal items found at the mitigation tract, (36%) were associated with clothing including: various buttons, two collar studs, a brass snap, and two parts of shoes. These represented an even higher percentage of the personal items at the Multi Modal Site at 83%.

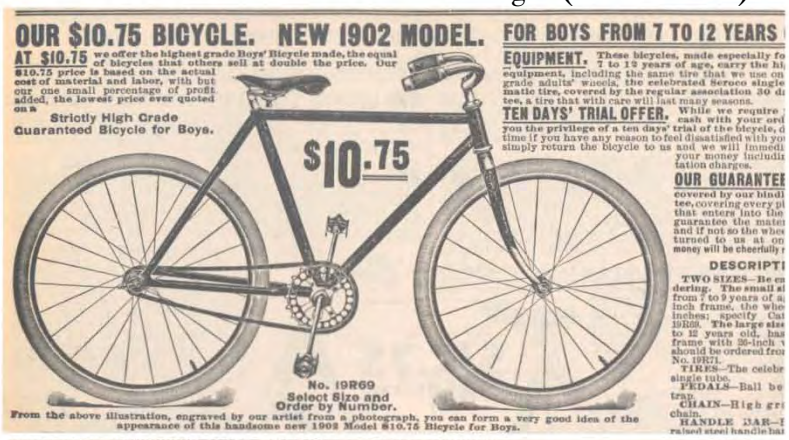
Most of the buttons from the mitigation tract were made of undecorated white porcelain. These were used on a variety of clothing manufactured at this time. By 1900, ready-made clothing was produced in factories, reducing clothing costs. This required housewives to spend less time making clothing and reduced the need for tailor shops. A benefit of white porcelain buttons is that these could be cheaply replaced.

More expensive decorative metal or mother of pearl buttons were not found within the mitigation tract. Eight mussel shell buttons were recovered, but these could be cheaply produced sometimes as part of a cottage industry or at small factories. Although these buttons could be cheaply produced, they were more fragile than porcelain buttons and fell into disfavor by 1900. Another two buttons were made of plastic. Plastic buttons were available by the start of the 20th century, but it was only after World War II that plastic buttons replaced porcelain buttons.

The second most common artifact recovered was children's toys. Surprisingly, a greater percentage of these were associated with Period I, not Period II, when the greatest number of children lived within the area. Only two children's objects (N=2) were associated with Period III features. This could be due to the lower number of children living within the mitigation area, but also may represent the impact of the Depression.

Similar to other working class sites in St. Louis, the majority of children's toys consisted of marbles, dolls, and toy tea sets. Marbles were used by boys and girls alike, although dolls and tea sets were most typically used by girls. These were used as a way to train girls for their role in life. A part of a bicycle peddle was recovered from Feature 36. While this may not be necessarily a child's bike, by 1920, bicycles were predominately ridden by children. At the start of the 20th century, bicycles were costly, between $8.95 and $15.75 according to the 1902 Sears Roebuck Catalogue (1986:276-283). This peddle also could have come from a three wheeled velocipedes and tricycles (Figure 161). Velocipedes cost between $1.35 and $3.95 and tricycles, which were sturdier, cost even more at $2.95 to $6.95. This would be more than most people earned for a week of work. The peddle, from Feature 36, likely was associated with the Frank Vazis family. Vazis owned a tire vulcanizing shop and he was likely able to afford to purchase this expensive item.

Figure 161: Bicycles, Velocipedes, and Tricycles
In 1902 Sears Roebuck Catalogue (1986:282-283)



OUR $10.75 BICYCLE. NEW 1902 MODEL.

AT $10.75 we offer the highest grade Boys' Bicycle made, the equal of bicycles that others sell at double the price. Our $10.75 price is based on the actual cost of material and labor, with but our one small percentage of profit added, the lowest price ever quoted on a

Strictly High Grade Guaranteed Bicycle for Boys.

$10.75

No. 19R69
Select Size and Order by Number.

From the above illustration, engraved by our artist from a photograph, you can form a very good idea of the appearance of this handsome new 1902 Model $10.75 Bicycle for Boys.

FOR BOYS FROM 7 TO 12 YEARS

EQUIPMENT. These bicycles, made especially fo 7 to 12 years of age, carry the hi equipment, including the same tire that we use on grade adults' wheels, the celebrated Seroco single matic tire, covered by the regular association 30 d tee, a tire that with care will last many seasons.

TEN DAYS' TRIAL OFFER. While we require cash with your ord you the privilege of a ten days' trial of the bicycle, d time if you have any reason to feel dissatisfied with yo simply return the bicycle to us and we will immedi your money includi tation charges.

OUR GUARANTE

covered by our blind tee, covering every p that enters into the guarantee the mate and if not so the whe turned to us at on money will be cheerfully

DESCRIPTI

TWO SIZES—Be c dering. The small s from 7 to 9 years of a inch frame, the whe inches; specify Ca 19R68. The large size to 12 years old, has frame with 26-inch should be ordered fro No. 19R71.

TIRES—The celebr single tube.

PEDALS—Ball be trap.

CHAIN—High gr chain.

HANDLE BAR—I raised steel handle bar

1902 MODEL DROP FRAME GIRLS' BICYCLE FOR GIRLS FROM 7 TO 12 YEARS OF AGE.

CLE is the highest grade bicycle made for girls. Made of the highest grade material, by skilled mechanics, equipped including the celebrated Seroco tire, and at a price based on the actual cost of material and labor, with but dded.

ICYCLE as our special $10.75 boys' wheel, with the exception rame.

hese wheels with 16-inch frame for to 9 years of age, 18-inch frame for

$10.75

TEN DAYS' TRIAL OFFER. While we require you to send cash with your order, we give you the privilege of a ten days' trial of the bicycle, during which time, if you have any reason to feel dissatisfied with your purchase, simply return the bicycle to us and we will immediately return your money, including transportation charges.

No. 19R74
Select Size and Order by Number.

From the above illustration, engraved by our artist from a photograph, you can form some idea of the appearance of our handsome new model. $10.75 bicycle, the 1902 wheel, but you must see, examine and compare this bicycle with

Boys' All Steel Velocipedes.

Give the boy all the fun he wants at the expense of a few pennies.

We show an all steel velocipede that will stand a "heap of racket" on the part of the restless youth. **There are no nuts or bolts in the head connections to rattle or come loose.** It is adjustable and can be taken apart in shipping. The coil spring in seat does not sag or get out of repair. **We use the best drive wheel made** in this velocipede. The manner in which the fork and backbone are secured to head and axle is a new method **far superior to any other, and makes them doubly strong.** The handle is of one piece and stationary. The frames are made of malleable iron. Made both with steel tires or rubber tires. Prices as follows:

STEEL TIRES.

No. 19R501	Front wheel, 16 inches	$1.35
No. 19R502	Front wheel, 20 inches	1.75
No. 19R503	Front wheel, 24 inches	2.15
No. 19R504	Front wheel, 26 inches	2.25

RUBBER TIRES.

No. 19R505	Front wheel, 16 inches	$2.50
No. 19R506	Front wheel, 20 inches	3.00
No. 19R507	Front wheel, 24 inches	3.45
No. 19R508	Front wheel, 26 inches	3.95

Tricycles.

Notwithstanding the immense popularity of the bicycle, the tricycle still remains in favor. Many parents prefer them for their children by reason of their safety, convenience, and the ease with which they can be run by the little girl or boy. The tricycle which we illustrate is made for girls or boys from two to seven years. **They are constructed with especial care,** and will stand the abuse they very frequently receive. They are very easy running and handsomely finished. The improved spring seat takes all vibration, and being upholstered in plush and furnished with back, makes riding easy and comfortable. Frame is enameled black. Quoted with iron tire wheels or C plate rubber tire wheels. The following are our special prices:

IRON TIRE WHEELS.

No. 19R509	Rear wheels, 18 inches	$2.95
No. 19R510	Rear wheels, 20 inches	3.75
No. 19R511	Rear wheels, 22 inches	4.45

RUBBER TIRE WHEELS.

No. 19R512	Rear wheels, 18 inches	$4.45
No. 19R513	Rear wheels, 20 inches	5.45
No. 19R514	Rear wheels, 22 inches	6.95

A small number of luxury personal items were discovered within the mitigation tract. However, these non-essential items represented mostly cheaply produced objects. Among these goods was jewelry (N=16), consisting predominately of beads (N=12). Some of the beads may not have been from necklaces but used instead to accessorize dresses, which were popular during the 1920s. Musical instruments recovered were mostly inexpensive harmonicas. A shellac record was found in Feature 5, which was produced between 1896 and about 1940. Only one gaming piece was found, a single die made of bone, also cheaply produced.

Other personal items were three smoking pipes, including a rubber stem likely associated with a brier or applewood pipe, and two kaolin pipes. It generally is assumed that kaolin pipes, which tended to get hot when smoked, were quickly replaced after the introduction of brier, meerschaum, applewood, or even corn cob pipes in the mid 1800s. These pipes were cooler to the touch when smoked. For example, neither the 1895 Montgomery Ward Catalogue (Emmit 1969:504-505) nor the 1902 Sears Roebuck Catalogue (1986) lists any kaolin pipes for sale. Although brier and meerschaum pipes appear to have been widely sold during the late 19th century, archaeological investigations at sites in St. Louis suggest that kaolin pipes continued to be used. For example, mostly kaolin clay pipes (77/3%) were found during the excavations at the Cochran Gardens Site associated with tenements and flats rented mostly by Irish immigrants during the late 19th century. Pipes made from other materials also recovered included 4 redware, 3 stoneware, 1 yellowware, 5 pamplin, and 4 porcelain. It was suggested that the greater number of kaolin pipes could be a reflection of ethnic pride because kaolin pipes continued to be produced and were popular in Ireland during the late 1800s (Harl 2006:397).

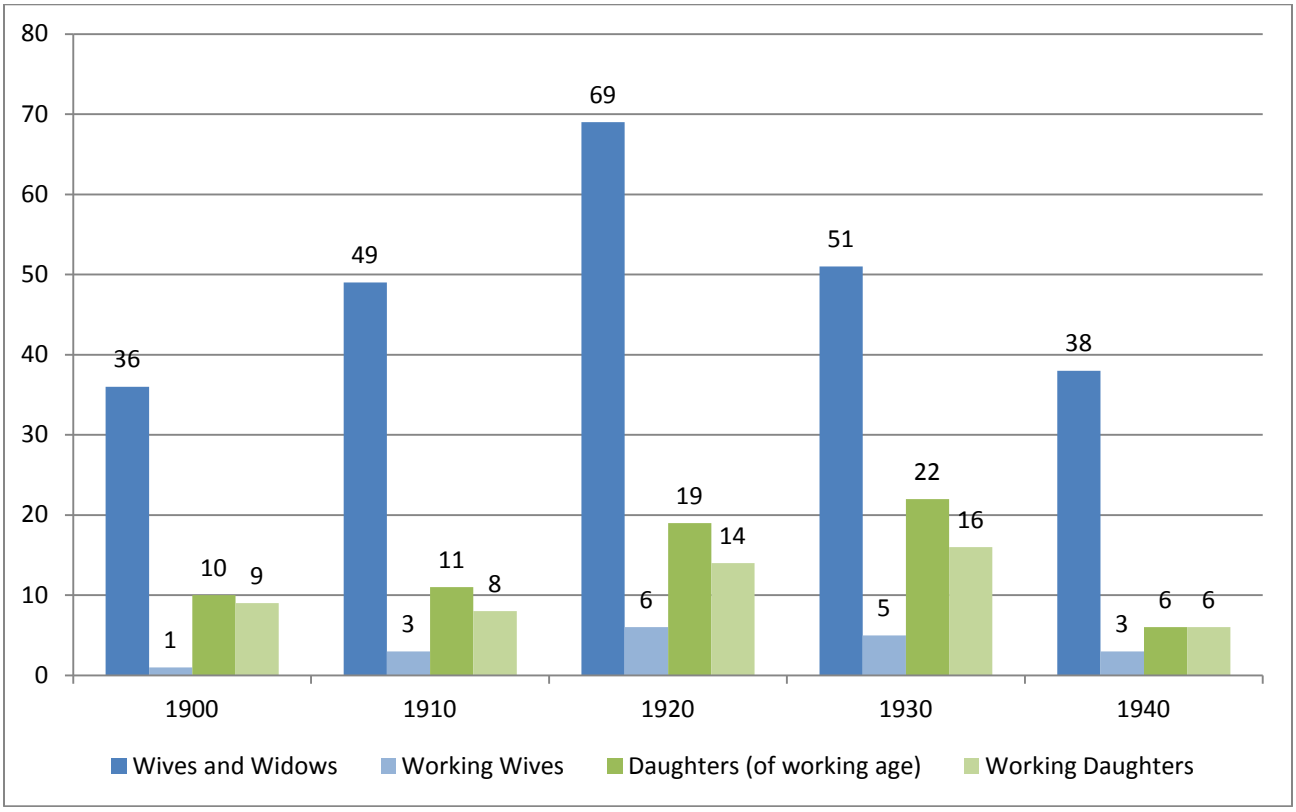
The general lack of pipes recovered from the mitigation tract as well as the Multi Modal Site and the MBG Trash Dump Site could be due to most people smoking cigarettes. Throughout most of the 18th and 19th centuries, tobacco was generally smoked in pipes. It was a particularly favorite habit among the lower classes, as historical documents describe laborers and earlier 19th century slaves as constantly having a pipe in their mouths. Smoking cigarettes was probably introduced into the Americas from Mexico at about the time of the Mexican War. It wasn't until after the 1880s that cigarettes became widely popular, when James Buchanan Duke decided to take on the tobacco giant, Bull Durham. In 1884, a machine was developed for Duke that could produce hundreds of cigarettes in a minute and package them. Cigarettes' cheaper prices and convenience over other forms of tobacco products (e.g., chewing, cigars, snuff, and pipes) made them attractive to consumers, especially those within urban areas. Although smoking was looked down upon for its harmful health and moral effects, sales nearly tripled from a half a billion in 1880 to 124 billion in 1919 (Schlereth 1991:46-47). Cigarettes would leave little physical evidence other than possibly some burned tobacco seeds or leaves, but none of these were found in the flotation samples.

Overall, luxury items recovered from the mitigation tract represented only 3-4% of the artifacts. This was slightly higher than luxury items recovered from the Multi Modal and even the wealthy families associated with the MBG Trash Dump site, where these represented only 1% of the artifacts. However, the majority of the luxury personal objects from the mitigation area (N=11, 33%) were glass beads. On a whole, fewer luxury items were associated with the Period III features, possibly representing the effects of the Depression; ironically, one of the pieces associated with a feature dating to this time was a money clip.

RESEARCH QUESTION #5

It is often assumed that working class housewives took positions in factories or sweat shops for low paying jobs in order to supplement the family's income. The census data, however, suggested that very few housewives living within the mitigation tract actually had jobs. Most of the woman who did worked from their own homes as laundresses or dress makers (Figure 162). These numbers included widows without husbands, who according to the census typically did not have a job. Even in 1920, when the greatest number had jobs (N=6) within the mitigation tract, three of these women were listed only as operating bordering houses. Women continued many of the practices of their mothers and grandmothers during the earlier Victorian era, and maintained their homes. Alternatively, most of the unmarried daughters did find employment after leaving school, but as reflected in the census data, upon getting married nearly all of them left their jobs to manage the household.

Figure 162: Number of Working Wives or Widowed Heads of Households, and Daughters of Working Age Within the Mitigation Tract (U.S. Census 1900-1940)



As suggested by Research Question #5 (see page 58), maintaining the household environment, raising children, making certain that the family reflected proper rules of behavior, and even watching over the family morality was a crucial role of women during the Victorian era and it continued to be an important role into the first half of the 20th century. Flowers were a favorite way of beautifying these urban homes. Having flowers within homes was looked upon as a way of bringing the fresh, wholesome countryside into the household. This was especially important in urban areas where cinders from burning coal and other forms of pollution were a constant problem. At least 24 flower pots and vases were recovered from the mitigation tract. Most of these from Period I (N=8) and Period II (N=12) features, with only four in Period III features. The majority of these consisted of simple redware flower pots that may have been used as part of outside gardens as well as interior use. Although one porcelain vase was found in Period III features, the earlier features contained a greater range of flower pots and vases, including two jardinières. Jardinières, standing ornamental plant holders, were popular into the beginning of the 20th century. A plant holder was meant to not only hold flowers, but had to fit into the overall décor of a room. As a result, jardinières, since they were so large and visible, were often colorfully decorated or had broad molded decorations on them. In the midden, Feature 28, a planter in the shape of a cow was recovered. Animal effigy planters were popular after 1920.

Analysis of the floral remains by Kathryn Parker from flotation samples of Period II Features 16 and 19 revealed that they contained seeds likely associated with an outside garden. Feature 16 had annuals of morning glory and sunflower, and a perennial, holly. Feature 19, at the western edge of the adjacent property at 4314 Papin contained rose seeds. This property was one of the oldest in the neighborhood purchased by Michael and Jostland Kelly in 1888, and continued to be used by their daughter until the 1940s. Jostland may have planted roses in her yard, but this feature is so close to the property containing Feature 16, that the rose seeds could have come from that garden as well. These were the only evidence of gardens found within the mitigation tract. Having a diverse and flowering outside garden also was a way of protecting the family as well as beautifies the home reflecting well on the family. It is possible that most of the working class families living within the mitigation area just did not plant gardens, but it's also possible that the seeds were just missed by the flotation sample.

By the start of the 20th century, various cleaning products were commercially produced to make cleaning households easier. Seven of these products were recovered from the mitigation area consisting of stove polish, a general household cleaner, Carbona, and a bottle of Lysol. Also recovered were three 3-IN-ONE oil bottles used as a lubricant, possibly on sewing machines. Sewing new clothing and mending clothing once consumed a large portion of housewives time. This situation was improved during the mid 1800s with the development of sewing machines. Early sewing machines were expensive, costing from $100 to $125. Sewing machine manufacturers offered various incentives in an attempt to increase sales. For example, in 1856, Singer sold machines on monthly installments, which tripled sales (Museum of American Heritage 2010). By the turn of the century, innovations in the production of sewing machines resulted in a reduction of their prices. In 1895, Montgomery Ward & Co. was selling sewing machines between $13.50 and $28.00 (Dover Books 1969:261-265), and the 1904 Sears Roebuck (1986:721-740) sold them for $10.45 to $23.20.

