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# THE HURTTIENNE AND MEYER LOTS OF CORKTOWN, DETROIT- A HISTORICAL ARCHAEOLOGICAL STUDY IN IDENTIFICATION OF FORMATION PROCESSES AND RESIDENT BEHAVIOR

by

## **GRAHAM SHECKELS**

## THESIS

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

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## MASTER OF ARTS

2015

MAJOR: ANTHROPOLOGY

Approved By:

Advisor

Date

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#### Introduction

Located around the site of former Tiger Stadium, the Corktown district is one of the oldest neighborhoods in the city of Detroit. Founded in 1701, historical records of one form or another exist covering the entire span of the city's lifetime. Any archaeology conducted in the city therefore lends itself to be historical in nature - historical records can inform archaeological methodology, and archaeological data can then be checked against the historical record in a mutually supporting fashion. The identification of human behaviors that create a site, as well as the post-depositional processes which transform that site before it is archaeologically investigated, can be greatly enhanced in a city like Detroit by examining historical records in conjunction with excavation.

In the summer of 2010, 27 Wayne State University students excavated test pits for the Corktown Archaeological Survey (CAS) on the properties of Brian Hurttienne and John and Kathleen Meyer. On Bagley and Labrosse in the Corktown neighborhood, a series of houses were built upon these lots in the mid to late 1800's, and were occupied for more than a century. The primary purpose of the survey was to provide an opportunity for students new to excavation to gain experience in excavating at a site in an urban context. Another important objective was to supply data that could be used to illuminate the historical archaeological record of Corktown and to provide a basis of comparison that could be applied across the area to a larger sample. For example, a previous excavation at the Workers Row House in Corktown from 2006-2008, was conducted approximately three blocks from the Meyer and Hurttienne properties. To this end, a systematic series of shovel test pits were excavated at both the Hurttienne and Meyer properties.

The primary purpose of this thesis is to provide a foundation for future historical archaeological work in the city of Detroit. There are many socio-economic problems in the area that one might wish to study from a historical archaeology perspective. However, before they can be investigated, it is necessary to know what the available data looks like, archaeologically. How intact is the archaeological

record? What kinds of data are likely to be obtained from an excavation? Is it possible to identify lots, households, etcetera? This study aims to answer some of these questions. It is a starting point to allow more in-depth research to be conducted.

As Murray and Crook put it, "the integration of history and archaeology occurs at many levels, and in some cases...rigorous analytical comparison is best teamed with individual stories - speculative though they may be -to fully explore the archaeology of the modern city. Conversely, analyses of historical data (such as the mean value of building stock in a given area) and individual artefacts (such as the appearance of 'high quality' wares), may be a more appropriate level at which to integrate archaeologically derived information- be it at the household, site or other scale. We must employ all the armoury of archaeological enquiry... to make a significant contribution to the histories of modern cities" (2005:107).

In this study, I am working at the latter level in expanding upon the history of Detroit, using nineteenth century demographic data, cartographic data, artifact distribution analysis, and ceramic assemblage comparisons.

Important to assessing the quality of the data available for archaeological research in Corktown is the determination of site formation processes that took place on these two lots. What can be inferred from historical information about how the recovered artifacts were first deposited? How were the artifacts that were recovered in the excavations distributed? Can that distribution reveal what happened there, when interpreted in light of known post-depositional events?

In order to answer these questions, this thesis uses several different major lines of inquiry. First, I look at the history of the lots themselves, moving from general background information on the Corktown area to the selection of the Meyer and Hurttienne lots for study, then on to a history of those lots and specific information about the residents who lived there, with a particular focus upon the late 19th / early 20th century. Additionally, several historic maps were consulted to determine what structures were formerly present upon the lots, and these maps were georectified into a Geographic Information System (henceforth GIS) and compared with recent aerial photography in order to locate these no longer standing buildings. This information serves to further put the lots into their historical context, and later helps to explain the observed distribution of artifacts. The second line of inquiry involves the examination of the distribution of artifacts across the lots. Data from the excavated test pits were interpolated with GIS software to create a continuous surface of artifact distributions over the extent of the lots. These distributions are then used to determine the extent of site formation processes (notably demolition of several structures) and the extent to which recovered artifacts can be considered dispersed by these processes. This preliminary assessment then suggests the appropriate level of analysis for the artifacts. Based on the above, I finally compare the ceramic assemblages of the Hurttienne and Meyer lots to that of the previously excavated Workers Row House.

The structure of this paper is as follows. The second section (following this introduction) references some of the relevant background literature. Next is a section on the history of Detroit and the Corktown community, the selection of the study area, and general information about the study area. This section is followed by one detailing the histories of the two properties examined in this study and information on the residents known to have lived at these properties. The fifth section presents the historical maps used in this study and details their modification and application to this work. The sixth section presents the archaeological data obtained during this study and the spatial analyses that were performed using these data. The final section presents the conclusions of this study.

#### **Background Literature**

The excavation method used in this project was that of an extensive grid of shovel test pits. Past researchers have found that mechanical auguring in a systematic fashion can be a very productive tool for examining archaeological sites. David Hurst Thomas used such a strategy to map the distribution of grit tempered ceramics in the suspected vicinity of Mission Santa Catalina de Guale (on St. Catherines Island, Georgia), narrowing down the location of possible structures and further suggesting areas occupied by different types of residents (Thomas 1987: 112-116). A similar approach was used in an urban context by Kathleen Deagan in St. Augustine, Florida. In this work, Deagan used a series of auger

holes to identify the suspected boundaries of the 16th-century occupation of the city. As she notes, this methodology "provided a relatively fast and nondestructive method of gathering data needed for a long-term inventory of St. Augustine's cultural and historical resources, and for the formulation of an integrated program of cultural resource management. The method has proven itself to be reliable, effective, and inexpensive in an urban setting" (Deagan 1981:633).

The Corktown Archaeological Survey project had similar goals with respect to assessing the archaeological record at the Hurttienne and Meyer lots. While a mechanical auger was not used, this is precisely the reason that a test pit strategy was implemented for this project – time, manpower, and previous field experience were in limited supply. As already mentioned, this work was conducted as part of an academic field school, where the vast majority of students had no prior archaeological training. The field school's primary objective was to train students in archaeological survey techniques, and test pits were deemed the best method to impart this knowledge, while also providing useful archaeological data. Furthermore, Roskams describes the process as involving "the excavation of a small volume of soil at regular intervals along survey transects" (2001:48).

Data from the test pits was collected in 4 arbitrary 25cm levels. As Hester notes, "test pits excavated by arbitrary levels are usually the first means of revealing stratification in the deposits at a site. The arbitrary levels in such pits necessarily cut across any natural levels present" (Hester 1975: 149-150). Given the disturbed nature of some parts of the Meyer and Hurttienne properties, this arbitrariness will likely have yielded a better analysis than if artifacts had been collected by natural levels. As is shown later, such an analysis would probably not have been possible.

In recent years, there has been a growing use of Geographic Information System (GIS) software in the field of archaeology. A variety of companies sell GIS software packages, but they all have the same purpose – to allow the user to analyze data sets which contain spatial information. Nearly any data in which the question of "where is it" is a concern can be analyzed with GIS software. At a basic level, one

can use it to create maps – visual representations of the positional information contained in the data set. For example, historic preservation groups in New Orleans have used it for locating and inventorying all the structures in the city at the particular time that historic maps were drawn (Berry 2003). However, the flexibility and computational power of GIS software makes more sophisticated analyses possible as well. At the 19th century Maori site of Oropuriri, Holdaway et al. used a GIS database of the size, position, and alignment of posthole features to reconstruct information about a house structure (Holdaway 2005: 276).

This thesis will use GIS software to, among other things, analyze the distribution of artifacts that were excavated at the Hurttienne and Meyer properties. Similar analyses of archaeological sites have been performed by other researchers – Stabbetorp et al. used an Inverse Distance Weighting (IDW) procedure to create a map to predict the location of a road in the vicinity of the Greek city of Tegea from the density of surface collected pottery sherds (2007). Additionally, Robinson used interpolated density maps to identify and attempt to explain the distribution of artifacts at Blandwood Mansion in Greensboro, North Carolina, believing that a particular concentration of artifacts indicated the remains of a previously unidentified kitchen (2010: 71-72).

In another example, Malcolm Williamson used historical accounts of the 1862 Battle of Prairie Grove, especially accounts of the types and locations of Union and Confederate artillery emplacements and rounds fired, and current topographical maps, to predict the distribution of artifacts such as shell casings and canister balls (1993). These studies show that a combination of limited survey and GIS based artifact distribution analysis can be used to successfully identify areas of specific human behavior, especially those worthy of more extensive excavation.

Some researchers have also used GIS in the examination of site formation processes. For example, in New South Wales, Australia, Holdaway et al. (1998) examined an assemblage of 10,000 artifacts spread across an area of 30,000 square meters. Their objective was to create a model of how

these stone artifacts were originally deposited on the landscape over the last several thousand years, as well as the effect of relatively recently (within the last 150 years) created water channels in the area.

In order to properly assess the distribution of artifacts for patterns of behavior, it is important to understand what post-depositional formation processes may have acted upon those artifacts. Such processes intervene between the behavior that creates the archaeological record and the state of that record as it is later discovered by archaeologists. In an extensive writing by Wood and Johnson (1978), those two authors note that there are a number of different ways in which soils (and the artifacts contained in them) may be naturally disturbed even when post-depositional human activity is absent. For this study, I believe that only faunalturbation (the disturbance of soil by animal activity), floralturbation (the disturbance of soil by plant activity), and cryoturbation (the disturbance of soil by thaw-freeze cycles) have any possibility of having had meaningful effect on the post-depositional history of the study areas. I know of no reason to consider graviturbation (movement of soils downslope), argilliturbation (movement by the seasonal drying and cracking of clay soils), aeroturbation (disturbance by soil gas and wind), aquaturbation (movement of soils by water under pressure), crystalturbation (growth of salt crystals), or seismiturbation (movement by earthquake) as having played a significant part in the formation of the sites examined in this study.

Of the animals Wood and Johnson note that are likely to significantly disturb soils (1978: 318-328), the only type likely to have had a significant impact are earthworms. As those authors note, earthworms are almost certain to have had an effect on most grassland and forest soils, tending to cover artifacts left on the surface with their castings (1978:327-328) . However, it is not known how much of an effect these animals may have had in this location. Research by Armour-Chelu and Andrews has shown that earthworms can displace rodent bones (such as those from house mice) up to 20cm vertically and 15cm horizontally over the course of two years (Armour-Chelu 1994). They do note, though, that smaller bones were more vertically displaced than larger ones. I believe that since the vast

majority of artifacts recovered at the Corktown lots examined here are much larger (both by volume and mass) than small mammal bones, they are unlikely to have experienced such a large degree of motility. A better estimation can be found in work done by Howard et al. (2015). Working at Roosevelt Park, approximately three quarters of a mile from the lots studied in this thesis, these researchers found that a copper coin dated to 1920 had, over the course of 90 years, been buried to a depth of 27 cm, i.e. at a rate of 3 mm per year (Howard 2015: 184). This movement was attributed, at least in part, to the burrowing activity of earthworms. This is probably a more fitting estimate for the possible movement of artifacts at the Hurttienne and Meyer lots. However, more research needs to be done to quantify how much bioturbation is caused by earthworms in this region and their level of effect on site formation processes in urban contexts.

Floralturbation does not seem to have had a significant impact on the archaeological record at the Meyer and Hurttienne properties, either. Wood and Johnson note that treefall is the most significant source of floralturbation (1978:328). No blowdown mounds were observed in either study area, nor is there any reason to believe that either was ever significantly covered with trees since being developed for residential use.

Of final importance is cryoturbation. Detroit is not located in a permafrost zone, but it is subject to annual freeze-thaw cycles. It can be difficult to assess the movement of artifacts due to this process, but generally they are pushed upwards through the soil. An experiment performed by Michael R. Hilton on Little Takli Island, Alaska is instructive. At the location of his work, due to the warming effect of being close to the Pacific Ocean, there is no permafrost, and climate sensors he placed in the vicinity recorded three years of winter air temperature profiles (from 1999-2002) that look surprisingly similar to highs and lows experienced yearly in Detroit (2003:182). While the experiment was short lived, Hilton did note that for the artifacts he placed 15cm below the surface "the positions of the buried objects were

virtually unchanged" (2003:171). For this reason, I believe the effects of cryoturbation at the Hurttienne and Meyer lots are likely to be minimal.

Having for the most part eliminated the above, the last form of post-depositional activity which is likely to have disturbed the archaeological record is human activity. To assess this impact, I turn to Michael Schiffer's book *Formation Processes of the Archaeological Record* (1987). This will be discussed in more detail later, but for the Hurttienne lot, the main source of post-depositional disturbance was the bulldozing of the site and creation of a parking lot after the structures burned down. Per Schiffer's terminology, this would be a construction-stage impact, i.e. the impact to a site created during a construction event upon that site. More specifically in his terminology scheme, it would be classified as a primary impact, since I expect that the disturbance to the archaeological record was a direct result of the construction of the parking lot. I do not expect that there were any significant secondary impacts (those that result from support activities related to the construction event) or tertiary impacts (those that result from other activities during construction such as the collecting of artifacts by the construction crew). I also do not expect that there would have been any significant operating-stage impacts upon the archaeological record, that is, once the parking lot was created, there is no expectation that the activity of parking cars upon the parking lot created any further disturbance past what was already done (Schiffer 1987:132-136).

At the Meyer lot, there was a similar event to the Hurttienne lot which would have affected the post-depositional archaeological record, the burning down of the westernmost structure on the lot, and its subsequent bulldozing. This activity created another construction-stage impact, particularly in the northern half of the lot. The rear of the lot was used by the Meyer family as a garden for at least 20 years. The type of disturbance from this activity would be termed an operating stage impact, which is one that results from the use of the area after construction is completed. More specifically, it would be a primary operating-stage impact, being the result of the garden being used in its intended role. Since

the garden is still being operated, there is no expectation of secondary impacts (it being used for another purpose) nor tertiary impacts (causing other areas to be more or differently used) (Schiffer 1987: 134-136). The post-depositional activities that occurred on both the Meyer and Hurttienne will be discussed again, after the presentation of the data obtained from excavation.

To date, much of the archaeological work in the city of Detroit, especially that done in the late 1970's and 1980's, have been of a salvage character – excavations carried out immediately prior to urban redevelopment projects. One of the largest such archaeological excavations in Detroit was the Renaissance Center Redevelopment Salvage Project in the mid 1970's, in which "approximately 6 acres were subject to archaeological examination" (Taylor 1992:77) and included 29 archaeological features and 16 privy vaults. From this site came two extensive reports upon Detroit's nineteenth century material culture. The first was by Karen Mudar, who used faunal analysis to test the ability to identify food preferences among several families of varying ethnicity and economic status (1978). In later work, Kent C. Taylor (1992) used another set of artifacts recovered from the Renaissance Center excavations, namely footwear, to examine questions of economic and sociocultural circumstances, as well as the local environment, involved in choice of footwear. He also used several Detroit City Directories to examine patterns of local manufacture and trade.

Archaeological excavations were also carried out in spring of 1984 at the site of Millender Center across the street from the Renaissance Center, specifically in the northern half of the block bounded by Randolph, Larned and Brush Streets and Jefferson Avenue (Demeter 1985). Analysis of the recovered artifacts, particularly of the faunal remains and ceramics, yielded insight into the socioeconomic status of residents for almost the entirety of the nineteenth century (Demeter 1985: 189-184). Another excavation site in Detroit was the Sheridan Place, near the corner of Townsend and Jefferson Avenues, and focused on a 1910-1920 residential trash pit and a 1880-1885 residential/saloon privy (Demeter 1980: 77-80). Further nearby work was done at the ANR /Stroh / Chene site, a 16 block

area of the Detroit waterfront, running south of Jefferson Avenue to the river, and between Mt. Elliott and Dubois streets (Branstner 1983). This project sought to characterize the soil development of the riverfront area from prehistoric to modern times and to recover artifacts primarily from the nineteenthcentury residences and industrial factories (Branstner 1983: 67-83). Further west along the riverfront, the Joe Louis Arena site was excavated in the fall of 1977 (Demeter 1980). The analysis of this project focused on a deposit associated with the Commercial Hotel and dating to 1846-1856, and a second deposit dating to the mid-to-late nineteenth century. These two data sets were compared in order to illuminate socio-economic changes that took place in the area during the aforementioned time period (Demeter 1980: 106-110). Lastly for this time period, there is the Cobo Hall Expansion Project, which found 21 discreet features, as well as artifacts ranging from the mid eighteenth to mid twentieth centuries. Of particular note was the locating of a late eighteenth to early nineteenth century farmstead structure and midden complex (Branstner 1988: 191-193).

The next phase of archaeological research in the city began in 2006 at the Workers Row House (WRH) site in the Corktown neighborhood. Located on Sixth Street between Porter and Labrosse, this rental property was built circa 1850, and housed families up until the mid-1980s. Excavations were conducted over the next three years, and yielded a surplus of data related to the occupancy of the structure. From this, Dianna Jakubiec produced a Master's Essay using documentary records and recovered artifacts to examine questions of ethnic (and particularly Irish) identity of WRH occupants in the latter half of the nineteenth century (Jakubiec 2008). The next major archaeological project was the summer 2010 excavations at the Hurttienne and Meyer lots which form the basis for this thesis. Subsequent excavations in 2011 and 2012 have been conducted at Roosevelt Park on the western edge of Corktown (Swaminathan 2011), once a substantial residential area, and in 2013 at Tommy's Bar, a saloon on Third Street between Fort Street and Congress dating back to the late nineteenth century (Moloney 2013).

#### History of the Community (Detroit / Corktown) and History of the Study Area

"Experience gleaned from past research of this type at the Renaissance Center, Joe Louis Arena and the Sheridan Place sites in Detroit well illustrates that the potential of feature survival in an urban environment is exceedingly high. However, the majority of these invariably relate to subsurface components such as privies or other waste disposal elements" (Demeter 1981:74).

In the fall of 1981, C. Stephan Demeter prepared a report for the City of Detroit's Community and Economic Development Department, assessing the archaeological potential (in terms of the likelihood of recovering prehistoric and historic data) of a section of Detroit's Corktown neighborhood. It was based upon his report that the sites excavated for this study were chosen. Unfortunately, Demeter is not explicit in laying out his criteria for recommending the lots that he does. That said, his main criteria appears to be the time frame for development – "it has generally been assumed that subdivision areas whose initial developmental phase fall within or post date a general c. 1880-1890 time spread offer a significantly reduced archaeological potential" (1981: 67). Demeter seems to attribute this to the methods of waste disposal that were introduced in Detroit by the late 1890's, both public / private trash pick-up and indoor plumbing / siphoning and disposal of waste from outdoor privies (1981: 67-68). This was an exclusionary set of criteria – out of all the possible lots for study, he threw out those which were deemed unlikely to possess significant amount usable information, leaving those which were likely to be productive. Among those left were the Hurttienne and Meyer lots.

The Hurttienne and Meyer lots are located in the Historic Corktown Neighborhood of Detroit, Michigan, as seen in Figure 1. The Hurttienne lot lies on the north side of Bagley Street (formerly Baker Street) between 8<sup>th</sup> Street and Brooklyn Street (formerly 7<sup>th</sup> Street). The Meyer lot lies on the southwest corner of 8<sup>th</sup> Street and Labrosse Street.

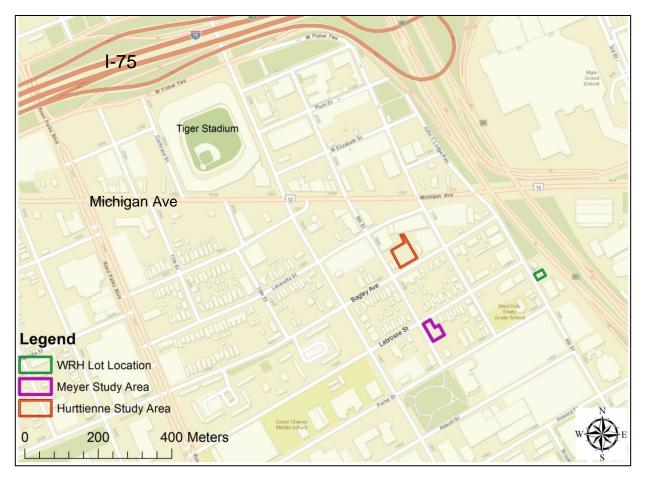


Figure 1. Current street map of the southeast quadrant of the old Corktown neighborhood of south Detroit, marking the locations of the Hurttienne and Meyer lots.

These two lots were originally part of the Baker Farm (also known as Private Claim 24, or P.C. 24), a ribbon farm that was created in 1750 and eventually sold to Daniel Baker in 1822 (Demeter 1981:8). The Detroit city limits were immediately east of this land by 1824, and it was fully incorporated into the city in 1849 (Demeter 1981:16-17). The Baker Farm began to be parceled and sold for development in the late 1830's - the portion that represents the Hurttienne lot (Block 58 lots 9-11) were sold to Jonas C. Brigham in 1841 for \$1.00, while the portion representing the Meyer lot (Block 60 lots 6 and 7) were sold to Laura Goodwin in 1846 for \$220.00 (Demeter 1981:25). It was not until the late 1840's that settlement within this area became significant, and Demeter notes that this was "more or less directly related to the heavy influx of Irish immigration entering the community. By the mid 1850's

this portion of the Baker and the adjacent Labrosse farms formed on [sic] integral part of the Detroit community" (Demeter 1981:23).

As was mentioned, Demeter's study recommended the Hurttienne and Meyer lots as having good archaeological potential. This potential is primarily due to the Baker farm being one of the earlier developed portions of the Corktown neighborhood (Demeter 1981:72), and those portions of the neighborhood which were developed before the late 1890s were more likely to have features such as

trash middens or privies. Legislatively, Demeter notes that

"Until 1882, the abandonment and construction of privies on private property was solely the affair of the individual property owner. Normal practice had been to cap the contents of the old vault with clean earth. As of 1882, however, abandoned vaults were required to be thoroughly emptied and backfilled with earth...the fact that the Schneider privy did not follow the legislated guidelines for utilization and abandonment reflects the divergence that often distinguishes the ideal from reality" (Demeter 1994:13-14).

Furthermore he remarks that after 1882

"while the rate of sewer development varied from one community to another, the trend towards the replacement of the privy was well underway in the State's urban centers by the close of the nineteenth century. Although the vault privy continued to be a feature of urban life even after this period, its use was largely confined to the fringe areas of the city where public services were not fully developed" (Demeter 1994:19).

These changes to the production of privy features which would later be useful for twenty-first

century archaeology meant that those parts of the city such as the Baker farm which were developed

earlier in Detroit's history are considered by him to be much more fruitful archaeologically.

In the late 1800's, Detroit was becoming one of the most industrialized cities in the country, and much of the available employment to be found was concentrated close to the Detroit river. Demeter's previous quote mentions that Corktown was an important part of this development. Even a cursory comparison between the 1853 Hart Map and the 1884 Sanborn Fire Insurance maps shows that the area was substantially developed by then, both residentially and commercially. An examination of the 1884 Sanborn map in particular can provide a picture of the employment opportunities and social institutions in the area. Figure 2, below, shows the proximity of the Hurttienne and Meyer properties to businesses in Corktown. These businesses were derived from the 1884 Sanborn maps, examining each for any type

of non-residential structure identified. These were then placed into several categories, such as Church, Construction (such as lumber or stone yard), Small Business (such as drug store or photographer), Public (such as police and fire stations) and Industry (such as tanning mills and factories). Table 1 shows the total numbers of buildings which fell into each category.

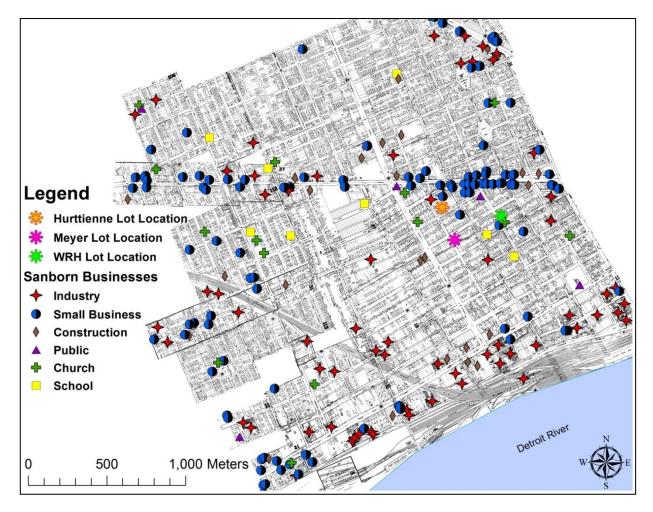


Figure 2. Businesses and public institutions in the Corktown area, as shown on 1884 Sanborn Fire Insurance maps.

Category	Number	Typical Examples
		Most Holy Trinity Church, Fort Street Presbyterian Church, Saint Peter's
Church	14	Episcopal Church
Construction	24	Leech's Lumber Yard, Marble Yard, Coal and Wood Yard
		Peninsular Stove Company, W. E. Maloney Brewery, Detroit Lead Pipe
Industry	64	Works
Public	5	The Detroit Sanitarium, Steam Fire Engine Number Four, Police Station
School	8	Franklin School, Houghton School, Bagley School
Small Business	118	Blacksmith, Carpenter Shop, Tin Shop, Drugs, Bakery
Total	233	

Table 1. Summary of businesses and public institutions in the Corktown area, as shown on 1884 Sanborn	n
Fire Insurance Maps and presented in Figure 2.	

As one can see in figure 2, there are a significant number of small businesses and industrial concerns within a mile or less of the properties - easy walking distance for people looking for services or employment. There are also a number of churches of various denominations, as well as schools and other public facilities. It seems likely that once someone started living in Corktown, they would have good reason to continue to do so, merely based on the wealth of services provided in the immediate area. Appendix Table A5 gives a detailed listing of all the places noted in Figure 2. It should also be pointed out that close examination of the table shows that the Sanborn map is undoubtedly biased in what businesses it has chosen to label – the vast majority of them seem to be called out as particularly related to fire insurance. For example, lumber yards, bakeries, and drug stores are presumed to be relative fire hazards because of their storage or excessive use of flammable materials. There are, however, no restaurants, saloons, or grocers labeled, presumably because such businesses do not pose any particular risk of fire. In this vein, a 1936 field manual for surveyors of the Sanborn Map Company specifically lists 99 different kinds of store which are to be marked on maps as "S" (for store), and 61 other types of store deemed as "Hazardous Occupancies" which should be specifically noted (Surveyors 1936:81-84). While I was not able to obtain a copy for examination, it is known that the company produced a version of this manual as early as 1905, and it seems reasonable to expect that this labeling scheme was in use by company employees well before being codified in this manner.