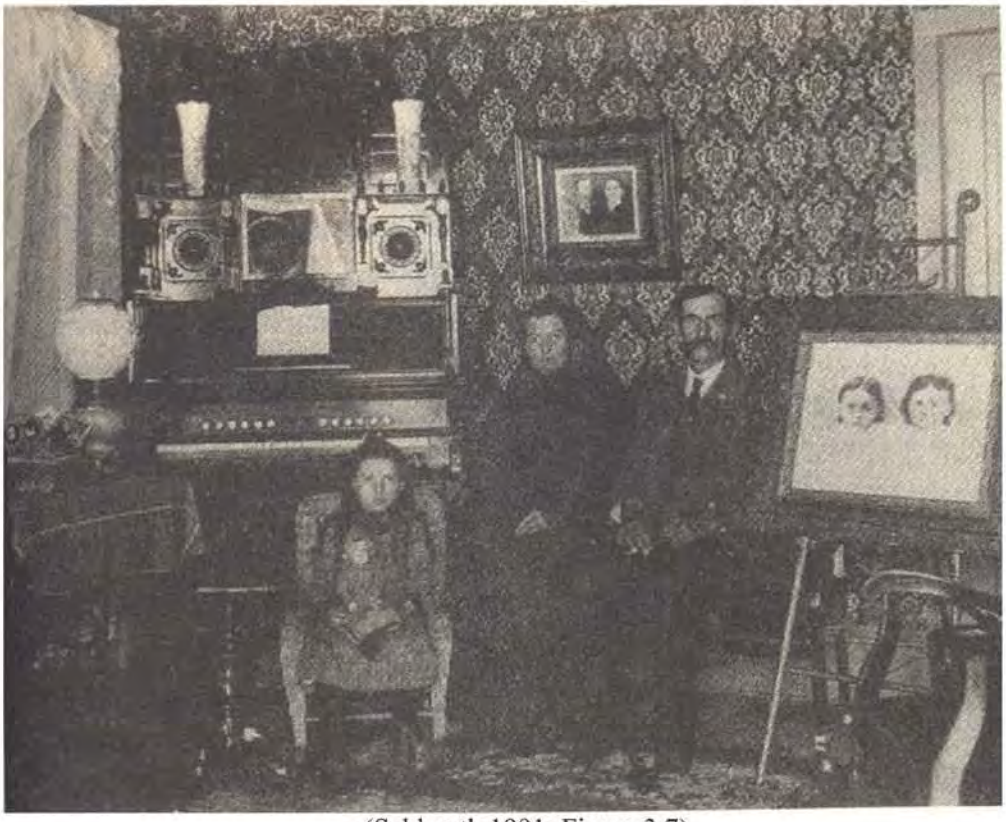
New products improved on housewives ability to manage their households. Also at this time, gas and electricity was introduced into the households, which were an improvement over kerosene lamps, and coal burning stoves and furnaces. No evidence for electricity was associated with the Period I features, but after 1905 (Period II), electricity was used in the homes. However, the same five features that contained electrical fixtures (N=12) also had kerosene lamps (N=9), suggesting that this new technology only was gradually being used within the mitigation tract. Electricity and natural gas burned cleaner and did not leave soot that regularly needed to be cleaned off the walls and ceiling. As a result, there was less of a need for servants to assist housewives in cleaning. However, the census suggested that only one family within the mitigation tract could afford a servant, so these household aids greatly improved the lot of even working class families. A greater quantity of household cleaning products were recovered from the MBG Trash Dump Site (N=13) than the mitigation area (N=7), possibly suggesting that the wealthier families could afford to purchase more of these commercial household cleaning products than the poorer families. In fact, no commercial cleaning products were found at the Multi Modal Site. This could reveal that working class housewives may have had to continue to rely on older methods of cleaning their homes including flammable products such as benzine, naphtha, and gasoline, or scrubbing with soap and water.

During the late 19th century, most homes had a parlor filled with mementoes reflecting family events, history, and achievements as well as art objects and natural objects (Figure 163). While most family daily activities were confined around the kitchen table, parlors were used for special occasions to entertain visitors. As a result, the decorations were meant to inspire family members, but most importantly to impress guests. As suggested by Schlereth (1991:119-120) "When Margaret Byington surveyed the lives of Pittsburgh steelworkers in 1910, she noted that once families got a bit of extra space, they would allocate it not for more bedrooms but for a social room". Even in the smallest of homes (Schlereth 1991:120), some space was generally set aside to also serve as a parlor:

> The description of a three-room-home of Slavic immigrants . . . verifies the attention to decorative details common in working-class parlor settings: 'The walls are hung with gorgeous prints of many hued saints, their gilt frames often hanging edge to edge so that they form a continuous frieze around the walls. This mantel is covered with lace paper and decorated with bright colored plates and cups, and gorgeous bouquets of homemade paper flowers are massed wherever bureaus or shelves give space for vases.
>
> . . . immigrant family's front room might also contain a bed, since workers' parlors often doubled as sleeping rooms. Such sleeping facilities might be folding beds stored elsewhere during the day or a stationary wood bed frame, piled high with feather comforters. An observer in Lawrence, Massachusetts, in 1912 described the interior of an Italian mill worker's home as boasting 'pleasant vistas of spotless beds rising high to enormous heights and crowned with crochet-edged pillows.

Parlors, however, were not static but the items displayed changed over time with the changing fortunes of the family.

Figure 163: Example of Parlors at the End of the 19th Century



(Schlereth 1991: Figure 3.7)

(Howe et al. 1997:31)

It is difficult to define objects that may have been displayed in parlors within the mitigation tract. Some of the flower pots, vases, and jardinières may have been placed in the parlor, bringing color and beauty into the home, but also bringing fresh smells and reminders of the wholesomeness of the countryside. Other objects placed in a parlor may have been the scallop shell, with holes drilled into it so that it could be hung, found in Feature 36 and the white glass mussel shell dish found in Feature 24. Collecting natural objects was an important part of parlors. Sea shells and their depictions in artwork and furniture were important since the mid 1800s because similar to flowers, these shells represented the wholesomeness of the seashore with its clean air and fresh breezes, which stood in contrast to the polluted cities.

The figurines recovered also may have reflected family values displayed in a parlor. These figurines consisted of animals including a sitting bird. Birds, similar to flowers, were reflections of the cleansing atmosphere of the countryside. Also recovered were figurines reflecting childhood, including a boy in a bowtie and a hooded girl, possibly resembling "Little Red Riding Hood". These may have been personal objects given to a child, but also may have been placed in a parlor reflecting the importance of children and raising children properly.

At the start of the 20th century, the use of a family parlor came under attack by home reformers. "They objected to the custom of reserving the best for strangers, to the room's stuffy formality, and to its ostentatious display" (Schlereth 1991:122). They argued that in its place should be the more open design suited for daily life (Figure 164) used in the new bungalow and colonial revival homes. Even the name for this room was changed to fit this new lifestyle, the living room. While these changes were more readily accepted by the upper and middle classes, working class and immigrant families were slower to adopt this new type of housing lifestyle.

Figure 1647: More Spacious Living Rooms Set for Daily Activities

(Schlereth 1991: Figure 3-8)

(Green 2000)

RESEARCH QUESTION #6

Equally difficult to positively define at the mitigation tract were artifacts that could address Research Question #6 (see page 56-57). Did the immigrant families maintain aspects of their birth culture or were they rapidly assimilated into American culture? Absent from the mitigation tract was objects associated with Germany, similar to those found at the MBG Trash Dump Site, including various porcelains from Germany or nearby countries of Austria and Selisia, German beer steins, multi-piece porcelain smoking pipes, Rhine wine, and a jewel dish from Apollinaris Mineral Spring in the Eifel region of Germany. These objects suggest a possible close connection with the wealthy families using that site and Germany. The few German objects found at the mitigation tract consisted of some dolls, and possibly marbles, however, during the early 20th century, most dolls and marbles sold in the American market came from Germany. A Maggi Sauce stopper found in Feature 33, associated with Period III, was produced in Switzerland and in Germany after 1897. The wife of William Held had emigrated from Germany and may have continued to use this meat flavoring produced in Germany, but by the 1920s, this sauce was widely popular with Americans as well. The hooded girl figurine found in Feature 14 was made in Germany, but many porcelain pieces produced at that time came from that country.

It's possible that the lack of decorated table settings and greater percentages of home canned and stored goods within the mitigation tract could reflect the rural roots of these families, but it also may reflect their ethnic heritage. However, it also is possible that these people just could not afford more ornate table settings and had to be frugal about food purchases. The lack of German goods could suggest that immigrant families were rapidly assimilated into American culture. This may have been because they wanted to fit into American society or be able to compete against American workers. But further work is badly needed at early 20th century sites to better address this research question.

CONCLUSION

Archaeological investigations of the Elizabeth Pfeifer Site, 23SL2328, and the West Papin Site, 23SL2329, did produce many significant findings. It showed that intact remains could exist within this part of the MoDOT's right of way despite this portion of the interstate having been cut down nearly 30 feet. The edges of the right of way were left intact, although some disturbances did take place as a result of holes being dug to get rid of excess debris associated with the removal of homes along Papin and to discard limestone from the bedrock that was cut during construction of the depressed section of the interstate. As suggested by Meyer, Daniels, and Dawdy (2012:3), locations within urban areas should not be automatically written off as not containing any cultural resources, but it is imperative that a good prehistoric and historical background search be conducted, and the areas be examined for intact cultural remains, including the use of backhoe trenching to search for buried deposits.

In addition, it is often assumed by archaeologists conducting cultural resource management studies that sites dating to the 20th century will not produce relevant cultural information. While there is much written about this part of American history, most of these concern the extraordinary events that took place during this time. There is a lack of information, especially for working class and immigrant families whose lives were rarely documented except by social reformers, who often looked down upon by these people and described their lives in biased terms. As a result, there is practically no information on people's daily lives during the early part of the 20th century. Archaeological investigations of these two sites as well as other urban locations are starting to provide this mundane, but crucial information, which was defined by Harrington, as early as 1955, as the main reason for conducting anthropological based historical archaeology.

Further excavation of these sites provided much needed information on how sanitation practices changed across the U.S., especially in urban areas like St. Louis as germ theory replaced the older miasma theory. Artifacts reflected how the working class families adapted to the changes in American society that took place with the increase in industrialization and the influx of new consumer goods. Unlike the working class families at the Multi Modal Site, who appear to have readily accepted many of the new innovations, the working class families within the mitigation tract appear to have remained more conservative and used older styles of objects. Was this due to the ethnic background of the residents, with the predominately German emigrant families being more conservative in their buying behavior? Could these families have just been too poor to be able to afford the newer objects? Another possibility is that the families within the mitigation area may have differed from the working class families living at the Multi Modal Site. At that site, the families appear to have moved to St. Louis for jobs and they had few close relatives and were in economic competition with other working class families. These families may have been willing to spend their discretionary funds on fancier objects, or at least objects that looked more expensive, as a way of expressing economic success to other working class families. The objects used by the occupants of the mitigation tract appear to be more similar to the pattern postulated to exist within rural areas. For example, dinner settings were not as extravagant and consisted predominately of just plain undecorated or decorations of older styles. Was this because, similar to residents in rural areas, they tended to have more relatives or close friends visiting their homes? Thus, they preferred plain practical pieces, as compared to more

expensive looking ones, since they were not in competition with their guests and did not want to appear to be extravagant. This could suggest that the German immigrants within this portion of St. Louis formed a close knit community. Further work is needed on sites dating to the first half of the 20th century to better understand people's daily lives and the changes that occurred at this crucial time in American society.

Excavations of sites dating to this time are further important in that they will provide a better understanding of our lives today. Crucial in all social scientific investigations is knowledge about a person's past because it reflects their behavior today. We are not divorced from this past, but many of our beliefs and ideas are based on this cultural heritage. Old Victorian ideas concerning the correlation of beauty, success, and power still influences our thoughts today. Advertisers have picked up on these notions since the start of the 20th century and still use beautiful models or healthy sports figures to sell products. Similar to Americans at the start of the 20th century, we at the start of the 21st century marvel at the wonders of technology and expect it to improve our lives. Promises of the patent medicines at the end of the 19th century would resonate with modern audiences today, except we now have advertisements and "info-commercials" promising cures for everything from cancer to impotency to fat reduction; all cured by only taking a pill. We still associate natural substances with promoting good health similar to residents at the start of the 20th century, with herbal medicines and natural cures now being available. Homeopathic medicines have had resurgence in modern times as people seek natural cures and alternatives to traditional medicines. Water, supposedly from natural springs, is widely sold today much as mineral water was at the turn of the 20th century.

We struggle today with the same contradictory ideas of capitalism/materialism versus social needs that stretch back to the founding of this country. How do we balance personal success with everyone's right to a fair education, medical care, jobs, and welfare? The role of women in society has still not been completely resolved. Even though most of the families had husbands laboring with poor paying jobs, few of the housewives within the mitigation tract worked. These roles started to change during World War II, but really did not change until the economic hardships of the 1970s and 1980s when most families could not survive with only one working parent. Although men do share more in household maintenance and child care, and women have more freedom to choose between having a profession or taking care of the household today than in the past, many women still perceive themselves as "supermoms", and are expected by society at large, to be the primary childcare providers, responsible for maintaining the household, and protectors of the family morals. Conflicts between career and family sometimes led to psychological stress. Women still make less pay and are not taken as seriously as their male counterparts by a society still struggling with ridding itself of its old historical beliefs. Some of our social and ethnic differences that divide us today extend back to the prejudices that developed in our past. Many of the same questions concerning newly arriving immigrants today were expressed by the arrival of German and Irish immigrants since the mid 19th century. Understanding the historical background of these situations, people's responses, and successful resolutions will improve our responses today.

Archaeologists with the Missouri Department of Transportation recently have excavated a number of these urban sites, providing much needed information. Hopefully further cultural resource investigations will be performed at similar sites in St. Louis and other portions of Missouri in the future to document this crucial period of our cultural heritage. Otherwise future generations will certainly criticize us for our shortsightedness to allow them to appreciate and to learn from this past.

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APPENDIX A:
1900 U.S. Census

1900 Census

Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Months Out of Work	Rents, Owns Free or Mortgage
748	Newstead	Gould	George	Head	51	married	25			1855	Ireland	Ireland	Ireland	butcher			F
748	Newstead	Gould	Mary A.	wife	48	married	25	2	1		NJ	Ireland	Ireland				
4300	Papin	Hisor	Jakob	Head	60	single				1854	Switzerland	Switzerland	Switzerland	laborer		6	F
4300	Papin	Schmidt	Anna	related	55	widow		0	0	1854	Switzerland	Switzerland	Switzerland				
4302	Papin	Osterhold	John	Head	48	married	24			1881	Germany	Germany	Germany	laborer		3	M
4302	Papin	Osterhold	Ann	wife	46	married	24	6	4	1881	Germany	Germany	Germany				
4302	Papin	Osterhold	Otto	son	15									planning mill			
4302	Papin	Osterhold	Willie	son	13									planning mill			
4302	Papin	Osterhold	Alma	daughter	10												
4302	Papin	Osterhold	John	son	7												
4303	Papin	Wille	Thompson	Head	42	married	6			1858	at sea	Germany	Germany	butcher			R
4303	Papin	Wille	Clara	wife	27	married	6	2	2		MO	Germany	Germany				
4303	Papin	Wille	Walter	son	3												
4303	Papin	Wille	Willie	son	4 months												
4304	Papin	Kosh	Herman	Head	28	married	4				MO	Germany	MO	foreman			R
4304	Papin	Kosh	Berding	wife	26	married	4	2	2		MO	Germany	Germany				
4304	Papin	Kosh	Toledo	daughter	3												
4304	Papin	Kosh	John	son	1												
4305	Papin	Friedman	M.	Head	64	widow				1867	Germany	Germany	Germany	laborer		6	R
4305	Papin	Friedman	Helen	daughter	28									dressmaker			
4305	Papin	Friedman	Maria	daughter	22									seamstress			
4307	Papin	Fallanz	August	Head	47	married	20				MO	Germany	Germany	laborer		10	M
4307	Papin	Fallanz	Susan	wife	46	married	20	9	4		MO	Germany	Germany				
4307	Papin	Fallanz	Elizabeth	daughter	17									factory			
4307	Papin	Fallanz	August M.	son	15									planning mill			
4307	Papin	Fallanz	Saloma M.	daughter	14												
4307	Papin	Fallanz	Franz H.	son	6												
4308	Papin	Hawkins	William	Head	27	married	4				MO	England	England	steam engineer			R
4308	Papin	Hawkins	Johanna	wife	23	married	4	1	1		MO	Ireland	Ireland				
4308	Papin	Hawkins	William	son	2												

1900 Census

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4309	Papin	Breitwieser	Conrad	Head	37	married	11			1883	Germany	Germany	Germany	butcher			R
4309	Papin	Breitwieser	Katharina	wife	34	married	11	5	1		MO	Germany	Germany				
4309	Papin	Breitwieser	Sophia	daughter	7												
4309	Papin	Logeman	Auren	boarder	31						MO	Germany	Germany	butcher			
4310	Papin	Martin	Patrick	Head	35	married	14			1883	Ireland	Ireland	Ireland	laborer			M
4310	Papin	Martin	Ellen	wife	30	married	14	6	4	1883	Ireland	Ireland	Ireland				
4310	Papin	Martin	Della	daughter	13												
4310	Papin	Martin	John	son	9												
4310	Papin	Martin	Willie	son	6												
4310	Papin	Martin	Mary	daughter	5												
4312	Papin	Berndt	Paul	Head	44	married	11			1882	Germany	Germany	Germany	carrier	newspaper		F
4312	Papin	Berndt	Sisilina	wife	30	married	11	7	4	1880	Germany	Germany	Germany				
4312	Papin	Berndt	Paul	son	9												
4312	Papin	Berndt	Arnold	son	8												
4312	Papin	Berndt	Joseph	son	5												
4312	Papin	Berndt	Julius	son	8 months												
4314	Papin	Kelly	Michael	Head	43	married	20			1880	Ireland	Ireland	Ireland	laborer			F
4314	Papin	Kelly	Jostland	wife	43	married	20	8	4	1880	Ireland	Ireland	Ireland				
4314	Papin	Kelly	Lorenz	son	18									secretary			
4314	Papin	Kelly	Bernard	son	15									secretary			
4314	Papin	Kelly	Michael	son	14												
4314	Papin	Kelly	Katherine	daughter	7												
4314	Papin	Kelly	James B.	boarder	35						Ireland	Ireland	Ireland	teamster		4	
4316	Papin	Fisk	Charles	Head	53	married	30			1891	Germany	Germany	Germany	shoemaker		6	R
4316	Papin	Fisk	Rosa B.	wife	53	married	30	10	4	1891	Germany	Germany	Germany				
4316	Papin	Fisk	Charles F.	son	24					1891				laborer		4	
4316	Papin	Fisk	Gustov A.	son	12					1891							

1900 Census

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4318	Papin	Walsh	Thomas	Head	50	married	22				Ireland	Ireland	Ireland	watchman	private		F
4318	Papin	Walsh	Ellen	wife	40	married	22	8	8		Ireland	Ireland	Ireland				
4318	Papin	Walsh	James	son	19						MO			machinist			
4318	Papin	Walsh	Thomas	son	16									shovel maker		10	
4318	Papin	Walsh	Mary	daughter	14												
4318	Papin	Walsh	Edward	son	12												
4318	Papin	Walsh	John	son	10												
4318	Papin	Walsh	Ellen	daughter	8												
4318	Papin	Walsh	Kattie	daughter	4												
4322	Papin	Annheity	Charles	Head	42	married	10				OH	Germany	OH	art "hill" contractor			R
4322	Papin	Annheity	Kattie	wife	33	married	10	4	4		IN	OH	IN				
4322	Papin	Annheity	Roy	son	9												
4322	Papin	Annheity	Charles	son	7												
4322	Papin	Annheity	Mabel	daughter	3												
4322	Papin	Annheity	Heller	daughter	1												
4348	Papin	Hawkins	William	Head	55	married	30			1870	England	England	England	no job			R
4348	Papin	Hawkins	Mary H.	wife	57	married	30	5	4	1870	England	England	England				
4348	Papin	Hawkins	Charlotte E.	daughter	29									teacher	city school	3	
4348	Papin	Hawkins	George A.	son	19									steam engineer			
4350	Papin	Martin	John	Head	34	married	10			1887	Ireland	Ireland	Ireland	laborer		6	M
4350	Papin	Martin	Kate	wife	32	married	10	3	2	1885	Ireland	Ireland	Ireland				
4350	Papin	Martin	John	son	8												
4350	Papin	Martin	Nora A.	daughter	5												
4351	Papin	Kolb	Fred	Head	49	married	21				MO	Germany	Germany	janitor	public school		R
4351	Papin	Kolb	Minne	wife	48	married	21	3	3		OH	Germany	Germany				
4351	Papin	Kolb	Karry E.	daughter	19									dressmaker			
4351	Papin	Kolb	Fred H.	son	18									photographer			
4351	Papin	Kolb	Arthur A.	son	15												
4352	Papin	Lorrie	Charles E.	Head	32	married	7				MA	France	Ireland	cabinetmaker		2	R
4352	Papin	Lorrie	Rosie A.	wife	28	married	7	1	0	1888	Ireland	Ireland	Ireland				

1900 Census

Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Months Out of Work	Rents, Owns Free or Mortgage
4354	Papin	Pfeifer	Elizabeth	Head	62	widow		8	7		MD	Germany	Germany				F
4354	Papin	Pfeifer	Anna H.	daughter	29									stenographer			
4354	Papin	Pfeifer	George F.	daughter	26									stenographer			
4354	Papin	Walters	Otto A.	grandson	21									unclear			
4355	Papin	Hinze	Charles	Head	26	married	1			1889	Germany	Germany	Germany	blacksmith			R
4355	Papin	Hinze	Theresa	wife	20	married	1	0	0		MO	Germany	MO				
4355	Papin	Schulenburg	Mo	mother	56	widow		9	7		MO	Germany	Germany				
4357	Papin	Corcoran	John F.	Head	38	married	2				MO	Ireland	PA	teamster			R
4357	Papin	Corcoran	Sarah	wife	39	married	2	1	1								
4357	Papin	Corcoran	Hope A.	daughter	5												
4359	Papin	Lewis	Joseph	Head	39	married	8				IL	Germany	Germany	electical worker			F
4359	Papin	Lewis	Minnie	wife	27	married	8	1	1		MO	Germany	Germany				
4359	Papin	Lewis	Nellie M.	daughter	7												
4361	Papin	McCormick	Wilbur	Head	28	married	7				MO	Ireland	Ireland	plumber			M
4361	Papin	McCormick	Sarah	wife	26	married	7	2	2		MO	Ireland	Ireland				
4361	Papin	McCormick	Margarete	daughter	6												
4361	Papin	McCormick	Agnes	daughter	4												
4362	Papin	Fisk	Frederick	Head	29	married	8			1887	Germany	Germany	Germany	butcher	own butcher shop		M
4362	Papin	Fisk	Mary Ann	wife	31	married	8	0	0	1889	Germany	Germany	Germany				
4362	Papin	Fisk	Fred Jr.	son	6												
4362	Papin	Fisk	Emma	daughter	4												
4364	Papin	Steven	John	head	40	married	10			1868	Switzerland	Switzerland	Switzerland	carpenter			M
4364	Papin	Steven	Frederika	wife	38	married	10	0	0		IL	Germany	Germany				
4365	Papin	Metz	Charles	Head	54	married	30				MO	Germany	Germany	inspector	city		F
4365	Papin	Metz	Augusta	wife	52	married	30	3	1		MO	Germany	Germany				
4366	Papin	Zauld	Darrel	Head	24	married	1				MO	Ireland	NJ	butcher			R
4366	Papin	Zauld	Katherine	wife	20		1	1	1		MO	Germany	MO				
4366	Papin	Zauld	George	son	3 months												
4369	Papin	Meyer	Bernhart	Head	32	married	4			1892	Germany	Germany	Germany	florist			R
4369	Papin	Meyer	Louise	wife	25	married	4	1	1		WI	Germany	WI				
4369	Papin	Meyer	Bernhart	son	3												

1900 Census

Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Months Out of Work	Rents, Owns Free or Mortgage
4371	Papin	Flusker*	William	Head	58	married	1				GA	GA	GA	laborer		9	F
4371	Papin	Flusker*	Louise	wife	59	married	1	4	3		MO	MO	MO				
4371	Papin	Flusker*	Mary	daughter	18												
4371	Papin	Flusker*	Ophilia	daughter	11												
4371	Papin	Flusker*	Marvin	son	8												
4372	Papin	Hussman	Peter	Head	58	married	33			1844	Germany	Germany	Germany	carpenter		4	F
4372	Papin	Hussman	Annie	wife	53	married	33	6	5	1857	Canada	Ireland	Ireland				
4372	Papin	Hussman	Kattie	daughter	29												
4372	Papin	Hussman	William	son	27									carpenter		4	
4372	Papin	Hussman	Karry	daughter	25									dressmaker			
4372	Papin	Hussman	Fred	son	24									carpenter		4	
4372	Papin	Hussman	John F.	son	24									carpenter		4	
4373	Papin	Halla	Thomas	Head	49	married	24			1868	Austria	Austria	Austria	laborer			F
4373	Papin	Halla	Magdalena	wife	49	married	24	6	4	1869	Austria	Austria	Austria				
4373	Papin	Halla	George	son	19									stair builder			
4373	Papin	Halla	John	son	16									bar maker			
4373	Papin	Halla	Charles	son	14												
4375	Papin	Sutter	Bernard	Head	40	married	13			1880	Switzerland	Switzerland	Switzerland	blacksmith			R
4375	Papin	Sutter	Rosa	wife	39	married	13	5	4								
4375	Papin	Sutter	Minnie	daughter	11												
4375	Papin	Sutter	Bernie	son	9												
4375	Papin	Sutter	Frank	son	6												
4375	Papin	Sutter	Oscar	son	6 months												
4376	Papin	Eirkmerer	Peter	Head	58	married	32			1860	Germany	Germany	Germany	laborer		6	M
4376	Papin	Eirkmerer	Margarete	wife	52	married	32	7	7	1854	Germany	Germany	Germany				
4376	Papin	Eirkmerer	William	son	24									brick layer		6	
4376	Papin	Eirkmerer	Albert P.	son	22									brick layer		6	
4376	Papin	Eirkmerer	Charlotte	daughter	16									factory			
4376	Papin	Eirkmerer	Fred	son	9												

1900 Census

Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Months Out of Work	Rents, Owns Free or Mortgage
4303a	Papin	Puls	Henry	Head	40	married	1				MO	Germany	Germany	no job			M
4303a	Papin	Puls	Earnestin	wife	22	married	1	0	0		MO	Germany	Germany				
4361a	Papin	Meyer	Louie	Head	28	married	6				WV	WV	WV				
4361a	Papin	Meyer	Bell	wife	26	married	6	4	4		IL	IL	IL				
4361a	Papin	Meyer	Jessie	daughter	6												
4361a	Papin	Meyer	Lorne	daughter	3												
4361a	Papin	Meyer	Walter	son	2												
4361a	Papin	Meyer	Florence	daughter	2 months												
4362a	Papin	Pfeifer	Michael	Head	56	married	20			1887	Germany	Germany	Germany	laborer			R
4362a	Papin	Pfeifer	Magdalene	wife	42	married	20	11	9	1887	Germany	Germany	Germany				
4362a	Papin	Pfeifer	Charles	son	19					1887	Germany			clerk			
4362a	Papin	Pfeifer	Joseph	son	16					1887	Germany			laborer	planning mill		
4362a	Papin	Pfeifer	Mary M.	daughter	14					1887	Germany			worker	factory		
4362a	Papin	Pfeifer	Eugenie	daughter	13					1887	Germany			no job, not in school			
4362a	Papin	Pfeifer	Francis	daughter	10												
4362a	Papin	Pfeifer	Alois	son	7												
4362a	Papin	Pfeifer	Magdalena	daughter	4												
4362a	Papin	Pfeifer	Anna	daughter	3												
4362a	Papin	Pfeifer	August	son	1												
4373a	Papin	Zeude	Ferdinand	Head	26	married	2				MO	Germany	Germany	clerk	store		R
4373a	Papin	Zeude	Annie	wife	21	married	2	0	0		MO	Austria	Austria	dressmaker			
657	Tower Grove	McKay	Oscar	Head	29	married	12				IN	IN	IN	grading		6	R
657	Tower Grove	McKay	Lillie	wife	30	married	12	6	5		IA	IN	IA				
657	Tower Grove	McKay	Kattie	daughter	9												
657	Tower Grove	McKay	Lillie	daughter	6												
657	Tower Grove	McKay	Oscar	son	4												
657	Tower Grove	McKay	Rially	son	2												
657	Tower Grove	McKay	Bessie	daughter	2 months												
657	Tower Grove	McKay	Darriel	boarder	24						MO	MO	MO	teamster		4	

* African American

Appendix B:
1910 Census

1910 Census

Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
912	Newstead	Newson	John H.	Head	29	married	9				TN	TN	TN	distiller	whiskey	R
912	Newstead	Newson	Mamie L.	wife	33	married	9	4	4		GA	GA	GA			
912	Newstead	Newson	Roy D.	son	8											
912	Newstead	Newson	Harry A.	son	5											
912	Newstead	Newson	Francis L.	daughter	3											
912	Newstead	Newson	Charles S.	son	1											
4300	Papin	Schmitt	Ann	Head	67	widow		5	0	1864	Sweden	Sweden	Sweden			F
4302	Papin	Held	William F.	Head	40	married	13			1891	Germany	Germany	Germany	driver	brewery	M
4302	Papin	Held	Emile W.	wife	38	married	13	5	3							
4302	Papin	Held	William H.	son	11											
4302	Papin	Held	Elsie P K.	daughter	7											
4302	Papin	Held	Frederick H.	son	3											
4303	Papin	Braun	Anna	Head	43	widow		10	8		MO	Germany	Germany			M
4303	Papin	Braun	John	son	17									saw hand	lumber co.	
4303	Papin	Braun	Margareth	daughter	15									assorting	tobacco factory	
4303	Papin	Braun	Mary	daughter	13											
4303	Papin	Braun	Joseph	son	11											
4303	Papin	Braun	Leo	son	10											
4303	Papin	Braun	Herbert	son	7											
4303	Papin	Braun	Harry	son	4											
4304	Papin	Weigant	Clarance F.	Head	34	married	14				IL	Germany	IL	weigher	coffee manufacturer	M
4304	Papin	Weigant	Julia F.	wife	35	married	14	2	2		IL	Ireland	US			
4304	Papin	Weigant	Ruth D.	daughter	13											
4304	Papin	Weigant	Ida M.	daughter	2											
4305	Papin	Pfeiffer	Charles P.	Head	29	married	4			1888	Germany	France	France	collector	transfer co.	R
4305	Papin	Pfeiffer	Elizabeth	wife	29	married	4	3	2							
4305	Papin	Pfeiffer	Charles P. Jr.	son	2											
4305	Papin	Pfeiffer	Mary E.	daughter	2 months											
4307	Papin	Fellens	Susan	Head	66	widow		9	4		MO	Germany	Germany	no job	annual income	F
4307	Papin	Fellens	Frank A.	son	15	son								solicitor	grocery	

1910 Census

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4308	Papin	Burns	Patrick C.	Head	46	married	17				NO	Ireland	Ireland	teamster	contractor	M
4308	Papin	Burns	Mary E.	wife	36	married	17	2	2	1874	Ireland	Ireland	Ireland			
4309	Papin	Stueng	Edward	Head	28	married	5				WI	Switzerland	Switzerland			
4309	Papin	Stueng	Mary L.	wife	28	married	5	2	2		WI	Switzerland	WI	driver	ice manufacturing	R
4309	Papin	Stueng	Herbert H.	son	4											
4309	Papin	Stueng	Robert E.	son	2											
4309	Papin	Stueng	Henry E.	lodger	27	single					WI	Switzerland	Switzerland	driver	ice manufacturing	
4310	Papin	Clyne	William B.	Head	36	married	9				IL	US	US	driver	brewery	R
4310	Papin	Clyne	Dora E.	wife	28	married	9	5	5		MO	Germany	MO			
4310	Papin	Clyne	Lester E.	son	8											
4310	Papin	Clyne	Ruth D.	daughter	7											
4310	Papin	Clyne	Addie G.	daughter	6											
4310	Papin	Clyne	Dora L.	daughter	3											
4310	Papin	Clyne	Harry W.	son	11 months											
4311	Papin	Kestler	John	Head	50	married	24			1890	Germany	Germany	Germany	machinist	printing	R
4311	Papin	Kestler	Elizabeth	wife	42	married	24	13	4	1891	Germany	Germany	Germany			
4311	Papin	Kestler	Albert	son	22					1891	Germany			fireman	manufacturing co.	
4311	Papin	Kestler	Eugene	son	19					1891	Germany			bobin winder	wire manufacturing co.	
4311	Papin	Kestler	Emma	daughter	12											
4311	Papin	Bernard	Samuel	lodger	37	single					TX	TX	TX	binder	printing com	

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Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4312	Papin	Berndt	Paul	Head	54	married	21			1882	Germany	Germany	Germany	contractor	newspaper?	F
4312	Papin	Berndt	Cecila	wife	39	married	21	8	6	1880	Germany	Germany	Germany			
4312	Papin	Berndt	Paul	son	19									clerk	carpet manufacturer	
4312	Papin	Berndt	Arnold A.	son	18									shade tacker	carpet manufacturer	
4312	Papin	Berndt	Joseph P.	son	16									office boy	insurance co.	
4312	Papin	Berndt	Julius	son	10											
4312	Papin	Berndt	Celia A.	daughter	4											
4313	Papin	Hahn	William	Head	45	married	26			1882	Germany	Germany	Germany	stableman	bakery	R
4313	Papin	Hahn	Lena L.	wife	45	married	26	15	7	1888	Germany	Germany	Germany	washerwomen	private family	
4313	Papin	Hahn	Herman F.	son	17									planer hand	sash & door co.	
4313	Papin	Hahn	Walter W.	son	14									apprentice	bakery	
4313	Papin	Hahn	Minnie H.	daughter	12											
4313	Papin	Hahn	Margareth D.	daughter	9											
4313	Papin	Hahn	Otto D.	son	6											
4313	Papin	Hahn	Emma E.	daughter	3											
4314	Papin	Kelly	Catherine	Head	50	widow (of Michael)					Ireland	Ireland	Ireland			F
4314	Papin	Kelly	Lawrence E.	son	28									shovel maker	factory	
4314	Papin	Kelly	Bernard A.	son	27									landscape	contractor	
4314	Papin	Kelly	Michael	son	23									shovel maker	factory	
4314	Papin	Kelly	Catherine	daughter	17									no job		
4315	Papin	Vocker	Hannas	Head	59	married	27				MO	Germany	Germany	carpenter	contractor	R
4315	Papin	Vocker	Magdalena L.	wife	48	married	27	10	7		OH	OH	Germany			
4315	Papin	Vocker	Robert A.	son	15									laborer	rope manufacturer	
4315	Papin	Vocker	Clarence B.	son	9											
4315	Papin	Vocker	Rosine A.	daughter	8											
4315	Papin	Vocker	Herman G.	son	6											

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4316	Papin	Engel	Julius	Head	63	married (2nd time)	20			1890	Germany	Germany	Germany	driver	cut stone	F
4316	Papin	Engel	Mary K.	wife	43	married	20	7	6	1890	Germany	Germany	Germany			
4316	Papin	Engel	John	son	14									laborer	box factory	
4316	Papin	Engel	William	son	13											
4316	Papin	Engel	Louis	son	10											
4316	Papin	Engel	Theodore	son	7											
4316	Papin	Engel	Edward	son	4											
4317	Papin	O'Keefe	John W.	Head	50	married	27				MO	Ireland	Ireland	butcher	grocery	R
4317	Papin	O'Keefe	Rose A.	wife	49	married	27	5	4		MO	Ireland	Ireland			
4317	Papin	O'Keefe	Rose M.	daughter	20									paper inspector	printing co.	
4317	Papin	O'Keefe	Charles B.	son	12											
4318	Papin	Samuelson	John A.	Head	40	married	9			1882	Sweden	Sweden	Sweden	baker	bakery	R
4318	Papin	Samuelson	Hannah F.	wife	45	married (2nd time)	9	7	6		OH	OH	OH			
4318	Papin	Wetring	Mary I.	step daughter	18									starcher	laundry	
4318	Papin	Wetring	Irene M.	step daughter	15									starcher	laundry	
4318	Papin	Samuelson	Albert	son	8											
4318	Papin	Samuelson	John	son	6											
4318	Papin	Samuelson	Helen	daughter	4											
4322	Papin	Wappel	Mathew	Head	50	married	26			1897	Hungary	Hungary	Hungary	laborer	terra cotta co.	R
4322	Papin	Wappel	Rose	wife	50	married	26	6	6	1897	Hungary	Hungary	Hungary			
4322	Papin	Wappel	Joseph	son	23					1905	Hungary			braser	terra cotta co.	
4322	Papin	Wappel	John	son	22					1905	Hungary			driver	newspaper	
4322	Papin	Wappel	Aloysius	son	16					1905	Hungary			driver	newspaper	
4322	Papin	Wappel	Frank	son	14					1905	Hungary					
4322	Papin	Wappel	Mary	daughter	11											

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Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4342	Papin	Schroeder	George H.	Head	26	married	1				MO	MO	MO	harness maker	harness manufacturer	R
4342	Papin	Schroeder	Mary L.	wife	33	married	1	1	1		DE	Ireland	Ireland			
4342	Papin	Schroeder	Clara E.	daughter	9 months											
4344	Papin	Lawless	James	Head	34	married	6				Ireland	Ireland	Ireland	motorman	street railway	R
4344	Papin	Lawless	Margaret	wife	28	married	6	2	1		Ireland	Ireland	Ireland			
4344	Papin	Lawless	Mary C.	daughter	2											
4348	Papin	Martin	John	Head	42	married	19			1887	Ireland	Ireland	Ireland	cement worker	contractor	M
4348	Papin	Martin	Katherine	wife	43	married	19	5	4	1886	Ireland	Ireland	Ireland			
4348	Papin	Martin	John Jr.	son	17									driver	dairy co.	
4348	Papin	Martin	Nora A.	daughter	14									nurse	private family	
4348	Papin	Martin	Helen K.	daughter	7											
4348	Papin	Martin	James P.	son	4											
4350	Papin	Ketchum	Solomon	Head	64	married (2nd time)	10				MO	unknown	unknown	watchman	railroad	R
4350	Papin	Ketchum	Annie	wife	66	married (2nd time)	10	5	4		OH	Germany	Germany			
4350	Papin	Ketchum	Harry D.	son	18									tacker	sash & door co.	
4350	Papin	Ketchum	William D.	son	14									helper huxtor	wagon	
4350	Papin	Ketchum	Edward F.	son	6											
4350	Papin	Ketchum	Helene	daughter	2											
4351	Papin	Zimmer	Anton	Head	54	second marriage	21			1895	Germany	Germany	Germany	no job		F
4351	Papin	Zimmer	Agnes	wife	66	second marriage	21	7	4	1865	Germany	Germany	Germany			
4351	Papin	Vasis	Peter J.	son	27									tire repairer	own rubber tire repair shop	
4351	Papin	Vasis	Julia	daughter	31											
4351	Papin	Simmon	Philomena	niece	17						IL	Germany	Germany	semstress	commercial	

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4352	Papin	Scherer	John G.	Head	48	married (2nd time)	17			1877	Germany	Germany	Germany	painer	car shop	R
4352	Papin	Scherer	Veronica	wife	46	married	17	5	3	1883	Germany	Germany	Germany			
4352	Papin	Scherer	Joseph D.	son	16									apprentice sashier	sash & door co.	
4352	Papin	Scherer	Annie V.J.	daughter	12											
4352	Papin	Scherer	Julius M.	son	10											
4355	Papin	Huffington	Frank M.	Head	34	married	12				MO	VA	MO	book binder	printing	R
4355	Papin	Huffington	Dora B.	wife	30	married	12	3	2		TN	TN	TN			
4355	Papin	Huffington	Marion L.	daughter	9											
4355	Papin	Huffington	Harlan E.	son	6 months											
4357	Papin	Reiche	Robert H.W.	Head	30	married	9			1880	Germany	Germany	Germany	moulder	irown manufacturer	F
4357	Papin	Reiche	Louisa	wife	29	married	9	2	0		IL	Germany	Germany			
4357	Papin	Reiche	Johanna	mother	69	widow		4	3	1885	Germany	Germany	Germany			
4357	Papin	Reiche	Theodore	brother	22	single					MO	Germany	Germany	bartender	buffet	
4359	Papin	Bielor	Joseph	Head	41	second marriage	6			1891	Germany	Germany	Germany	carrier	newspaper	M
4359	Papin	Bielor	Anna	wife	31	married	6	5	5	1903	Hungary	Hungary	Hungary			
4359	Papin	Bielor	Joseph	son	15					1897	Germany			carrier	newspaper	
4359	Papin	Bielor	Aloisiss	son	10											
4359	Papin	Bielor	Edward	son	6											
4359	Papin	Bielor	Frank	son	4											
4359	Papin	Bielor	Barnhart	son	3											
4359	Papin	Bielor	Maria T.	daughter	1											
4359	Papin	Bielor	Agnes P.	daughter	2 months											
4360	Papin	Fisk	Frederick	Head	39	married	18			1887	Germany	Germany	Germany	butcher	own butcher shop	F
4360	Papin	Fisk	Mary	wife	42	married	18	3	2	1889	Germany	Germany	Germany			
4360	Papin	Fisk	Frederick Jr.	son	17									butcher	grocery store	
4360	Papin	Fisk	Charlie M.	son	2											
4360	Papin	Fisk	William F.	nephew	15					1908	Germany	Germany	Germany	clerk	grocery	