#### **Property Histories and Information on Residents**

This section focuses in more detail on the particular histories of the Hurttienne and Meyer lots, and the people that are known to have resided there in a 39 year period from 1869 to 1907.

### Directory Research Methodology

The excavations described in this thesis yielded 7118 artifacts at the Hurttienne lot and 4458 artifacts at the Meyer lot, left behind by the former residents of the buildings located at these sites. One goal of this thesis is to relate this artifact assemblage to the information that can be obtained about the documented people living there. To this end, an extensive search was conducted of the Burton Historical Collection of the Detroit Public Library to compile a list of all known residents of these properties. This section describes how that search was conducted, and the known limitations to the methodology that was used. The results of the search will be presented in the following section.

There are several purposes to this line of inquiry. To be able to answer questions about the people that lived on a site, basic information must be collected about those people. Raw numbers of people occupying the site are important to interpretation – if 25 different decorated plates are recovered, but only one person ever known to have lived there, this might interpreted as the activity of a person that acquired and disposed of new tableware rather frequently. However, if it is known that the site was occupied by 30 different families over the course of its use, these same 25 plates would suggest a different pattern of purchase and disposal, where families tended more to curate their tableware. When choosing sites to research, if I wanted to look at the flow of foreign-made goods into Detroit, I would expect to be better able to asses that from a site that had many families living at it over a long period of time, rather than one that was occupied by a single family over a short period. Using the

City Directories can help assess how many people lived at the Meyer and Hurttienne lots over different time periods.

Entries in the directories also normally list occupations. This too can aid in the interpretation of the archaeological record. If it is known that the residents were engaged in relatively high socioeconomic status occupations, such as judges, bank presidents, and professors, it might be expected that the archaeological record would reflect that they had a relatively high level of disposable income, possibly expressed in the average cost of tableware used or price of cuts of meat eaten (as reflected by faunal remains).

Each person in the directories is also listed as a householder (h), or someone who rooms (rms) / boards (bds) there. This information can also be used to help interpret the archaeological record. For example, one might expect that a family that has a long time residence at a site might have a vested interest in disposing of their trash properly, such as in a buried pit. However, one might also expect that the short-term residents of a boarding house might not have the same interest, and thus would dispose of the trash by merely throwing it in the back yard. Such different patterns of behavior could be recognizable in the spatial patterning of the artifact assemblage. Knowing the type of residents of a site ahead of time might lead to the choice of different excavation strategies for each case.

As can be seen from these examples, having detailed information about the residents of a particular site can help to inform both the question that one attempts to ask in researching that site, and in interpreting the results obtained after an excavation has been performed.

Bagley Av DETROIT CITY DIRECTORY.
Particle       Sprestaurnet       St Tompkins George Spill       St         ale Marg Co       Store John H, rest       Store John H, rest

Figure 3. Pages from the Detroit City Directory for 1889. Left – page 1487, reverse listing. Right – page 1388, resident listing.

Figure 3 shows an example of one of the reverse listing pages for the Detroit City Directory, in this case from 1889, and including the block of Baker Street upon which the Hurttienne lot resides. As previously mentioned, by examining the 1884 and 1897 Sanborn maps (Figures 10 and 11), we see that at this time period, there were three buildings located on or partially on the Hurttienne property - 54 Baker, 58 Baker, and 64/66 Baker. Looking at the appropriate Reverse Listing (left side of Figure 3), at 54 Baker the primary householder was Thomas H Watson, at 58 Baker it was William J Gibson, at 64 Baker it was John E. Davis. Each of these persons can then be looked up

in the main part of the directory to obtain additional information. For example, looking up the entry for Thomas H Watson (right side, Figure 3), it reads "Watson Thomas H, carp, h 54 Baker". This indicates that Mr. Watson was a carpenter, and that 54 Baker was his home. Different years of the directory sometimes provided additional information, if it was available. This variously included telephone numbers, work addresses, employers, spouses, the fact that a resident was a boarder or renter, date of death if that person died during the publishing year, and occasionally the place the person moved to if they moved outside of the city of Detroit.

While the original paper copies of the City Directories are housed at the Burton Historical Collection of the Detroit Public Library, at the time of this writing the directories from 1861 to 1923 have been digitally scanned by the company Fold3 and made available through online subscription. This allows the use of optical character recognition (OCR) software to search through the volumes. Using this function, the program can be instructed to search for the character string "54 Baker". Theoretically, this should find the entry for Thomas J Watson (since it is known from the Reverse Listing that he resided there) and anyone else in the directory whose residence was listed as 54 Baker. There are, however, some limitations to the abilities of the software. If "54" was written on the end of a line of text, such that "Baker" appeared on the next line down the page, the program was unable to recognize that these two pieces of information belonged together. Additionally, slight errors in printing or other flaws in the scanned image could confuse the software. While a human can recognize that a smudged number 5 is in fact a 5, if the program sees it as a 6, it will affect the results of a search. Even given these limitations, it appears that the OCR software performed this job well - certainly it located more residents than were found solely in the reverse listing, who almost certainly could not have been identified otherwise.

It can also be noted that there are methodological limitations of the City Directories themselves, no matter what method is used to search them. The earliest volumes strongly imply in their introductions that they only contain listings for those who contributed financially to its publishing, i.e.

paid to be listed. For example, this problem is noted in Charles F. Clark's Detroit City Directory of 1866-7. It seems unlikely that this year's directory is truly representative of the population of the city, and those low income residents such as would be expected to have been living in the Corktown neighborhood may not have paid to be listed. That said, archaeology can provide information about such people – it can be used to examine the lives of everyone from the mayor of Detroit to factory workers, if excavation sites are chosen well.

It is unclear when the practice of having to pay to be listed ceased, since most of the volumes are not explicit in this regard, however research completed as part of this thesis indicates that by the 1873-4 City Directory it had changed. This year notes that it "contains the names of the inhabitants of the City of Detroit, except women represented by the names of their husbands, young ladies not having any occupation and living at home, children, and female servants". Of course, this highlights an additional problem - the numbers of female residents are obviously underrepresented. From work completed with these volumes for this study, by the turn of the century all female residents were listed, but is very difficult to say exactly when a changeover occurred, and how it was implemented when it did. Children appear to be largely absent from these records, and it is not clear at what age someone is no longer considered a child for purposes of being listed. The only evidence I have of a child being listed in the directories comes from census records for two people – Norman and Violet E. English. Their census records indicate that they would have been 13 and 11 years old at the time that they resided at the Hurttienne lot. Norman is listed in his directory entry as being a tinsmith, and Violet as a milliner. I surmise that having occupations is what led to their inclusion in the directory, despite their young age.

To create the final list of residents, the Detroit City Directories were consulted for the years 1861 through 1907. The years 1861 through 1887 were searched wholly by the OCR technique mentioned above. By 1888 these directories also contained a reverse listing, allowing one to see, if nothing else, what person was listed as the primary resident of any particular property in the city. From

this year onwards, the reverse listings and the OCR search were employed. The year 1907 was chosen as an end date for several reasons - first, because it gave a final 20 year sample that relied on both search methods, second because it spanned the turn of the century and extended into a period of intense economic growth in the city, and last because with each passing year the complete list of residents, particularly at the Hurttienne property, became increasingly large and unwieldy. For example, John Doe might have been listed as the only person residing on the property in 1888. But in 1889, the residents are Jane Smith and Fred Jones (with no mention of John Doe). At this point, there are now three residents (these two, plus John Doe) whose directory entries needed to be looked up. John Doe still needs his entry examined because it is possible the OCR software missed him, and he still actually resided at the lot. This possibility had to be checked every time. Additionally, as was noted earlier, in some years the directories listed information including dates of death. At the time that I conducted the research, it was surmised that such information might be valuable to collect. Each directory year added, on average, 4.2 new residents to the rolls for the Hurttienne lot. By 1907, there were 163 different people whose entries needed to be consulted for each directory year. Also, as noted previously, ending at 1907 should extend into the period at which large-scale trash removal was in existence for the Corktown neighborhood (Demeter 1994). I expect that after this activity started to regularly occur, there would have much less surviving material in the archaeological record, particularly that which could be related to a list of known residents.

Among other information, most directory entries listed the occupation of the person concerned, which was recorded and tabulated. Following demographic work for late 19th-century Detroit done by Olivier Zunz, each person was classified as High white-collar, Low white-collar, Skilled, or Semiskilled or unskilled (Zunz 1982:422-427). In this study, the High white-collar individual was a Vice President of a local brass instrument manufacturer. Low white-collar individuals were mainly clerks or low level managers. Examples of Skilled individuals were people such as carpenters, butchers, machinists,

dressmakers, and milliners. Semiskilled or unskilled residents were primarily made up of laborers, with a few domestics and teamsters. Some people were listed in the directories as having different professions over the years – in these cases they were assigned an occupation type corresponding to the highest level they achieved. This situation also causes the total number of occupations to exceed the total number of residents.

It should be noted that only people who appear to be residents of the addresses at the Meyer and Hurttienne properties are discussed here. People residing on neighboring properties are not included. However, it is not inconceivable that such people could have also contributed to the artifacts excavated.

#### **Directory Research Results**

#### Hurttienne Lot

By 1884, there were three houses located on the Hurttienne lot, at 54, 58, and 66 Baker Street (later renamed to its current Bagley Avenue).

#### 54 Baker Street

The first known listing of an individual residing at 54 Baker is Albert M Edwards, Inspector of Customs, in 1869. In the next year, the primary resident is listed as John G Weitzel. It should be noted that a Catharine Weitzel (widow of John) is listed as boarding at 64 Baker. Since that address had yet to be assigned to any structure, it seems likely that this is a typo, and she also resided at 54 Baker. Mr. Weitzel is listed as being the resident until 1874, during which time John Hickie is also listed at having 54 Baker for his home. For the next 7 years, until 1881, John G. Weitzel appears to be primary resident. In 1875 a domestic by the name of Annie Waldecker also lived there, and in 1876 Catherine Weitzel (who may have been John G's mother) boarded there as well. No residents of 54 Baker were found in 1882,

but in 1883 it is the home of Cameron B Bastedo, a bookkeeper. Additionally, Frances Veit is listed as a domestic at the address. The next year, in 1884, Mrs. Jessie Bayly, a nurse, and John E. Martin, a bookbinder, list the structure as their home, while Miss Jessie Beaton, a telephone operator, boards there. In 1885, 54 Baker is listed as a boarding house, run by James Burns, who appears to reside there as well, and whose boarders include Alexander W Slocum and Charles Barnes. This has changed in 1886, when the carpenter Thomas H Watson calls it his home, with David Watson, a clerk, boarding with him. This situation appears to last until 1892, at which point it had been sold to Charles A. Eberhardt, who resided there for 9 years with 7 others of the same surname at various times during that period. Charles A. died July 25<sup>th</sup>, 1900, and in 1901, Clara Bryan becomes the primary resident for three years. The house was vacant for at least part of 1904, after which time the primary resident becomes Joseph W. Leach through at least 1907. A more detailed listing of information on residents is contained in Appendix Table A1 and is discussed below.

## 56 Baker Street

The house at 56 Baker is first listed in the Detroit City Directory for 1895 (and appears on the Sanborn map for 1897). At this time, Police Sergeant James Thompson is listed as the primary resident, and he stays for three years until moving out, at which point Albert E. Barney is listed in 1895. Mr. Barney stays in residence until 1902, after which Patrick Moran is listed as the primary resident through 1906. In the following year, John D. Robertson is listed in this role. Also see Appendix Table A1.

#### 58 Baker Street

The first year for which there is a directory listing for anyone living at 58 Baker was 1869. At this point, John Ostling, mason, and George Esterling, printer, live there. The spelling of John's name fluctuates over the next 8 years (being spelled Oesterling or Osterling), but it appears that he lived there until sometime in 1878, at which point Elizabeth Esterling (widow of John) is listed as the primary

resident. She is listed as the home owner until 1883, at which that designation goes to George E Esterling, a printer. He resides there until 1887.

The Detroit City Directories for 1888 and 1889 lists William J Gibson as the primary resident of 58 Baker. After this, the series of George W. Wagner Jr., Edwin W. Inslee, Martin Cochell, Lillian Hatch, and James Fitzgerald take up this mantle for one year each. In 1895, Charles J. Esterling moves in, and stays until 1906. At this point, it appears that Patrick Moran (who as mentioned above had been living next door at 56 Baker for 4 years) takes up residence.

#### 64 / 66 Baker Street

On the 1884 Sanborn map, the westernmost structure is listed as 66 Baker. By the 1897 map, the same structure is given two distinct addresses, 64 and 66 Baker. Going by the City Directories, this distinction seems to have occurred in 1888 – prior to this time, I can only locate listing for people at 66 Baker. The first of these listings occurs in 1869, at which point George W Green, a sailor, is mentioned. Mr. Green appears to live at 66 Baker until 1881, when Miss Henrietta Nead, a milliner, takes over the house. No listings were found for 1882 for this building, but in 1883 it was occupied by 5 members of the English family, headed by Mrs. Kate English. In 1884 and 1885, I was again unable to find any people listed as residing at 66 Baker. In 1886, however, it was occupied by William Bush, a painter, and in 1887 by Richard P Evans, a brakeman for the Michigan Central Railroad. As mentioned above, 1888 is the first instance of both 64 and 66 Baker being separately listed. At that time, Joseph H Hirons and Richard P Evans are listed as the primary residents of 64 and 66 Baker, respectively. For the next two years, William Bruce and John E. Davis are listed in same capacities. In 1892, Bruce has been replaced at 64 Baker by James W. Ross. In 1893, John P. Dorr begins to occupy 64 Baker, while 66 Baker is listed as being vacant. Dorr seems to take up long term residence of the entire structure, staying at least through 1907. By 1902, he is listed as the primary resident of both addresses. There are also a substantial

number of people listed as rooming or boarding in the building in this time period, very few of whom are listed for more than one year. One exception would be John J. Door, a music teacher who is presumably related to John P. Dorr, who is listed as a boarder from 1893 to 1905. A second exception is John J. Curtin, a piano teacher that is first listed as a boarder in 1894, and later described as having a studio at 64 Baker and residing across the street. Following the discussion of the Meyer lot is a summary of information on residents of both the Hurttienne and Meyer lots.

From informal conversations with the current owner of the Hurttienne lot, as well as neighbors who have lived next door for several decades, there is anecdotal evidence that the buildings on the Hurttienne property burned down in the early 1980's, and were then bulldozed to create a parking lot over the location of those burned buildings. At the time that the lot was excavated in 2010, it was overgrown with weeds. Leftover from its time as a parking lot, there were significant patches of asphalt remaining in the western half of the lot, and some patches of rough gravel in the eastern half of the lot.

## Meyer Lot

The two domiciles located on the Meyer lot have a somewhat more stable history, compared to the properties already discussed. The easternmost building is first listed as 131 Labrosse – in 1906 it seems to have been renumbered as 133 Labrosse, likely as a result of a new home be constructed farther east on the block. This is the only building on either the Meyer or Hurttienne lots that is still standing. On the western side of the Meyer lot was the building that would be known as 137 Labrosse, but which is no longer in existence.

## 131 / 133 Labrosse

The first year that a listing can be found for 131 Labrosse is in 1870, where Timothy Moynahan, a laborer, is the home owner, along with Timothy Moynahan Jr., a blacksmith who boards there. There is

no listing for anyone in 1871, but in 1872 the laborer Jeremiah Bresnahan lives there. In 1875, there is a listing for Michael Murphy, another laborer. 1876 brings a listing for yet another laborer, of the name John Murphy. Continuing the trend, a laborer by the name of Patrick Scanlan takes up residence in 1878. No one is listed for 1879 or 1880, but it appears that until 1885 John Scanlan (a laborer) is listed as the home owner, and John O C Scanlan, a teamster, boards there. Additionally, James R Scanlan a feeder at the Post and Tribune Job Printing Company boards there in 1882, and from 1883-1884 the teamster William Diken (also spelled Deakin) also boarded there.

In 1887 and 1888, the primary resident is the carpenter Daniel Larkin. He is succeeded by Charles T Martin for one year, Isaac Crawford for two more, then Elias S. Baker for 1893 – 1896. The 1897 directory lists James Farrell in this role, but 1898 describes the address as vacant. There are three primary residents listed for the following year – Gustav Kaufmann, Tena Dodman, and W. Sidney Northcott. In 1900 Tena Dodman is listed as the primary resident – however, her specific entry in the directory for that year also places her and a Gustave E Kaufmann as boarding at 68 Baker, which was immediately adjacent to the structures located on the Hurttienne property. In 1901, James D Farrell takes up residence at 131 Labrosse, and stays until 1911. Mr. Farrell is also noted as owning the grocery store at 138 Labrosse, directly across the street. A more detailed description of residents of this home can be found in Appendix Table A2 and is discussed below.

#### 137 Labrosse

The lot which eventually contains 137 Labrosse appears to be empty until 1885. No structure appears on the 1884 Sanborn map, but in 1885 Daniel Donovan is listed as having a home there. Mr. Donovan was born in Ireland in 1814, and died in this home on December 2<sup>nd</sup> 1900. The listing as the home owner seems to have been passed to Francis L. Donovan, who resided there for two years, rented it out to others for 3 years, and then resided at 137 Labrosse until 1915. After that, the primary resident

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is Julia Donovan until 1932, at which point Lucy and Julia Donovan alternate in having that title until 1939, when the house is described as vacant until 1941. When directory publishing resumes in 1946, the primary resident is listed as Ignacia Bermudez.

The current residents of the Meyer property still live in the home that has been located at 131 / 133 Labrosse for more than 100 years. However, informal conversations with John and Kathleen Meyer reveal that the 137 Labrosse building caught fire in the late 1980's, and was razed by the city a few years later. Shortly afterwards they acquired this westernmost parcel.

### **Census Record Search**

In order to obtain supplementary information on the residents identified in the City Directory search, I used the Heritage Quest Online database, maintained by ProQuest. This database maintains records for the 1790 through 1940 census, with the exception of the 1890 census (which was largely lost to fire in 1921). My search methodology was as follows. First, I queried the database for all records for a particular surname and given name for the state of Michigan. The results were categorized by census year, and I first examined the census year closest to the time period at which the resident lived at the Meyer or Hurttienne properties. Generally, this meant the 1880 and 1900 census records. At this point, I generally excluded results not in Wayne County (of which Detroit is a part). The scanned images of the census pages for all the remaining records were then examined to see if one record could be matched to the resident I was searching for. The criteria for a match were generally having a matching surname, given name, and occupation. Additional information that may have been used were matching addresses (for those residents who lived on the Meyer/Hurttienne properties in the same year the census was taken) and being listed in the census as residing with the same people as they were listed as residing with in the City Directories. For example, I was able to identify the Eberhardt family's 1880 census records by concluding that it was very unlikely to have had two families of the same surname that also

included members named Fred, Julia, Charles, Henry, Otto, and Walter, all living together. If a match was not found in census year closest to when a resident lived at the Meyer/Hurttienne lots, the next two closest census years were also examined.

Using the above method, I was able to identify census records for 88 of the 201 known residents. For the remaining 113, I was unable to make a match. In some instances, this was because no record in any census year was returned for any person with a particular given name and surname residing in the state of Michigan. In other cases, a record for a particular name was found, but in a year vastly different from the directory year I was interested in. For example, if Jane Doe lived at 66 Baker Street in 1884, even if I could find a record for a Jane Doe in the 1920 census, I often could not determine that this was the same person 36 years later, and had to record Jane Does as "no match". Lastly, there were instances in which I found multiple census records for a person with the same name and occupation. In these cases, I could not conclude which (if any) census record matched the City Directory entry, and had to record that there was "no match" for this person as well.

In those instances when a match between the two types of records was found, it allowed me to obtain additional information for those people. For all of the records I found, I was able to find the birthplace of the individual, and from that information and the recorded birthplaces of their parents, I assigned them an ethnicity. In the cases where an individual was born in the United States or Canada, as well as their parents, they were assigned an ethnicity of American or Canadian, respectively. Of course, if these individuals had self-reported their ethnicity, they might have called themselves by the origins of the grandparents, but I have no way of making that determination. Individuals who were born in the U.S. or Canada with one or both parents born elsewhere were assigned an ethnicity based on their parent's birthplace. For example, Irish-Canadian or German-American. I was also able to determine the gender of every individual, and based on their age at the time of the census I could determine their age

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at the first year they resided at the Meyer or Hurttienne lots. The results from the located census records are listed in the following section.

### **Resident Information**

As was mentioned earlier, the point of the work done with the City Directories and Census records was to establish information about the collection of residents at the Meyer and Hurttienne properties. A number of statistics fall out from an examination of the known listings of residents of the Hurttienne and Meyer properties for the 39 year period of 1869 to 1907. See Appendix Tables A1 and A2 for the raw data from the City Directory search on the Hurttienne and Meyer lots, respectively. See Appendix Table A3 for the bulk information obtained by the subsequent Census record search.

It should be noted that the information obtained from the City Directories and Census Records are of two different scales of resolution. The City Directories are finer grained, being updated yearly. However, the biases discussed previously mean that there is the possibility of their underrepresenting certain groups of people, such as women and children. The Census Records are much more inclusive and accurate, but they were only conducted every ten years and thus their ability to provide data on residents is more limited.

This section will describe the average length of stay at each property, the rent status of individuals, age and gender breakdowns, information birthplace / ethnicity, and occupation data. The average number of people and length of stay is important because it suggests that different groups of people would use the space differently, likely giving the archaeological record a different character. Listing of occupations suggests the socio-economic statuses for different households, which would be expected to be evident in the archaeological record.

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Length of stay

First, there is the length of stay in number of years, as determined by how many City Directories residents were recorded as living at each address. Note that length of stay indicates number of directories in which a person was found – it broadly correlates to years, but appearing in a single directory could indicate a stay of anywhere from 1 day to 1 year and 364 days, depending on exactly when they moved in/out and when the directory's canvasser visited. Table 2 lists the length of stay, divided into 4 categories, the proportion of each category, and the average length of stay, for each property. Figure 4 charts the proportion section of Table 2.

	Length of Stay (number of individuals)					Leng	th of Sta	y (propo	rtions)	
	1-2	3-4	5-10	10+		Average	1 -2	3-4	5-10	10+
Location	years	years	years	years	Sum	(years)	years	years	years	years
54 Baker	36	6	6	1	49	2.27	0.73	0.12	0.12	0.02
56 Baker	8	1	2	0	11	2.27	0.73	0.09	0.18	0.00
58 Baker	9	0	3	1	13	3.31	0.69	0.00	0.23	0.08
64 / 66 Baker	78	5	3	4	90	1.97	0.87	0.06	0.03	0.04
131 Labrosse	19	7	5	0	31	2.52	0.61	0.23	0.16	0.00
137 Labrosse	5	1	0	1	7	3.71	0.71	0.14	0.00	0.14
Hurttienne Lot	131	12	14	6	163	2.18	0.80	0.07	0.09	0.04
Meyer Lot	24	8	5	1	38	2.74	0.63	0.21	0.13	0.03
Overall	155	20	19	7	201	2.29	0.77	0.10	0.09	0.03

Table 2. Length of stay at each property in terms number of individuals, proportions, and average length of stay.

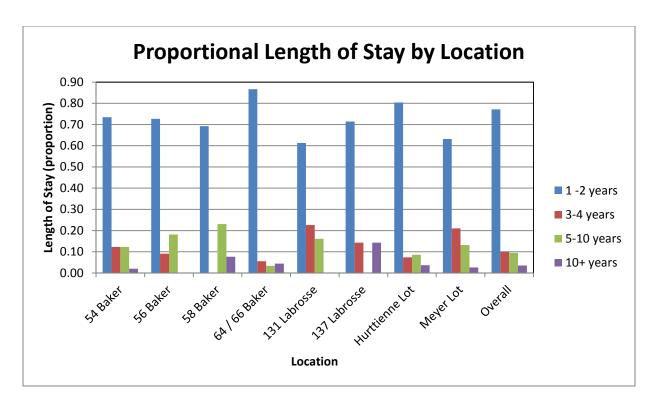


Figure 4. Proportional length of stay at each location, based on Table 2.

At the Meyer property, there were a total of 38 residents, with an average length of stay of 2.74 years. This is skewed by two residents in particular, one who stayed at 131 Labrosse for 8 years, and another who stayed at 137 Labrosse for 16 years. On average, there was one new residents per year. At the Hurttienne lot, there were found a total of 163 residents, having an average stay of 2.18 years. On average, there were four new residents every year.

## Rent Status

With respect to rent status, at the Hurttienne lot, there were a total of 94 boarders, 50 householders, 12 people who roomed, six people unlabeled but under occupation described as "domestic", and one person unlabeled but whose occupation was described as "boarding house". At the Meyer lot, 18 residents were listed as boarders, 19 as householder, and one did not have any status listed. This information is summarized below in Table 3.

Location	Boarders	Roomers	Householders	Domestic	Unknown	Sum
54 Baker	19	8	18	3	1	49
56 Baker	4	1	4	2	0	11
58 Baker	2	0	10	1	0	13
64 / 66 Baker	69	3	18	0	0	90
131 Labrosse	16	0	14	0	1	31
137 Labrosse	2	0	5	0	0	7
Hurttienne Lot	94	12	50	6	1	163
Meyer Lot	18	0	19	0	1	38
Overall	112	12	69	6	2	201

Table 3. Rent codes for residents, from City Directory records.

Considering both the length of stay and rent status, there seems to be three different models of tenancy at the excavated lots. At the Meyer property, it appears that the residences are dominated by a single householder and their relatives for several years at a time. For example, at 131 Labrosse there are the Scanlan and Farrell families, living there for 8 and 10 years, respectively. Next door, the house at 137 Labrosse is nearly exclusively occupied by members of the Donovan family. This can also be seen in the relatively high average length of stays in Table 2. At the Hurttienne lot, 56 and 58 Baker show a similar trend. 56 Baker was a late addition to the block, but is mostly occupied by Albert E. Barney and Patrick Moran. 58 Baker is occupied by members of the Esterling family for almost three quarters of the 39 years recorded, and shows the second-highest average length of stay. 54 Baker has a mixed character – it is occupied by John Weitzel for a dozen years and by the Eberhardt family for 9 years. However, the rest of the time it seems to change residents every year or so. The building at 64 / 66 Baker could best be described as a rental property. Of the 90 people who were recorded there, 67 only stayed for 1 year. The notable exceptions to this pattern are the first householder, George W Green, who lived there for 12 years, and members of the Dorr family, who lived there for up to 15 years, and appear to have been the ones renting rooms to the other recorded residents.

Age / Gender

For those people for whom I was able to obtain Census records, I was able to calculate the age at which a person first resided at one of the lots. For 131 individuals, or 65.2%, they are only recorded as living there for a single year. Additionally, the genders of these individuals were able to be established from the same source. This information is summarized below in Table 4.

Location	Males	Females	Male / Female Ratio	Average Age
54 Baker	18	6	3:1	34.8
56 Baker	4	0	NA	36.3
58 Baker	5	3	1.67:1	37.0
64 / 66 Baker	28	7	4:1	28.1
131 Labrosse	9	5	1.8:1	33.2
137 Labrosse	2	1	2:1	44.7
Hurttienne Lot	55	16	3.44:1	31.8
Meyer Lot	11	6	1.83:1	35.2
Overall	66	22	3:1	32.5

Table 4. Gender and average age for residents, from 1870-1910 Census records.

А					
Location	Male / Female Ratio				
64 / 66 Baker	4:1				
54 Baker	3:1				
Overall	3:1				
Hurttienne Lot	3.44:1				
137 Labrosse	2:1				
Meyer Lot	1.83:1				
131 Labrosse	1.80:1				
58 Baker	1.67:1				
56 Baker	NA				

В	
Location	Average
Location	Age
137 Labrosse	44.7
58 Baker	37.0
56 Baker	36.3
Meyer Lot	35.2
54 Baker	34.8
131 Labrosse	33.2
Overall	32.5
Hurttienne Lot	31.8
64 / 66 Baker	28.1

Table 5. Location sorted by a) Male/Female ratio and b) average age

When sorted by average as in Table 5b, it seems that the residences that have more boarders, such as 64 / 66 Baker, have the lowest average age. The highest average age is at 137 Labrosse is likely to be misleadingly high – there is only data on 3 individuals, one of whom (Daniel Donovan) is the oldest

person recorded at any residence. However, even with more data points, it seems likely it would still have an average similar to the other residences dominated by long term families, such as 58 and 56 Baker. It is also interesting to note that Centers for Disease Control and Prevention (CDC) statistics for the year 1900 state that the estimated life expectancy for White Males is 46.6 years, White Females is 48.7 years, and Whites Overall is 47.6 years (Arias 2014:46). Additionally the CDC reports that once an individual reaches 30 years of age in 1900, their average number of years remaining is 34.88 years for White Males, 36.42 years for White Females, and 35.51 years for Whites Overall (Arias 2014:52-53). On average, it seems that the residents at the Hurttienne and Meyer lots can be considered middle aged, with a significant number of years left in life.

In terms of gender, the Census data suggests that it is mostly males who are boarding - 64/64 Baker and 54 Baker have highest ratio of males to females, and are significantly higher than the Meyer Lot overall. Some caution should be applied to this conclusion, however. The sample size is relatively low, since it is based only on residents who were able to be found in the Census records. Also, as was mentioned in the methodology section above, there is reason to believe that the City Directories underreported female residents, especially in the earliest years.

#### <u>Birthplace / Ethnicity</u>

These same Census records listed the birthplace of each individual, and from this information and the birthplace of their parents, enabled an assignment of an ethnicity, listed in Table A3. It should be noted that 100% of the people I found records for were listed as being "White" in the box for "Color" on their census forms. A summary of birthplaces is listed below in Table 6. The ethnicity categories were collapsed and summarized in Table 7. Those individuals born in a country other than the United States were collapsed into the country of their birth. For example, Robert Ewing, born in Canada to one parent from the U.S. and one from Canada, was collapsed into the "Canadian" category. Individuals born in the

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U.S. but with one or more parents born in another non-U.S. country were assigned the ethnicity of that other country. For example, John J Farrell, born in the U.S. but to one parent who was from the U.S. and one from Ireland, was collapsed into the "Irish" category.

	Birthplace							
Location	Canada	England	Germany	Ireland	Scotland	U.S.	No Information	Sum
54 Baker	4	0	2	0	1	17	25	49
56 Baker	1	0	0	2	0	1	7	11
58 Baker	0	0	2	0	0	6	5	13
64 / 66 Baker	11	2	1	3	0	18	55	90
131 Labrosse	2	0	0	3	0	9	17	31
137 Labrosse	0	0	0	1	0	2	4	7
Hurttienne Lot	16	2	5	5	1	42	92	163
Meyer Lot	2	0	0	4	0	11	21	38
Overall	18	2	5	9	1	53	113	201

Table 6. Birthplace for residents, from Census records.

	Ethnicity							
Location	Canadian	English	German	Irish	Scottish	American	No Information	Sum
54 Baker	3	3	9	2	3	4	25	49
56 Baker	1	0	0	2	0	1	7	11
58 Baker	1	1	4	0	1	1	5	13
64 / 66 Baker	6	5	2	10	2	10	55	90
131 Labrosse	1	1	0	9	0	3	17	31
137 Labrosse	0	0	0	2	0	1	4	7
Hurttienne Lot	11	9	15	14	6	16	92	163
Meyer Lot	1	1	0	11	0	4	21	38
Overall	12	10	15	25	6	20	113	201

Table 7. Ethnicity for residents, from 1870-1910 Census records.

Considering birthplace, it turns out that 81% of the total Census records indicated that the resident was born in the U.S. or Canada. Of those not born in North America, the largest group is those born in Ireland, followed by Germany. Looking at the ethnicity of residents, those of the Meyer lot could be considered strongly Irish, mostly as a result of the Donovan, Moynahan, and Farrell families. The Hurttienne lot is more of a mixed character. At 54 and 58 Baker, the Weitzel, Eberhardt, and Esterling families contribute a significant German presence. At 64 / 66 Baker, however, about half of the residents

are American or Canadian, a third Irish, and only 2 of 35 are German. Although it appears to have an Irish dominated ethnicity, the sample size for 56 Baker is too small (only 4 people) to confidently judge.

## **Occupation**

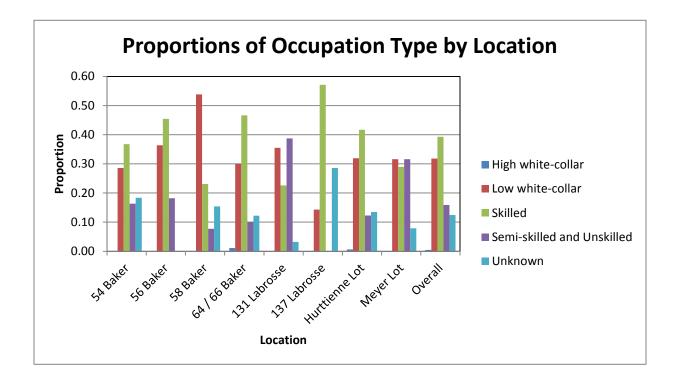
With regard to employment, there were 94 different occupations presented over both the lots, ranging from Elocutionist to Laborer to Vice President of the Bryant-Newell Company to Police Sergeant. See Appendix Table A3 for a complete listing. The classification scheme is taken from historian Olivier Zunz's work on the Detroit labor force of the late nineteenth and early twentieth centuries. He defines his categories as "high white-collar (mostly the professionals, the more important merchants, and industrialists)...low white-collar (especially business employees and retailers)...skilled craftsmen and workers...and semiskilled and unskilled workers" (Zunz 1982:48). A summary of the occupation types found at each excavated lot is found in Table 8, below.

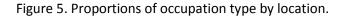
	Nun	nber of Individua	als With Ea	ch Occupation Type		
Location	High white- collar	Low white- collar	Skilled	Semi-skilled and Unskilled	Unknown	Sum
54 Baker	0	14	18	8	9	49
56 Baker	0	4	5	2	0	11
58 Baker	0	7	3	1	2	13
64 / 66 Baker	1	27	42	9	11	90
131 Labrosse	0	11	7	12	1	31
137 Labrosse	0	1	4	0	2	7
Hurttienne Lot	1	52	68	20	22	163
Meyer Lot	0	12	11	12	3	38
Overall	1	64	79	32	25	201

Table 8. Number of Individuals with each occupation type, by location.

	Occupation Type (proportions)							
Location	High white- collar	Low white- collar	Skilled	Semi-skilled and Unskilled	Unknown			
54 Baker	0.00	0.29	0.37	0.16	0.18			
56 Baker	0.00	0.36	0.45	0.18	0.00			
58 Baker	0.00	0.54	0.23	0.08	0.15			
64 / 66 Baker	0.01	0.30	0.47	0.10	0.12			
131 Labrosse	0.00	0.35	0.23	0.39	0.03			
137 Labrosse	0.00	0.14	0.57	0.00	0.29			
Hurttienne Lot	0.01	0.32	0.42	0.12	0.13			
Meyer Lot	0.00	0.32	0.29	0.32	0.08			
Overall	0.00	0.32	0.39	0.16	0.12			

Table 9. Proportions of occupation type, by location. Proportions calculated from Table 8.





There does not seem to be a strong pattern of occupation type by location. At best, it appears that the two properties more associated with renting out rooms (64 / 66 Baker and 54 Baker) tend to have more Skilled workers than Low white-collar workers. However, the other residences vary by no discernable pattern.

Looking at this information a slightly different way, LeeDecker et al. use a six tier system to describe social class. In this scheme, of most relevance are the lowest three – "Lower-Middle: white-collar office workers, small business proprietors...Upper-Lower: skilled tradesmen, wage earners...Lower-Lower: disreputables, unemployed, unskilled workers" (LeeDecker 1987:241). In these terms, I would say that on the whole, the residents of both the Meyer and Hurttienne lots would be described as upper-lower class. Possibly 58 Baker could be described as lower-middle class because of its high proportion of low white-collar occupations and low proportion of semi-skilled / unskilled residents.

#### Location Summary

At 131 and 137 Labrosse, there is a pattern of single families staying here for long periods of time. They are generally of Irish ethnicity, average age, and a moderate ratio of males to females. At 131 Labrosse, their occupations trend towards Low white-collar or semi-skilled / unskilled, while at 137 Labrosse the trend is towards skilled workers.

In the Hurttienne lot, 54 Baker is mixed between single families staying for moderate lengths of time and boarders staying for short periods of time. There are significantly more men than women recorded as living there, and the ages are a bit above average. The ethnicities are mostly German, and occupations trend towards Low white-collar and skilled trades.

At 56 Baker, the residence pattern is of single families staying for an above average length of time. The sample size is too low to make any firm conclusions about age, gender, or ethnicity. Occupations, however, trend towards Low-white collar and skilled trades.

At 58 Baker, there is a pattern of single families staying for long periods of time. The ages of residents are above average, while the ratio of men to women is the lowest observed. The ethnicity is

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predominantly German, and the proportion of Low-white collar is the highest observed, by a significant margin.

The building at 64 / 66 Baker can mostly be described as a boarding house. It has by far the highest number of recorded residents, with by far the shortest average stay. The ages are blow average, and the gender ratio is heavily skewed towards males. The ethnicities of residents are mixed, while the occupations are predominantly skilled laborers, followed by Low white-collar workers.

### Maps of Sites

#### Map Creation

Knowing where structures were located on a site is critical to interpreting artifact distribution on that site, and to interpreting the behavior that created that distribution. As compendia of spatial information, historical maps are vitally important records for archaeological work. In this study, they serve to locate structures which shaped certain patterns of behavior in both the Hurttienne and Meyer properties. However, a substantial percentage of the structures depicted on the 1884 Sanborn map, as an example, are no longer standing. In order to examine activities associated with those structures, they must be resolved to a modern spatial location. This process is formally known as georectifcation, and it is critically important to the accurate use of historical maps in archaeological work. The following section will describe the steps taken on this project to georectify the historical maps that were used, as well as the challenges encountered in this work and the steps taken to mitigate them. It will also present the new maps generated, which guided both archaeological excavation and subsequent analysis.

Figure 6 shows a current aerial photograph of the Hurttienne lot, with the area studied outlined in orange. It is bounded by a concrete sidewalk to the south, chain-link fences to the east and west, an alley to the northeast, and a berm approximately 1 meter high to the northwest. The garden shown in figure 6 was created after the excavations performed for this project.

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Figure 6. Aerial photography of Hurttienne lot.

Figure 7 shows a similar view of the Meyer lot, with this study area outlined in purple. It is comprised of the yard owned by the Meyer family, and is bounded by their house, a concrete sidewalk to the north and west, a concrete alleyway to the south, and a wooden fence to the east. It should be noted that the aerial photography shown in Figures 6 and 7 serves as a base upon which numerous other data is projected elsewhere in this study.

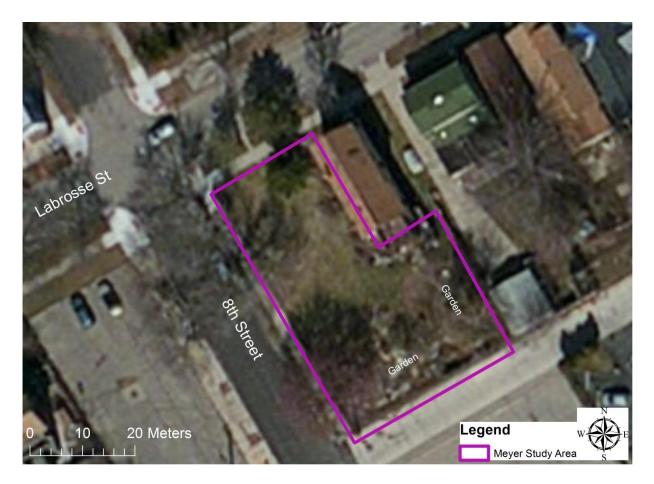


Figure 7. Aerial Photography of Meyer lot.

This study was constrained by contemporary property boundaries – excavations were limited to the land actually owned by Hurttienne and the Meyers. These current boundaries have mostly remained consistent with their 1880's counterparts, but in some instances have changed. For example, it appears that the location of alley that forms the southern boundary of the Meyer property has remained unchanged, but it appears that the Meyer's eastern boundary now extends somewhat into the lot that in 1950 held another residence. The area of study for the Hurttienne property now only contains the western half of what used to be owned by residents of 54 Baker. Additionally, the rear portion of the lot at 56 Baker has been turned into a gravel parking lot for the large body shop across the alley, and was effectively unavailable for archaeological excavation.

In order to make use of the previously mentioned historical maps, each of them had to be georectified. To start this process, each historical map was digitized and turned into a raster (i.e. computer image) file. At this point, to be meaningful, the image files must be given spatial information. A city block on a 1920 map, for example, must be properly sized, aligned, and located with the proper geospatial coordinates such that a street corner on the original map is located at the same place as its modern counterpart. In order to accomplish this, ESRI's ArcGIS 9.3 program was used to perform various geometrical transformations to virtually rotate, stretch, bend, etc. the original map. In the type of georectification performed for this project, global accuracy (i.e. the general fit of each map sheet as a whole) was given greater priority than local accuracy (i.e. forcing the exact fit of any particular portion). Due to this compromise, it may be noted that there are some small discrepancies between the locations of buildings over different Sanborn maps. I do not believe that these are the result of errors of the original Sanborn maps, but rather of the georectification process. Furthermore, I believe that the discrepancies are relatively small, on the order of a meter or less. Since there were architectural features found in the very near proximity of where the created maps predicted they should occur, the maps seem accurate enough to provide good results for this particular project. Three examples are shown in Figure 8, below.



Figure 8. Location of particular points of interest with respect to former buildings - A) 1884 Sanborn maps overlaid on the Hurttienne lot, B) 1921 Sanborn maps overlaid on the Hurttienne lot, C) 1897 Sanborn maps overlaid on the Meyer lot

Figures 8a and 8b show aerial photography of a portion of the Hurttienne lot, overlaid with georectified images of the 1884 and 1921 Sanborn maps, respectively. Marked in Figure 8a is test pit E11 N8 on the Hurttienne lot. The northern portion of this unit contained at least nine courses of a brick structure running east to west and parallel to the street, which almost certainly corresponds to the front of the building that once existed at 58 Baker Street (now Bagley Avenue). Figure 8b shows that test pit E12 N15 of the Hurttienne lot falls almost exactly on an interior wall of the house that used to be known as 56 Baker. In this unit, another brick wall feature was found, again running east to west and parallel to the street. This was probably the wall of a basement for that structure. Figure 8c is on the Meyer lot,

and shows the 1897 Sanborn map overlaid on aerial photography. The test pit E5 N20 falls in very close proximity to the east wall of the structure that was once at 137 Labrosse. In this test pit, there was a brick wall on top of a concrete pad, the wall running parallel to the west wall of the Meyer house. It seems likely that this feature corresponds to the wall of the basement of 137 Labrosse. Photographs of all three of these features can be found in Appendix Figures A9 through A12. As was mentioned above, the finding of wall features in each of these test pits, whose locations match structures shown on three different georectified Sanborn maps, gives me a high degree of confidence in the accuracy of the georectification work done for the Meyer and Hurttienne lots.

The maps in the following section were created from historic documents. Seasholes states that historic maps in urban areas "can be evaluated...by assessing the purpose for which the map was made, the audience for which it was intended, the bias of the cartographer, and the cartographic accuracy of the map itself" (1998: 118). The 1853 Hart map is on file at the Detroit Public Library's Burton Historical Collection. It was photographed by Dr. Thomas Killion and Dianna Jakubiec, then the image was cropped and georectified. This image was then used to create Figure 9 (below) and Appendix Figure B1. The resolution is unfortunately poor, but it does show the earliest known buildings in the vicinity of the Hurttienne and Meyer properties. The Digital Sanborn maps that were used are black and white digital copies of a series of maps created by the Sanborn Company for various years throughout the 19th and 20th centuries. The original maps were created with various colors depicting the use of different building materials in the construction of the various structures. The images used for this project were created by Proquest LLC, which microfilmed them from the collection of the Library of Congress, and then created PDF documents of those microfilms. There are some challenges to using the images from this collection - the 1884 maps, for example, were originally bound in their volumes such that a single map sheet covered two pages. This led to there being a crease in the middle of the map sheet, which upon digitization often created distortion of the map in the vicinity of that crease. By 1897, the Sanborn

Company seems to have stopped this practice for at least the Detroit maps, and each map sheet is fully contained on a single page, eliminating the effect of the crease. Another challenge associated with the digital Sanborn maps is the quality of the digitization - the resolution is for the most part quite good, but some portions of the maps can be of lower quality and / or faint and thus more difficult to read.

Another challenge is that these digitized files are in black and white, and not in color. This means that the information on building materials present in the color version is not retained. This can be rectified by consulting the originals when necessary. Lastly, there can be difficulties with revisions of the original Sanborn maps. In order to update the maps between the issuance of new editions, the company would periodically send out sheets of revisions that were meant to be cut out and pasted onto the original map sheets. For example, if a block of homes was razed and turned into a park, a new blank square might be pasted on top of the old location of those homes. It is my experience that, at least in the Detroit area, the date on which a specific revision was made is not always explicitly recorded, and if multiple new parts have been pasted on to a certain area, it can be very difficult to determine which change happened when. Fortunately, there were no such revisions evident in the maps used in this project. This absence of revisions allows me to use the printed date of publication of the Sanborn maps as a reasonable depiction of the existing structures for that year.

In the case of the city of Detroit, there exist Sanborn maps for the years 1884, 1897, 1921, and 1950. As noted by Seasholes, atlases containing these types of maps "were sponsored by fire insurance companies and were intended to help these companies assess the fire risks in the buildings depicted" (1998:106). They were used in this research project because they accurately show the location of buildings at these various times on the Hurttienne and Meyer lots.

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The earliest map to show the Hurttienne lot is the 1853 Hart map. After georectification (shown below in Figure 9), it is seen that there is only one structure extant in what would become the Hurttienne lot, found in Block 58 lot 11. It seems likely that this is the same building depicted later with the address of 54 Baker. An un-georectified version of this image can be found in Figure B1 in the Appendix. The Hurttienne and Meyer study areas referred to in Figure 9 are the boundaries of the portions of the lots that were excavated and used in subsequent analyses.



Figure 9 - Georectified Hart map, 1853.

The next depiction of the Hurttienne lot comes from the 1884 Sanborn map. The black and white pdf images were georectified and imposed upon aerial photographs, resulting in Figure 10. At this time, there are structures labeled as 54, 58, and 66 Baker Street. Only the western half of the 54 Baker

Street home is located within the study area. This structure may or may not be the same as was depicted on the Hart map. See Appendix Figure B2 (page 118) for the cropped but un-georectified black and white Sanborn image.

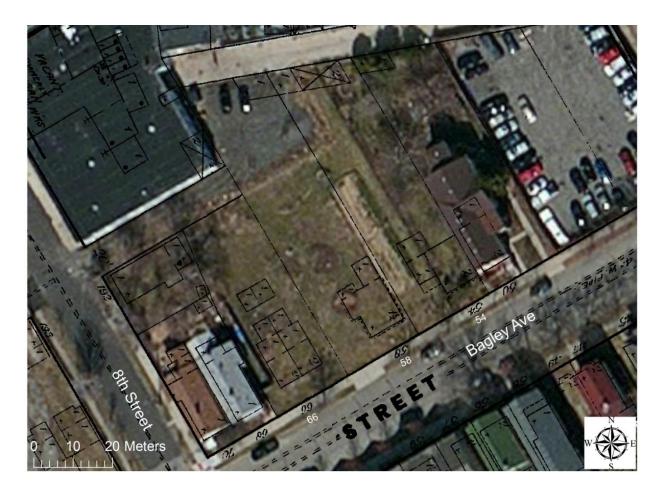


Figure 10. Georectified 1884 Sanborn Map (Sheet 15a), superimposed on aerial photography, showing the Hurttienne lot.

It is also worth noting at this time the character of the buildings as depicted on this map. The building at 54 Baker is 2 stories, with what appear to be two 1 story extensions. It has a shingle roof, and is made of brick. The extensions to the rear of the lot are made of wood, as is the porch depicted by the dotted line. Its backyard is mostly empty, save for two structures at the rear. The eastern one is a stable (signified by the lines crossing the drawing) two stories tall with a shingle roof, while the western one is

a single story with a shingle roof. At 58 Baker, the main dwelling is one and a half stories tall, has a shingle roof, and two one story extensions to the rear. Its back yard is also mostly empty, save for a single story structure adjacent to the alley. 66 Baker consists of a single building split down the middle, sometimes referred to as a "workers cottage". The forward part is two stories, while the rear is a single story. Close behind the building is a single story structure that likewise seems divided in two. The rest of its back yard is empty. There are also fences separating these three properties.

The 1897 version of the Sanborn maps (Figure11) show some changes that occurred in the intervening 13 years. At this later time, there are structures contained within the study area labeled as 56, 58, 64, and 66 Baker Street. The structure that was labeled as 54 Baker Street on the 1884 map is no longer in existence. In its place are new buildings for 54 and 56 Baker. 54 Baker seems to now be outside of the Hurttienne study area. The front half is made of brick and two stories tall, while the rear is one story tall and a wood frame. The structure at 56 Baker is a wood frame one and a half stories tall, with a 1 story addition at the back. The brick structure at 58 Baker seems to have only undergone minor changes. The structure formerly labeled 66 Baker seems to have been either extensively remodeled or completely replaced with the structure now labeled as 64 and 66 Baker. It is two stories tall, with a wooden frame. See Appendix Figure B3 for the cropped but un-georectified black and white Sanborn image.

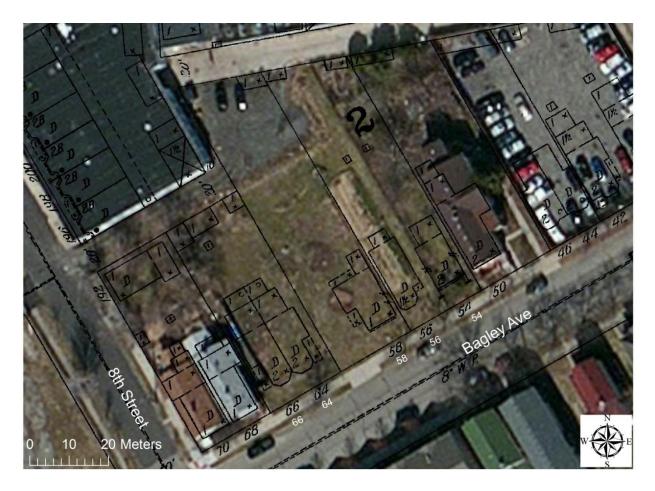


Figure 11. Georectified 1897 Sanborn Map (Volume 1, Sheet 18), superimposed on aerial photography, showing the Hurttienne lot.

The 1921 Sanborn map (Figure 12) shows that the structures appear relatively unchanged from the previous map. It may be noted that this map includes two sets of street addresses, one from before 1920, and one from the city-wide address standardization that occurred in 1920. The structures at 56, 58, 64, and 66 Baker Street are from here on known as 1336, 1342, 1350, and 1356 Baker Street, respectively. See Appendix Figure B5 for the cropped but un-georectified black and white Sanborn image.



Figure 12. Georectified 1921 Sanborn Map (Volume 1, Sheet 20), superimposed on aerial photography, showing the Hurttienne lot.

Lastly, there is the Sanborn map from 1950 (Figure 13). The structures appear relatively unchanged from the previous map. It can be noted that, by this time, Baker Street has been renamed to its current moniker of Bagley Street. The most notable change is the addition of a long, relatively narrow building at the rear of the 56 Baker lot. Its function is not clear from this map. See Appendix Figure B7 for the cropped but un-georectified black and white Sanborn image.



Figure 13. Georectified 1950 Sanborn Map (Volume 1, Sheet 20), superimposed on aerial photography, showing the Hurttienne lot.

In order to visualize the spatial relationships of all of these buildings over the course of time, it is helpful to be able to superimpose all of these maps upon each other. This has been done in Figure 14, with each year's structures outlined in a different color. More detailed information about each structure can, of course, be obtained by examining the individual figures for any particular year. As was discussed previously, the structures do not align 100% perfectly with each other - this is believed to be a result of minor discrepancies in the georectification process.



Figure 14. Multi-year depiction of structures found in the vicinity of the Hurttienne lot.

## <u>Meyer Lo</u>t

In examining the Hart map (Figure 9), it can be seen that there are no structures located on the Meyer property (Block 60 lots 6 and 7). However, there is a structure depicted on Block 60 lot 5 at this time. Georectification of the historic maps puts this structure and its backyard completely outside of the Meyer study area, so it is not considered in this thesis. It may be the case though that the house with a green roof next to the Meyer residence (131 Labrosse) in Figure 15 is in fact the same structure as depicted on the 1853 Hart map – a passing remark by the current owner of that house suggested that it could be that old.

The first depiction of structures on the site comes with the 1884 Sanborn map, as shown in Figure 15. At this time, there is a single structure labeled as 131 Labrosse Street. It is a one story structure with a single roof. It is in approximately the same location as the present day Meyer residence. See Appendix Figure B2 for the cropped black and white Sanborn image.