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4361	Papin	Maschmann	Martin J.	Head	47	married	18				MO	Holland	Holland	bartender	buffet	R
4361	Papin	Maschmann	Caroline G.	wife	37	married	18	6	6		MO	Germany	Germany			
4361	Papin	Maschmann	Leo A.	son	16									messenger	railroad	
4361	Papin	Maschmann	Martin A.	son	11											
4361	Papin	Maschmann	Gallus A.	son	7											
4361	Papin	Maschmann	John P.	son	4											
4362	Papin	Schmits	Charles	Head	59	married	35			1882	Germany	Germany	Germany	baker	owns and operates shop	R
4362	Papin	Schmits	Augusta	wife	62	married	35	6	2	1887	Germany	Germany	Germany			
4362	Papin	Schmits	Paul	son	22									baker	bakery shop	
4363	Papin	Kleweis	Frank	Head	37	married	9			1902	Germany	Germany	Germany	driver	brewery	F
4363	Papin	Kleweis	Hermine	wife	27	married	9	5	4	1902	Germany	Germany	Germany			
4363	Papin	Kleweis	Frank	son	9					1902	Germany					
4363	Papin	Kleweis	Hermine	daughter	7											
4363	Papin	Kleweis	Annie	daughter	4											
4363	Papin	Kleweis	Edward	son	2											
4363	Papin	Kleweis	Charles	brother	35	single				1902	Germany	Germany	Germany	bartender	brewery	
4364	Papin	Pfeiffer	Magdalena	Head	57	widow		11	7	1888	Germany	Germany	Germany			F
4364	Papin	Pfeiffer	Joseph J.	son	26					1888	Germany			woodworker	sash & door	
4364	Papin	Pfeiffer	Francis	daughter	20									filler & labeller	chemical co.	
4364	Papin	Pfeiffer	Alois W.	son	17									apprentice	sash & door	
4364	Papin	Pfeiffer	Mary M.	daughter	15									filler & labeller	chemical co.	
4364	Papin	Pfeiffer	Anna	daughter	13											
4365	Papin	Metz	Charles F.	Head	63	married	39				MO	Germany	Germany	team engineer	steam plant	F
4365	Papin	Metz	Augusta	wife	62	married	39	3	1		MO	Germany	Germany			
4366	Papin	Dick	Joseph	Head	39	married	9			1893	Germany	Germany	Germany	laborer	brewery	M
4366	Papin	Dick	Katherine M.	wife	35	married	9	2	2		MO	MO	MO			
4366	Papin	Dick	Emma M.	daughter	8											
4366	Papin	Dick	Ida A.	daughter	5											

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4369	Papin	Krieger	Henry	Head	56	married	35				MO	Germany	Germany	punch machine	iron works	M
4369	Papin	Krieger	Anna M.	wife	52	married	35	9	6	1866	Germany	Germany	Germany			
4369	Papin	Krieger	Elizabeth	daughter	23									stretcher	shoe manufacturer	
4369	Papin	Krieger	Harry J.	son	18									tire repairer	tire manufacturer	
4369	Papin	Krieger	Joseph C.	son	14									route boy	merchantile agency	
4371	Papin	Halla	Magdalena	Head	59	widow		6	4	1865	Austria	Austria	Austria			F
4371	Papin	Halla	Charlie	son	24									bartender	saloon	
4372	Papin	Vasis	Frank F.	Head	36	married	12				IL	Germany	Germany	rubber tire repair	owner and operator repair shop	F
4372	Papin	Vasis	Anna S.	wife	32	married	12	4	4	1887	Germany	Germany	Germany			
4372	Papin	Vasis	Louis S.	son	10											
4372	Papin	Vasis	Frederick H.	son	8											
4372	Papin	Vasis	George F.	son	5											
4372	Papin	Vasis	Oscar P.	son	2											
4372	Papin	Emilson	Ernest	Head	32	married				1904	Norway	Norway	Norway	motorman	streetcar	R
4373	Papin	Jeude	Ferdinand F.	Head	26	married	12				MO	Germany	Germany	packer	clothing co.	M
4373	Papin	Jeude	Anna M.	wife	31	married	12	2	2		MO	Austria	Austria			
4373	Papin	Jeude	Blanche A.	daughter	7											
4373	Papin	Jeude	Agnes M.	daughter	2 months											
4375	Papin	Meyer	Bernhard J.	Head	42	married	13			1872	Germany	Germany	Germany	florist	city park	R
4375	Papin	Meyer	Louise S.	wife	35	married	13	1	1		WI	Germany	WI			
4375	Papin	Meyer	Bernhard C.	son	12											
4375	Papin	Angermeier	Francis	sister	46	sinigle					WI	Germany	WI			
4376	Papin	Eikmeyer	Peter	Head	69	widow				1860	Prussia	Prussia	Prussia			F
4376	Papin	Eikmeyer	Annie M.	daughter	36											
4376	Papin	Eikmeyer	Lottie	daughter	26									wrapper	tobacco factory	
4376	Papin	Eikmeyer	Henry F.	son	9											

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Address	Street	Last Name	First	Relation	Age	Martial Status	Years Married	# Children Born	# Alive	Year Immigrated	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4303a	Papin	Hula	Francis J.	Head	20	single					MO	Austria	Austria	stemmer	tobacco factory	R
4303a	Papin	Hula	Mamie F.	sister	16	single					MO	Austria	Austria	stemmer	tobacco factory	
4309a	Papin	Krentzer	Richard	Head	31	married	6			1909	Germany	Germany	Germany	weaver	wire manufacturing	R
4309a	Papin	Krentzer	Keara	wife	26	married	6	1	1	1909	Germany	Germany	Germany	weaver	wire manufacturing	
4309a	Papin	Krentzer	Mary	daughter	2					1909	Germany					
4342a	Papin	Strank	Frank P.	Head	36	married	9				IL	Germany	Germany	weigher	retail coal co.	R
4342a	Papin	Strank	Gertrude	wife	33	married	9	3	3		US	unknown	unknown			
4342a	Papin	Strank	Lester A.	son	8											
4342a	Papin	Strank	Ruth M.	daughter	6											
4342a	Papin	Strank	Milburn J.	son	1											
4344a	Papin	Enseroth	Charles C.	Head	48	married	15				MO	Germany	Germany	tailor	own merchant	R
4344a	Papin	Enseroth	Anna S.	wife	54	married (2nd time)	15	7	5	1975	Germany	Germany	Germany			
4355a	Papin	Barton	Clarence E.	Head	26	married	4				MO	IL	MO	foreman	meat packing house	R
4355a	Papin	Barton	Irene N.	wife	22	married	4	2	2							
4355a	Papin	Barton	Margarette J.	daughter	2											
4355a	Papin	Barton	Mary E.	daughter	11 months											
4355a	Papin	Milner	Lillian E.	lodger	24	single					IL	IL	OH	operator	telephone	
4355a	Papin	Milner	May G.	lodger	21	single					IL	IL	OH	operator	telephone	
4361a	Papin	Stock	Henry	Head	29	married	3			1906	Germany	Germany	Germany	meat cutter	meat packing house	R
4361a	Papin	Stock	Edith	wife	25	married	3	1	1	1903	Germany	Germany	Germany			
4361a	Papin	Stock	Annie M.	daughter	2											

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4371a	Papin	Halla	George J.	Head	29	married	1				MO	Austria	Austria	carpenter	own contractor	R
4371a	Papin	Halla	Emma A.	wife	23	married	1	1	1		MO	Germany	Germany			
4371a	Papin	Halla	Thomas	son	11 months											
4371b	Papin	Beck	Joseph	Head	36	married	1			1902	Germany	Germany	Germany	meat cutter	meat packing house	R
4371b	Papin	Beck	Rouise J.	wife	31	married	1	0	0	1890	Germany	Germany	Germany			
4371b	Papin	Sager	Charles F.	nephew	17	single					PA	Germany	Germany	baker	bakery	
4373a	Papin	Schutz	Frank A.	Head	25	married	2				IL	IL	KY	meat cutter	meat packing house	R
4373a	Papin	Schutz	Selma M.	wife	24	married	2	1	1		MO	MO	MO			
4373a	Papin	Schutz	Margarete S.	daughter	10 months											

Appendix C:
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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
746	Newstead	Gould	Daniel P.	Head	43	married			Missouri	Ireland	Ireland	butcher	butcher shop	F
746	Newstead	Gould	Catherine H.	wife	40	married			Missouri	Germany	Missouri			
746	Newstead	Gould	George H.	son	19							bookkeeper	lumber co.	
746	Newstead	Gould	Fredrick R.	son	17							student		
746	Newstead	Gould	Daniel G.	son	8									
746	Newstead	Gould	Robert J.	son	6									
746	Newstead	Gould	Joseph N.	son	4									
746	Newstead	Gould	Mary K.	daughter	3									
746	Newstead	Gould	Rose A.	daughter	1									
746	Newstead	Grunke	Meyer Fredric	father in law	63	married	1860		Germany	Germany	Germany			
746	Newstead	Grunke	Elizabeth	mother in law	59	married			Missouri	Germany	Germany			
748	Newstead	Gould	George	Head	69	married	1888	1892	Ireland	Ireland	Ireland	butcher	butcher shop	F
748	Newstead	Gould	Mary E.	wife	68	married			NJ	Ireland	Ireland			
912	Newstead	Rhode	Henry F.	Head	39	married			IL	Germany	Germany	helper	dairy	R
912	Newstead	Rhode	Annie	wife	39	married	1881	1902	Germany	Germany	Germany			
912	Newstead	Rhode	Helen E.	daughter	17							elevator girl	hotel	
912	Newstead	Rhode	Gladies A,	daughter	9									
4300	Papin	Nunn	Thomas	Head	28	married			IL	IL	IL	conducting	street car	R
4300	Papin	Nunn	Irene	wife	23	married			MO	PA	MO			
4302	Papin	Beck	William L.	Head	29	married			MO	MO	MO	weaver	wire factory	R
4302	Papin	Beck	Anna L.	wife	27	married			MO	MO	MO			
4303	Papin	Craven	Bridget	Head	78	widow	1849	1872	Ireland	Ireland	Ireland			R
4303	Papin	Craven	Annie	daughter	34	single						stenographer	gas light co.	
4303	Papin	Greenway	Nellie	daughter	40	widow						binder	book store	
4303	Papin	Greenway	John	grandson	11									
4304	Papin	Shoemaker	Rollin L.	Head	38	married			MO	PA	MO	chauffeur	telephone co.	R
4304	Papin	Shoemaker	Fredericka	wife	33	married	1892	1910	Germany	Germany	Germany	presser	dying co.	

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4305	Papin	Schutz	Frank A.	Head	34	married			IL	US	US	butcher	meat packing house	R
4305	Papin	Schutz	Selma M.	wife	33	married			MO	MO	MO			
4305	Papin	Schutz	Margaret P.	daughter	10									
4305	Papin	Schutz	Lucile L.	daughter	9									
4307	Papin	Fellen	Susan	Head	67	widow			MO	Germany	Germany			F
4307	Papin	Fellen	Frank A.	son	25							salesman	grocery	
4307	Papin	Pfeiffer	Charles	son in law	38	married	1889	1902	Germany	Germany	Germany	scaler	meat packing house	
4307	Papin	Pfeiffer	Elizabeth	daughter	37	married								
4307	Papin	Pfeiffer	Charles	grandson	12									
4307	Papin	Pfeiffer	Mary E.	granddaughter	11									
4307	Papin	Pfeiffer	Marcilla M.	granddaughter	7									
4307	Papin	Pfeiffer	Dorothy	granddaughter	5									
4308	Papin	Apprill	Joseph	Head	55	married			MO	Germany	MO	none		R
4308	Papin	Apprill	Christina	wife	43	married			MO	Germany	Germany			
4308	Papin	Apprill	Joseph P.	son	22							teamster	city	
4308	Papin	Apprill	Bernard J.	son	19							chauffeur	wash company	
4309	Papin	Cato	James P.	Head	30	married			MO	IN	IN	mechanic	meat packing house	R
4309	Papin	Cato	Ada M.	wife	23	married			IN	IN	IN			
4309	Papin	Cato	Elsie M.	daughter	5									
4310	Papin	Pierce	Frank M.	Head	45	married			IN	MO	U.S.	carpenter	house	R
4310	Papin	Pierce	Maggie M.	wife	40	married			MO	MO	MO			
4310	Papin	Pierce	Maynard M.	son	16							bookkeeper	metal co.	
4310	Papin	Pierce	Clara Z.	daughter	9									
4310	Papin	Collier	Earl M.	nephew	21	single			MO	MO	MO	inspector	electric co.	
4311	Papin	Kestler	John	Head	62	married	1890	1919	France	France	France	night watchman	book factory	R
4311	Papin	Kestler	Elizabeth	wife	55	married	1889	1919	France	France	France			
4311	Papin	Kestler	Eugene	son			1889	1919	France			tuck pointing	city	

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4312	Papin	?	Paul	Head	63	married	1883	1898	Germany	Germany	Germany	no job		M
4312	Papin	?	Cecila	wife	48	married	1880	1898	Germany	Germany	Germany			
4312	Papin	?	Arnold R.	son	27							weaver	wire co.	
4312	Papin	?	Joseph J.	son	24							clerk	insurance co.	
4312	Papin	?	Julius L.	son	20							clerk	insurance co.	
4312	Papin	?	Cecila	daughter	13									
4312	Papin	Frimel	Anna	mother in law	71	widow	1880	1890	Germany	Germany	Germany			
4313	Papin	Hoffmann	Fred W.	Head	43	married			IL	US	US	butcher	meat packing house	R
4313	Papin	Hoffmann	Freda C.	wife	31	married			IL	IL	IL			
4313	Papin	Hoffmann	Lester O.	son	14									
4313	Papin	Hoffmann	Roy A.	son	12									
4313	Papin	Hoffmann	Arthur0	son	8									
4313	Papin	Hoffmann	Harold	son	5									
4313	Papin	Bender	Christian	father in law	75	widow			IL	Germany	Germany			
4313	Papin	Bender	Oscar	brother in law	31	married			IL	IL	IL	fireman	railroad	
4313	Papin	Bender	Ella	sister in law	29	married			IL	US	US			
4314	Papin	Michel	Katherine	Head	26	widow (daughter of Michael)								F
4314	Papin	Michel	Henry	son	7									
4314	Papin	Michel	Katherine	daughter	5									
4314	Papin	Michel	Margaret	daughter	3									
4314	Papin	Kelly	Lawrence E.	brother	37							laborer	veneer works	
4314	Papin	Kelly	Bernard A.	brother	36							teamster	city	
4315	Papin	Feidler	Mary G.	Head	42	married			MO	MO	Germany			R
4315	Papin	Feidler	Lawrence B.	son	21							insurance	insurance co.	
4315	Papin	Feidler	Josiah	son	19							grinder	machine shop	
4315	Papin	Feidler	Edna C.	daughter	18							helper	shoe factory	
4315	Papin	Feidler	Agnes A.	daughter	10									
4315	Papin	Feidler	Henry J.	son	8									

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4316	Papin	Engel	Justice	Head	72	married	1891		Germany	Germany	Germany	driver	contracting business	F
4316	Papin	Engel	Mary	wife	52	married	1891		Germany	Germany	Germany			
4316	Papin	Engel	John	son	24							helper	wire factory	
4316	Papin	Engel	William	son	22							helper	wire factory	
4316	Papin	Engel	Louie	son	20							helper	wire factory	
4316	Papin	Engel	Theodore	son	17									
4316	Papin	Engel	Eddie	son	13									
4317	Papin	O'Hearn	Michael	Head	32	married			MO	Ireland	Ireland	horse shoer	own shop	
4317	Papin	O'Hearn	Anna	wife	30	married			MO	MO	MO			
4317	Papin	O'Hearn	Kathryn B.	daughter	6									
4317	Papin	O'Hearn	Mary A.	daughter	4									
4318	Papin	Samuelson	John A.	Head	49	married	1882	1900	Sweden	Sweden	Sweden	baker	bakery	R
4318	Papin	Samuelson	Anna	wife	54	married			OH	Germany	Germany			
4318	Papin	Samuelson	Albert	son	19							mechanic	optical co.	
4318	Papin	Samuelson	John	son	15									
4318	Papin	Samuelson	Helen	daughter	14									
4318	Papin	Wietring	Irene	step daughter	24							helper	wire factory	
4319	Papin	Webber	George W.	Head	47	married			IA	IN	IN	engineer	butcher shop	R
4319	Papin	Webber	Olive J.	wife	43	married			IA	IL	WI			
4322	Papin	Held	William H.	Head	49	married			IL	Germany	IL	teamster	brewery	F
4322	Papin	Held	Emelia	wife	48	married	1890	1896	Germany	Germany	Germany			
4322	Papin	Held	William H.	son	21							laborer	tobacco factory	
4322	Papin	Held	Elsie P.	daughter	16							helper	pharmacy	
4322	Papin	Held	Fred H.	son	12									
4322	Papin	Joos	Caroline	mother in law	77	widow	1867	1892	Germany	Germany	Germany			
4324	Papin	Gray	Oliver E.	Head	52	married			IL	KY	IL	butcher	packing house	R
4324	Papin	Gray	Ada C.	wife	51	married			IL	IL	MO			
4324	Papin	Gray	Olive B.	daughter	19							saleslady	department store	
4324	Papin	Danis	Isabelle	roomer	21	single			IL	IL	IL	steneographer	railroad	

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4324	Papin	Johnson	William M.	Head	31	married			IL	IL	IL	time keeper	packing house	R
4324	Papin	Johnson	Esmerelda	wife	26	married			MO	MO	MO			
4324	Papin	Johnson	Norman	son	7									
4324	Papin	Johnson	Olan	son	4 months									
4326	Papin	Stacy	Alonzo J.	Head	34	married			MO	IL	IL	fireman	city	R
4326	Papin	Stacy	Ella	wife	30	married			MO	IL	MO			
4326	Papin	Stacy	James F.	son	8									
4326	Papin	Stacy	Ella M.	daughter	6									
4330	Papin	Flowers	Eva D.	Head	45	widow			MO	Germany	Germany	keeper	rooming house	R
4330	Papin	Flowers	Mabel M.	daughter	18	single						none		
4330	Papin	Hedt	Bertha	roomer	38	single	1884	1914	Germany	Germany	Germany	forelady	dry goods store	
4330	Papin	Allen	Margaret	roomer	40	widow			MO	MO	MO	polisher	sash & door co.	
4330	Papin	Corney	Robert	roomer	19	single			MO	NY	MO	carpenter	sash & door co.	
4330	Papin	Bailey	Byron A.	roomer	30	single			IL	OH	IL	helper	dairy	
4344	Papin	Musbach	William	Head	28	married			MO	MO	MO	machine hand	rope factory	R
4344	Papin	Musbach	Edna M.	wife	21	married			MO	KY	MO			
4344	Papin	Musbach	Preston B.	son	2									
4344	Papin	Fry	Sallie S.	mother in law	59	widow			MO	England	England			
4347	Papin	Dugan	John H.	Head	30	married			MO	MO	MO	proprietor	hardware store	R
4347	Papin	Dugan	Helen C.	wife	28	married			MO	Ireland	Ireland			
4347	Papin	Dugan	John L.	son	3									
4347	Papin	Dugan	Edward P.	son	1									
4347	Papin	McGlynn	Lawrence	roomer	67	widow	1882	1888	Ireland	Ireland	Ireland	tinner	roofing co.	
4347	Papin	Collin	Lillie	roomer	30	single			IL	France	France			
4348	Papin	Martin	John	Head	55	married	1886	1895	Ireland	Ireland	Ireland	laborer	city	F
4348	Papin	Martin	Kate	wife	50	married	1884	1895	Ireland	Ireland	Ireland			
4348	Papin	Martin	Helen K.	daughter	17							helper	candy factory	
4348	Papin	Martin	James P.	son	12									