Figure 15. Georectified 1884 Sanborn Map (Sheet 15a), superimposed on aerial photography, showing the Meyer lot.

By 1897, there are two structures on the Meyer lot, as can be seen in Figure 16. The structure at 131 Labrosse appears to have been modified in shape and location enough to suggest that it is not the same structure previously depicted in 1884, but is a wholly new domicile. This new structure is wood frame and 2 stories tall. The structure labeled 137 Labrosse does not appear on the 1884 Sanborn map -

at that time, the space was vacant. It is also two stories tall, with a wood frame. At this time, there are also two story wood frame stables behind each house. See Appendix Figure B4 for the black and white Sanborn image.



Figure 16. Georectified 1897 Sanborn Map (Volume 1, Sheet 20), superimposed on aerial photography, showing the Meyer lot.

Figure 17 shows the Meyer property as it was recorded on the Sanborn maps in 1921. The structures appear relatively unchanged from the previous map. It may be noted that, as was previously mentioned in the case of the Hurttienne lot, this map includes two sets of street addresses, from before and after 1920. Between 1897 and 1920, the structure that was labeled 131 Labrosse had been relabeled 133 Labrosse. This was a common occurrence at the time, and was probably necessitated by a new house being place somewhere farther east on the block - the new house would have adopted the

address number of a former structure, forcing all houses on that block west of the new house to be renumbered. The abolishment of this confusing system was one of the reasons for the 1920 standardization of street addresses across the entire city of Detroit. In any case, after the changeover in 1920 this house that had been both 131 and later 133 Labrosse became 1353 Labrosse. The adjacent structure merely was renamed from 137 to 1361 Labrosse. See Appendix Figure B6 for the black and white Sanborn image.



Figure 17. Georectified 1921 Sanborn Map (Volume 1, Sheet 22), superimposed on aerial photography, showing the Meyer lot.

The last Sanborn map, from 1950, is shown in Figure 18, below. The structures appear relatively unchanged from the previous map. See Appendix Figure B8 for the cropped black and white Sanborn image.



Figure 18. Georectified 1950 Sanborn Map (Volume 1, Sheet 22), superimposed on aerial photography, showing the Meyer lot.

Similarly to the Hurttienne lot, it is helpful to show the passage of time on the Meyer lot by superimposing outlines of all the buildings, which is shown in Figure 19. It appears that the eastern structure on the lot, shown on the 1884 map, was replaced by a second structure in the same place by 1897, and after that only underwent some minor cosmetic changes over the years. The eastern structure appears to have a similar history.



Figure 19. Multi-year depiction of structures found in the vicinity of the Meyer lot.

# Archaeological Methods and Spatial Analyses

At each property, a series of shovel test pits were excavated, each 1 meter in depth and approximately 40cm in diameter. These test pits were laid out along a hexagonal grid pattern, spaced such that all pits were 4 meters apart.



Figure 20. Schematic of creation of the hexagonal test pit grid at Hurttienne lot.



Figure 21. Hexagonal test pit grid at Hurttienne lot.

The starting point for the layout of the grid in the Hurttienne lot was the intersection of the alleyway that forms its northern boundary and the chain link fence line that formed its eastern

boundary. In the final coordinate system, this is point East 8 North 33, abbreviated E8N33. From this point, a line was drawn south to Bagley Street, with the location of a potential test pit marked every 4 meters. See Figure 20. Further north-south lines of test pit locations were created by measuring, from any two adjacent points in line, an equilateral triangle 4 meters to a side. The resultant grid is shown in Figure 21. This pattern insures that any feature four meters in size or greater would be detected by at least one test pit.

Note that because of the way this grid was constructed, lines that run east-west are 2m in separation, but lines that run north-south are 3.46m (i.e.  $2\sqrt{3}$  m) apart. See Figure 22, below.

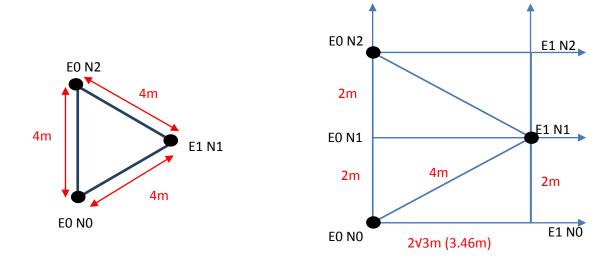


Figure 22. Schematic of the geometry between grid points.

In this schematic, the naming scheme shows that points on the grid are named for the lines they lay upon – E1 N2 lies upon the first north-south line to east of the north-south baseline, and on the second east-west line north of the east-west baseline. The naming scheme has no relation to the actual distance between points – that distance is related to the equilateral triangles formed when laying out the pits using a pair of tape measures four meters in length. The zero coordinate (E0 N0) was chosen to be south and west of any possible point to be excavated in the lot. The grid system for the Meyer lot was laid out in a similar manner, with the same objective - namely, the creating of a hexagonal grid in which all test pits would be 4m distant from their closest neighbors. In this case, the first line of pits was laid out extending north towards Labrosse Street from the terminal fence post in the fence line separating the lot from the sidewalk along 8<sup>th</sup> Street. This is shown as point E3 N10 in Figure 23.

The streets of Detroit (to which structures such as houses are aligned) in the vicinity of the Meyer and Hurttienne properties run approximately 30 degrees off of north-south and east-west. To decrease the chance of a line of test pits running parallel to (and thus completely missing) buried features such as basement walls, the test pit grids were constructed with a magnetic north-south orientation so that they would not cycle with street generated alignments.



Figure 23. Hexagonal test pit grid at Meyer lot.

Time and available manpower did not allow for every possible test pit location upon these grids to be excavated. In the Hurttienne lot, it was decided to forgo excavating the test pits that fell in very close proximity to the small berm that edged the extant gravel parking lot, as it was believed that the stratigraphy in these locations would be too disturbed to be useful. At the Meyer lot, test pit locations were selected with preference towards the rear of the lot - this was believed to be the area which would have retained the most evidence of past activity, as well as being the area which would least disturb the current residents of the property. Figures 24 and 25 below show the locations of the test pits that were actually excavated during this project.



Figure 24. Excavated test pits at Hurttienne lot.



Figure 25. Excavated test pits at Meyer lot.

# Excavation Methods

Soil from each test pit was screened through a 1 cm mesh screen. Excavators recorded recovered artifact type, weight, and frequency for four 25cm levels - level 1 extending from the surface to a depth of 25cm, level 2 continuing from 25 to 50 cm, etc. Artifacts were separated into one of 5 types - glass, ceramic, bone, metal, or other. The glass category included both window and vessel glass, and it was recorded how many pieces of each was found, as well as the color. For example, a level might have had 10 glass pieces recovered, of which 2 were colorless window glass, 3 were colorless vessel glass, and the remaining 5 were blue vessel glass. Artifacts in the ceramic category were broadly separated into six categories, based on broader conventional categories of wares. These were judged by the primary investigator from prior work at the Workers Row House to be most likely to be present -

transfer print, flow blue, yellowware, stoneware, redware, and (undecorated) whiteware. For pieces which did not fit any of these categories, additional notes were made. The bone category would probably better be described as a "fauna" category. While the vast majority of faunal remains recovered were animal bones, there were some animal teeth also found, as well as a single cache of several dozen oyster shells. Artifacts in the metal category were largely either iron nails, nail fragments, or fragments which at one time would have been iron or iron alloy artifacts, but were now too corroded to be properly identified. The final category, other, was for artifacts which did not fit into any of the previous four. Mostly, these were items which were deemed to be of a personal nature, such as children's marbles, clothing buttons, shoe eyelets, doll fragments, etc. Comparatively few artifacts were placed into this category.

For each 25cm level of a test pit, all artifacts were counted and weighed and recorded by type. Then the artifacts were sorted as being diagnostic or non-diagnostic. Diagnostic artifacts were considered those that had a reasonable possibility to be dated rather narrowly, could possibly be sourced to a place of manufacture, or about which more detailed function could be discerned, such as vessel type. For example, any pottery sherd or glass fragment that had any amount of writing on it or any kind of makers mark was considered diagnostic. Artifacts that appeared to be of a "personal" nature, such as buttons, doll parts, or marbles were always considered diagnostic. Additionally, metal artifacts which were thought to be in sufficiently good shape as to be potentially identifiable and all artifacts in the bone category were retained, no matter their size.

The majority of artifacts which were recovered did not fit into this schema, and were therefore not kept for further processing and identification. Instead, they were redeposited in their test pit immediately before it was back-filled.

In addition to the artifacts found in each test pit, a profile drawing was created and profile photographs of the side walls were taken. Excavators were also instructed to recorded soil consistency,

inclusions such as brick, gravel, or mortar, and Munsell color numbers. This was to be done at a minimum for each of the artificial 25cm layers, and more frequently if required to adequately describe the natural stratigraphy of the test pit. A written description of the excavation of the test pit was also included, especially noting anything found to be unusual (such as several layers of bricks still in course), observed relationships to other test pits, or other information which might be relevant to later site interpretation.

After each test pit had reached one meter in depth, a 20cm depth core sample was removed with a soil auger with a head 8cm in diameter and 16.5cm deep. This core was examined in order to determine if any further cultural artifacts were believed to be found at a greater depth. In most cases, it was observed that the test pit had reached sterile soil prior to the end of Layer 4, and this was merely a formality. In some cases, however, successive core samples were taken to depths of 40cm or more.

## Inverse Distance Weighting (IDW) Interpolations of Artifact Distributions

Roskams notes that when using a test pit strategy, "such a technique, employing very small sampling units...means any interpretation must be based on sampling fractions which are minute in areal terms" (2001:49). To get around this problem, I have used the strategy of mapping the frequency distribution of artifacts across the Hurttienne and Meyer properties, and then performing an Inverse Distance Weighting (IDW) using the ArcGIS software. IDW interpolation is a technique by which known values of a variable at specific points on a surface are used to predict unknown values at other points. In an IDW interpolation, as the name implies, the input data points used in a calculation are given weights inversely proportional to their distance away from the location of the calculated point – known data points which are farther away are given less weight than those that are close. In the calculations made for this project, every point in our IDW surface was given a predicted value based upon the measured value for the 12 closest test pits, with greater weight being assigned to closer pits than farther ones, and

weight decreasing with the square root of the distance between the sample pit and the prediction location.

This mathematical operation creates a new raster map file, where each pixel in the raster is assigned a predicted value. For example, an IDW for the Hurttienne property for the frequency of metal artifacts in level 2 would use the measured frequencies of metal artifacts in level 2 for all 94 test pits to predict values for all points which are not one of the 94 test pits. This results in an interpolated continuous surface for the entire property. This is valuable for two reasons – first it provides an easily readable contour map that organizes the distribution of artifacts into isopleths and helps to identify areas of low and high concentration. This contour map can then be used to examine the site formation processes that yielded this artifact distribution pattern. Secondly, such a contour map can be used as a prediction tool. It predicts, based on the excavations already carried out, with the test pit spacing used, how many artifacts would be found in a new test pit placed anywhere on the interpolated surface. Of course, such a predictive tool is unlikely to ever be perfect – with any test pit strategy one is sacrificing fine detail in order to survey a larger area. The test pits in this survey were placed 4 meters apart. It is certainly conceivable that there exists a 1m square trash burial somewhere in the survey area which contains a massive concentration of artifacts and was completely missed. If one dug at that point, the predictive model would almost certainly be shown to be incorrect at that point. However, this new pit could be geolocated, and the new artifact counts could be used to calculate a new, more accurate IDW surface. Of course, the greater the percentage of the surface area that is excavated, the less need there is for a predictive model in the first place.

As this description of the procedure used implies, the more spread out the known data points, or the farther away one gets from all of them, the less accurate the interpolation becomes. In recognition of this, the IDW surfaces generated in this study were terminated at specific boundaries, labeled in all maps in this project as Hurttienne (or Meyer) Study Area. It is not possible to be located within the Hurttienne boundary and also be more than 8m from the closest test pit. This occurs at the extreme southeast corner of the boundary area – most points within it are considerably closer to many test pits. This area of the Hurttienne maps is likely to yield the least accurate prediction. For the Meyer property, a smaller percentage of the total area was excavated, and the maximum distance to a test pit is 10m, which occurs at the extreme northeast corner. In the center of the northern portion of the map, in the middle of where the home at 137 Labrosse once stood, the maximum distance to the closest test pit is about 6m.

In order to make the IDW maps more useful, the contour lines were broken into 8 categories. Namely, areas where 0 to 13 artifacts are predicted are grouped together, as well greater than 13 to 26, greater than 26 to 39, greater than 39 to 52, greater than 52 to 65, greater than 65 to 78, greater than 78 to 91, and greater than 91. The number of test pits in this last category is relatively small – for example, in level 1 of the Hurttienne lot, only one test pit (E4 N19) falls into this category, with 155 artifacts. It should also be pointed out that, as the largest data point entered into the IDW calculation, it is also the maximum point on the calculated surface – it is not possible for any calculated value to exceed it.

The formula used for predicting the value of each value in the raster is

$$Z(s_0) = \sum_{i=1}^N \lambda_i Z(s_i)$$

where  $Z(s_0)$  is the value being predicted for location  $s_0$ , N is the number of measured points being used to predict  $s_0$  (in this case, 12),  $\lambda_i$  is the weight assigned to each sample point, and  $Z(s_i)$  is the measured value at point sample point  $s_i$ . The weight for each sample point is given by the equation

$$\lambda_{i} = \frac{d_{i0}^{-p}}{\sum_{i=1}^{N} d_{i0}^{-p}}$$

where  $d_{i0}$  is the distance between  $s_0$  and  $s_i$ , and p is the weighting factor (in this case, 2). The sum of all of the weights for a given location is equal to 1 (Johnston: 114). The result of these equations is that every point in our IDW raster will be given a predicted value, based upon the measured value for the 12 closest test pits, with greater weight being assigned to closer pits than farther ones, and weight decreasing with the square root of the distance between the sample pit and the prediction location. In this way, these equations are responsible for creating the contour maps which show high and low density of artifacts.

IDW interpolations were created for the artifact frequency for each level of the Hurttienne and Meyer lots. Each of these interpolations are further overlaid with building footprints obtained from the Hart map of 1854 and Sanborn fire insurance maps from 1884, 1897, 1921, and 1950. The resultant figures are shown below in Figures 26 through 33. Levels 1 and 2 for each lot were overlaid with the 1950 and 1921 building footprints, as it seems that the upper levels are most likely to directly relate to the later use of the sites. For the same reason, levels 3 and 4 are displayed with the older building footprints from the 1897, 1884, and 1854 maps.

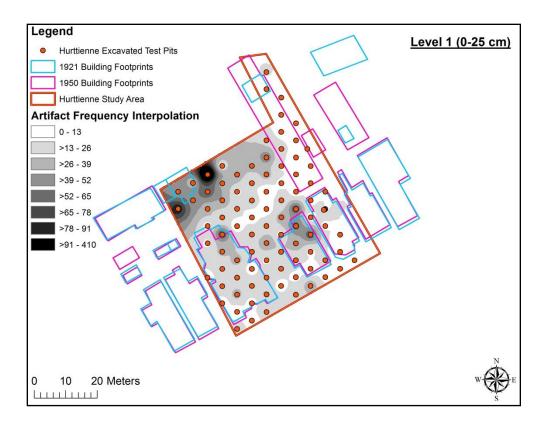


Figure 26. Interpolation of artifact distribution for Hurttienne lot, level 1.

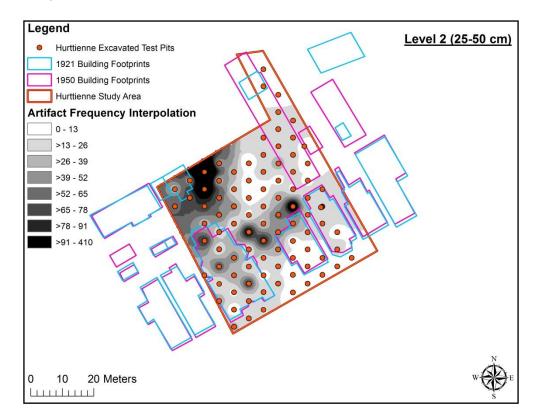


Figure 27. Interpolation of artifact distribution for Hurttienne lot, level 2.

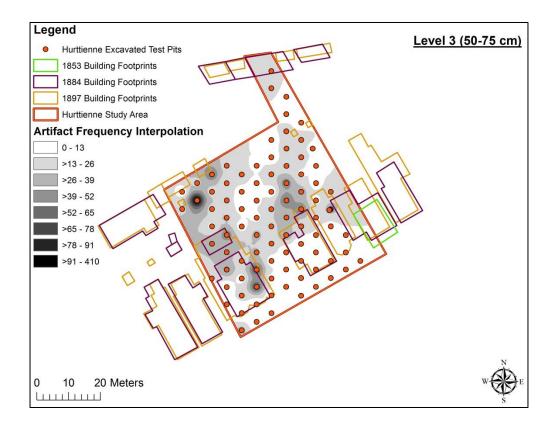


Figure 28. Interpolation of artifact distribution for Hurttienne lot, level 3.

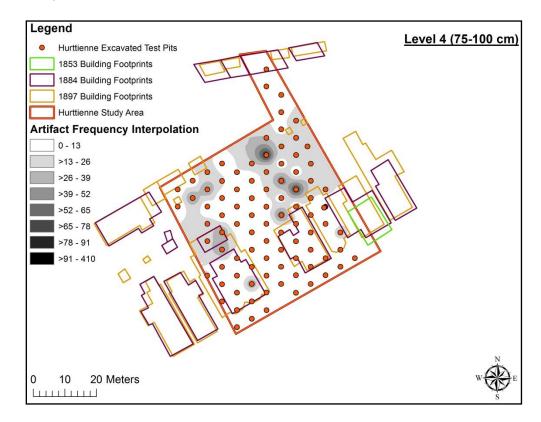


Figure 29. Interpolation of artifact distribution for Hurttienne lot, level 4.

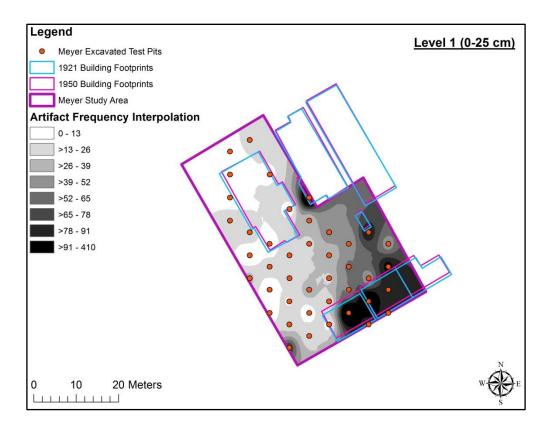


Figure 30. Interpolation of artifact distribution for Meyer lot, level 1.

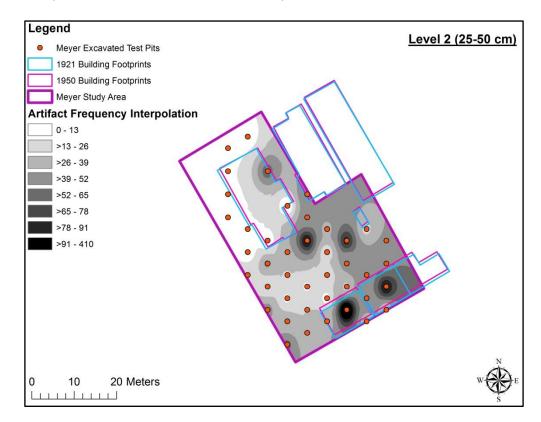


Figure 31. Interpolation of artifact distribution for Meyer lot, level 2.

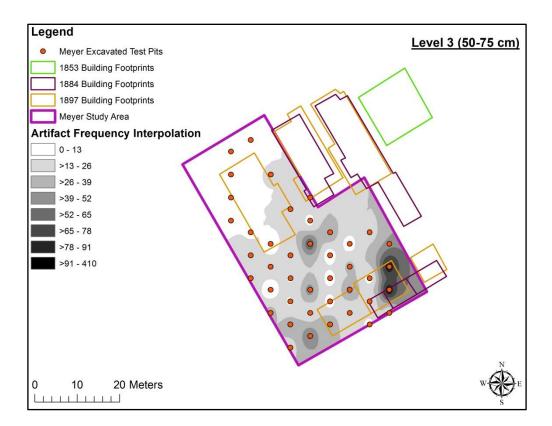


Figure 32. Interpolation of artifact distribution for Meyer lot, level 3.



Figure 33. Interpolation of artifact distribution for Meyer lot, level 4.

## Hurttienne Lot

Figures 26 through 29 above show the total distribution of artifacts recovered at the Hurttienne lot. It appears that the oldest two excavation layers (levels 3 and 4) have a very different character when compared to the younger levels 1 and 2.

In level 4 (Figure 29), it is found that the vast majority of artifacts are concentrated in the backyards of the two houses which would have been 58 and 66 Baker on the 1884 Sanborn map. A similar concentration of artifacts is not found to the rear of 54 Baker, but this is probably due to the fact that only half of the backyard of that house is contained in the surveyed area, and to the fact that few test pits were dug near the extreme eastern edge of the Hurttienne lot because of how the fence line was aligned with the hexagonal grid for test pit placement. In level 3 (Figure 28), there is much the same pattern - there seems to be some artifacts appearing in the area between 58 and 66 Baker, but on the whole they are still strongly concentrated in what would have been the backyards of these two structures.

Levels 1 and 2 (Figures 26 and 27, respectively) do not hold to the pattern seen in older levels. In level 2, it appears that artifacts are distributed across the entire lot, with a particular concentration towards the north. Level 1's artifacts are strongly concentrated towards to northwest corner.

As was mentioned earlier in this thesis, the most prominent post-depositional event for the Hurttienne property occurred when the burned-down buildings were bulldozed and a parking lot was created on top. To use Schiffer's terminology described earlier, this would have been a primary construction stage impact upon the site. It seems likely that this kind of activity would have impacted the artifacts in the ground significantly, especially those closest to the surface. Presumably this parking lot creation would mean that much of the dirt (and the artifacts contained therein) would have been spread all over the lot. It also seems likely that the berm located at the northern edge of our analysis

boundary was created at this time, and the pattern of artifact distribution seen in Figures 26 and 27 is a result of the creation of that berm by earthmoving equipment. Namely, the artifacts are generally spread evenly in the first two levels, with the highest concentrations being in close proximity to the northern berm.

In the field notes for the Hurttienne lot, test pits E14 N19, E5 N20, and E6 N19 (located just south of the berm) are all noted to contain a significant amount of whole and half brick fragments, as well as concrete chunks, throughout level 2. In level 3 of pits E6 N19 and E8 N23, the excavators noted burned material, brick, concrete, and even plastic. Generally, all of these pits were described as having highly disturbed stratigraphy. These observations are all consistent with the above conclusion, that the distribution of artifacts of levels 1 and 2, and to an extent level 3 near the berm, was created mainly by the earthmoving event that also created said berm.

In addition, I also point to the distribution of one particular class of artifact – window glass. Interpolations of the window glass at the Hurttienne lot can be seen in Figures B13 through B16 in the Appendix. In these four maps, the distribution of window glass correlates strongly with the locations of demolished buildings and with the aforementioned berm. Even in the older levels 3 and 4, there are groupings of window glass in close proximity to the structures found at 66 Baker the 1884 Sanborn maps (marked in purple). As pointed out earlier, it appears that between 1884 and 1897, this structure was either very extensively remodeled or entirely replaced. The recovered window glass in levels 3 and 4 seem likely to date from this event.

## Meyer Lot

In Level 4 (shown in Figure 33), there is a similar distribution of artifacts in the Meyer lot as was found for the corresponding level in the Hurttienne lot. The highest concentrations can be found to the south of the lot, near outbuildings at the rear of the lot which would have likely been areas of high levels of activity, and near the rear of the house which appears as 137 Labrosse by the 1897 Sanborn map's publication. In Level 3, the pattern remains much the same, with the highest concentrations found in the same places.

By Levels 1 and 2, near the present day surface, the distribution is much more evenly distributed over the entire rear portion of the lot, especially towards the eastern section of it. Through informal discussion with the current owners of the property, it seems that this area has been extensively used as a garden for at least the past 20 years.

In terms of impacts upon the archaeological record, discussed earlier, there do not seem to be the same construction-stage impact as seen at the Hurttienne property, even though there was a somewhat similar event, namely the burning down and bulldozing of a house. Unlike the Hurttienne lot, though, there was no berm or other readily visible evidence of the bulldozing - it may have been the case that much of the left over rubble was bulldozed into what was the basement of the house, in order to fill it in. Unfortunately, time constraints during the archaeological project did not allow for much investigation via test pits in the area of the lot that would have been inside the building's footprint.

The rear part of the Meyer lot was much more thoroughly sampled, though, and permits discussion of the impacts that gardening would have had upon that area. As was mentioned, it was used as a garden for at least 20 years. The tilling of soil would have disturbed the archaeological record to some depth below the surface, moving artifacts both horizontally and vertically. In this case, more than the Hurttienne property, it would be the operating-stage impacts which would be most relevant, that is those impacts that occur once construction has been completed as use begins. More specifically they would be primary operating-stage impacts, being a result of the garden that has been created in the Meyer back yard being used in its intended role as a garden. Since there is no reason to believe that after being made that the garden was ever used to any purpose as anything except a garden, I do not

expect any secondary impacts, nor do I expect that it caused other areas to be any more or differently used, creating tertiary impacts (Schiffer 1987:134-136).

In terms of the distribution of window glass, the Meyer lot follows the same pattern as at the Hurttienne lot. The interpolations for levels 1 through 4 can be found in the Appendix Figures B17 through B20. Much of the window glass here is concentrated at the rear of the lot, where several outbuildings once stood. Additionally, in levels 1 and 2, there was a significant amount found in the north half of the lot in the space that had existed between the demolished 137 Labrosse and the currently still standing 131/133 Labrosse. It appears, just as with the Hurttienne lot, that the highest frequency of window glass correlates with the location of former structures and was probably deposited at the time of their removal.

The single exception would be level 2 of test pit E5N4 on the Meyer lot, which is located at the southwest corner of the lot. This level contained 42 pieces of window glass, the second highest count for all test pits and levels, but is not located particularly near any mapped structures. The excavators noted this test pit contained a significant amount of bricks and other "construction fill", which did not carry over to adjacent test pits. Additionally, there are no known brick structures to ever have existed on the Meyer lot – all buildings and outbuildings are coded as being of wood construction on their respective Sanborn maps. It appears that the window glass of this test pit was dumped here at some point in time and has no particular relation to buildings that were once located there.

# **Artifact Summary**

"while the study of documents...is essential to urban archaeology, it is the materiality of an urban site that breathes life into a city's past, illuminating its relationships with its present. It is the same physicality that makes urban living different from rural, or even suburban, living" (O' Keefe 2006: 96).