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4350	Papin	Scherer	Veronica	Head	56	widow	1884	1894	Germany	Germany	Germany			F
4350	Papin	Scherer	Joseph J.	son	26							glazer	sash & door co.	
4350	Papin	Scherer	Julius M.	son	20							laborer	contractor	
4350	Papin	King	Anna	daughter	21	married								
4350	Papin	King	Archer M.	son in law	22	married			MO	MO	MO	jeweler	whole sale jewelry co.	
4351	Papin	Friend	Henry	Head	43	married			MO	US	CA	laborer	meat packing house	R
4351	Papin	Friend	Mary E.	wife	39	married			MO	NY	MA			
4351	Papin	Friend	Genevieve C.	daughter	15							typesetter	chemical co.	
4351	Papin	Friend	Margaret M.	daughter	13									
4351	Papin	Friend	Morris W.	son	11									
4351	Papin	Friend	Lee A.	son	7									
4351	Papin	Friend	Joseph E.	son	6									
4351	Papin	Friend	Henry M.	son	3									
4351	Papin	Harrell	Annie K.	sister in law	41	widow			MO	NY	MA	worker	tobacco factory	
4352	Papin	Halmrind	Annie	Head	58	widow	1887		Germany	Germany	Germany			R
4352	Papin	Halmrind	Augusta	daughter	23							helper	cigar store	
4352	Papin	Halmrind	Marie	daughter	16							helper	cigar store	
4352	Papin	Halmrind	Henry H,	son	25	married						salesman	tea co.	
4352	Papin	Halmrind	Vinnie	daughter in law	24	married			MO	MO	MO	helper	tobacco factory	
4355	Papin	Naegeli	John	Head	45	married	1895		Switzerland	Switzerland	Switzerland	laborer	express co.	R
4355	Papin	Naegeli	Mary E.	wife	36	married			MO	Germany	Germany			
4355	Papin	Herchemoeder	Clifford	stepson	17							office boy	shoe co.	
4355	Papin	Herchemoeder	Pauline	step daughter	11									
4359	Papin	Sonnecker	Michael	Head	27	married	1910		Germany	Germany	Germany	baker	bakery	R
4359	Papin	Sonnecker	Anna	wife	29	married			MO	MO	MO			
4359	Papin	Sonnecker	Adolf J.	son	7 months									

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4360	Papin	Koprivica	Mitar	Head	33	married	1917		Servia	Serbia	Serbia	bartender	saloon	R
4360	Papin	Koprivica	Fanna	wife	30	married	1913		Serbia	Serbia	Serbia			
4360	Papin	Koprivica	Anna	daughter	10									
4360	Papin	Koprivica	Nick M.	son	9									
4360	Papin	Koprivica	Mildred	daughter	4									
4360	Papin	Koprivica	Louie M.	son	2									
4360	Papin	Koprivica	Micha	daughter	9 months									
4360	Papin	Pobovich	Jovan	roomer	32	single	1902		Serbia	Serbia	Serbia	laborer	packing house	
4360	Papin	Pobovich	Novica	roomer	26	single	1909		Serbia	Serbia	Serbia	laborer	packing house	
4360	Papin	Gierich	Vaso	roomer	33	single	1911		Serbia	Serbia	Serbia	foreman	packing house	
4360	Papin	Koprivica	Sava	roomer	31	single	1897		Serbia	Serbia	Serbia	butcher	packing house	
4360	Papin	Gjerich	Janko	roomer	31	single	1911		Serbia	Serbia	Serbia	laborer	packing house	
4361	Papin	Reuter	Sylvester P.	Head	51	married			MO	Germany	Germany	laborer	? Company	R
4361	Papin	Reuter	Frances C.	wife	51	married			OH	OH	OH			
4361	Papin	Reuter	Elsworth G.	son	23							no job		
4361	Papin	Reuter	Leslie E.	son	20							no job		
4362	Papin	Fisk	Fred	Head	48	married	1887	1896	Germany	Germany	Germany	proprietor	owns and operates grocery	M
4362	Papin	Fisk	Mary	wife	50	married	1889	1896	Germany	Germany	Germany			
4362	Papin	Fisk	Carl M.	son	12									
4363	Papin	Kliveis	Frank	Head	45	married	1903	1910	Austria	Austria	Austria	cook	meat packing house	F
4363	Papin	Kliveis	Mini K.	wife	37	married	1903	1910	Austria	Austria	Austria			
4363	Papin	Kliveis	Frank K.	son	19		1903	1910	Austria	Austria	Austria	laborer	biscuit factory	
4363	Papin	Kliveis	Annie K.	daughter	14									
4363	Papin	Kliveis	Adolf	son	12									
4363	Papin	Kliveis	Marie	daughter	8									
4363	Papin	Kliveis	Louie	son	6									
4363	Papin	Kliveis	John	son	5									
4363	Papin	Kliveis	Helen	son	4									
4364	Papin	Theimann	Mary	Head	64	divorced			MO	Germany	Germany	no job		F
4365	Papin	Metz	Augusta	Head	74	widow			MO	Germany	Germany	house keeper		F

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4366	Papin	Dick	Joseph	Head	45	married	1896	1900	Germany	Germany	Germany	worker	brewery	F
4366	Papin	Dick	Katherine	wife	44	married			MO	MO	MO			
4366	Papin	Dick	Emma M.	daughter	18							worker	shoe factory	
4366	Papin	Dick	Ida A.	daughter	15							no job, did not attend school		
4369	Papin	Kreger	Henry	Head	65	married			MO	Germany	Germany	helper	iron works	F
4369	Papin	Kreger	Anna	wife	63	married	1866		Germany	Germany	Germany			
4369	Papin	Kreger	Joseph C.	son	24							laborer	iron works	
4370	Papin	Vazio	Frank F.	Head	45	married			IL	Germany	Germany	vulcanizer	own automobile co.	F
4370	Papin	Vazio	Anna	wife	41	married	1887	1898	Germany	Germany	Germany			
4370	Papin	Vazio	Louis S.	son	20							mechanic	own automobile co.	
4370	Papin	Vazio	Fred H.	son	18							helper	electric co.	
4370	Papin	Vazio	George F.	son	16							helper	machine shop	
4370	Papin	Vazio	Oscar P.	son	12									
4370	Papin	Vazio	Adolph J.	son	5									
4371	Papin	Halla	Magdelena	Head	68	widow	1869	1872	Germany	Germany	Germany	house keeper		F
4372	Papin	Emilson	Ernest	Head	32	married		1904	Norway	Norway	Norway	motorman	streetcar	R
4372	Papin	Emilson	Edna	wife	29	married			IL	IL	MO			
4373	Papin	Jeude	Ferdinand F.	Head	46	married			MO	MO	Germany	clerk	dry goods store	
4373	Papin	Jeude	Anna	wife	41	married			MO	Germany	Germany			
4373	Papin	Jeude	Blanche	daughter	16							helper	pharmacy	
4373	Papin	Jeude	Agnes	daughter	9									
4375	Papin	Halla	George J.	Head	39	married			MO	Germany	Germany	carpenter	house	unknown
4375	Papin	Halla	Emma A.	wife	34	married			VA	France	Germany			
4375	Papin	Halla	Thomas	son	10									
4375	Papin	Halla	Jovinda	son	6									

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4303a	Papin	Hausen	Henry	Head	40	married			MO	Switzerland	PA	weigher	metal co.	R
4303a	Papin	Hausen	Elva M.	wife	39	married			MO	MO	US			
4303a	Papin	Hausen	August L.	son	11									
4303a	Papin	Hausen	Nelson	son	4									
4303a	Papin	Hausen	Cora A.	son	2									
4309a	Papin	Oliver	John R.	Head	71	married			VA	VA	VA	none		R
4309a	Papin	Oliver	Malinda	wife	63	married			IN	NC	VA			
4313a	Papin	Kruse	Henry J.	Head	29	married			MO	Germany	Germany	butcher	butcher shop	R
4313a	Papin	Kruse	Ida M.	wife	27	married								
4313a	Papin	Bollas	Frank C.	Head	28	married			MO	MO	MO	wood pattern maker	coperation	R
4313a	Papin	Bollas	Anna M.	wife	26	married			MO	Germany	MO			
4315a	Papin	Birchler	Peter C.	Head	31	married			MO	Switzerland	U.S.	butcher	butcher shop	R
4315a	Papin	Birchler	Edna F.	wife	27	married			MO	IL	IL			
4315a	Papin	Birchler	Dorothy M.	daughter	2									
4315b	Papin	Rose	Albert J.	Head	30	married			KY	KY	KY	wood worker	automobile co.	R
4315b	Papin	Rose	Marie	wife	27	married	1909		Austria	Austria	Austria			
4315b	Papin	Rose	Marie M.	daughter	2									
4316a	Papin	Miller	John A.	Head	26	married			MO	IL	IL	industrial engineer		R
4316a	Papin	Miller	Estell	wife	23	married			MO	Germany	Germany			
4317a	Papin	Hardy	Millard H.	Head	28	married			MO	MD	DC	clerk	railroad	R
4317a	Papin	Hardy	Lucile	wife	24	married			MO	VA	MO			
4317b	Papin	Lawrence	Harry J.	Head	36	married			IL	IL	IL	bartender	saloon	R
4317b	Papin	Lawrence	Lilly	wife	36	married			IL	Germany	England			
4317b	Papin	Lawrence	Harry J.	son	8									
4319a	Papin	Harlin	John P.	Head	29	married			IL	IL	MD	motorman	street railway	R
4319a	Papin	Harlin	Cornelia	wife	28	married			IL	Ireland	IL			
4319a	Papin	Harlin	Edwin J.	son	4									
4319a	Papin	Harlin	Viola C.	daughter	2									

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4322a	Papin	Helge	Emery	Head	29	married			MO	MO	MO	clerk	packhing house	R
4322a	Papin	Helge	Mattie	wife	29	married			MO	Ireland	Ireland			
4322a	Papin	Helge	Russell J.	son	2									
4326a	Papin	McCarty	Lawrence J.	Head	27	married			MO	Ireland	KY	clerk	cityhall	R
4326a	Papin	McCarty	Myrtle O.	wife	24	married			IL	Sweden	Sweden			
4326a	Papin	McCarty	Charles R.	son	3									
4344a	Papin	Buerke	George A.	Head	25	married			MO	Switzerland	Germany	worker	automobile co.	R
4344a	Papin	Buerke	Gertrude	wife	23	married			MO	MO	MO			
4355a	Papin	Werle	Clara T.	Head	54	widow	1882	1889	Germany	Germany	Germany	janistress	city dispensory	F
4355a	Papin	Huffner	Mary T.	daughter	32	widow								
4355a	Papin	Huffner	Clara A,	granddaughter	12									
4355a	Papin	MacConnell	Roy C.	roomer	37	single			MN	Scotland	MO	teamster	city	
4357a	Papin	Perrel	Clay W.	Head	47	married			MO	US	US	laborer	meat packing house	M
4357a	Papin	Perrel	Jennie	wife	57	married			OH	ME	PA			
4361a	Papin	Schenmbaner	John	Head	44	married	1903		Hungary	Hungary	Hungary	moulder	iron factory	F
4361a	Papin	Schenmbaner	Annie	wife	37	married	1902		Hungary	Hungary	Hungary			
4361a	Papin	Schenmbaner	John	son	14									
4361a	Papin	Schenmbaner	Frank	son	11									
4361a	Papin	Schenmbaner	Charlie J.	son	4									
4362a	Papin	Tisdale	Julia	Head	59	widow			NY	England	NY	nurse	private family	R
4362a	Papin	Tisdale	Ella A.	daughter	27	divorced						cashier	theatre	
4370a	Papin	Homgren	Conrad	Head	29	married			CO	Sweden	Sweden	machinist	pattern factory	R
4370a	Papin	Homgren	Freda C.	wife	28	married	1914	1915	Sweden	Sweden	Sweden			
4370a	Papin	Homgren	Elsie A.	daughter	4									
4370a	Papin	Monten	Ruth M.	roomer	11				MO	Sweden	Sweden			

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Address	Street	Last Name	First	Relation	Age	Martial Status	Year Immigrated	Year Naturlized	Birth Place	Father Birth Place	Mother Birth Place	Employment	Company	Rents, Owns Free or Mortgage
4371a	Papin	Halla	Charlie	Head	34	married			MO	Germany	Germany	moulder	iron foundary	R
4371a	Papin	Halla	Maude	wife	30	married			MO	MO	MO			
4371a	Papin	Halla	Marie	daughter	6									
4371a	Papin	Halla	Rosa	daughter	4									
4371b	Papin	Rippery	John W.	Head	63	married			MO	US	Ireland	street cleaner	city	R
4371b	Papin	Rippery	Emma	wife	59	married			KS	Germany	Germany			
4372a	Papin	Hammock	Albert H.	Head	34	married			IL	U.S.	U.S.	driver	dairy	R
4372a	Papin	Hammock	Maude	wife	32	married			MO	PA	MO			
4372a	Papin	Hammock	Earl	son	4 months									
4372a	Papin	Hamilton	Viola	sister in law	27	single			MO	PA	MO	time keeper	bag factory	
4373a	Papin	Welk	Henry	Head	29	married	1892	1912	Germany	Germany	Germany	mechanic	automobile shop	
4373a	Papin	Welk	Olive	wife	23	married			MO	MO	MO			
4373a	Papin	Welk	Henry W.	son	2									
657	Tower Grove	Melton	William N.	Head	53	married			NC	OH	OH	cribb boss	shipping co.	R
657	Tower Grove	Melton	Emma F.	wife	53	married			TN	TN	TN			
657	Tower Grove	Hord	William F.	grandson	14									

Appendix D:
1930 Census

1930 Census

Address	Street	Last Name	First	Relation	Rents, Owns Free or Mortgage	Home Value or Montly Rent	Radio	Age	Martial Status	Age at Marriage	Birth Place	Father Birth Place	Mother Birth Place	Year Immigrated	Employment	Company	War Veteran
746	Newstead	Gould	Daniel	Head	O	2500		54	married	22	MO	Ireland	NJ		livestock buyer	packing plant	
746	Newstead	Gould	Catherine	wife				50	married	20	MO	Germany	MO				
746	Newstead	Gould	Daniel Jr.	son				18									
746	Newstead	Gould	Robert	son				17									
746	Newstead	Gould	Joseph	son				15									
746	Newstead	Gould	Mary	daughter				13									
746	Newstead	Gould	Rosie	daughter				11									
746	Newstead	Grunkmeyer	Elizabeth	mother in law				70	widow		MO	France	France				
748	Newstead	Westermann	Jacob	Head	R	45	radio	58	married	31	France	France	France	1891	retail merchant	own grocery & meat market	
748	Newstead	Westermann	Bytha	wife				48	married	21	MO	Germany	LA				
748	Newstead	Westermann	Arthur P.	son				23							chauffeu	gas & fuel co.	
748	Newstead	Westermann	Elanore	daughter				21							shoemaker	shoe factory	
748	Newstead	Westermann	Dorothy	daughter				19							grocery clerk	grocery & meat market	
748	Newstead	Westermann	Fredrick	son				17							grocery clerk	grocery & meat market	
748	Newstead	Westermann	Louis	son				13									
912	Newstead	Engel	Theodore	Head	R	16	radio	27	married	20	MO	Germany	Germany		painter	automobile co.	
912	Newstead	Engel	Ethel A.	wife				24	married	17	MO	KY	MO				
912	Newstead	Engel	Edward	son				6									
4300	Papin	Vazis	Bertha A.	Head	O	2,000	R	47	widow	28	MO	Germany	MO				
4302	Papin	Saller	Carl C.	Head	O	2,000	R	38	married	27	IN	IN	IN		barber	own shop	
4302	Papin	Saller	Maisy	wife				36	married	24	MO	Italy	Italy				
4302	Papin	Saller	Mary	daughter				10									
4302	Papin	Saller	Carl Jr.	son				2									

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4303	Papin	Keen	Beeler	Head	O	3,500		34	married	25	MO	MO	MO		conductor	street railway	
4303	Papin	Keen	Francis	wife				32	married	22	MO	Germany	Germany				
4303	Papin	Keen	Beeler Jr.	son				5									
4304	Papin	Feiner	Ralph E.	Head	R	35	R	31	married	21	MO	MO	MO		street foreman	city	
4304	Papin	Feiner	Anna E.	wife				29	married	18	MO	MO	MO				
4304	Papin	Feiner	Ferne	daughter				10									
4304	Papin	Feiner	Sidney	son				8									
4305	Papin	Shutz	Frank W.	Head	R	16	R	45	married	23	IL	IL	KY		advertisement solicitor	newspaper	
4305	Papin	Shutz	Selma	wife				44	married	22	MO	MO	MO				
4305	Papin	Shutz	Margaret	daughter				20							stenographer	auto manufacturing co.	
4305	Papin	Shutz	Lucille	daughter				19							stenographer	auto parts sales co.	
4307	Papin	Pfeiffer	Charles	Head	O	2,000		48	married	23	Germany	Germany	Germany	1889	bookkeepper	office	
4307	Papin	Pfeiffer	Elizabeth	wife				47	married	22	MO	MO	MO				
4307	Papin	Pfeiffer	Charles J.	son				22							clerk	office	
4307	Papin	Pfeiffer	Mary	daughter				21							stenographer	construction co.	
4307	Papin	Pfeiffer	Marcella	daughter				17									
4307	Papin	Pfeiffer	Dorothy	daughter				15									
4307	Papin	Fellena	Susan	mother in law				76	widow		MO	Germany	Germany				
4308	Papin	Berndt	Paul J.	Head	R	25		39	married	39	MO	Germany	Germany		sheet metal worker	own business	world war
4308	Papin	Berndt	Viola	wife				36	married	36	IL	IL	IL				
4309	Papin	Dry	Charles A.	Head	R	15		61	married	21	IL	PA	IL		watchman	hospital	
4309	Papin	Dry	Ester	wife				51	married	16	IN	IN	IN				
4310	Papin	Hardin	William P.	Head	R	30		41	married	36	MO	England	Ireland		hauler	brick co.	world war
4310	Papin	Hardin	Bridget	wife				30	married	25	Ireland	Ireland	Ireland	1921			
4310	Papin	Hardin	William J.	son				3									
4310	Papin	Hardin	Mary L.	daughter				1									

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Address	Street	Last Name	First	Relation	Rents, Owns Free or Mortgage	Home Value or Montly Rent	Radio	Age	Martial Status	Age at Marriage	Birth Place	Father Birth Place	Mother Birth Place	Year Immigrated	Employment	Company	War Veteran
4311	Papin	Kertler	Eugene	Head	O	2,200		38	single		at sea	France	France	1892	roofer	construction co.	
4311	Papin	Kertler	Elizabeth	mother				63	widow		France	France	France	1892			
4312	Papin	Berndt	Cecilia	Head	O	2,000		59	widow	18	Germany	Germany	Germany	1880			
4312	Papin	Berndt	Cecilia	daughter				24							office clerk	Loan Co.	
4313	Papin	Friend	Henry	Head	O	3,000	R	54	widow		MO	MO	PA		watchman	sewer pipe co.	
4313	Papin	Friend	Margaret	daughter				23							stenographer	real estate office	
4313	Papin	Friend	Leo	son				18							grocery clerk	grocery store	
4313	Papin	Friend	Jospeh	son				16									
4313	Papin	Friend	Henry	son				14									
4313	Papin	Farrell	Kate	sister in law				51	widow		MO	NY	WI				
4313	Papin	Schiffler	Genevieve	daughter				26	widow						stenographer	shoe factory	
4314	Papin	Hirschhausen	Carl P.	Head	O	2,000	R	36	married	25	MO	MO	MO		machinist	city	world war
4314	Papin	Hirschhausen	Katherine	wife				36	married	18/25	MO	Ireland	Ireland				
4314	Papin	Michel	Henry	step son				18							office boy	plumbing co.	
4314	Papin	Michel	Katherine	step daughter				15									
4314	Papin	Michel	Margaret	step daughter				13									
4314	Papin	Kelly	Lawrence E.	brother in law				47			MO	Ireland	Ireland		laborer	city	
4315	Papin	Accinelli	Givoanni	Head	O	4,000		52	widow		Italy	Italy	Italy	1900	laborer	steel works	
4316	Papin	Engel	William	Head	O	2,500		21	single		MO	Germany	Germany		barber	shop	
4316	Papin	Engel	Mary	mother				62	widow		Germany	Germany	Germany				
4316	Papin	Engel	Edward	brother				24							chauffeur	express co.	