As Mrozowski et al. note, one of the high points of historical archaeology can be that "we can talk about the events in someone's life, and sometimes actually observe the very objects that this

person made or used and left behind. In this way, the work of historical archaeologists can take on personal and biographical dimensions, making the experience of the past even more immediate for us" (1996: 18). Unfortunately, in this research project I was unable to identify any particular object as being related to any particular individual. Instead, I have examined the artifact collections in their entirety.

In total, a there were 94 test pits dug at the Hurttienne property, and 42 dug at the Meyer property. The totality of artifacts recovered for the Hurttienne and Meyer lots are show below in Table 10. As can be seen, approximately half (by frequency) of all the artifacts recovered on each property were glass. The distributions are pretty comparable between the two sites. In terms of frequency percentages, there was significantly more glass at the Hurttienne lot, but the weight percentages are almost even. This suggests that, if the total weights are proportional, then the average size of glass artifact was smaller at the Hurttienne lot. This turns out to be true – the average weight for a glass artifact at the Hurttienne lot is 204.8 g, while it is 205.4 g for the Meyer lot. The Meyer lot turns out to have a bit higher frequency percent of bone and metal artifacts. In terms of artifacts in the ceramic and other categories, the two sites are about even.

There was one test pit on the Hurttienne lot whose artifacts deserves special mention, test pit E7 N8. In level 3, at a depth of 67cm, there were found 68 oyster shells, in a layer 5cm thick. The location of this test pit can be seen in Figures 8a and 8b. From this position, it seems likely that this deposit dates to sometime prior to 1897 – it would fall inside of the buildings depicted on the 1897 and later Sanborn maps, but would fall just outside the structure on the 1884 Sanborn map. This would also fit with the shell's depth below the surface. It seems likely that these oyster shells were deposited in a single event, possibly some sort of celebration. Oysters are not native to the Great Lakes, and would have had to have been imported from the East Coast. MacKenzie notes that "oysters, harvested in huge quantities in the mid 1800's to early 1900's, became a popular fresh food for Americans" and that Detroit numbered as one of the major cities that imported them (MacKenzie 1996:14).

a.

	Hurttienne Property						
Category	Total Frequency	Total Weight (g)	Frequency %	Weight %			
Glass	3946	19247.1	55.4	23.9			
Ceramic	909	13476.3	12.8	16.7			
Bone	586	4551.5	8.2	5.7			
Metal	1456	37200.2	20.5	46.2			
Other	221	6080.6	3.1	7.5			
Total	7118	80555.7	100.0	100.0			

b.

		Meyer Property						
Category	Total Frequency	Total Weight (g)	Frequency %	Weight %				
Glass	2015	8624.7	45.2	23.4				
Ceramic	679	8177.35	15.2	22.2				
Bone	542	3397.8	12.2	9.2				
Metal	1125	14865.45	25.2	40.3				
Other	97	1793.9	2.2	4.9				
Total	4458	36859.2	100.0	100.0				

Table 10. Frequency and weight artifact totals for Hurttienne (a) and Meyer (b) lots.

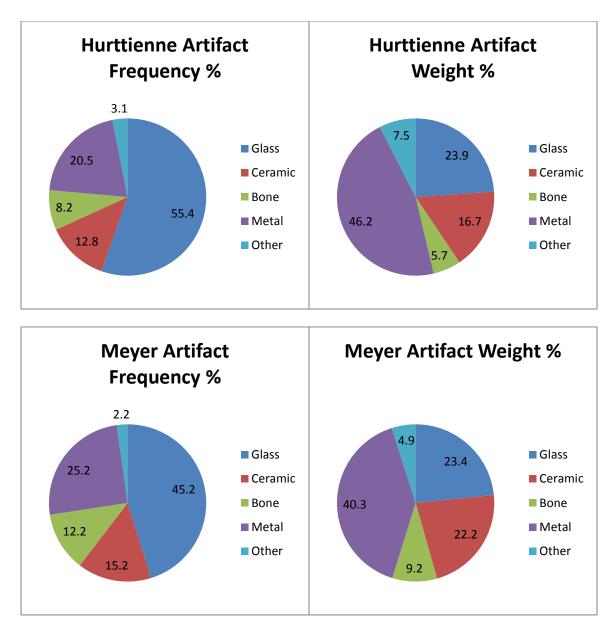


Figure 34. Pie Charts of Hurttienne and Meyer artifact frequency and weight %, from Table 10.

Table 11, below, shows the distribution of all artifacts on the two sites, broken down by the level in which they were found. It is interesting to note that the total percent of artifacts that come from the lower two, less disturbed levels is about the same, 33.1% and 33.0% for Hurttienne and Meyer, respectively.

		Hurttienne Property		Meyer Property		
Level	Depth (cm)	Total Frequency Frequency %		Total Frequency	Frequency %	
1	0-25	1973	27.7	1582	35.5	
2	25-50	2767	38.9	1380	31.0	
3	50-75	1598	22.5	883	19.8	
4	75-100	780	11.0	613	13.8	

Table 11. Total frequency distributions by level for Hurttienne and Meyer lots.

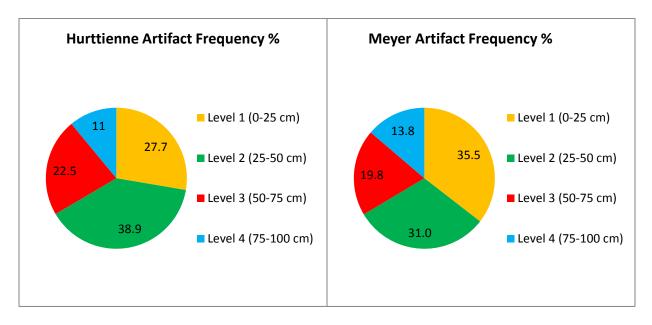


Figure 35. Pie Charts of artifact frequency % distributions by level for Hurttienne and Meyer properties, from Table 11.

As mentioned earlier, a significant portion of the artifacts excavated were not retained for further study. The collection of materials saved is housed at the Wayne State University Grosscup Museum of Anthropology, and the proportions of items kept are summarized in Table 12, below. Note that the bone category's percentage is more that 100% - 586 artifacts of this type were recorded in the field, but 647 are in the museum's permanent collection. This is likely a result of fragmentation of bones in handling, and / or incorrect recording in the field.

	Hurtt	ienne Property		Meyer Property			
Category	No. Collected and Curated	0/2		No. Collected and Curated	No. Recorded in Field Only	%	
Glass	230	3946	5.8	128	2015	6.4	
Ceramic	139	909	15.3	107	679	15.8	
Bone	647	586	110.4	533	542	98.3	
Metal	39	1456	2.7	13	1125	1.2	
Other	90	221	40.7	55	97	56.7	

Table 12. Proportion of artifacts kept in WSU collection versus recorded at excavation.

From the test pit record sheets, it is possible to further classify both the glass and ceramic artifacts recovered during excavation. Table 11, below, shows the proportions of window glass and vessel glass at each of the properties. Unfortunately, at the Hurttienne lot the detail level of the record keeping was not as good as could be wished for. As seen here, about a third of the excavated Hurttienne glass was not classified at the time. Since the vast majority of these artifacts were not retained, they must remain unclassified. It can be noted here that only three pieces of window glass were kept between the two properties.

	Hurttienne Property		Meyer Property	
	Frequency %		Frequency	%
Window Glass	938	23.8	825	40.9
Vessel Glass	1697	43.0	1180	58.6
Unclassified	1311	33.2	10	0.5
Total	3946	100.0	2015	100.0

Table 13. Frequency of window and vessel glass as recorded on test pit excavation sheets.

# **Ceramic Data**

Upon excavation, recovered ceramic sherds were coded with respect to their type and decoration – namely as transfer print, flow blue, redware, whiteware, stoneware, yellowware, or other. These categories were devised prior to the project, based on the types of ceramics that had been found at the previous Workers Row House site. In some cases, the above type information was unfortunately

not recorded by some of the student excavators (despite instruction to do so), and so these sherds belong to an additional Unclassified category. The results are compiled below in Table 14.

	Hurtti	enne Property	Meye	er Property
Ceramic Sherds	No.	%	No.	%
Transfer Print	38	4.2	30	4.4
Flow Blue	8	0.9	3	0.4
Redware	61	6.7	53	7.8
Stoneware	58	6.4	92	13.5
Yellowware	23	2.5	56	8.2
Whiteware	365	40.2	414	61.0
Other	59	6.5	19	2.8
Unclassified	297	32.7	12	1.8
Total	909	100.0	679	100.0

Table 14. Ceramic sherds for Hurttienne and Meyer properties, as recorded on excavation forms.

As seen above in Table 12, 139 sherds were retained from the Hurttienne lot and 107 were retained from the Meyer lot. Using Stelle's guide (2001), I was able to classify these sherds in a more nuanced manner. The results are presented below in Tables 15 (all ceramic types) and 16 (whiteware and porcelain by decoration type).

	Hurt	tienne Lot	Meyer Lot		
Ceramic Type	No.	%	No.	%	
Rockingham	1	0.72	2	1.87	
Porcelain	8	5.76	9	8.41	
Redware	6	4.32	0	0.00	
Stoneware	19	13.67	25	23.36	
Whiteware	95	68.35	66	61.68	
Yellowware	10	7.19	5	4.67	
Total	139	100.00	107	100.00	

Table 15. Retained ceramic sherds from Hurttienne and Meyer properties.

	Hurt	Hurttienne Lot		eyer Lot
Whiteware and Porcelain Type	No.	%	No.	%
Plain	25	24.27	13	17.33
Edged	6	5.83	3	4.00
Painted	8	7.77	3	4.00
Sponged	0	0.00	5	6.67
White Granite	0	0.00	1	1.33
Printed	27	26.21	16	21.33
Dark Blue Printed	13	12.62	3	4.00
Flow (Blue or Brown)	6	5.83	8	10.67
Decal	10	9.71	14	18.67
Molded Only Porcelain	0	0.00	2	2.67
Decorated Porcelain	8	7.77	7	9.33
Total	103	100.00	75	100.00

Table 16. Retained whiteware and porcelain ceramic sherds, by decoration.

Using Stelle's guide, the transfer printed sherds were further classified and tallied, as shown below in Table 17. Additionally, using Stelle's median production dates and Stanley South's Mean Ceramic Date formula (South 1977:217), I calculated the Mean Ceramic Date for the transferware at both the Hurttienne and Meyer properties.

				1
Transfer Type	Hurttienne	Meyer	Production Range	Median
Dark Blue	13	3	1820-1860	1845
Light Blue	5	1	1826-1831	1829
Red	7	3	1829-1850	1840
Brown	7	9	1829-1850	1840
Green	2	1	1829-1850	1840
Black	6	2	1830-1850	1840
Scenic Flow	6	7	1840-1860	1850
Flowery Flow	0	1	-	1875
Decal	10	14	1890 - present	1910
Total	56	41		
Median Ceramic Date	1853.8	1866.6		

Table 17. Transfer printed and related decoration of ceramics, with Median Ceramic Dates, for Hurttienne and Meyer properties.

A few of the larger examples of the transferware sherds that make up Table 17 are presented in Figure 36. Of note is the green transfer print sherd on the top right. It has four three-leaved shamrocks along the upper edge, and what may be part of an oak leaf along the lower left edge. In examining decorative themes on ceramics marketed to Irish-Americans, Brighton and Orser (2006:73) note that "the use of oaks leaves and acorns as Irish symbols refers to ancient Gaelic history where oak trees represented antiquity, strength, and protection. Artists, storytellers, and promoters of Irish identity used acorns to represent growth and fertility, and shamrocks to indicate perpetuity and longevity". This sherd was found on the Hurttienne lot, in level 1 of test pit E9 N10, which is in close proximity to the 58 Baker structure. Unfortunately, since it was found so close to the surface, I cannot confidently associate it with any particular household, given the disturbed nature of the upper levels of the site, as discussed earlier.



Figure 36. Examples of transfer printed ceramics sherds recovered at the Hurttienne and Meyer lots.

#### **Ceramic Comparison Analysis**

Census and City Directory information were presented earlier to characterize the residents of both the Hurttienne and Meyer properties. Using the scheme of LeeDecker et al. (1987), I concluded that the residents of the Meyer and Hurttienne lots could be described as upper-lower class. These authors noted that "class membership has been linked to differences in spending-saving patterns, expenditures on child rearing and education, preference or taste in certain consumable items, and allocation of expenditures among various classes of goods. Consumption patterns, therefore, serve to define, symbolize, and reinforce class membership" (LeeDecker 1987:241). With this perspective in mind, I will compare the ceramic assemblages of the Meyer and Hurttienne lots to several other urban 19th century sites in the United States, in order to illustrate these patterns.

In the following analysis, I use ceramic sherd counts rather than minimum number of vessel counts. Work by Heberling (1987) and McBride and McBride (1987) suggest that using sherd counts can be a successful method in comparing Miller's price indices between sites of varying socio-economic status. I have followed the McBride's example (1987:148-150) in calculating an average index value for the Meyer and Hurttienne lots. Using this method, the whiteware group was divided into five categories – undecorated, minimal decoration (edged or sponged), hand painted floral, transfer printed (including flow blue / brown), and ironstone. The index values for these were averaged by the McBrides for all decoration and vessel types. The resulting ceramic average values for the Hurttienne and Meyer lots were then calculated by averaging overall of the sherds and are shown in Table 18.

	Sherd Counts	Sherd Counts		
Whiteware type	Hurttienne lot	Meyer lot	1855 index value	
Undecorated	25	13	1.00	
Minimal decoration	6	8	1.16	
Painted	8	3	1.30	
Printed	46	27	2.50	
Ironstone	0	1	2.50	
Total	85	52		
			-	

Hurttienne Ceramic Average Value	1.85
Meyer Ceramic Average Value	1.85

Table 18. Ceramic Average Values for Hurttienne and Meyer lots, after McBride (1987).

As can be seen here, the Hurttienne and Meyer lots have the same ceramic average value. This result was expected – in the earlier summary of documentary evidence for the residents of these lots, I concluded they were all of similar socioeconomic status, namely upper-lower class. However, the index value of 1.85 is substantially higher than any found by the McBrides, which ranged from 1.20 for a hotel/boardinghouse to 1.42 for the home of a wealthy merchant. This discrepancy is also not surprising me. At the Hurttienne and Meyer lots, only a fraction of the ceramic sherds excavated were actually kept (and therefore able to be used in this analysis) – 15.3% and 15.8%, respectively. By the field methodology used, sherds which were decorated were preferentially selected for keeping over those that were undecorated. This should result in artificially higher average index values. Because of this, I do not think comparing the ceramic average values of the Hurttienne and Meyer lots against those of other sites is the best approach. Instead, I will be comparing the percentages of sherds of varying types. While not perfect, I think that percentages will be less skewed towards decorated wares, because there is not the multiplicative effect of the higher index values.

The first site I will compare my data to is the Boott Mills boardinghouses at Lowell, Massachusetts. Beaudry, Cook, and Mrozowski (1996) present the ceramic assemblages of a tenement and a boardinghouse, which they describe as "two late 19th-century working-class households in similar economic circumstances but with different household composition" (Beaudry 1996:290). Their summary of ceramic ware types compared to the ceramic sherds kept for the Hurttienne and Meyer lots are shown in Table 19 and Figure 37.

	Boott Mills							
	Ten	ement	Board	inghouse	Hurttienne		Meyer	
	No.	%	No.	%	No.	No. %		%
Rockingham	0	0.00	1	0.52	1	0.72	2	1.87
Creamware	1	1.16	5	2.62	0	0.00	0	0.00
Earthenware	0	0.00	1	0.52	0	0.00	0	0.00
Pearlware	2	2.33	1	0.52	0	0.00	0	0.00
Porcelain	11	12.79	8	4.19	8	5.76	9	8.41
Redware	12	13.95	12	6.28	6	4.32	0	0.00
Stoneware	3	3.49	11	5.76	19	13.67	25	23.36
Whiteware	56	65.12	149	78.01	95	68.35	66	61.68
Yellowware	1	1.16	3	1.57	10	7.19	5	4.67
Total	86	100.00	191	100.00	139	100.00	107	100.00

Table 19. Comparison of ceramics at Boott Mills, Hurttienne lot, and Meyer Lot. Boott Mills data adapted from Beaudry et al. (1996), Table 11.1.

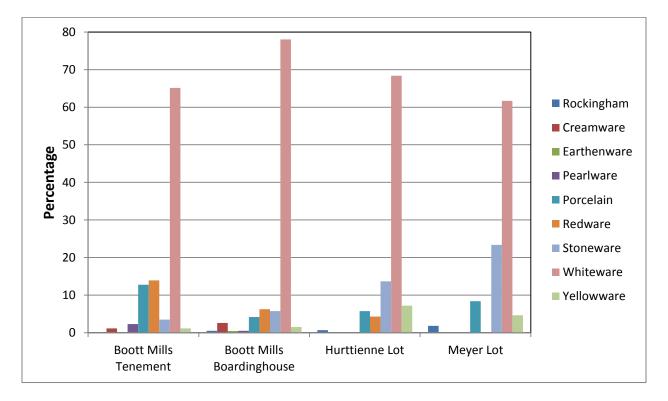


Figure 37. Comparison of ceramics at Boott Mills, Hurttienne lot, and Meyer Lot. Boott Mills data adapted from Beaudry et al. (1996), Table 11.1.

As shown in Figure 37, all four of the sites are rather similar in composition. Beaudry et al. note that this should not be particularly surprising, saying that "the increased availability of ceramic tableware types and forms in the late 19th century lessens the number of observed differences between ceramic assemblages of households with similar financial means" (1996:290). Taking into account that redware sherds were kept at a very low rate at the sites that are reported on here, the Hurttienne lot seems to more closely resemble the Boott Mills boardinghouse, while the Meyer lot resembles the tenement. This fits with the earlier characterizations of the Hurttienne lot containing a significant number of boarders, but the Meyer lot being composed primarily of single families.

A second comparison I will perform is with two mid-19<sup>th</sup>-century middle class homes located in New York's Greenwich Village, as presented by Diana Di Zerega Wall (1991). The first of these homes is 25 Barrow Street, a house that was rented to several families at a time, and which Wall concludes were at the bottom of the middle class because they rented apartments rather than owned their own homes. The second home is 50 Washington Square, which Wall describes as a single family dwelling of rather wealthy members of the middle class, who could afford live-in domestics. The teawares and tablewares found at these two homes are compared to those found at the Hurttienne and Meyer lots in Table 20 and in Figure 38.

	50 Washington Square South		25 Barrow Street		Hurttienne Lot		Meyer Lot	
Whiteware / Porcelain Type	No.	%	No.	%	No.	%	No.	%
Plain	4	5.19	7	33.33	25	24.27	13	17.33
Edged	5	6.49	1	4.76	6	5.83	3	4.00
Painted	6	7.79	0	0.00	8	7.77	3	4.00
Sponged	0	0.00	0	0.00	0	0.00	5	6.67
Willow	0	0.00	6	28.57	0	0.00	0	0.00
White granite	22	28.57	6	28.57	0	0.00	1	1.33
Printed	7	9.09	0	0.00	27	26.21	16	21.33
Dark blue printed	0	0.00	0	0.00	13	12.62	3	4.00
Flow (blue or brown)	0	0.00	0	0.00	6	5.83	8	10.67
Decal	0	0.00	0	0.00	10	9.71	14	18.67
Porcelain, molded only	17	22.08	1	4.76	0	0.00	2	2.67
Porcelain, gilded	16	20.78	0	0.00	8	7.77	7	9.33
Total	77	100.00	21	100.00	103	100.00	75	100.00

Table 20. Comparison of whiteware and porcelain at the Greenwich Village and Detroit sites. Greenwich Village data adapted from Wall (1991), Tables 1 and 2.

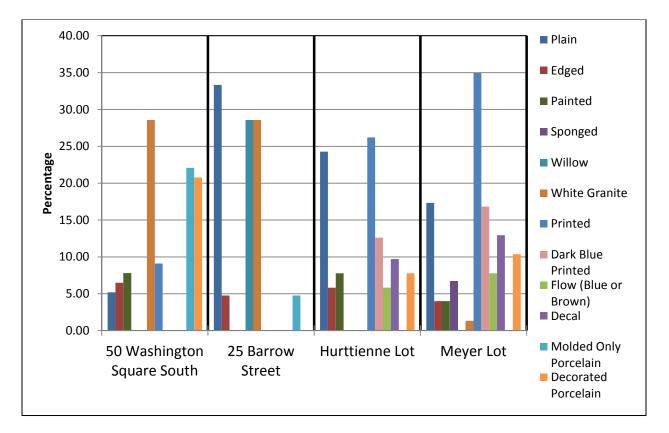


Figure 38. Comparison of whiteware and porcelain at the Greenwich Village and Detroit sites. Greenwich Village data adapted from Wall (1991), Tables 1 and 2.

The ceramics from the Hurttienne and Meyer lot are very similar to each other, which I would expect from data presented earlier. With its relatively high percentage of plain whiteware, and low percentage of porcelain, the lower-middle class 25 Barrow Street has some similarities to the upperworking class Detroit lots. However, Barrow Street is quite different in that it shows no transfer prints of any kind, substituting these for willow and white granite. The upper-middle class house at 50 Washington Square takes this further, with its assemblage being dominated by porcelain and white granite.

In further comparison with respect to porcelain and white granite, I turn to work by done by Robert Fitts on a number of households in New York dating to the second half of the 19th century (Fitts 1999). Among other things, he compared the percentages of porcelain and white granite table and teawares at 14 middle class households – four at the Mugavero site in Brooklyn, one at 25 Barrow Street in Greenwich Village, three at the Greenwich Mews site in Greenwich Village, and six at the Atlantic Terminal site in Brooklyn. Additionally, he compared three contemporary working class assemblages from the Five Points site in Lower Manhattan. In Table 21, I have averaged the white granite and porcelain percentages for the middle class and working class sites, and present them alongside those same percentages for the Hurttienne and Meyer lots.

	Percentage						
	Middle	class	Lower	class	Hurttienne	Meyer	
Ceramic Type	average		average		lot	lot	
White granite	49.7		20.3		0.0	0.9	
Porcelain	20.1		1.7		5.8	8.4	
White granite and porcelain	69.9		22.0		5.8	9.3	

Table 21. Average percentage of white granite and porcelain table and teawares at middle and lower class New York sites and at the Hurttienne and Meyer lots. New York data from Fitts (1999:56-58).

The average percentage of white granite and porcelain is very high for the middle class households of New York, comprising slightly fewer than 70% of all ceramics. It is a considerably smaller average percentage for the lower class New York sites. However, even lower still are the two Detroit sites. There seems to be a difference between the purchasing behaviors of working class New Yorkers versus Detroiters. Some of the variation seen is certainly attributable to the already noted bias in the Detroit sample – undecorated ceramic sherds were supposed to have been discarded by the excavators at a higher rate than decorated ones, which would tend to lower the kept percentages of white granite and porcelain. This bias could even explain some or all of the working class differences. However, experience with the excavation and familiarity with the curated Detroit collection suggest that it is certainly not sufficient to explain the difference between the middle class and working class percentages seen in Table 21.

Lastly, I will compare the ceramic sherds from the Hurttienne and Meyer lots with those collected at the Worker Row House (WRH) during the 2008 field season, which can probably be termed the most extensive field season at the site. The Workers Row House's is about two blocks from both the Hurttienne and Meyer properties, and its location can be seen in Figure 2. It was built around 1850, and served as a rental property for more than 120 years to working class families and individuals (Jakubiec 2008). The numbers and percentages of different types of ceramic sherds are listed in Table 22, and shown in Figure 39. Included in the whiteware total are the white granite sherds. For the WRH, they total 17 sherds, or 2% of the total. There were no white granite sherds found at the Hurttienne lot, and only 1 sherd, or 1% of the total, found at the Meyer lot.

	WRH 2008		Hurttienne lot		Meyer lot	
Sherd Type	No.	%	No.	%	No.	%
Creamware	2	0.2	0	0.0	0	0.0
Pearlware	6	0.7	0	0.0	0	0.0
Whiteware	570	68.7	95	68.3	66	61.7
Porcelain	12	1.4	8	5.8	9	8.4
Stoneware	104	12.5	19	13.7	25	23.4
Redware	58	7.0	6	4.3	0	0.0
Yellowware	50	6.0	11	7.9	7	6.5
Unknown	28	3.4	0	0.0	0	0.0
Total	830	100.0	139	100.0	107	100.0

Table 22. Number and percentage of retained ceramic sherds by type for the Hurttienne and Meyer lots, and the Worker's Row House 2008 excavation. WRH values from data compiled by K. Hubbard and D. Jakubiec.

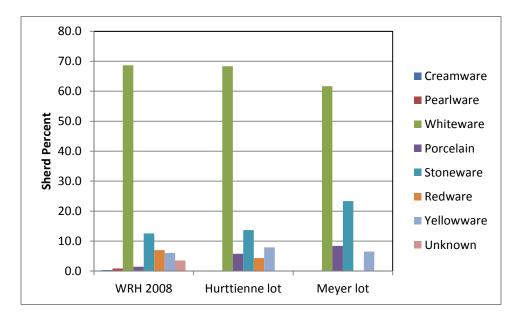


Figure 39. Percentage of retained ceramic sherds by type for the Hurttienne and Meyer lots, and the Worker's Row House 2008 excavation. From Table 12.

The ceramic assemblages at these three sites are very similar. They are all dominated by whiteware, with stoneware being the second most common type. The only noticeable difference is that the residents at the Meyer lot seem to have a slight preference for stoneware over redware and yellowware, and seem to have a bit more porcelain instead of whiteware. Overall, though, I would call their assemblages functionally equivalent.

# **Ceramics Discussion**

In Table 17, I calculated a Mean Ceramic Date (MCD) for the transfer prints at the Hurttienne and Meyer lots, resulting in a value of 1853.8 and 1866.6, respectively. On the surface, this would seem to suggest occupation dates for these two lots that are extremely early - the documentary evidence presented earlier has the first residents of both lots living there circa 1869. However, there is always the problem that ceramics tend to have a long lifespan, and may be deposited into the archaeological record a number of years after they were manufactured. In studying this time lag, William Adams (2003) found that there was usually a time lag of 15-25 years (and sometimes up to 30 years) between manufacture and disposal of ceramics at historical sites. The difference in MCD's between my two sites suggests that the residents of the Hurttienne lot may have been curating their transfer prints noticeably longer than residents at the Meyer lot. The City Directory evidence suggests that the houses at the Meyer lot were predominately single family, with the occasional renter. However, the Hurttienne lot could be better characterized as mixed use, with 54 Baker and 64/66 Baker housing a significant number of boarders (and listed for some years as actual boarding houses in the Detroit City Directories), but 56 and 58 Baker appearing to be single family residences. It may be the case that residents of the Meyer lot, on average being more stable in their living arrangements, were also able to afford to more frequently replace their ceramics. In their analysis of the Boott Mills site, Beaudry et al. (1996) concluded that the residents of the Boott Mills tenement seem to have been acquiring their ceramics in an attempt to emulate a middle-class tea service, while the boarding housekeeper was more concerned merely with providing the basics (Beaudry 1996:290-292).

In the previous section, I found that the ceramics assemblages of the Hurttienne and Meyer lots tend to resemble those found at other working class sites, such as Boott Mills and the Five Points neighborhood of New York. They do not closely resemble middle class sites, such as at Greenwich Village or the Atlantic Terminal sites in Brooklyn. The notable difference is in the much higher prevalence at the

middle class sites of white granite and porcelain tea and tablewares. In attempting to explain this

## pattern, Wall writes

"middle-class preference for setting the table for family meals with dishes in the Gothic style...was related to the importance of one of the roles of middle-class women at mid-century: that of the guardian of society's morals. The use of this ecclesiastical style for dishes used in a dining room that the authors of the prescriptive literature urged be furnished in that same style underlined the importance of morality and of women's role as moral guardian of the family members who gathered for the meal" (Wall 1999:113).

Fitts further supports this notion, suggesting that the whiteness and plainness of Gothic form white granite evoked purity, virtue, thrift, and modesty. While purchasers probably did not often actively select their tablewares with this in mind, he believes this style of ceramics was probably more popular because it fit into this ideology (Fitts 1999:58).

Wall also suggests that for upper-middle class families, the fancier white granite and porcelain table and teawares of the Gothic style were used in a competitive fashion amongst themselves. At the Robson residence at 50 Washington Square, "Eliza Robson may well have used her dishes in a series of competitive displays designed to impress her friends and acquaintances with the refined gentility of her family" (Wall 1991:79). However, she notes that the lower-middle class residents at 25 Barrow Street seem to have acquired less fancy sets of dishes, and suggests that this is not necessarily because they could not afford them, but because the women who purchased them for their families were not attempting to use the ritual of afternoon tea to complete amongst themselves. Rather, they used it to express community and solidarity (Wall 1991:79). Similarly, in in examining the Irish immigrant and Irish-American families of New York, Brighton states that "tea drinking at the Five Points may have outwardly served Victorian values of "gentility," and at the same time reinforced traditional social bonds within the community" (2001:24). In the working class neighborhood of Corktown, some of the residents of the Hurttienne and Meyer properties could have used the choice of transfer prints over white granite as a method of proclaiming their working class status, rejecting the behavior and ideals of the middle class.

Looking at the specific purchasing of transfer prints over white granite, it is interesting to note that Spencer-Wood found that, upon averaging the Miller price indices for both of those types across cups, plates, and bowls, the index was the same for transfer prints and white granite (Spencer-Wood 1987:331). Again, this would suggest that the choice of one ceramic style over the other was deliberate. Brighton seems to believe that for Irish immigrants of the Five Points, they acquired transfer prints because they did not have a choice in the matter, stating

"the predominant presence of mismatched transfer printed ceramic vessels is at a time of the upsurge and increased importance of white granite vessels after mid-century materializing the ideology of respectability, middle class morality, and American citizenship... in regards to Irish immigrants, known historically as a marginalized group, the ceramic vessel data indicate their alienation from the marketplace and thus prevented from [sic] gaining the benefits of American citizenship" (Brighton 2010:42).

However, in earlier work, the same author writes describes the abundance of crockery shops in the vicinity of the Five Points neighborhood and of some that specifically marketed themselves to Irish immigrants. In fact, he states that "It is clear from advertisements and other primary sources that the residents living in the tenement at 472 Pearl Street would have had the opportunity to procure seemingly fancy ceramics" (Brighton 2001:21). This suggests that preferentially obtaining transfer prints was a conscious choice, at least in large urban areas. It may be the case that there were parts of the United States where bigotry against Irish Immigrants was strong enough to have prevented from purchasing white granite ceramics, but I have no reason to believe that Detroit was one of them.

In other work on that same 472 Pearl Street site, Yamin observes a shift from dishes that were almost exclusively blue transfer print to white granite ones. In an earlier (i.e. mid-19th century) deposit, only 13% of the ceramics found were plain white (even though such dishes were readily available), while in a later deposit that number had climbed to 45%. She posits that this may have been the result of "a turning away from the old Irish style in favour [sic] of the more fashionable dishes associated with genteel dining" (Yamin 2001:160-161). As described earlier in the demographics section of this thesis,

there were a significant number of Hurttienne and Meyer residents who were either Ireland born or children of Ireland born parents. It may be the case that at these lots they were on this same trajectory, but their preferences for transfer printed ware indicates they were still influenced by that "old Irish style".

In an examination of a pair of excavations done in Buffalo, New York, Peña and Denmon (2000) found that a family operating a boardinghouse for up to 36 sailors had a bimodal pattern of ceramics – many undecorated plates, but also a quantity of blue transfer print teawares. These authors suggest that the family specifically used the decorated wares as a means of differentiating between themselves and their boarders. A similar choice could have occurred at either of the boardinghouses at the Hurttienne lot.

Wall also offers another possible reason for choosing transfer prints rather than undecorated white granite. She notes that in some African American households there was a difference in ideology such that instead of the family wanting to outwardly appear as a single entity, it was deemed more important that each person have their own set of identifiable dishes for mealtimes. In such a scenario, a family might find different patterns of transfer print to be ideal (Wall 1999:114). As far as is known, there were no African Americans living at either the Hurttienne or Meyer lots. However, this could still serve as a reason for any family to prefer to purchase transfer prints.

In summary, there are a number of possible scenarios that led to the preference of transfer printed ceramics over white granite ones. It does not seem to be because of cost or availability. Instead it may have been the desire to maintain non-competitive ties to others in the community, a rejection (conscious or not) of middle class Protestant values, a desire to emulate older pre-immigration consumption patterns, or even an expression of individuality in a household. Any of these may have been factors.

# **Artifact Distribution Discussion**

In the creation of the artifact interpolation maps shown in Figures 26 through 33, some important insights come to light about the site formation of the Hurttienne and Meyer lots, and the use of space by the residents thereof.

It was shown by the IDW plots that it appears that the demolition of the Hurttienne lot and subsequent creation of a parking lot on top of it disturbed at least the first 25cm in depth, and probably up to the first 50cm. I believe that the lower two levels, 3 and 4, were largely intact. A similar result was found at the Boott Mills Boardinghouses in Lowell, Massachusetts. Mrozowski et al. state that when excavating the backyards of two former structures that had been torn down in 1934 and later turned into a parking lot "we stripped off the blacktop from both yards, and after some careful cleaning and excavation, we exposed the yards to view. From above, they looked much as the probably did in the early part of this century, after the buildings had been torn down" (1996: 11). It appears that the demolition of the boardinghouses and creation of a parking lot had a lesser impact upon the subsurface archaeological record in Lowell, Massachusetts, but it shows that this type of site formation process need not be completely catastrophic to the archaeological record. In examining the site of a demolished Civilian Conservation Corps camp at Bandelier National Monument, New Mexico, Monica Smith found that even after a deliberate bulldozing and effort to restore the landscape to its "original" state after the camp was abandoned in 1939, a program of surface collection can reveal significant data about the activities conducted at that site (Smith 2001). This gives me confidence that the Hurttienne and Meyer lots have also be able to yield good data, especially at their lower levels.

As can be seen in the photographs of early 20th century backyards of Detroit in Figure 40, the back yard of a lot for a working class household commonly accumulated significant amounts of refuse, especially near back doors and outbuildings. In other 19th century urban contexts, historical archaeologists have found that the back yard of a household accumulated significant amounts of refuse over time. Links have also been found between this behavior and socioeconomic status. At the Boott Mills site, Mrozowski et al. found two different patterns, one for the high level managers living on Kirk Street and another for the working class residents of the boardinghouses. The Kirk Street house had a well maintained front and side yard, as evidenced by layers of rich soil. However, they state that the house also had "no layers of rich landscaping soil in the backyard, just lots of domestic trash" (Mrozowski 1996:44) and that there was chemical evidence that garbage had been allowed to decay there. However, this space changed over time, and eventually came to resemble a modern backyard filled with grass. Contrastingly, the boardinghouses followed the opposite trend. At the beginning of the use of the space, it appears that the boarders made some attempts to keep the backyards in good shape, probably planting some trees and shrubs. As time went on, though, trash and weeds accumulated, to the point that there is documentary evidence of boarders being chastised by company management about the problem (Mrozowski 1996:44-48).



Figure 40. Backyards of two Detroit residences in 1914 (from Boyle 1997: 51, 61).

A similar situation was seen in Washington D.C. by Crane (2000). After about 1850, he found that there was a significantly higher rate of rubbish (i.e. non-organic refuse) in working class

archaeological deposits as opposed to middle or upper class deposits (Crane 2000:35). He further observes that this difference did not go unnoticed in the 19th century. In addition to working class households receiving more nuisance violations by the police, "sanitary reformers linked cleanliness with health, intelligence and virtuous behavior, while they associated immigrants and laborers with unsanitary, and what they termed "intemperate and dissolute" behavior" (Crane 2000:23).

As was noted above, I believe that the lower excavation levels of both the Meyer and Hurttienne lots were the least disturbed by the site formation events of the razing of the residential structures. Therefore, I believe that the artifact distribution in levels 3 and 4 should best reflect the way in which the occupants used the space. The lack of artifacts found in the front and side lots, and the concentration of them at the rear of the residence leads me to conclude that the working class households of the Meyer and Hurttienne lots disposed of their refuse in a similar fashion to working class households in other American cities. Schiffer would term these kinds of backyards as low maintenance, that is, ones which are not regularly cleaned of refuse (1987:68-69).

It should also be noted that this use of space is certainly not the only possible pattern of behavior in an urban American context. In excavating the Rionda-Nelson site in New Orleans, Dawdy found that the backyard of this dwelling was in the past kept nearly immaculately clean by its nineteenth century Creole occupants, in contrast to the backyards of contemporaneous Anglo-Americans in New Orleans, who appear to have used the space very differently. In fact, the Anglo-Americans appear to have in some instances paved their courtyards, allowed the refuse to accumulate, and then instead of cleaning it constructed a new paved courtyard on top, this pattern repeating multiple times (Dawdy 2000:133-137). Dawdy suggests that contrary to their Anglo-American neighbors, the Creole residents believed that the backyard should be a well landscaped refuge, reserved as a private space for the family. Given the scorn and discrimination that having an unkempt backyard engendered in other parts of the country, I suggest that the same was true for the residents of the Hurttienne and Meyer properties. Certainly it would not have been the only reason that middle and upper class gave for their attitudes, but it is likely that it was one more fault they found with the Corktown neighborhood. No doubt the attitudes carried over for many years. When the Lodge Freeway and Interstate 75 were constructed through Corktown in the mid-20th century, large swathes of houses were demolished. When Roosevelt Park was built in front of the Michigan Central Station, several blocks of working class homes were removed, in part to present a better face to visitors arriving to the city. The way that working class people of Corktown used the space around their homes may have put them in the crosshairs of those who planned these urban development projects. As Delicato and Demery remark, by the early 1950's "the City of Detroit was determined to raze the Corktown neighborhood and rezone the area for light industry" (Delicato 2007: 37).

The use of IDW created maps worked well in this project, allowing the identification and visualization of a major site formation episode in the first two excavated layers of the Meyer and Hurttienne lots, namely the razing of the burned buildings and construction of a parking lot in the mid 1980's. This method also yielded insight into the uses of space by the residents, and suggests how they may have been treated by others outside of their immediate community because of it.

## Conclusion

In summary, this thesis proceeded in three phases. First, I presented the historical records data associated with residents of the Meyer and Hurttienne lots. This was aggregated both for each household and each property. Next I presented the GIS work, which illuminates the extent of the disturbance of the archaeological record by the site formation process of demolition of multiple structures. Because of these events, I conclude that the unit of analysis for the ceramics data should be

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at the level of the property, rather than the household. Based upon this, I compared the ceramics assemblages for the Meyer and Hurttienne lots with that of the Workers Row House.

At the outset of this thesis, there were a number of questions that I wished to examine. The first was the extent to which archaeological record was intact, given the known site formation events, particularly the burning and subsequent razing of the residential structures at the Hurttienne and Meyer lots. The answer to this question was that given this event, the lowest levels (i.e. 3 and 4) were largely undisturbed. The upper levels (i.e. 1 and 2) were heavily disturbed, and this can clearly be seen in the artifact distribution maps that were created. Additionally, I wanted to explore what types of information were able to be extracted from a GIS analysis. This was answered by the pattern of artifact distribution in the lowest two levels, which suggested a refuse disposal behavior consistent with contemporary photographic evidence and with patterns documented at other historical archaeology sites.

Another question posed in this research was how was the archaeological record of the Hurttienne and Meyer lots linked with the residents of those properties. To determine this, demographic information from Detroit City Directories and U.S. Census records was collected. Analysis of this data suggested that these people were working class individuals. There was a subsequent examination of the ceramic assemblage kept after the excavation, which was compared to the ceramics found at other North American working and middle class 19th century sites. From this I concluded that the Hurttienne and Meyer lots likely engaged in some of the same behaviors as people of the same socioeconomic status located in other contemporaneous urban areas.

This research adds to the body of archaeological knowledge built for the city of Detroit. It provides another point of comparison for anyone wishing to study the history of its working class neighborhoods, both in that city and in other urban contexts. It also demonstrates that even heavily disrupted sites can yield insightful information. Site formation processes in cities can be very complex, but this shows that their study can be a fruitful endeavor. As was mentioned earlier, Demeter's study for the City of Detroit suggested many other properties in the Corktown neighborhood which are likely to be of good archaeological potential. There is likely to be work in the area for years to come. I believe that this thesis project will ultimately assist WSU archaeologists in obtaining a greater understanding of the range of household types in this community for this time period, in building a foundation for a more representative sample of material culture from historic Detroit overall, and in documenting behavior of past working class Americans.

# Appendix A – Additional Tables

Table A1. Residents of Hurttienne Property from 1869-1907, sorted by Address, then 1st year at Hurttienne Property, then by name.

Last Name	First Name	Middle Name	1st Year at Hurttienne Property	Occupation(s)	Rent Code	Address	Length of Stay (# of Direct.)
Edwards	Albert	М	1869	inspector of customs	h	54 Baker	1
Weitzel	Catharine		1870		bds	54 Baker	2
Weitzel	John	G	1870	real estate	h	54 Baker	12
Hickie	John		1874	policeman	h	54 Baker	1
Waldercker	Annie		1875	domestic		54 Baker	1
Stegermann	Lena		1876	domestic		54 Baker	1
Bastedo	В	Cameron	1883	bkkpr	h	54 Baker	1
Veit	Frances		1883	domestic		54 Baker	1
Bayly	Mrs Jessie		1884	nurse	h	54 Baker	1
Beaton	Miss Jessie		1884	telephone opr	bds	54 Baker	1
Martin	John	E	1884	bookbinder	h	54 Baker	1
Barnes	Charles		1885	wirewkr	bds	54 Baker	1
Burns	James		1885	boarding h		54 Baker	1
Slocum	Alexander	W	1885	clk	bds	54 Baker	1
Watson	David		1886	clk	bds	54 Baker	3
Watson	Thomas	Н	1886	carp	h	54 Baker	3
Hollands	Charles	Т	1887	bricklayer	bds	54 Baker	1
Hollands	Elizabeth		1887		h	54 Baker	1
Mills	Edward	W	1888	mach.	h	54 Baker	1
Bane	Mrs Sarah		1889		bds	54 Baker	1
Stewart	Miss Annie		1889	dressmkr	rms	54 Baker	1
Roberts	George	S	1890	coachman	h	54 Baker	1
Watson	George	G	1890	driver	bds	54 Baker	2
Eberhardt	Charles	А	1892		h	54 Baker	9
Eberhardt	Charles	F	1892	clk	bds	54 Baker	9
Eberhardt	Henry	J	1892	clk	bds	54 Baker	5
Eberhardt	Miss Julia	E	1892	dressmkr	h	54 Baker	3
Eberhardt	Otto	Н	1893	clk	bds	54 Baker	8
Eberhardt	Fred	Н	1894	cutter	bds	54 Baker	6
Eberhardt	Walter	Н	1896	lab	bds	54 Baker	5
Eberhardt	Frederick	H jr	1898	cutter	bds	54 Baker	1
Bryan	Clara		1901		h	54 Baker	3
Dieterle	Charles		1901	mach hd	bds	54 Baker	1
Keefer	John		1901	mach opr	bds	54 Baker	1
Hollihan	John	E	1902		h	54 Baker	1
Lindsey	John	Q	1902	decorator	rms	54 Baker	3

Last Name	First Name	Middle Name	1st Year at Hurttienne Property	Occupation(s)	Rent Code	Address	Length of Stay (# of
Preston	Bessie	В	1902	dressmkr	bds	54 Baker	Direct.) 2
Winters	Ella	D	1902			54 Baker	1
	Kate		1902	seamstress	rms	54 Baker	1
Winters Kenitz			1902	seamstress	rms	54 Baker 54 Baker	1
	Emma		1903	tailor	rms		1
Lippert	Mary				rms	54 Baker	1
White	Frank	٨	1903	clk	rms	54 Baker	
Lamy	Esther	A	1904	ture at a	bds	54 Baker	1
Britton	Harry	А	1905	tmstr	h	54 Baker	1
Britton	Malvina		1905		bds	54 Baker	1
Leach	Jos	W	1905	driver	h	54 Baker	3
Smith	Ralph	С	1906	clk	h	54 Baker	1
Potter	Frank	jr	1907	chemist	h	54 Baker	1
Thompson	Mrs Anna		1907	clk	rms	54 Baker	1
Thompson	James		1892	police sergt.	h	56 Baker	3
Barney	Albert	E	1895	oiler	h	56 Baker	8
Kornowski	Anna		1896	domestic		56 Baker	1
Burns	Julia		1897	domestic		56 Baker	1
Smith	John	W	1904	cutter	rms	56 Baker	1
Halstead	Mary		1905	clk	bds	56 Baker	1
McAffrey	Phebe		1905	clk	bds	56 Baker	2
Moran	Patk		1905	dept mgr	h	56 Baker	5
Gowing	Theo		1907	cabtmkr	bds	56 Baker	1
Robertson	John	D	1907	clk	h	56 Baker	1
Tennant	Isaac		1907	mach	bds	56 Baker	1
Esterling	George	E	1869	printer	bds, h	58 Baker	7
Ostling	John		1869	mason	h	58 Baker	8
Esterling	Elizabeth		1878		h	58 Baker	5
Osterling	Miss Louisa		1880	clk	bds	58 Baker	2
Hurps	Mary		1883	domestic		58 Baker	1
Gibson	Wm	J	1888	bartndr	h	58 Baker	2
Wagner	George	W jr	1890	clk	h	58 Baker	1
Inslee	Edwin	W	1891	postal clk	h	58 Baker	1
Cochell	Martin		1892	tinner	h	58 Baker	1
Cochell	Miss Lottie	L	1892	clk	bds	58 Baker	1
Hatch	Lillian		1893		h	58 Baker	1
Fitzgerald	James		1894	policeman	h	58 Baker	1
Esterling	Charles	J	1895	foreman	h	58 Baker	12
Anglim	Jeremiah	J	1888	butcher	bds	64 Baker	1
Hirons	Joseph	H	1888	butcher	h	64 Baker	1
Bruce	Wm	E	1889	baker	h	64 Baker	3
Bishop	Miss Susan	-	1891	dressmkr	bds	64 Baker	1

Last Name	First Name	Middle Name	1st Year at Hurttienne Property	Occupation(s)	Rent Code	Address	Length of Stay (# of Direct.)
Ross	James	W	1892	electrician	h	64 Baker	1
Curtin	George	F	1893	lab	bds	64 Baker	6
Dorr	Francis	E	1893	springmkr	bds	64 Baker	1
Dorr	John	J	1893	music teacher	bds	64 Baker	12
Dorr	John	Р	1893	mach.	h	64 Baker	15
Hamburger	Julia	А	1893		bds	64 Baker	1
Cook	Willard	0	1894	condr	rms	64 Baker	1
Curtin	John	J	1894	music teacher	bds	64 Baker	14
Cowhey	James	E	1896	horseshoer	bds	64 Baker	4
Doench	John	E	1896	clk	bds	64 Baker	3
Fleming	Margaret		1896	milliner	bds	64 Baker	1
Fleming	Mary		1896	forewoman	bds	64 Baker	1
Kean	Patrick	L	1896	policeman	bds	64 Baker	1
Curtin	Catherine		1897		bds	64 Baker	2
Ewing	Robert	E	1897	carp	bds	64 Baker	1
Harding	Henry		1897		bds	64 Baker	2
Bower	Alice		1898		bds	64 Baker	1
Hardy	Rebecca	С	1898	laundress	bds	64 Baker	1
Hines	Henry		1898	ball player	bds	64 Baker	1
Ritter	Kate		1898	. ,	bds	64 Baker	1
Ryan	Thomas	J	1899	clk	bds	64 Baker	1
Kelaher	Patrick	J	1900	clk	bds	64 Baker	1
Kennedy	Michael		1900	painter	bds	64 Baker	1
Sellery	Reuben	J	1900	shade cutter	bds	64 Baker	2
Wilkinson	Wm		1900	mach	bds	64 Baker	1
Dorr	John	P jr	1901	lab	bds	64 Baker	7
Lushington	Fred	В	1901	clk	bds	64 Baker	1
O'Donnell	Thomas	С	1901	clk	bds	64 Baker	5
Maul	Wm		1902	finisher	bds	64 Baker	1
McGraw	Mary		1902	mach opr	bds	64 Baker	1
McKinley	James	N	1902	bk kpr	bds	64 Baker	1
McKinley	John	J	1902	trav agt	bds	64 Baker	1
Pidgeon	Wm		1902	driver	rms	64 Baker	1
Wheatley	Harry	E	1902	painter	bds	64 Baker	1
Duncan	Robert	S	1903	timekpr	bds	64 Baker	1
Hamilton	Charles	1	1903	boxmkr	bds	64 Baker	1
Hoffman	John	1	1903	uphlstr	bds	64 Baker	2
Millard	Frank		1903	vice-pres	bds	64 Baker	1
Allen	Winfeld	D	1904	embalmer	bds	64 Baker	1
Curtin	Kittie	С	1904		bds	64 Baker	3
Hellner	Anthony		1904	mach hd	bds	64 Baker	1
O'Connor	Maurice	1	1904	polisher	bds	64 Baker	1

Last Name	First Name	Middle Name	1st Year at Hurttienne Property	Occupation(s)	Rent Code	Address	Length of Stay (# of Direct.)
Reynolds	Joseph	L	1904	elev opr	bds	64 Baker	1
Wilson	Wesley		1904	foreman	bds	64 Baker	1
Broderick	Wm		1905	lab	rms	64 Baker	1
Egan	John		1906	tinner	bds	64 Baker	1
Kauffman	Mary		1906		bds	64 Baker	1
Klinkhausen	Michael		1906	clk	bds	64 Baker	1
Moriarty	Michl	E	1906	floor walker	bds	64 Baker	1
Payne	Irene		1906	dressmkr	bds	64 Baker	1
Thatcher	Albert	А	1906	clk	bds	64 Baker	2
Egan	Edwd		1907	mailer	bds	64 Baker	1
Humphrey	Harold		1907	mach	bds	64 Baker	1
Green	George	W	1869	sailor, captain, steamboat captain, carp, vessel capt	h	66 Baker	12
Nead	Miss Henrietta		1881	milliner	h	66 Baker	1
English	Miss Kate		1883	dressmaker	bds	66 Baker	1
English	Mrs Kate		1883		h	66 Baker	1
English	Norman		1883	tinsmith	bds	66 Baker	1
English	Violet	E	1883	milliner	bds	66 Baker	1
English	Wm	Т	1883	tinsmith	bds	66 Baker	1
Bush	Wm		1886	painter	h	66 Baker	1
Evans	Richard	Р	1887	brakeman	h	66 Baker	2
Davis	John	E	1889	clk	h	66 Baker	4
Bell	Edward	М	1894	ins agt	bds	66 Baker	1
МсКау	Wm		1894	harnessmkr	h	66 Baker	2
Jeffery	George	W	1895	clk	bds	66 Baker	1
Jeffery	John		1895	barn boss	h	66 Baker	1
Jeffery	Leona	М	1895	elocutionist	bds	66 Baker	1
МсКау	Duncan		1895	molder	bds	66 Baker	1
Packer	Frank	J	1896	salesman	h	66 Baker	1
Trudo	Maggie		1896		bds	66 Baker	1
Gehrke	Peter		1897	clk	bds	66 Baker	1
Kane	May	Α	1897	stenogr	bds	66 Baker	2
Kane	Patrick	J	1897	watchman	h	66 Baker	2
Kane	Sadie	Α	1897	stenogr	bds	66 Baker	2
Perrin	Addie	E	1897	clk	bds	66 Baker	1
Bush	S	Smith	1898	lab	bds	66 Baker	1
Radiger	Jennie	1	1899	dressmkr	bds	66 Baker	1
Radiger	John	В	1899	lab	bds	66 Baker	1
Radiger	Joseph	Т	1899	checker	bds	66 Baker	1

Last Name	First Name	Middle	1st Year at	Occupation(s)	Rent	Address	Length
		Name	Hurttienne		Code		of Stay
			Property				(# of
							Direct.)
Radiger	Louise	Μ	1899	dressmkr	bds	66 Baker	1
Shaw	Alfred		1900	ball player	h	66 Baker	2
Wire	Cora		1900		bds	66 Baker	1
Owen	Frank	Μ	1901	ball player	h	66 Baker	1
Murphy	Robert	Т	1905	trav agt	h	66 Baker	1
Fifer	Roland	В	1906		h	66 Baker	1

Table A2. Residents of Meyer property from 1870-1907, sorted by Address, then 1st year at Meyer property, then by name.