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4317	Papin	O'Hearn	Michael	Head	O	3,000		43	married	24	MO	Ireland	Ireland		deputy sheriff	city	
4317	Papin	O'Hearn	Anna B.	wife				40	married	21	MO	PA	IL				
4317	Papin	O'Hearn	Katherine B.	daughter				16									
4317	Papin	O'Hearn	Mary A.	daughter				14									
4318	Papin	Berndt	Arnold A.	Head	O	2,000		37	married	32	MO	Germany	Germany		weaver	wire co.	
4318	Papin	Berndt	Theresa	wife				30	married	28	MO	Germany	MO				
4318	Papin	Berndt	Antonette	daughter				5									
4318	Papin	Berndt	Arnold	son				3									
4322	Papin	Held	William F.	Head	O	4,000	R	60	married	27	IL	Germany	IL		team driver	city	
4322	Papin	Held	Emilee	wife				58	married	25							
4322	Papin	Held	William H.	son				31							street paver	city	
4322	Papin	Held	Frederick H.	son				22							shoe worker	shoe co.	
4324	Papin	Rappey	Roy W.	Head	R	32		39	married	31	MO	MO	KS		mechanic	automobile	world war
4324	Papin	Rappey	Lillie	wife				30	married	22	TN	TN	TN				
4324	Papin	Rappey	Roy C.	son				5									
4324	Papin	Rappey	Jack	son				3									
4326	Papin	Vaughm	William W.	Head	R	32	R	49	married	20	MO	MO	MO		couple up man	railroad	
4326	Papin	Vaughm	Mary	wife				46	married	21	MO	MO	Scotland				
4326	Papin	Vaughm	Betty J.	daughter				7									
4330	Papin	Happel	Henry J.	Head	R	50	R	23	married	22	MO	Germany	Germany		clerk	grocery store	
4330	Papin	Happel	Helen L.	wife				19	married	18	IL	IL	IL				
4342	Papin	Mertell	Charles L.	Head	R	30		29	married	22	MO	MO	MO		shoe maker	shoe factory	world war
4342	Papin	Mertell	Unna	wife				24	married	18	MO	MO	MO		shoe maker	shoe factory	
4342	Papin	Mertell	Bulak	daughter				6									
4342	Papin	Mertell	Katherine	mother				63	widow	24	MO	Ireland	Ireland				
4342	Papin	Mertell	James R.	brother				23	single						shoe maker	shoe factory	

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4344	Papin	Schlereth	Henry J.	Head	R	30	R	0	married	21	MO	US	MO		brass molder	brass co.	
4344	Papin	Schlereth	Marcella	wife				33	married	19	MO	MO	MO				
4344	Papin	Schlereth	Henry	son				13									
4344	Papin	Schlereth	Michel	son				11									
4344	Papin	Schlereth	Margaret	daughter				6									
4348	Papin	Martens	John	Head	O	900		54	married		Ireland	Ireland	Ireland	1887	laborer	construction co.	
4348	Papin	Martens	Katherine	wife				60	married		Ireland	Ireland	Ireland	1889			
4348	Papin	Martens	Ella	daughter				26							box maker	box factory	
4348	Papin	Martens	James	son				24									
4350	Papin	Scherer	Joseph J.	Head	O	3,000		35	single		MO	Germany	Germany		laborer	city	world war
4350	Papin	Scherer	Veronica	mother				65	widow	29	Germany	Germany	Germany	1886			
4351	Papin	Corrigan	Joseph	Head	O	3,500	R	46	married	23	MO	MO	MO		huckster	own peddler wagon	
4351	Papin	Corrigan	Anne	wife				44	married	22	MO	Ireland	Ireland				
4351	Papin	Corrigan	Joseph J.	son				15							errand boy	supply co.	
4351	Papin	Corrigan	Billy A.	daughter				9									
4352	Papin	Engelbach	Anna	Head	R	30	R	62	widow	19	MO	Germany	Germany				
4352	Papin	Engelbach	Maude	daughter				41									
4355	Papin	Werle	Clara	Head	O	4,000		64	widow		Germany	Germany	Germany	1883	janitress	city dispensary	
4355	Papin	Hueppner	Mary	daughter				48	widow						garmet worker	home work	
4355	Papin	Hueppner	Clara	grand daughter				22							stenographer	music conservatory	
4357	Papin	Frey	Michael	Head	O	2,000	R	43	married	21	MO	MO	MO		foreman	shovel manufacturing co.	
4357	Papin	Frey	Dora	wife				41	married	19	MO	MO	MO				
4357	Papin	Frey	Ruth A.	daughter				29							stetcher	stationary/ printing co.	

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4359	Papin	Sonnecker	Michael	Head	R	36		37	married	26	Austria	Austria	Austria	1909	baker	retail bakery	
4359	Papin	Sonnecker	Anna J.	wife				39	married	28	MO	MO	MO				
4359	Papin	Sonnecker	Adolph J.	son				10									
4359	Papin	Sonnecker	Marianne	daughter				8									
4360	Papin	Fisk	Mary M.	Head	O	15,000	R	60	widow	23	Germany	Germany	Germany	1889			
4360	Papin	Fisk	Carl M.	son				23	married	19					paste boy	paper hanger	
4360	Papin	Fisk	Martha M.	in law daughter				23	married	19							
4360	Papin	Fisk	June A.	grand daugther				2									
4360	Papin	Fisk	Robert E	grandson				1									
4361	Papin	Hreiberg	John	Head	R	35	R	46	married	34	IL	Germany	Switzerland		foreman	wholesale dairy co.	
4361	Papin	Hreiberg	Emma	wife				48	married	36	Germany	Germany	Germany	1889			
4361	Papin	Hreiberg	May	daughter				11									
4361	Papin	Teollect	Richard	Head	R	30	R	22	married	21	IL	IL	IL		driver/salesman	wholesale dairy co.	
4361	Papin	Teollect	Roberta	wife				24	married	32	IL	IL	IL				
4362	Papin	Jolliffe	Cecil M.	Head	R	20		34	married	24	IL	IL	IL		chauffuer	crystal water co.	world war
4362	Papin	Jolliffe	Clara H.	wife				26	married	21	IL	France	France				
4362	Papin	Jolliffe	Marian L.	daughter				7									
4363	Papin	Samuelson	John	Head	R	20	R	76	married	35	Sweden	Sweden	Sweden	1885	baker	wholesale bakery	
4363	Papin	Samuelson	Hannah	wife				65	married	28	OH	Germany	Germany				
4363	Papin	Samuelson	Helen	daughter				24	single						factory head	radio parts manufacturing co.	
4364	Papin	Thiemann	Mary	Head	O	1,500		78	widow	23	MO	Germany	Germany				
4364	Papin	Thiemann	Emma	daughter				47	single						house cleaner	private homes	

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4365	Papin	Langan	Edward G.	Head	O	4,500	R	49	single		MO	Ireland	Ireland		chauffeur	trucking business	
4365	Papin	Langan	Lydia	half sister				53	single		MO	Ireland	Ireland				
4365	Papin	Nichols	Hugh J.	brother in law				62	widow		MO	Ireland	Ireland		station fireman	shoe manufacturing co.	
4365	Papin	Nichols	Florena	niece				27	single						bookkeeper	storage co.	
4365	Papin	Nichols	Margaret	niece				25	single						bookkeeper	magnet manufacturing co.	
4365	Papin	Nichols	Marie	niece				23	single						bookkeeper	auto paint co.	
4366	Papin	Dick	Katheine	Head	O	2,000		54	widow	24	MO	MO	MO				
4366	Papin	Jasmund	Emma	daughter				28	divorced	18							
4366	Papin	Homes	Richard	grandson				9									
4366	Papin	Jasmund	Wilbert	grandson				5									
4369	Papin	Kettler	Henry	Head	O	4000	R	38	married	29	IN	IN	IN		foreman	auto body mfg. co.	world war
4369	Papin	Kettler	Louise	wife				30	married	21	MO	MO	IL				
4369	Papin	Kettler	Berniece	daughter				7									
4370	Papin	Vavis	Frederick H.	Head	R	35		28	married	25	IL	IL	Germany		mechanic	automobile	
4370	Papin	Vavis	Delphine	wife				26	married	23	MO	Germany	MO		operator	telephone	
4371	Papin	Hogan	Sidney	Head	R	28	R	31	married	26	MO	AL	MO		chauffeur	plumbing supply co.	
4371	Papin	Hogan	Henrietta M.	wife				27	married	22	MO	MO	MO				
4371	Papin	Hogan	Gerald	son				4									
4371	Papin	Hogan	Donald	son				1									
4372	Papin	Oliver	Robert M.	Head	R	33		29	married	19	MO	KS	MO		stationary engineer	construction co.	
4372	Papin	Oliver	Agnes B.	wife				26	married	17	AR	MO	AR				
4372	Papin	Oliver	Robert C.	son				7									

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4373	Papin	Coff	Clarence J.	Head	O	3,000	R	55	married	28	MO	Canada	MO		fireman	city fire dept.	spanish-am
4373	Papin	Coff	Pauline	wife				46	married	19	MO	Germany	Germany				
4373	Papin	Coff	Clarence J. Jr.	son				24							golf professional	golf club	
4373	Papin	Coff	Robert L.	son				23							golf professional	golf club	
4373	Papin	Coff	Joseph A.	son				22							helper	fur co.	
4373	Papin	Coff	Virginia	daughter				20							supervisor	telephone co.	
4375	Papin	Hallu	George J.	Head	O	4,500	R	50	married	28	MO	Germany	Germany		carpenter	own shop	
4375	Papin	Hallu	Emma A.	wife				44	married	22	MO	Germany	Germany				
4375	Papin	Hallu	Thomas	son				20									
4375	Papin	Hallu	Henry E.	son				16							apprentice carpenter	construction	
4375	Papin	Hallu	Delores M.	daughter				4									
4376	Papin	Eichmier	Henry F.	Head	O	3,000	R	26	single		MO	Germany	Germany		office clerk	leather co.	
4376	Papin	Eichmier	Annie	half sister				54	single								
4376	Papin	Eichmier	Lottie	sister				46	single						factory worker	tobacco factory	
4376	Papin	Rivers	Hannah	aunt				84	widow								
4303a	Papin	Schoenig	Katherine	Head	R	25		73	widow		Germany	Germany	Germany	1874			
4303a	Papin	Schoenig	Edward	son				39	divorced						butcher	packing house	
4309a	Papin	Bennsen	Mary	Head	R	18		42	widow		MO	Germany	Germany		housework	private family	
4309a	Papin	Bennsen	Adelaede	daughter				21			MO	MO	MO		stenographer	auto loan co.	
4309a	Papin	Bennsen	William	son				16							sign painter	sign co.	
4309a	Papin	Bennsen	Margaret	daughter				14									
4309a	Papin	Bennsen	Bernard	son				12									
4309a	Papin	Bennsen	Gregary	son				8									

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4326a	Papin	Stroup	Guy J.	Head	R	32	R	30	married	23	MO	MO	MO				
4326a	Papin	Stroup	Helen E.	wife				30	married	23	MO	MO	MO		tractor operator	railroad	
4326a	Papin	Stroup	Dorothy H.	daughter				1									
4344a	Papin	Doehring	Frederick	Head	R	30	R	23	married	23	MO	MO	MO		driver	dairy co.	
4344a	Papin	Doehring	Mary	wife				21	married	21	MO	MO	MO				
4344a	Papin	Doehring	Joseph	son				5									
4344a	Papin	Lawerance	John	lodger				31	widow	22	MO	MO	MO		shoe maker	shoe factory	
4355a	Papin	Castler	Frank	Head	R	30	R	70	married	30	IA	Ireland	VA		watchman	bank	
4355a	Papin	Castler	Anna	wife				63	married	23							
4355a	Papin	Castler	Ella	daughter				40	single						grader clerk	wholesale coffee co.	
4355a	Papin	Meyers	Louise	sister in law				65	widow								
4360a	Papin	James	John	Head	R	18		31	married	29	MO	MO	MO		clerk	railway	
4360a	Papin	James	Isabelle L.	wife				23	married	21	MO	MO	MO				
4360a	Papin	James	Jeanette	daughter				1									
4362a	Papin	Maschmann	Caroline	Head	R	27	R	57	widow	18	MO	Germany	Germany				
4362a	Papin	Maschmann	Gallis	son				27	single						optician	eye co.	
4371 rear	Papin	Rippey	John W.	Head	R	15		73	married	30	MO	KY	Ireland				
4371 rear	Papin	Rippey	Emma	wife				68	married	25	KS	Germany	Germany				
4371a	Papin	Schneider	Paul	Head	R	27	R	53	married	24	MO	Germany	Switzerland		laborer	plumbing supply co.	
4371a	Papin	Schneider	Susie	wife				52	married	23	OH	Ireland	Ireland				
4372a	Papin	Appel	William E.	Head	R	33		40	married	30	MO	MO	MO		decorator	decorator co.	world war
4372a	Papin	Appel	Louise M.	wife				40	married	30	MO	MO	MO		shoe worker	shoe co.	
4376a	Papin	Weber	Frank	Head	R	35		29	married	27	MO	Germany	Germany		laborer	farm	
4376a	Papin	Weber	Mable C.					25	married	23	MO	MO	MO				

Appendix E:
1940 Census

1940 Census

Address	Street	Last Name	First	Relation	Rents, Owns Free or Mortgage	Home Value or Montly Rent	Age	Martial Status	Hightest Grade	Birth Place	Number of Hours Worked March 24-30, 1940	Unemployed Before March 30, 1940 in weeks	Occupation	Company	# Weeks Worked in 1939	Wages Received	Received $50 other than wages
746	Newstead	Gould	Daniel	Head	O	6,000	63	married	H-3	MO	40		livestock buyer	packing co.	52	3120	
746	Newstead	Gould	Catherine	wife			60	married	8								
746	Newstead	Gould	Daniel J.	son			28				40		mail carrier	post office	52	1900	
746	Newstead	Gould	Robert J.	son			27				40		guard	National Bank	53	1080	
746	Newstead	Gould	Joseph D.	son			24				44		clerk	retail shoe store	52	936	
746	Newstead	Gould	Mary C.	daughter			23				40		telephone operator	private industry	34	516	
746	Newstead	Gould	Rose A.	daughter			21				43		anaylst	plant & seed co.	52	936	
4300	Papin	Sonnecker	Michael	Head	O	3,500	47	married	8	Austria	52		baker	catering co.	52	1500	
4300	Papin	Sonnecker	Anna J.	wife			49	married	6	MO							
4300	Papin	Sonnecker	Adolph J.	son			20	single	H-4			117	stock room clerk	cosmetic co.	26	364	
4300	Papin	Sonnecker	Marian	daughter			18	single	8		43		machine operator	shoe factory	8	40	
4302	Papin	Saller	Carl	Head	O	2,000	49	married	4	IN	68		barber	own barber shop	52	0	yes
4302	Papin	Saller	Maisy	wife			46	married	H-3	MO							
4302	Papin	Saller	Mary	daughter			20	single	H-4		40		typist & clerk	wholesale feed co.	52	780	
4302	Papin	Saller	Carl Jr.	son			12										
4304	Papin	Klein	Chester	Head	R	23	30	married	7	MO	72		radio sales & repairs	own business	52	0	yes
4304	Papin	Klein	Edith	wife			27	married	H-4	MO							
4304	Papin	Klein	Bobby Ann	daughter			5										
4308	Papin	Craig	Harvey	Head	R	21	31	married	H-1	OK	40		laborer	wire factory	52	1200	
4308	Papin	Craig	Lenna D.	wife			28	married	8	MO							
4308	Papin	Craig	Jackie	daughter			9										
4310	Papin	Berndt	Paul D.	Head	R	20	49	married	8	MO	40		laborer	post office	52	1200	
4310	Papin	Berndt	Viola D.	wife			46	married	H-3	IL							

1940 Census

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4312	Papin	Berndt	Cecilia	Head	O	2,000	34	single	H-2	MO	39		clerk	credit exchange co.	52	600	
4313	Papin	Munchow	Margaret	Head	O	6,000	68	widow	4	MO							yes
4314	Papin	Hirschhausen	Carl	Head	O	3,000	46	married	7	MO	44		mechinists repairs trucks	City of St. Louis. Street & Sewer Dept.	52	4420	
4314	Papin	Hirschhausen	Lattie D.	wife			46	married	6	MO							
4314	Papin	Michel	Margaret	daughter			23	single	H-4	MO	44		assortee	silk mfg. co.	39	546	
4315	Papin	Borgmann	William	Head	R	22	24	married	H-3	MO	49		truck driver	wholesale hat co.	52	1020	
4315	Papin	Borgmann	Wilena	wife			23	married	H-1	MO	40		stenographer	wholesale hat co.		900	
4316	Papin	Engle	Mary	Head	O	1,000	72	widow	4	Germany							
4316	Papin	Engle	William	son			49	single	6	MO	26		stone derickman	cut stone co.	25	1000	
4316	Papin	Engle	Edward	son			33	single	7	MO	32		truck driver	excavating operation	41	1300	
4317	Papin	Browrak	Sylvester	Head	R	17	36	married	6	IL	0		past . . . for shoes	Last? Co.	41	1168	
4317	Papin	Browrak	Rose	wife			35	married	6	MO							
4317	Papin	Browrak	Shirley	daughter			11										
4318	Papin	Bernett	Arnold A.	Head	O	1,800	48	married	5	MO	40		laborer	wire mill	49	1500	
4318	Papin	Bernett	Theresa	wife			40	married	8	MO							
4318	Papin	Bernett	Thomas	son			15										
4318	Papin	Bernett	Arnold A.	son			13										
4319	Papin	Lennon	Edward	Head	R	17	49	married	8	CA	66		milk driver	dairy	52	1820	
4319	Papin	Lennon	Lillian	wife			41	married	5	MO							
4319	Papin	Lennon	Dennis	son			9										
4322	Papin	Crowder	William B.	Head	R	20	35	married	7	MO	20		truck driver	long distance moving and storage co.	36	1600	
4322	Papin	Crowder	Agnes T.	wife			40	married	6	MO							
4322	Papin	Crowder	James F.	son			18		H-3				in school				