Last Name	First Name	Middle	1st Year	Occupation(s)	Rent	Address	Length of
		Name	at Meyer		Code		Stay (# of
			Property				Direct.)
Moynahan	Timothy	jr	1870	blacksmith	bds	131 Labrosse	1
Moynahan	Timothy		1870	laborer	h	131 Labrosse	2
Bresnahan	Jeremiah		1872	lab	h	131 Labrosse	1
Murphy	Michael		1874	lab	h	131 Labrosse	2
Murphy	John		1876	lab	h	131 Labrosse	1
Scanlan	Patrick		1878	lab	h	131 Labrosse	3
Scanlan	John	0 C	1881	teamster	bds	131 Labrosse	4
Scanlan	John		1881	lab	h	131 Labrosse	5
Scanlan	James	R	1882	feeder, printer	bds	131 Labrosse	4
Diken	Wm		1883	teamster	bds	131 Labrosse	1
Larkin	Daniel		1886	carp	h	131 Labrosse	3
Markey	John		1886	teamster	bds	131 Labrosse	1
Martin	Charles	Т	1889	Engineer	h	131 Labrosse	1
Winters	Christine		1890		h	131 Labrosse	1
Crawford	Elmer	S	1891	editor, adv agt	bds	131 Labrosse	2
Crawford	Isaac		1891	Real Estate	h	131 Labrosse	3
Crawford	Stanton	L	1891	bkkpr, adv agt	bds	131 Labrosse	3
Baker	Elias	S	1894	Watchman	h	131 Labrosse	3
				Post Office,			
				Watchman			
Baker	Ada	Р	1895	dressmkr, clk	bds	131 Labrosse	2
Baker	Charity		1896	clk	bds	131 Labrosse	1
Baker	Faith	Т	1896	telephone opr	bds	131 Labrosse	1
Farrell	James		1897	Grocer	h	131 Labrosse	8
Hurst	Maida		1898	clk	bds	131 Labrosse	2
Hurst	Margaret		1898	clk	bds	131 Labrosse	1
Dodman	Tena		1899	Dressmaker	h	131 Labrosse	2
Kaufmann	Gustav		1899	Cook		131 Labrosse	1

Last Name	First Name	Middle	1st Year	Occupation(s)	Rent	Address	Length of
		Name	at Meyer		Code		Stay (# of
			Property				Direct.)
Northcott	W	Sidney	1899	Machine Head	h	131 Labrosse	1
Hartnett	Ellen		1901	domestic	bds	131 Labrosse	5
Farrell	John	J	1902	clk	bds	131 Labrosse	6
Farrell	Wm	С	1902	bartndr	bds	131 Labrosse	6
Farrell	Mamie		1905	steno	bds	131 Labrosse	1
Donovan	Daniel		1885		h	137 Labrosse	16
Donovan	Dennis		1889	constable,	bds	137 Labrosse	2
				bricklayer			
Donovan	Frances	L	1901		h	137 Labrosse	4
Knight	Joseph		1903	Travel Agent	h	137 Labrosse	1
Palmer	Walter	D	1904	pressman	bds	137 Labrosse	1
Pears	John	E	1904	Butcher	h	137 Labrosse	1
Driscoll	Charles	С	1905	Photo Engraver	h	137 Labrosse	1

Table A3 – Census data for Meyer and Hurttienne property residents. Age at Residence refers the age of a person in the first year they were found in the City Directories to have resided at one of these properties.

		Middl	Cens					Age at
	First	е	us	Census			Birth	Reside
Last Name	Name	Name	Year	Age	Birthplace	Ethnicity	Year	nce
						Irish-		
Baker	Ada	Р	1880	12	Michigan	Canadian	1868	27
						Irish-		
Baker	Charity		1880	4	Michigan	Canadian	1876	20
Baker	Elias	S	1880	43	Canada	Canadian	1837	57
						Irish-		
Baker	Faith	Т	1880	4	Michigan	Canadian	1876	20
Barney	Albert	E	1900	37	Michigan	American	1863	32
		Came				Canadian-		
Bastedo	В	ron	1900	45	Canada	American	1855	28
	Mrs							
Bayly	Jessie		1880	50	Canada	Canadian	1830	54
	Miss					Canadian-		
Beaton	Jessie		1880	17	Canada	American	1863	21
						Canadian-		
Britton	Harry	А	1910	39	Canada	English	1871	34
Broderick	Wm		1910	32	Michigan	American	1878	27
Bruce	Wm	E	1900	38	Canada	Canadian	1862	27
					Pennsylvani	Irish-		
Bryan	Clara		1900	56	а	American	1844	57
Bush	S	Smith	1900	26	Canada	Canadian	1874	24
					Pennsylvani			
Cochell	Martin		1910	66	а	American	1844	48
	Miss					English-		
Cochell	Lottie	L	1910	42	Michigan	American	1868	24

Last Name	First Name	Middl e Name	Cens us Year	Census	Birthplace	Ethnicity	Birth Year	Age at Reside nce
Last Maine	INAILIE	Name	rear	Age	Dirtiplace	Irish-	Tear	nce
Cowhey	James	E	1910	37	Michigan	American	1873	23
Crawford	Elmer	S	1880	19	Michigan	American	1861	30
Crawford	Isaac		1880	49	Michigan	American	1831	60
Crawford	Stanton	L	1880	10	Michigan	American	1870	21
Curtin	John	J	1910	37	Michigan	Irish	1873	21
Curtin	Kittie	С	1910	33	Michigan	Irish	1877	27
Dodman	Tena		1900	33	Canada	Canadian- English	1867	32
Doench	John	E	1900	27	Michigan	American	1873	23
Donovan	Daniel		1900	85	Ireland	Irish	1815	70
Donovan	Frances	L	1900	29	Michigan	Irish- American	1871	30
Dorr	John	Р	1910	75	Germany	German	1835	58
Driscoll	Charles	С	1910	39	Kansas	American	1871	34
Eberhardt	Charles	А	1900	69	Germany	German	1831	61
Eberhardt	Charles	F	1900	39	Michigan	German- American	1861	31
Eberhardt	Fred	н	1880	7	Michigan	German- American	1873	21
Eberhardt	Henry	J	1900	33	Michigan	German- American	1867	25
Eberhardt	Miss Julia	E	1880	16	Michigan	German- American	1864	28
Eberhardt	Otto	н	1900	24	Michigan	German- American	1876	17
Eberhardt	Walter	н	1900	23	Michigan	German- American	1877	19
Edwards	Albert	М	1870	33	Maine	American	1837	32
Egan	John		1900	31	Ireland	Irish	1869	37
_	Miss					English-		

						German-		
Eberhardt	Walter	Н	1900	23	Michigan	American	1877	19
Edwards	Albert	М	1870	33	Maine	American	1837	32
Egan	John		1900	31	Ireland	Irish	1869	37
	Miss					English-		
English	Kate		1900	36	Illinois	American	1864	19
	Mrs							
English	Kate		1900	74	England	English	1826	57
						English-		
English	Norman		1900	30	Illinois	American	1870	13
						English-		
English	Violet	E	1900	28	Illinois	American	1872	11
	Elizabet							
Esterling	h		1870	51	Germany	German	1819	59
						German-		
Esterling	George	E	1870	19	Michigan	American	1851	18
Evans	Richard	Р	1880	18	Ohio	American	1862	25
						Canadian-		
Ewing	Robert	E	1910	38	Canada	American	1872	25
Farrell	James		1900	50	Ireland	Irish	1850	47
						Irish-		
Farrell	John	J	1900	18	Michigan	American	1882	20
						Irish-		
Farrell	Mamie		1900	14	Michigan	American	1886	19

	First	Middl e	Cens us	Census			Birth	Age at Reside
Last Name	Name	Name	Year	Age	Birthplace	Ethnicity	Year	nce
						Irish-		
Farrell	Wm	С	1900	20	Michigan	American	1880	22
	Margare		1000	22	Michigan	American	1070	10
Fleming	t		1900	22	Michigan	American Prussian-	1878	18
Gehrke	Peter		1880	5	Michigan	American	1875	22
Gibson	Wm	J	1900	41	Michigan	Scottish	1859	29
Gowing	Theo	J	1900	33	Canada	Canadian	1877	30
Green	George	W	1870	34	New York	American	1836	33
Hellner	-	VV		32		American		26
neimer	Anthony		1910	32	Michigan	English-	1878	20
Hollands	Charles	Т	1880	24	Michigan	American	1856	31
Tionariao	Elizabet		1000	21	Wildingan	7 unonoun	1000	
Hollands	h		1880	61	Michigan	American	1819	68
					Massachuse			
Humphrey	Harold		1910	33	tts	American	1877	30
						Canadian-		
Inslee	Edwin	W	1880	20	Michigan	American	1860	31
Leach	Jos	W	1900	23	Michigan	American	1877	28
						Scottish-	1070	
Lushington	Fred	В	1900	21	Canada	Canadian	1879	22
Mortin	lohn	Е	1000	39	Michigon	Irish-	1011	43
Martin	John	E	1880		Michigan	American	1841	
Maul	Wm		1900	23	Canada	Canadian	1877	25
Millard	Frank	1.47	1910	50	Michigan	American	1860	43
Mills	Edward	W	1900	33	New York	American	1867	21
Moran	Patk		1910	37	Ireland	Irish	1873	32
Moriorty	Michl	Е	1900	45	Michigon	Irish- American	1855	51
Moriarty		ir ⊑	1870	45 25	Michigan Ireland	Irish	1845	25
Moynahan	Timothy Timothy	JI						
Moynahan			1870	65	Ireland	Irish	1805	65
O'Connor	Maurice Miss		1910	27	Ireland	Irish German-	1883	21
Osterling	Louisa		1870	22	Michigan	American	1848	32
Ostling	John		1870	56	Germany	German	1814	55
Owen	Frank	М	1910	30	Michigan	American	1880	21
		J						
Packer	Frank	J	1900	35	Ohio	American English-	1865	31
Potter	Frank	jr	1910	37	New York	American	1873	34
		, ,.	1010			Irish-	10/0	
Radiger	Jennie		1900	25	Canada	Canadian	1875	24
		1		-		Irish-		1
Radiger	John	В	1900	23	Canada	Canadian	1877	22
Radiger	Joseph	Т	1900	55	Ireland	Irish	1845	54
~						Irish-		
Radiger	Louise	М	1900	28	Canada	Canadian	1872	27
						Scottish-		
Ross	James	W	1900	37	Canada	Canadian	1863	29
Shaw	Alfred		1900	26	England	English	1874	26

	-	Middl	Cens				5.4	Age at
	First	е	us	Census			Birth	Reside
Last Name	Name	Name	Year	Age	Birthplace	Ethnicity	Year	nce
Thatcher	Albert	А	1910	21	Canada	Canadian	1889	17
Thompson	James		1900	59	Ireland	Irish	1841	51
						Scottish-		
Watson	David		1880	13	Michigan	American	1867	19
						Scottish-		
Watson	George	G	1880	16	Michigan	American	1864	26
Watson	Thomas	Н	1880	49	Scotland	Scottish	1831	55
	Catharin							
Weitzel	е		1870	55	Germany	German	1815	55
						German-		
Weitzel	John	G	1870	26	Michigan	American	1844	26
						Canadian-		
Wheatley	Harry	Е	1920	41	Canada	American	1879	23

Table A4. Frequency of occupations for Meyer and Hurttienne property residents listed in Detroit City Directories. In the Type category, HWC = High white-collar, LWC = Low white-collar, SK = Skilled, and S / U = Semiskilled and Unskilled. After Zunz (1982:48).

Occupation	Туре	Hurttienne Lot	Meyer Lot	Occupation	Туре	Hurttienne Lot	Meyer Lot
Advertising Agent	LWC		2	Laborer	S/U	8	6
Agent	LWC	1		Laundress	S/U	1	
Apprentice	SK	1		Machine Head	SK	2	1
Baker	SK	1		Machine Operator	SK	2	
Barn Boss	SK	1		Machinist	SK	6	
Bartender	LWC	1	1	Mailer	SK	1	
Baseball Player	SK	3		Manager Grocery Dept.	LWC	1	
Blacksmith	SK		1	Mason	SK	1	
Boarding House	LWC	2		Milliner	SK	3	
Bookbinder	SK	1		Molder	SK	1	
Bookkeeper	LWC	3	1	Music Teacher	LWC	2	
Boxmaker	SK	1		Musician	LWC	2	
Brakeman	SK	1		Nurse	SK	1	
Bricklayer	SK	1	1	Oiler	SK	1	
Butcher	SK	2	1	Painter	SK	4	
Cabinet Maker	SK	1		Photo Engraver	SK		1
Carpenter	SK	4	1	Police Sergeant	SK	1	
Chauffeur	S/U	1		Policeman	SK	3	
Checker	LWC	1		Polisher	SK	1	
Chemist	LWC	1		Postal Clerk	LWC	1	
Clerk	LWC	27	5	Pressman	SK		1
Coachman	S/U	1		Printer	LWC	2	1
Conductor	SK	1		Real Estate	LWC	1	1
Constable	SK		1	Receiving Clerk	LWC	1	
Cook	S/U		1	Salesman	LWC	2	
Cutter	SK	5		Seamstress	SK	2	

Occupation	Туре	Hurttienne Lot	Meyer Lot	Occupation	Туре	Hurttienne Lot	Meyer Lot
Decorator	LWC	1		Secretary	LWC	1	
Department Manager	LWC	1		Shade Cutter	SK	1	
Domestic	S/U	6	1	Shipping Clerk	LWC	4	
Dressmaker	SK	8	2	Springmaker	SK	1	
Driver	S/U	3		Steam Boat Captain	LWC	1	
Editor	LWC		1	Stenographer	LWC	2	1
Electrician	SK	2		Student	LWC	1	
Elevator Operator	S/U	1		Tailor	SK	1	
Elocutionist	LWC	1		Teamster	S/U	1	3
Embalmer	LWC	1		Teas	LWC	1	
Engineer	SK	2	1	Telephone Operator	SK	1	1
Examiner	LWC	1		Timekeeper	SK	1	
Feeder	SK		1	Tinner	SK	2	
Finisher	SK	1		Tinsmith	SK	2	
Fireman	SK	1		Travel Agent	LWC	3	1
Floor Walker	LWC	1		Trimmer	SK	1	
Foreman / Forewoman	LWC	3		Truckman	S/U	1	
Grocer	LWC		1	Unknown		26	3
Harnessmaker	SK	1		Vice-President	HWC	1	
Horseshoer	SK	1		Watchman	S/U	1	1
Inspector of Customs	LWC	1		Wireworker	SK	2	
Insurance Agent	LWC	2		Sum		204	43

Table A5 – Businesses appearing on the 1884 Sanborn Fire Insurance map

Business Name	Address		Business Type	1884
				Мар
				Sheet
Baptist Church	174	Eighteenth Street	Church	113a
Church	719	W. Fort Street	Church	21b
Disciples of Christ Church	74	Plum Street	Church	10b
Holy Trinity Episcopal Church	80	Fourteenth Street	Church	35a
Immanuel Church and Schools	428	Seventeenth Street	Church	27b
Methodist Episcopal Church	507	Sixteenth Street	Church	108b
Most Holy Trinity Church	118	Porter Street	Church	11a
Saint Boniface Church	368	Thirteenth Street	Church	17a
Saint Peter's Episcopal Church	10	Church Street	Church	16b
Saint Vincent Roman Catholic Church	-	Fourteenth Street	Church	112b
Second German Methodist Episcopal	308	Sixteenth Street	Church	112a
Church				

Business Name	Addre	255	Business Type	1884
				Map Sheet
Sisters of the Sacred Heart	72	Marantette Street	Church	112b
Tabernacle M. E. Church	120	Howard Street	Church	12b
Trumbull Avenue Congregational	98	Baker Street	Church	15a
Church				
A. Backus Jr. and Sons Lumber Ware House	438	W. Fort Street	Construction	14a
Brady's Lumber Yard	460	W. Fort Street	Construction	19a
Coal and Wood Yard	118	Locust Street	Construction	104b
Coal and Wood Yard	-	Francis Street	Construction	112a
J. F. Weber and Company Lumber Yard	442	Michigan Avenue	Construction	16b
J. G. Sidey's Lumber Yard	185	Labrosse Street	Construction	15a
J. H. Bears' Lumber Yard	565	W. Fort Street	Construction	20b
L. W. Day Lumber Yard	290	Trumbull Avenue	Construction	16a
Leech's Lumber Yard	559	Michigan Avenue	Construction	17b
Lindsay and Gamble Lumber Yard	-	Michigan Avenue	Construction	27b
Marble Yard	13	Seventeenth Street	Construction	21b
Myles, Weeks, and Company	268	Michigan Avenue	Construction	11b
Otsego Lake Lumber Company	280	Eighth Street	Construction	16a
Purcell and Leonard Wood Yard	570	Michigan Avenue	Construction	17a
Robinson Lumber Company Lumber Yard	437	W. Fort Street	Construction	14b
S. Brady's Lumber Yard	447	W. Fort Street	Construction	14b
Spaulding Ross and Company Lumber Yard	281	Trumbull Avenue	Construction	16a
Stone Cutting Yard	246	Michigan Avenue	Construction	11b
W. H. Richardson Lumber Yard	183	Labrosse Street	Construction	15a
W. W. Crapo Lumber Yard	279	Grand River Avenue	Construction	9b
Wood and Coal Yard	403	Baker Street	Construction	31b
Wood and Coal Yard	290	Baker Street	Construction	31b
Wood Yard	259	Michigan Avenue	Construction	11b
Wood Yard	384	W. Fort Street	Construction	14a
A. Backus Jr and Sons Planing Mill	500	W. Woodbridge	Industry	19b
and Box Factory		Street		
American Stove Company Office and Warehouse	-	Alexander Street	Industry	112a
Awning Factory	583	Michigan Avenue	Industry	17a
Basket Factory	411	Thirteenth Street	Industry	105a
Broom Factory	261	Nineteenth Street	Industry	31b
Brush Electric Light Company	77	Third Street	Industry	13b

Business Name		255	Business Type	1884 Map Sheet
Buhl Iron Works	215	W. Congress Street	Industry	13b
Butterine Factory	540	W. Woodbridge Street	Industry	19b
Canada Malt Company	634	W. Woodbridge Street	Industry	20a
Candy Factory	544	Michigan Avenue	Industry	17a
Car Stable	624	Michigan Avenue	Industry	27b
Chas Appelt and Brother Roller Mills	278	Seventeenth Street	Industry	112a
Clough and Warren Organ Company	288	W. Congress Street	Industry	13a
Delbridge, Brooks, and Fisher Planing Mill Sash, D	259	Grand River Avenue	Industry	9b
Detroit Blower Company Huyett and Company	606	W. Woodbridge Street	Industry	20b
Detroit Cement Sewer Pipe Company	260	Trumbull Avenue	Industry	16b
Detroit Copper and Brass Rolling Mill	220	W. Larned Street	Industry	13b
Detroit Electircal Works	330	W. Woodbridge Street	Industry	14b
Detroit Knitting and Corset Works	224	Seventh Street	Industry	15b
Detroit White Lead Works	105	Jones Street	Industry	11b
Diamond Match Company	5	Eighth Street	Industry	14b
Dowling Screen Works	425	Porter Street	Industry	113b
E.T. Barnum Wire and Iron Works	500	Howard Street	Industry	35b
Eagle Iron Works	278	W. Woodbridge Street	Industry	13a
Eberts Brothers Roofing	348	Fifth Street	Industry	9b
F. A. Hubell Gelatine Capsules	118	Abbott Street	Industry	12b
Fr. Griesback's Mineral Water Factory	310	Wabash Avenue	Industry	27b
G. W. Birch Tension Ladder Factory	518	Seventeenth Street	Industry	108b
Gage and Herbert Lumber, Coal, and Wood Yard	684	W. Fort Street	Industry	20a
H. B. McIntyre Terra Cotta Works	537	W. Fort Street	Industry	19b
Hargreaves Manufacturing Company	60	Seventeenth Street	Industry	35b
J. B. Wilson and Company Foundry and Machine Shop	611	W. Fort Street	Industry	20b
J. Beck and Son Feed Mill	251	W. Congress Street	Industry	13b
Jacob Darmstaetter Brewery	414	Howard Street	Industry	18b
Jaquemain and Company Piano Manufactory	640	Bagg Street	Industry	108b
Jos. Hommel's Sash Factory	390	Fourteenth Avenue	Industry	27b

Business Name		255	Business Type	1884 Map Sheet
Julius Snell and Son Foundry and Machine Shop	241	Nineteenth Street	Industry	31b
M. J. Murphy and Company's Chair Factory	50	Porter Street	Industry	11b
M. O'Connor Fur Dressing and Dyeing	15	Spruce Street	Industry	9a
Martin Maier Trunk Factory	121	Twelfth Street	Industry	18b
McEnhill and Moore Planing Mill Sash, Door, and Blind Factory	204	W. High Street	Industry	9b
Michigan Central Rail Road	-	-	Industry	14b
Michigan Central Rail Road Flour Ware House	1	Tenth Street	Industry	19b
Michigan Grape Sugar Works	407	W. Fort Street	Industry	14b
Michigan Match Works	198	Eighth Street	Industry	15a
National Wire and Iron Company	24	Fourth Street	Industry	13b
O. W. Shipman Coal Yard	457	W. Fort Street	Industry	19b
Peninsular Stove Company	375	W. Fort Street	Industry	14b
Peter Dingeman Planning Mill Sash, Door, and Blind Factory	1	Pine Street	Industry	9b
R. J. Taylor Sash, Door, and Blind Factory	648	W. Fort Street	Industry	20a
R. S. Webb Provisions	285	Grand River Avenue	Industry	9b
Riverside File Works	734	W. Woodbridge Street	Industry	21b
Riverside Truck Company's Stables	413	Howard Street	Industry	19a
Rogers and Monroe Vinegar Works	220	Sixteenth Street	Industry	31b
Slaughter House	23	Locust Street	Industry	9b
Soap Factory	4	Thirteenth Street	Industry	20b
Street Car Stables / Car House	175	Baker Street	Industry	18a
Sutton Manufacturing Company Pails and Tubs	472	W. Fort Street	Industry	19a
Theo S. Balsey Flower Pot Manufactory	484	Howard Street	Industry	35b
Union Brewing Company	631	W. Fort Street	Industry	20b
Union Mills Company	380	W. Woodbridge Street	Industry	14b
W. E. Maloney Brewery	76	Twelfth Street	Industry	18b
Whitney Organ Works	60	Eighteenth Street	Industry	35b
Williams and Company Malt House	232	W. Woodbridge Street	Industry	13b
Engine House Number 8	787	Sixth Street	Public	11a

Business Name	Addre	255	Business Type	1884 Map Sheet
Fire Engine House Number 10	495	Sixteenth Street	Public	108b
Police Station	-	-	Public	16b
Steam Fire Engine Number 4	65	Eighteenth Street	Public	35b
The Detroit Sanitarium	250	W. Fort Street	Public	12b
Workers Row House	758	Sixth Street	Row house	11a
Bagley School	422	Fourteenth Avenue	School	105a
Franklin School	-	Seventh Street	School	104b
Holy Trinity School	148	Porter Street	School	11a
Houghton School	185	Abbott Street	School	12a
Kindergarten School	64	Church Street	School	17b
Saint Boniface School	365	Thirteenth Street	School	17a
Saint Vincent School	-	Fourteenth Street	School	112b
Tappan Union School	271	Thirteenth Street	School	112b
Lumber Yard	76	Plum Street	Small Business	10b
R. Helson's Carpenter Shop	45	Plum Street	Small Business	10b
Bakery	319	Michigan Avenue	Small Business	11a
Bakery	309	Michigan Avenue	Small Business	11a
Bakery	283	Michigan Avenue	Small Business	11b
Bakery	201	Third Street	Small Business	11b
Bakery	367	W. Fort Street	Small Business	14b
Bakery	359	Grand River Avenue	Small Business	9a
Bakery	274	Grand River Avenue	Small Business	9b
Blacksmith	379	Michigan Avenue	Small Business	16b
Blacksmith	2	Twelfth Street	Small Business	19b
Blacksmith	4	Twelfth Street	Small Business	19b
Blacksmith	6	Twelfth Street	Small Business	19b
Blacksmith	369	Grand River Avenue	Small Business	9a
Blacksmith Shop	282	Grand River Avenue	Small Business	9b
Cabinet Shop	167	Eighteenth Street	Small Business	113a
Carpenter	143	Sixth Street	Small Business	11a
Carpenter	85	Fifteenth Street	Small Business	35a
Carpenter	340	Grand River Avenue	Small Business	9b
Carpenter	2	Pine Street	Small Business	9b
Carpenter	228	W. High Street	Small Business	9b
Carpenter Shop	239	Fifth Street	Small Business	10a
Carpenter Shop	106	Dalzelle Street	Small Business	112a
Carpenter Shop	262	Fifteenth Street	Small Business	112a
Carpenter Shop	255	Third Street	Small Business	11b
Carpenter Shop	158	Abbott Street	Small Business	12a

Business Name	Addre	255	Business Type	1884 Map Sheet
Carpenter Shop	16	Eighteenth Street	Small Business	21b
Carpenter Shop	730	W. Woodbridge Street	Small Business	21b
Carpet and Wire Weaving	440	Fifteenth Street	Small Business	108b
Carpet Cleaning	297	W. Congress Street	Small Business	13a
Carpet Weaving	404	Michigan Avenue	Small Business	16b
Carriage Paint Shop	343	Michigan Avenue	Small Business	11a
Cooper Shop	213	Baker Street	Small Business	31b
Dairy	460	Seventeenth Street	Small Business	108b
DeMay Planing Mill	229	Cherry Street	Small Business	16a
Drugs	326	Michigan Avenue	Small Business	11a
Drugs	363	Michigan Avenue	Small Business	11a
Drugs	290	Michigan Avenue	Small Business	11b
Drugs	289	Michigan Avenue	Small Business	11b
Drugs	368	W. Fort Street	Small Business	14a
Drugs	421	Michigan Avenue	Small Business	16b
Drugs	508	Michigan Avenue	Small Business	17a
Drugs	762	W. Fort Street	Small Business	21b
Drugs	738	W. Fort Street	Small Business	21b
Drugs	723	W. Fort Street	Small Business	21b
Drugs	691	Michigan Avenue	Small Business	27a
Drugs	660	Michigan Avenue	Small Business	27b
Drugs	760	Michigan Avenue	Small Business	27b
Drugs	761	Michigan Avenue	Small Business	27b
Drugs	375	Baker Street	Small Business	31b
Drugs	386	Baker Street	Small Business	31b
Drugs	355	Grand River Avenue	Small Business	9a
Feed	334	W. Fort Street	Small Business	12a
Flour and Feed	444	Baker Street	Small Business	31b
Furnace Repairing	581	Michigan Avenue	Small Business	17a
Furnace Repairing	583	Michigan Avenue	Small Business	17a
Furniture	226	Michigan Avenue	Small Business	11b
H. Chavercorn Planing Mill	418	Michigan Avenue	Small Business	16b
Hand Printing	204	Seventh Street	Small Business	11a
Hardware and Tinware	405	Baker Street	Small Business	31b
Hay and Straw	345	Grand River Avenue	Small Business	9b
Ice House	760	Michigan Avenue	Small Business	27b
J. Hicky's Undertaking Stable	14	Baker Street	Small Business	11a
Kennedy and Greig Machine Shop	204	W. Congress Street	Small Business	13b

Business Name	Addre	255	Business Type	1884 Map Sheet
Kiln	776	Michigan Avenue	Small Business	27b
Lard Kettle	216	Fifteenth Street	Small Business	112a
Lard Render	769	W. Fort Street	Small Business	21b
Liquors	227	Michigan Avenue	Small Business	11b
Machine Shop	786	W. Woodbridge Street	Small Business	21b
Moreton Truck Company	171	Seventh Street	Small Business	15a
Oven	718	Michigan Avenue	Small Business	27a
P. Hicky's Livery Stable	24	Baker Street	Small Business	11a
Paint Shop	447	Bagg Street	Small Business	104a
Paint Shop	169	Seventeenth Street	Small Business	113a
Paint Shop	697	W. Fort Street	Small Business	20a
Paint Shop	15	Seventeenth Street	Small Business	21b
Paint Shop	91	Eighteenth Street	Small Business	35b
Paint Shop	87	Eighteenth Street	Small Business	35b
Paint Store	398	Michigan Avenue	Small Business	16b
Painting	280	Grand River Avenue	Small Business	9b
Paints and Oils	272	Grand River Avenue	Small Business	9b
Plumbing	280	Michigan Avenue	Small Business	11b
Print Shop	295	Michigan Avenue	Small Business	11a
Printing	367	Grand River Avenue	Small Business	9a
Slaughter House	29	Leverett Street	Small Business	15a
Smoke House	235	Fourteenth Street	Small Business	112a
Smoke House	560	Michigan Avenue	Small Business	17a
Smoke House	700	W. Woodbridge Street	Small Business	20a
Smoke House	769	W. Fort Street	Small Business	21b
Smoke House	687	Michigan Avenue	Small Business	27a
Smoke House	760	Michigan Avenue	Small Business	27b
Spring Bed Manufactory	295	W. Congress Street	Small Business	13a
Tailor Shop	316	Seventeenth Street	Small Business	112a
Tannery	314	Michigan Avenue	Small Business	11a
Tin Shop	338	Michigan Avenue	Small Business	11a
Tin Shop	325	Michigan Avenue	Small Business	11a
Tin Shop	297	Michigan Avenue	Small Business	11a
Tin Shop	287	Michigan Avenue	Small Business	11b
Tin Shop	739	W. Fort Street	Small Business	21b
Tin Store	287	Michigan Avenue	Small Business	11b
Tin Store	682	Michigan Avenue	Small Business	27a

Business Name	Addre	ess	Business Type	1884
				Мар
				Sheet
Tin Store	779	Michigan Avenue	Small Business	27b
Tin Warehouse	282	Michigan Avenue	Small Business	11b
Tinware	368	Baker Street	Small Business	31b
Tinworks	589	Michigan Avenue	Small Business	17a
Undertaker	337	Michigan Avenue	Small Business	11a
Unknown	331	Michigan Avenue	Small Business	11a
Unknown	316	Michigan Avenue	Small Business	11a
Vaughan's Hall	398	Baker Street	Small Business	31b
Wagon and Blacksmith Shop	9	Thirteenth Street	Small Business	20b
Wagon Shop	4	Twelfth Street	Small Business	19b
Wagon Shop	692	Fifteenth Street	Small Business	27a
Wagon Shop	639	Michigan Avenue	Small Business	27b
Wagon Shop	632	Michigan Avenue	Small Business	27b
Wood Shop	367	Grand River Avenue	Small Business	9a
Wood Shop	189	Henry Street	Small Business	9b
Wood Yard	333	Fourth Street	Small Business	9b
Zoological and Acclimatization	509	Michigan Avenue	Small Business	17b
Society				

Appendix B – Additional Figures



Figure B1. Photograph of the 1853 Hart Map. The Hurttienne property is located in block 58 lots 9 through 11, while the Meyer property is located in Block 60, lots 6 and 7.