1940 Census

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4324	Papin	Meade	Frank	Head	R	17	32	married	6	MO	40		tool grinder	shoe heel mfg. co.	50	1600	
4324	Papin	Meade	Selina	wife			35	married	7	MO							
4324	Papin	Meade	Violet M.	daughter			3										
4326	Papin	Schwartz	Joseph	Head	R	17	36	married	C-2	MO	40		air craft worker	airplane co.	29	870	
4326	Papin	Schwartz	Marie	wife			36	married	8	MO							
4326	Papin	Schwartz	Joseph H.	son			18						in school				
4326	Papin	Schwartz	Janise	daughter			15										
4326	Papin	Schwartz	Marjorie	daughter			13										
4326	Papin	Schwartz	Robert J.	son			3										
4330	Papin	Happel	Henry	Head	O	8,000	33	married	H-1	MO	72		retail grocer	owner	52		yes
4330	Papin	Happel	Hilda	wife			33	married	8	MO							
4330	Papin	Happel	Erline	daughter			7										
4330	Papin	Happel	Geraldine	daughter			4										
4330	Papin	Happel	Audrey	daughter			3										
4330	Papin	Happel	Marvin	son			5										
4330	Papin	Jaoquin	Anna	maid			22				60		maid	private house	8	48	yes
4344	Papin	Martin	John	Head	O	900	78	married	6	Ireland			unable to work				
4344	Papin	Martin	Catherine	wife			76	married	5	Ireland							
4344	Papin	Martin	Helen	daughter			38		8		34		box maker	candy factory	30	450	
4344	Papin	Martin	James	son			34		8				unable to work				
4350	Papin	Scherer	Veronica	wife	O	1200	76	widow	6	Germany							
4350	Papin	Scherer	Joseph	son			47	single	8		44		green keeper	golf course	26	500	
4352	Papin	Patton	Clarence	Head	R	25	42	single	7	MO		Yes	wrapper	tobacco factory	0	0	

1940 Census

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4360	Papin	Fick	Carl	Head	O	1,200	32	married	6	MO	40		truck driver	transfer co.	40	1200	
4360	Papin	Fick	Martha	wife			32	married	8	MO							
4360	Papin	Fick	Robert	son			11										
4360	Papin	Fick	June A.	daughter			12										
4360	Papin	Fick	Donald	son			9										
4360	Papin	Fick	James	son			7										
4360	Papin	Sarros	Christopher A.	lodger			20	single	H-4	WI	65		buss boy	hotel	50	860	
4362	Papin	Hinsinger	Max	Head	R	16	65	married	6	TN	54		meat cutter	retail butcher shop	52	780	
4362	Papin	Hinsinger	Leila	wife			62	married	8	GA							
4362	Papin	Hinsinger	William	son			30	married	8	TN	48		service station attendent	service station	4	56	
4362	Papin	Hinsinger	Ethel	in law daughter			27	married	8	TN							
4362	Papin	Hinsinger	Betty S.	granddaughter			7			TN							
4362	Papin	Hinsinger	William E.	grandson			3			TN							
4362	Papin	Hinsinger	Richard	grandson			7 months			TN							
4364	Papin	Thiemann	Emma	Head	O	2,000	57	single	4	MO			unable to work				yes
4366	Papin	Jasmund	Walter	Head	R	15	38	married	8	IL	40		mill wright	asbestos shingle co.	46	713	
4366	Papin	Jasmund	Emma	wife			38	married	6	MO							
4366	Papin	Jasmund	Wilbert	son			15										
4366	Papin	Jasmund	Raymond	son			7										
4366	Papin	Jasmund	Vernon	son			4										
4366	Papin	Jasmund	Violet	daughter			2										
4366	Papin	Holmes	Richard	step son			19	single	H-4	MO		95	new worker		0	0	
4366	Papin	Dick	Catherine	mother in law			63	widow	4	MO							
4370	Papin	Weber	Frank	Head	R	20	38	married	8	Romania	36		bartender	own tavern	52	0	yes
4370	Papin	Weber	Mabel	wife			36	married	5	MO							

1940 Census

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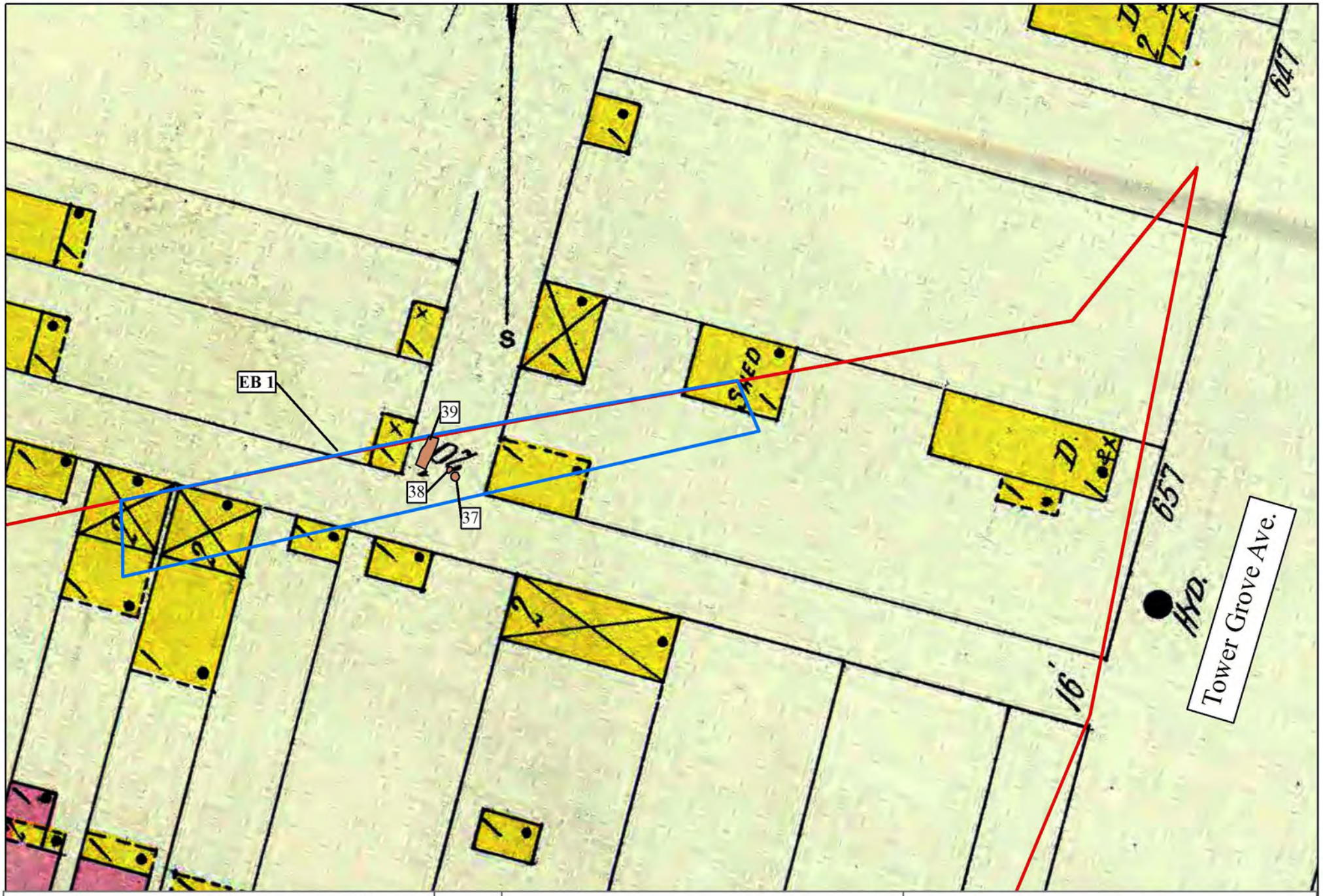
4372	Papin	Walkenhorst	Dear	Head	R	20	31	married	7	MO	42		foreman	automobile mfg.	52	1344	
4372	Papin	Walkenhorst	Florence	wife			27	married	8	MO							
4372	Papin	Walkenhorst	Shirley	daughter			8										
4372	Papin	Walkenhorst	Caroline	daughter			1 month										
4372	Papin	Math	Frank W.	nephew			21	single	MO		60		truck driver	seed & lawn	40	593	
4376	Papin	Eickmeier	Lottie	Head	O	4,000	56	single	6	MO	32		wrapper	tobacco co.	32	448	
4376	Papin	Eickmeier	Annie M.	sister			66	single	6	MO							yes
4376	Papin	Eickmeier	Harvey J.	brother			49	single	H-1	MO	42		clerk	sales rubber fitting oil field operators	52	1320	
4313a	Papin	Stetson	Roey E.	Head	R	22	27	married	8	IL	42		solicator candy dept./ at warehouse	chain dept. store	52	1487/1020	
4313a	Papin	Stetson	Wildred	wife			29	married	8	MO							
4315a	Papin	Scott	Earl E.	Head	R	22	24	married	H-4	AR	55		grocery manager	retail grocery store	52	1820	yes
4315a	Papin	Scott	Helen	wife			25	married	8	IL							
4315a	Papin	Scott	James	son			4										
4317a	Papin	Laramore	Roy	Head	R	18	39	married	7	MO	40		helper wire finisher	wire co.	44	1112	
4317a	Papin	Laramore	Ina	wife			42	married	7	MO	43		bundle wrapper	laundry	52	520	
4319a	Papin	Branham	Pasko	Head	R	17	45	married	H-4	MO	83		druggist	drug store	0	0	
4319a	Papin	Branham	Martha	wife			40	married	8	MO	44		?	?	39	565	
4319a	Papin	Branham	Howard	son			18	single	H-3		48		vegetable preparer	cafateria	51	931	
4324a	Papin	Toney	Tremlet	Head	R	17	37	married	7	MO	20		auto transport operation	own business	42	1670	
4324a	Papin	Toney	Ellen	wife			36	married	H-2	MO							
4324a	Papin	Toney	Thomas	son			10										
4324a	Papin	Toney	Eileen	daughter			9										

1940 Census

Address	Street	Last Name	First	Relation	Rents, Owns Free or Mortgage	Home Value or Montly Rent	Age	Martial Status	Hightest Grade	Birth Place	Number of Hours Worked March 24-30, 1940	Unemployed Before March 30, 1940 in weeks	Occupation	Company	# Weeks Worked in 1939	Wages Received	Received $50 other than wages
4326a	Papin	Stronp	Guy	Head	R	17	38	married	6	MO	48		marker	railway express co.	52	1800	
4326a	Papin	Stronp	Helen	wife			41	married	8	MO							
4326a	Papin	Stronp	Dorothy	daughter			11										
4344a	Papin	Hopkins	Joseph	Head	R	15	42	married	7	MO		Yes	assembler	auto mfg.	0	0	
4344a	Papin	Hopkins	Elsie	wife			39	married	7	MO							
4344a	Papin	Hopkins	Lois	daughter			10										
4344a	Papin	Hopkins	Joseph	son			7										
4344b	Papin	Faulkner	Harvey	Head	R	14	36	married	7	MO	41		watchman	newspaper	52	1300	
4344b	Papin	Faulkner	Adele	wife			34	married	7	MO							
4344b	Papin	Faulkner	Laverne	daughter			14										
4344b	Papin	Faulkner	Richard	son			9										
4344b	Papin	Faulkner	Jane	daughter			6										
4360a	Papin	Manior	Claude E.	Head	R	11	31	married	7	MO	42		battery worker	battery co.	52	832	
4360a	Papin	Manior	Bertha E.	wife			32	married	8	MO							
4360a	Papin	Manior	Ruth	daughter			9										
4362a	Papin	Cutler	A.C.	Head	R	10	60	married	7	IL	72		clerk	own confectionary store	52		yes
4362a	Papin	Cutler	Ethel	wife			57	married	7	IL	72		clerk	confectionary store	52		
4370a	Papin	Vazis	Frederick	Head	R	20	38	married	8	IL	40		painter & sprayer	auto mfg. co.	44	1000	
4370a	Papin	Vazis	Delphina	wife			36	married	H-3	MO							
4372a	Papin	Jones	Charles	Head	R	20	75	married	4	IL	40		weaver	wire co.	52	1976	
4372a	Papin	Jones	Sophia	wife			64	married	4	MO							
4372a	Papin	Deaver	Roy	grandson			15										

Appendix F:
Sanborn Maps With Features

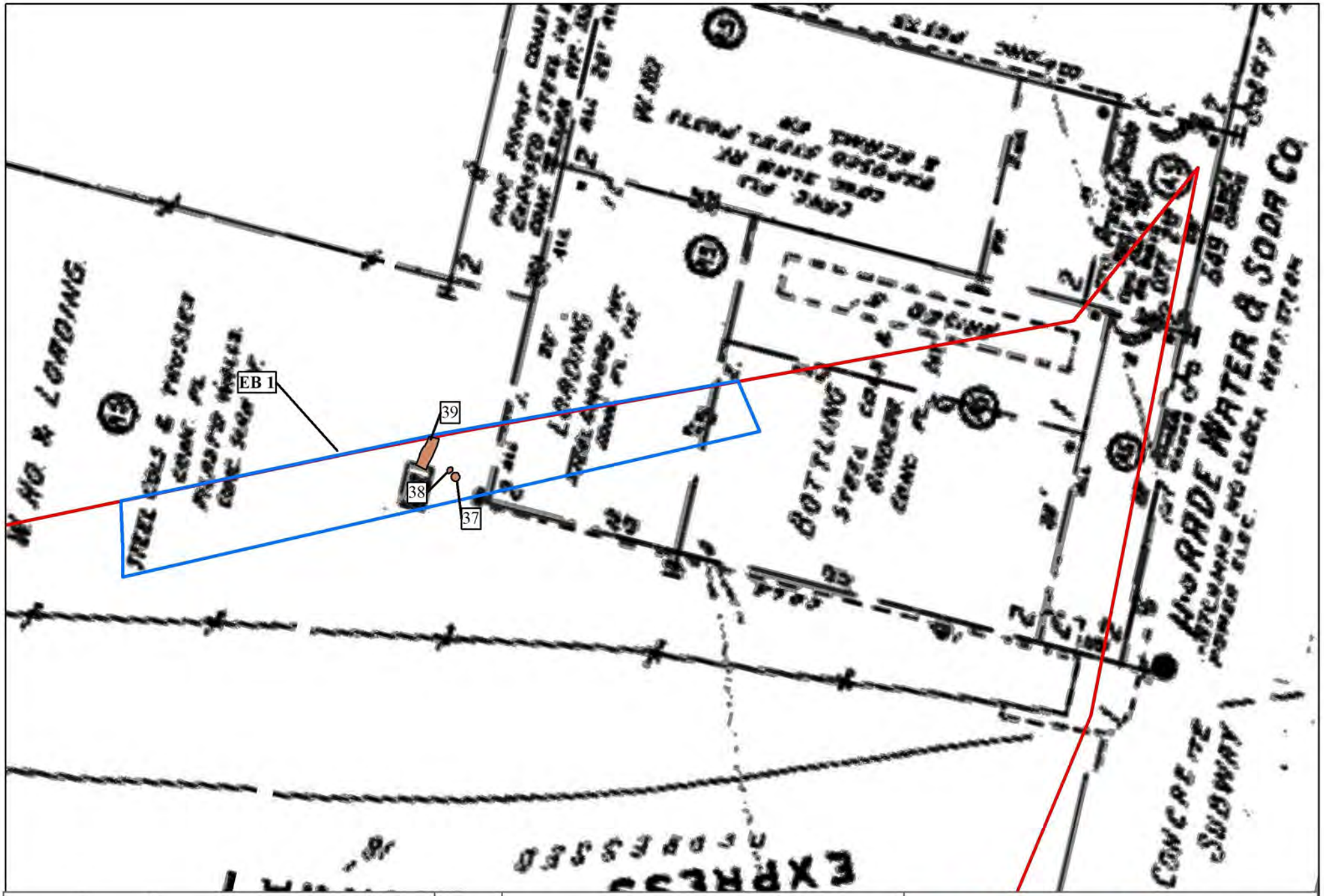


0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F1: Excavation Block 1 Features on 1909 Sanborn Fire Insurance Map (Sanborn Map Co. 1909)

Project Area
Feature (#)
Excavation Blocks (EB#)

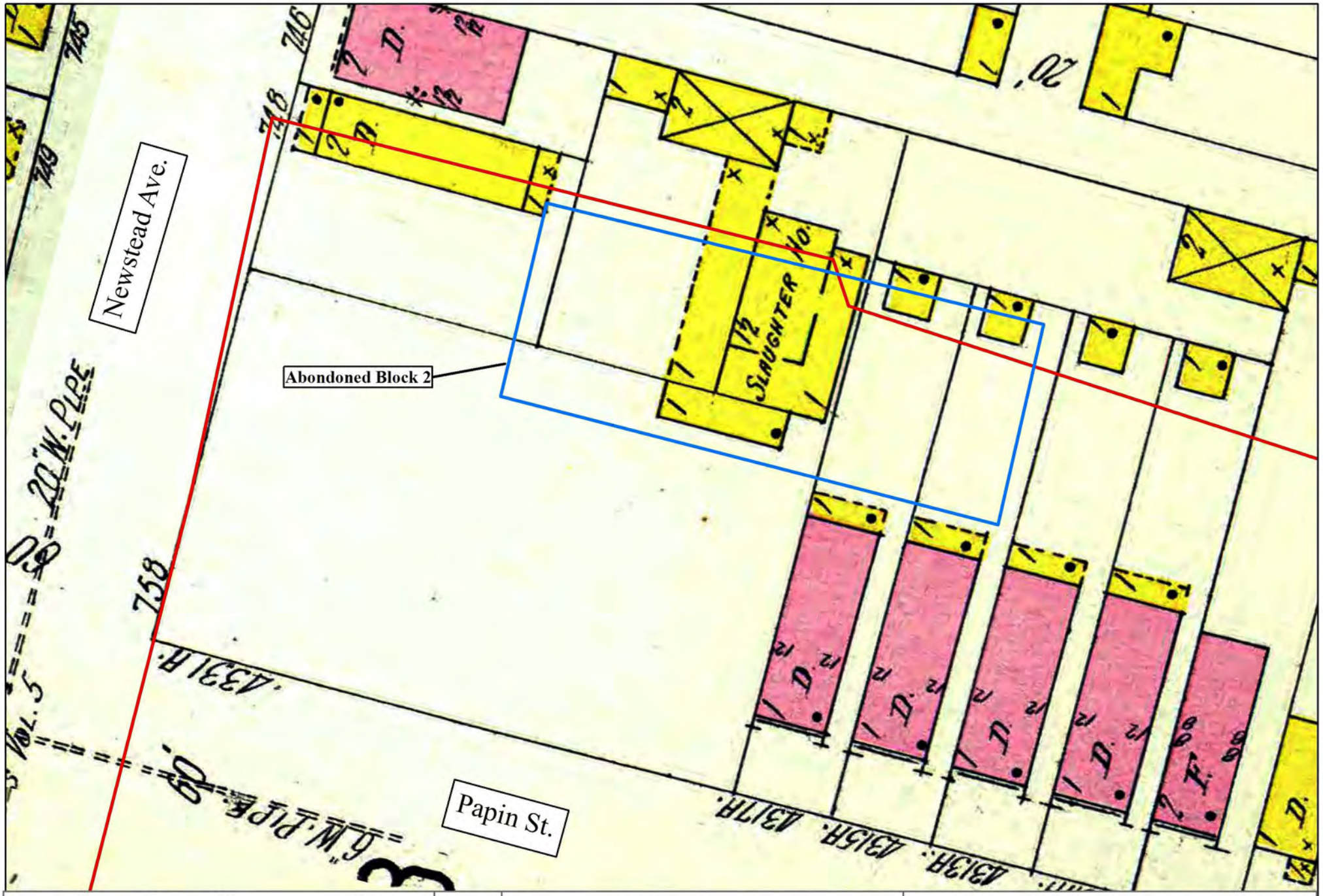


0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F2: Excavation Block 1 Features on 1951 Sanborn Fire Insurance Map (Sanborn Map Co. 1951)

Project Area
Feature (#)
Excavation Blocks (EB#)



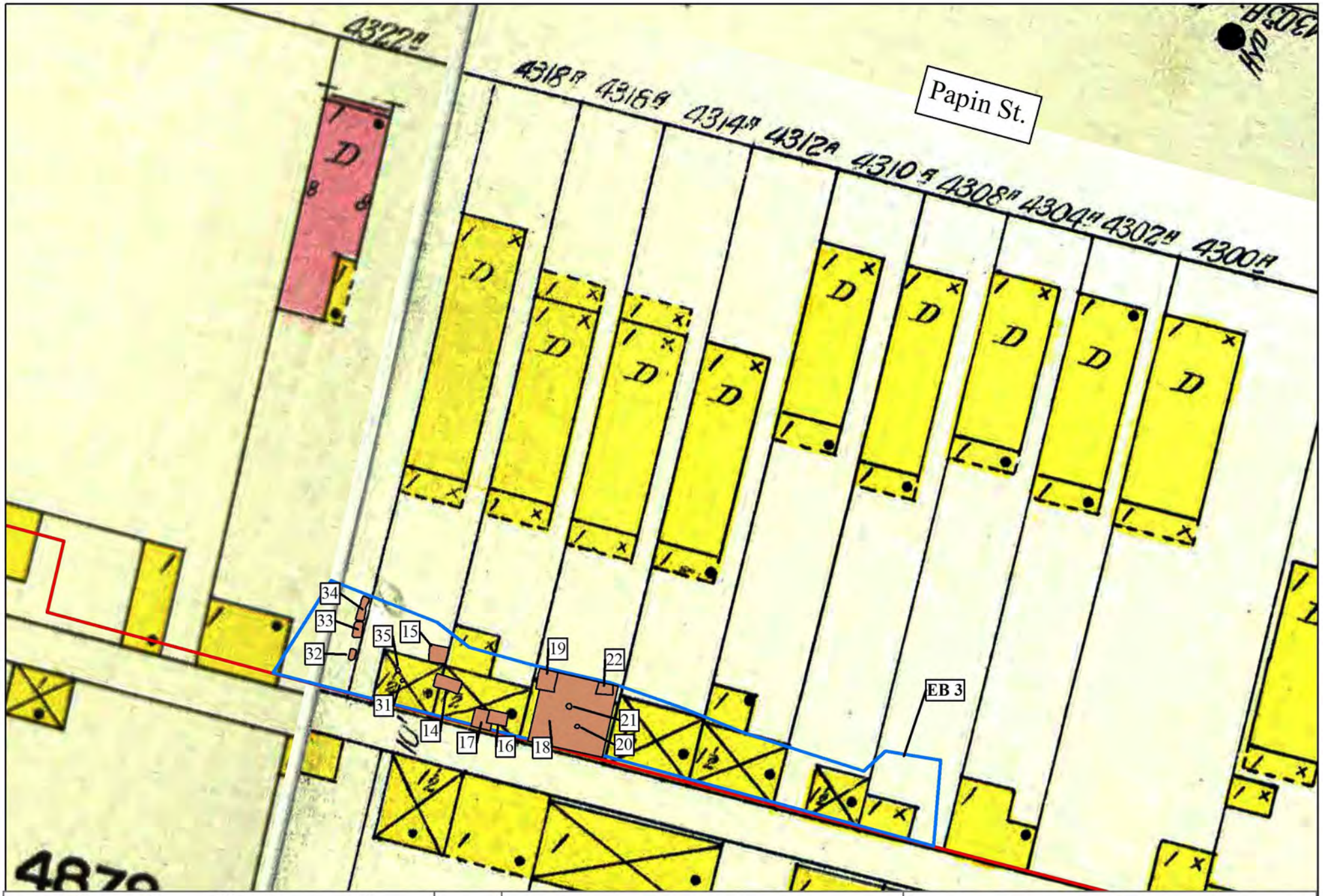
0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F3: Abondoned Excavation Block 2 on 1909 Sanborn Fire Insurance Map (Sanborn Map Co. 1909)

Project

Excavation Blocks (EB#)



0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F4: Excavation Block 3 Features on 1909 Sanborn Fire Insurance Map (Sanborn Map Co. 1909)

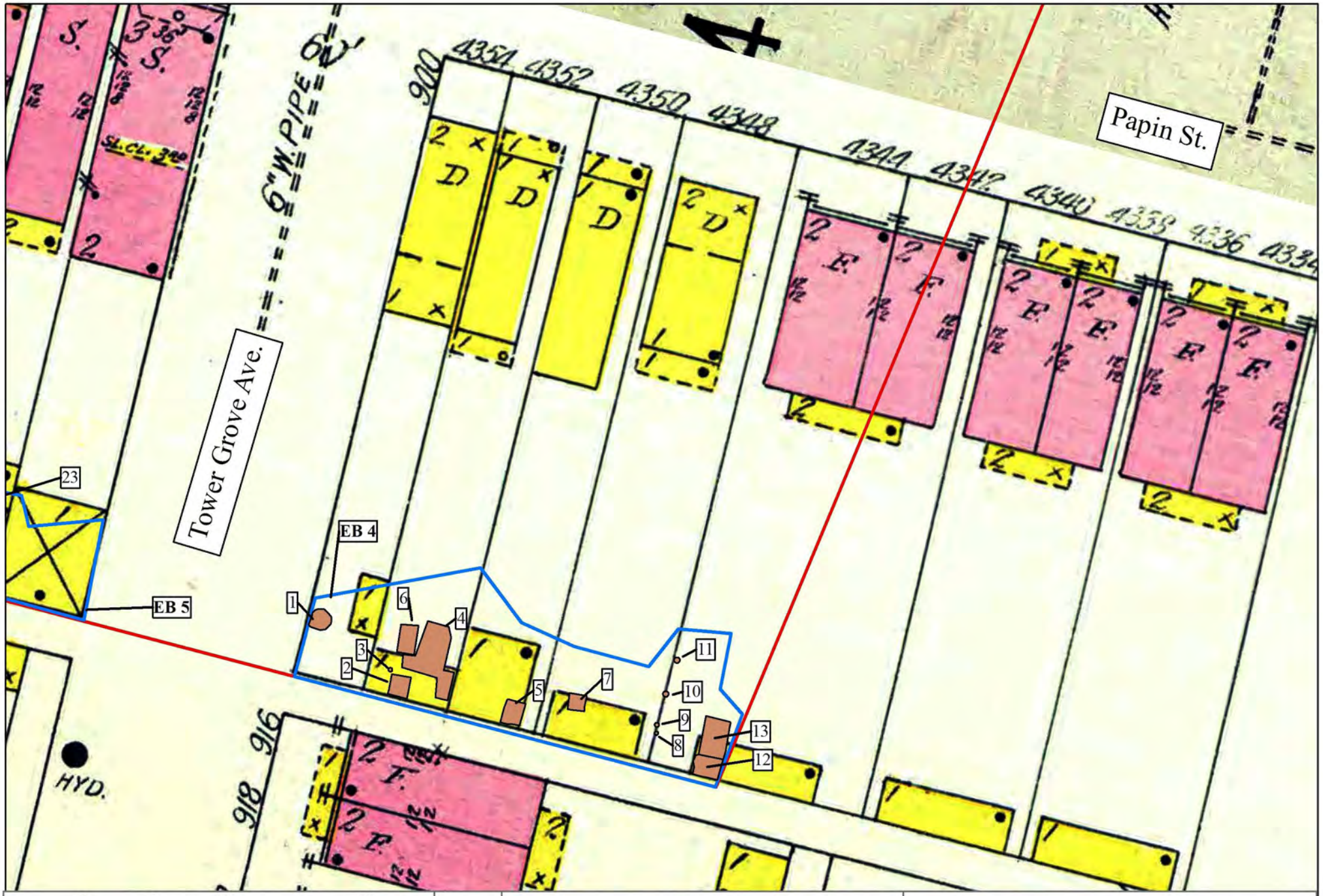
Project Area
Feature (#)
Excavation Blocks (EB#)

0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F5: Excavation Block 3 Features on 1951 Sanborn Fire Insurance Map (Sanborn Map Co. 1951)

Project Area
Feature (#)
Excavation Blocks (EB#)

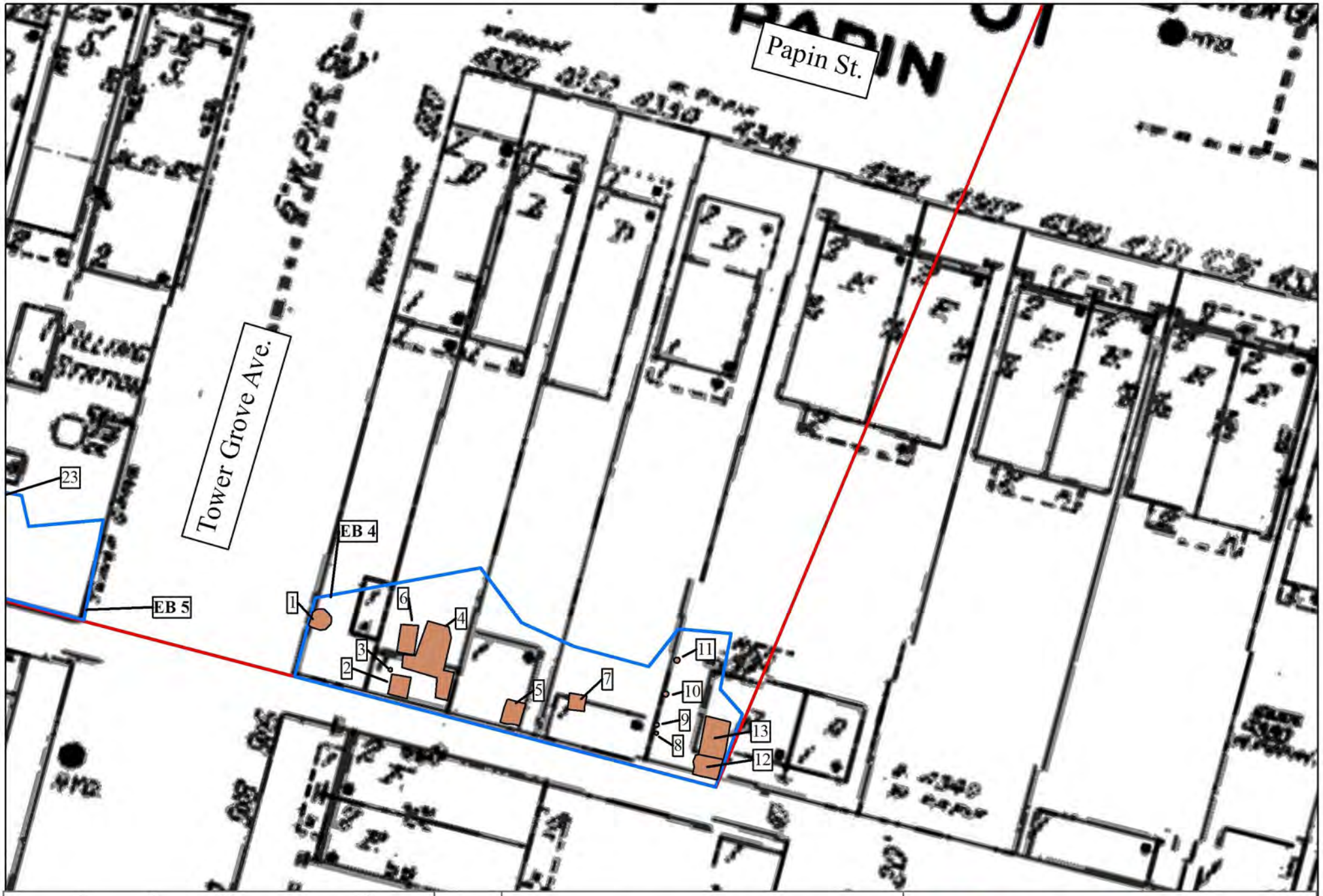


0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F6: Excavation Block 4 Features on 1909 Sanborn Fire Insurance Map (Sanborn Map Co. 1909)

Project Area
Feature (#)
Excavation Blocks (EB#)

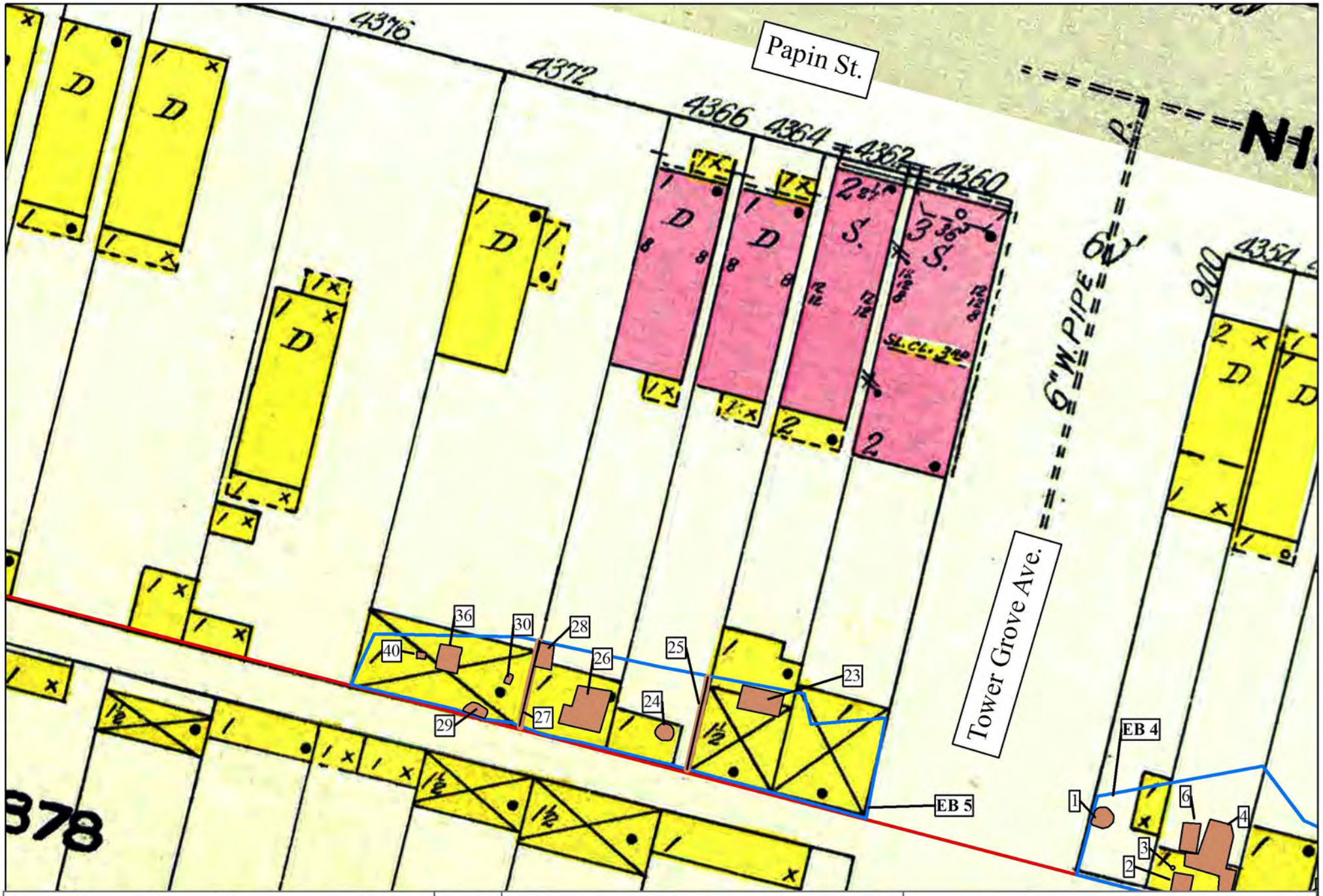


0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F7: Excavation Block 4 Features on 1951 Sanborn Fire Insurance Map (Sanborn Map Co. 1951)

Project Area
Feature (#)
Excavation Blocks (EB#)

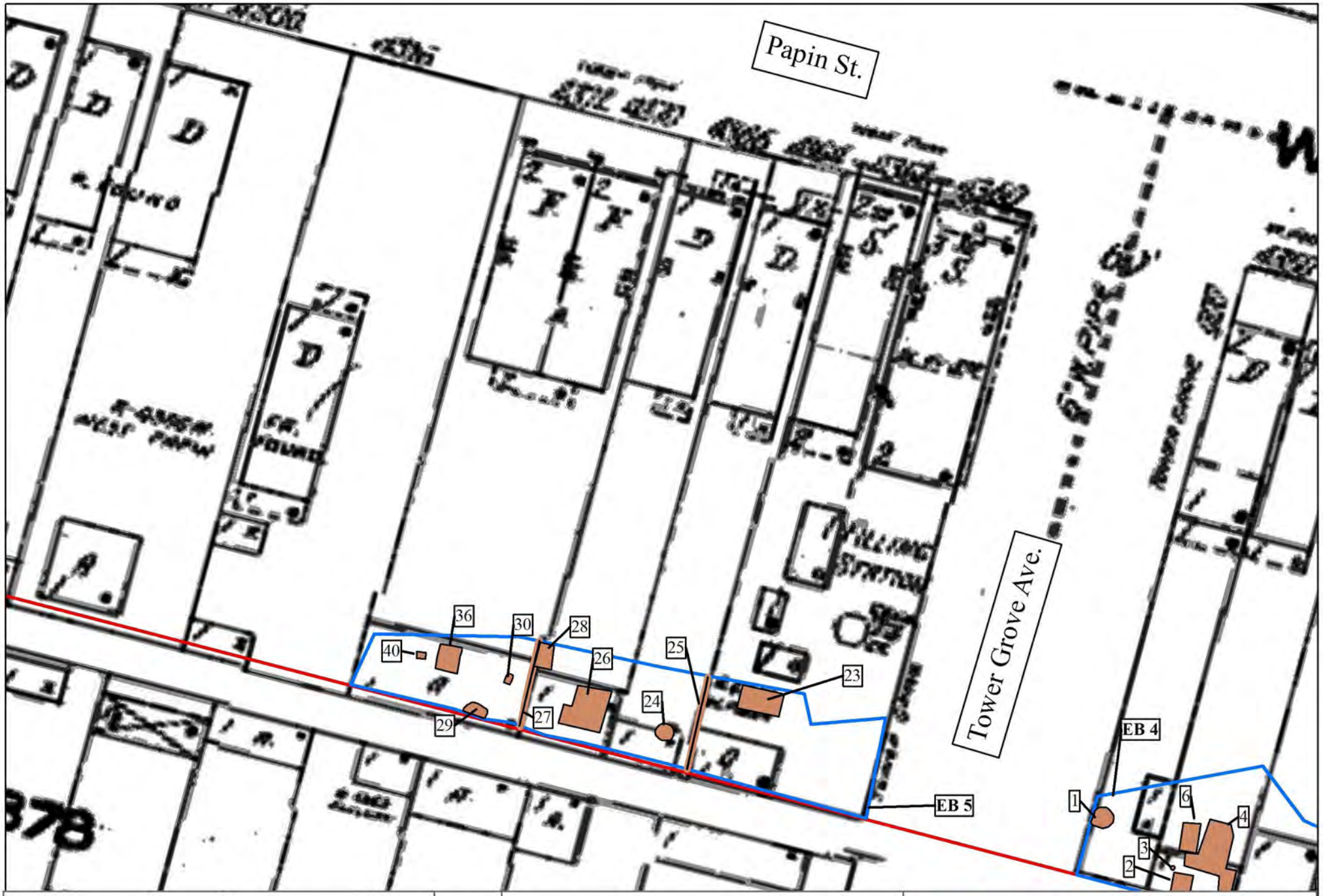


0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F8: Excavation Block 5 Features on 1909 Sanborn Fire Insurance Map (Sanborn Map Co. 1909)

Project Area
Feature (#)
Excavation Blocks (EB#)



0 5 10 20
Meters
0 20 40 80
Feet

N

Figure F9: Excavation Block 5 Features on 1951 Sanborn Fire Insurance Map (Sanborn Map Co. 1951)

Project Area
Feature (#)
Excavation Blocks (EB#)