Figure B2. Cropped black and white image of the 1884 Sanborn Map, Volume 1 Sheet 15a.

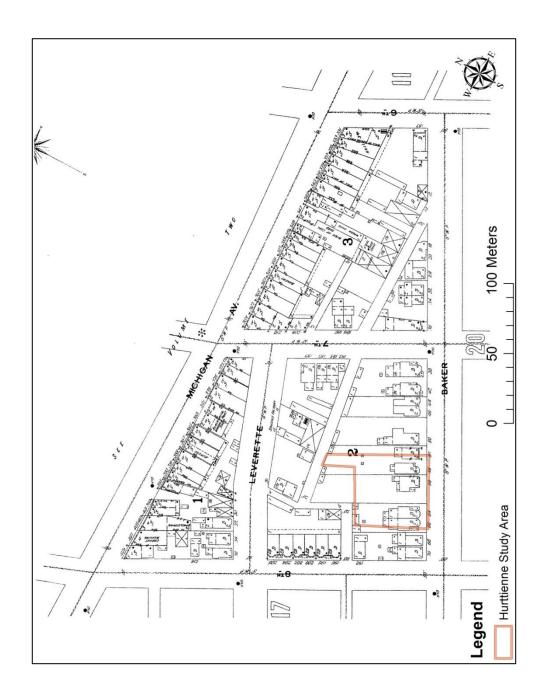


Figure B3. Cropped black and white image of the 1897 Sanborn Map, Volume 1 Sheet 18.

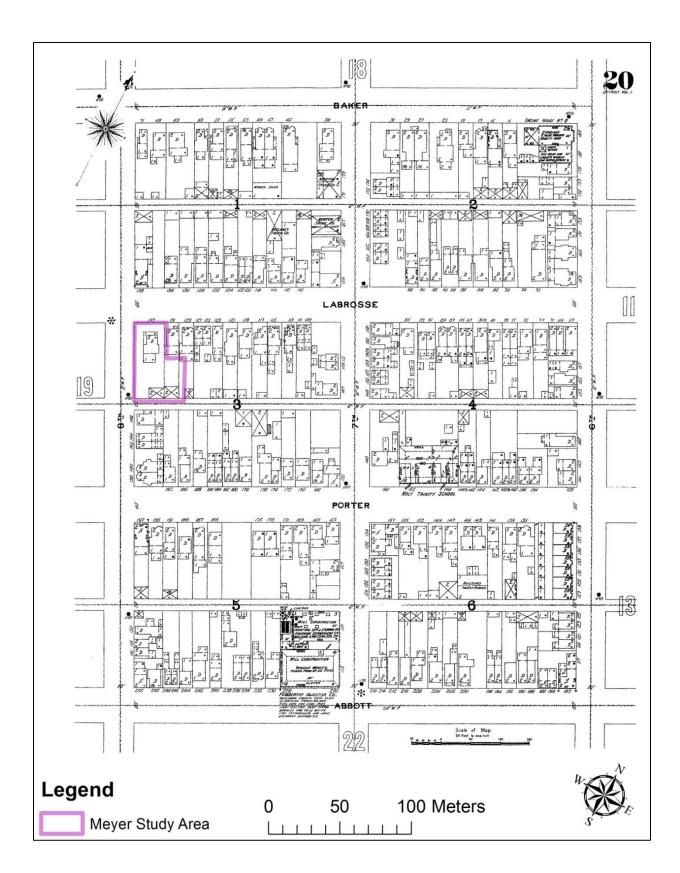


Figure B4. Cropped black and white image of the 1897 Sanborn Map, Volume 1 sheet 20

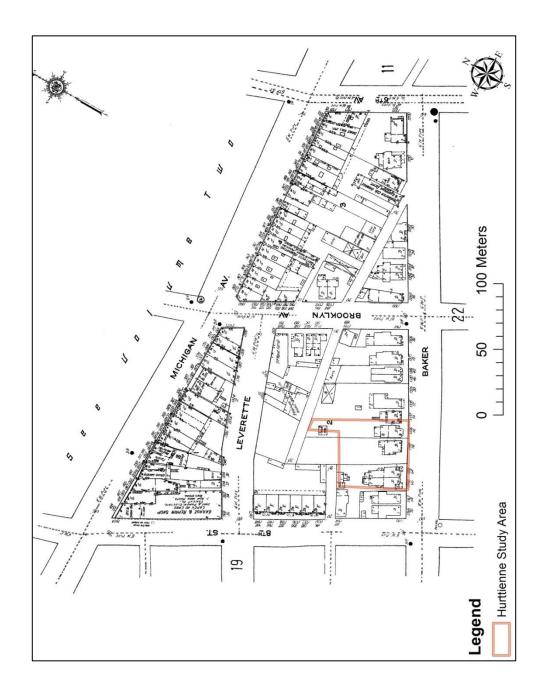


Figure B5. Cropped black and white image of the 1921 Sanborn Map, Volume 1 Sheet 20

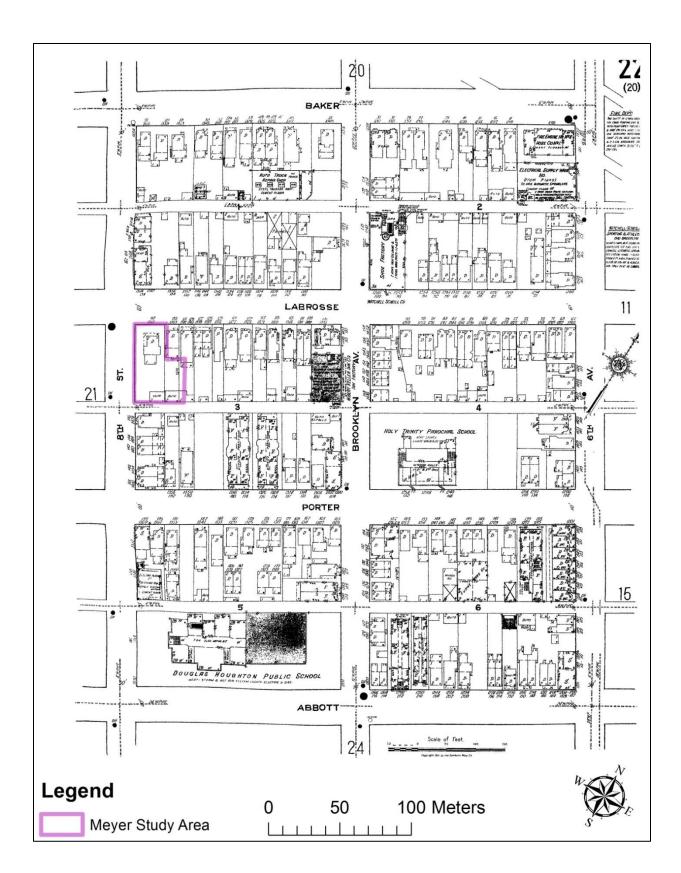


Figure B6. Cropped black and white image of the 1921 Sanborn Map, Volume 1 sheet 22.

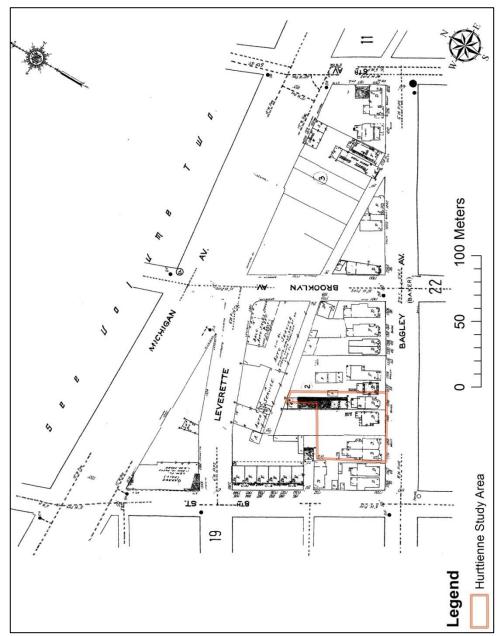


Figure B7. Cropped black and white image of the 1950 Sanborn Map, Volume 1 Sheet 20.

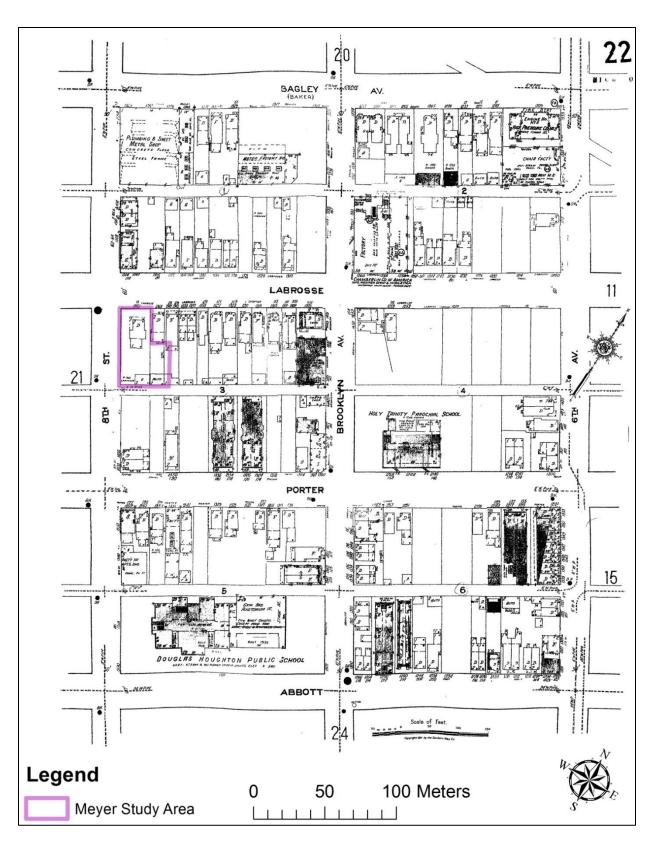


Figure B8. Cropped black and white image of the 1950 Sanborn Map, Volume 1 sheet 22.

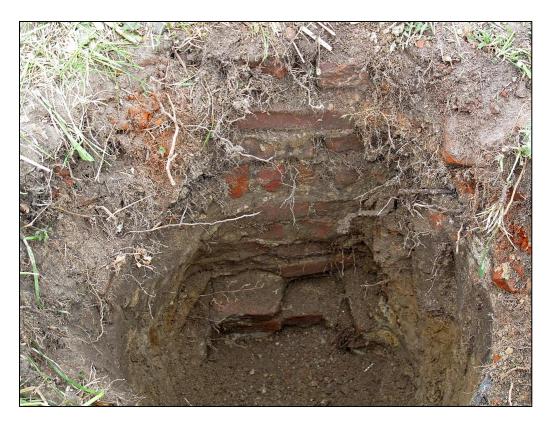


Figure B9. Photograph of Hurttienne lot test pit E11 N8, showing brick courses found at front of 58 Baker.



Figure B10. Photograph of Hurttienne lot test pit E12 N15, showing brick wall found at rear of 56 Baker.



Figure B11. Photograph of Meyer lot test pit E5 N20, showing brick east wall of 137 Labrosse.



Figure B12. Photograph of Hurttienne lot test pit E7 N8, showing oyster shell deposit.

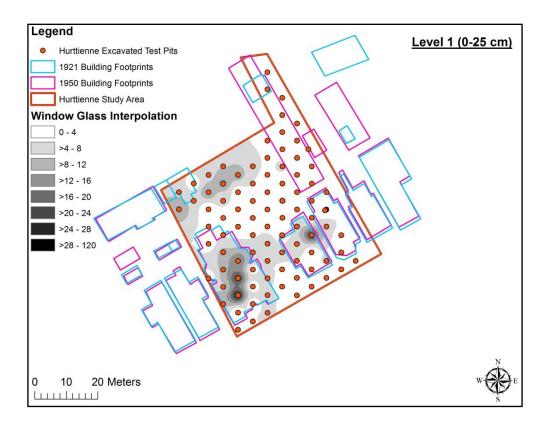


Figure B13. Interpolation of window glass distribution for Hurttienne lot, level 1.

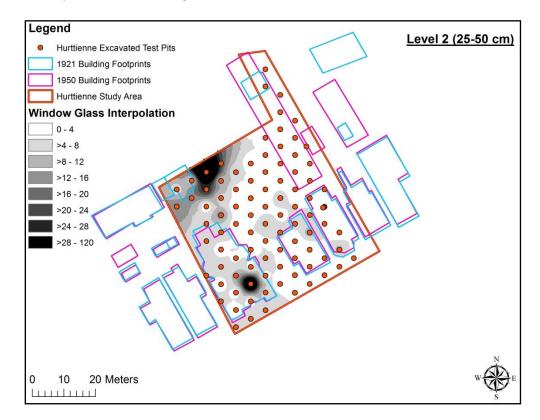


Figure B14. Interpolation of window glass distribution for Hurttienne lot, level 2.

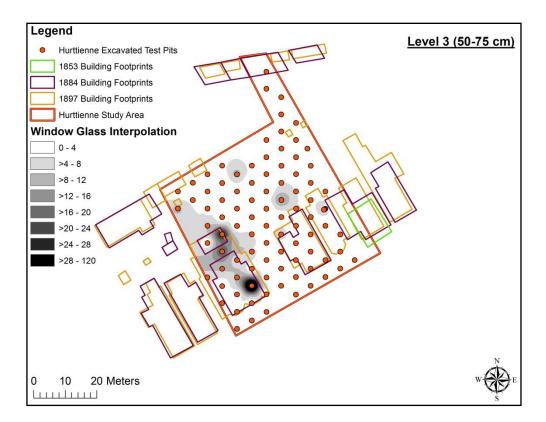


Figure B15. Interpolation of window glass distribution for Hurttienne lot, level 3.

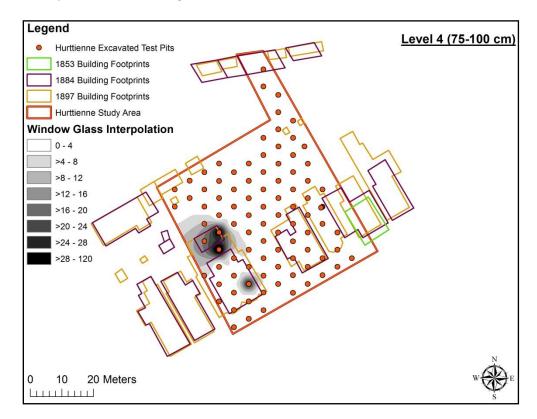


Figure B16. Interpolation of window glass distribution for Hurttienne lot, level 4.

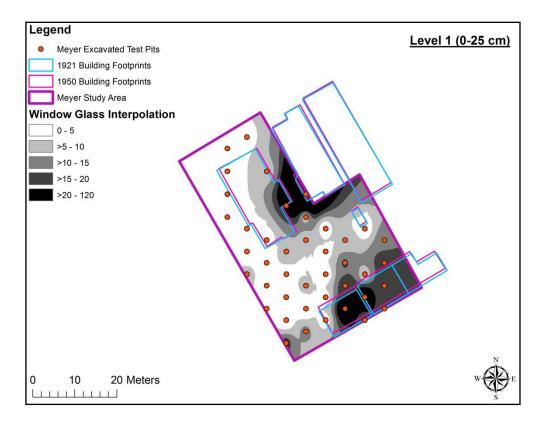


Figure B17. Interpolation of window glass distribution for Meyer lot, level 1.

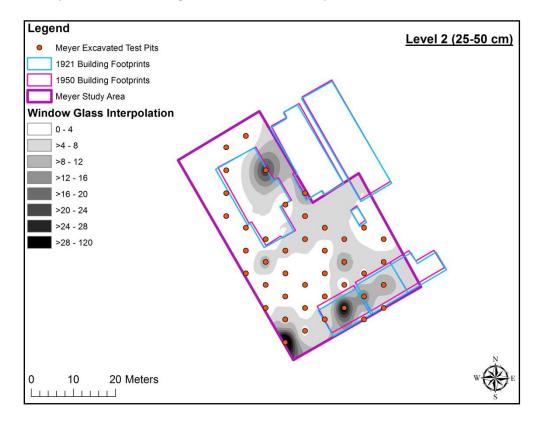


Figure B18. Interpolation of window glass distribution for Meyer lot, level 2.



Figure B19. Interpolation of window glass distribution for Meyer lot, level 3.



Figure B20. Interpolation of window glass distribution for Meyer lot, level 4.

### References

- Adams, William Hampton. "Dating Historical Sites: The Importance of Understanding Time Lag in the Acquisition, Curation, Use, and Disposal of Artifacts". *Historical Archaeology* 37:2 (2003): 38-64. Print.
- Arias, Elizabeth. "United States life tables, 2009". *National Vital Statistics Reports* 62.7 (2014). Retrieved from <u>http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\_07.pdf</u>
- Armour-Chelu, Miranda and Peter Andrews. "Some Effects of Bioturbation by Earthworms (oligochaete) on Archaeological Sites". *Journal of Archaeological Science* 21 (1994): 433-443. Print.
- Beaudry, Mary C., Lauren J. Cook, and Stephen A. Mrozowski. "Artifacts and Active Voices: Material
  Culture as Social Discourse". *Images of the Recent Past: Readings in Historical Archaeology*. Ed.
  Charles E. Orser, Jr. Wlanut Creek, CA: AltaMira Press, 1996. Print.
- Berry, Joseph W. III. "Historic Sanborn Maps in the Digital Age: City of New Orleans". Journal of GIS in Archaeology, 1 (2003). 73-78. Print.
- Boyle, Kevin and Victoria Getis. *Muddy Boots and Ragged Aprons: Images of Working-class Detroit,* 1900-1930. Detroit, MI: Wayne State University Press, 1997. Print.
- Branstner, Mark C. "The Cobo Hall Expansion Project Part I: The Phase I Archaeological Survey." Williamston, MI: Great Lakes Research, 1988. Print.
- Branstner, Mark C., and Earl J. Prahl. "A Phase I Archaeological Investigation of the American Natural Resources, Stroh Brewing Company, and Chene Street Project Sites, Detroit, Michigan." Linwood, MI: Caminos Associates, 1983. Print.
- Brighton, Stephan A. "Prices That Suit the Times: Shopping for Ceramics at the Five Points". *Historical Archaeology* 35.3 (2001): 16-30. Print.
- Brighton, Stephan A., and Charles E. Orser, Jr. "Irish Images on English Goods in the American Market: The Materialization of a Modern Irish Heritage". *Images, Representations and Heritage: Moving*

Beyond Modern Approaches to Archaeology. Ed. Ian Russell. New York: Springer, 2006. 61-88. Print.

- Crane, Brian D. "Filth, Garbage, and Rubbish: Refuse Disposal, Sanitary Reform, and Nineteenth-Century Yard Deposits in Washington, D. C.". *Historical Archaeology* 34.1 (2000): 20-38. Print.
- Dawdy, Shannon Lee. "Ethnicity in the Urban Landscape: The Archaeology of Creole New Orleans". *Archaeology of Southern Urban Landscapes*. Ed. Amy L. Young. Tuscaloosa: The University of Alabama Press (2000). Print.
- Deagan, Kathleen. "Downtown Survey: The Discovery of Sixteenth-Century St. Augustine in an Urban Area". American Antiquity 46.3 (1981): 626-634. Print.
- Delicato, Armando, and Julie Demery. *Images of America: Detroit's Corktown*. Charleston, SC: Arcadia Publishing. 2007. Print.
- Demeter, C. Stephan. *An Archaeological Evaluation of the Corktown Study Area*. Jackson, MI: Commonwealth Associates Inc., 1981. Print.
- Demeter, C. Stephan. *Archaeological Investigations at the Sheridan Place Development Site*. Jackson, MI: Commonwealth Associates Inc., 1980. Print.
- Demeter, C. Stephan. Archaeological Investigations of the Millender Center Development Site. Jackson, MI: Gilbert/Commonwealth Inc., 1985. Print.
- Demeter, C. Stephan. "Nineteenth-Century Sanitation Technology". *The Michigan Archaeologist* 40:1 (1994): 1-24. Print.
- Demeter, C. Stephen [sic]. "The Joe Louis Arena Site: A Material Culture View of Nineteenth Century Detroit." *Detroit In Perspective* 4.2 (1980): 91-110. Print.
- Fitts, Robert K. "The Archaeology of Middle-Class Domesticity and Gentility in Victorian Brooklyn". *Historical Archaeology*, 33.1 (1999): 39-62. Print.

- Groover, Mark D. "Linking Artifact Assemblages to Household Cycles: An Example from the Gibbs Site". *Historical Archaeology* 35.4 (2001): 38-57. Print.
- Gutman, Marta. "Busy as Bees: Women, Work, and Material Culture in West Oakland". *Putting the "There" There: Historical Archaeologies of West Oakland*. Ed. Mary Praetzellis and Adrian Praetzellis. Rohnert Park, CA: Anthropological Studies Center, Sonoma State University, 2004. Web. 6 April, 2015.
- Heberling, Paul M. "Status Indicators: Another Strategy for Interpretation of Settlement Pattern in a Nineteenth-Century Industrial Village. *Consumer Choice in Historical Archaeology*. Ed. Suzanne
   M. Spencer-Wood. New York: Plenum Press, 1987. 199-216. Print.

Heizer, Robert F. A Guide to Archaeological Field Methods. Palo Alto, CA: The National Press, 1959. Print.

- Hester, Thomas R. *Field Methods in Archaeology.* 6th ed. Palo Alto, CA: Mayfield Publishing Co., 1975. Print.
- Hilton, Michael R. "Quantifying Postdepositional Redistribution of the Archaeological Record Produced by Freeze-Thaw and Other Mechanisms: An Experimental Approach". *Journal of archaeological Method and Theory* 10.3 (2003): 165-202. Print
- Holdaway, Simon et al. "Archaeology Without Squares: A Computerised System for Recording and Visualising the Excavation of a 19th Century Maori Village". *The Journal of the Polynesian Society* 114.3 (2005): 267-283. Print.
- Holdaway, Simon, et al. "New Approaches to Open Site Spatial Archaeology in Sturt National Park, New South Wales, Australia". *Archaeology in Oceania* 33.1 (1998): 1-19. Print.
- Howard, Jeffery L., Krysta Ryzewski, Brian R. Dubay, and Thomas W. Killion. "Artifact preservation and post-depositional site-formation processes in an urban setting: a geoarchaeological study of a 19th century neighborhood in Detroit, Michigan, USA". *Journal of Archaeological Science* 53 (2015): 178-189. Web.

Jakubiec, Dianna. "Corktown's Nineteenth Century Worker's Row House: History, Identity, and the Archaeological Record." MA essay. Wayne State University, 2008. Print.

Johnston, Kevin, et al. ArcGIS 9: Using ArcGIS Statistical Analyst. Redlands, CA: ESRI, 2003. Print.

- LeeDecker, Charles H., Terry H. Klein, Cheryl A. Holt, and Amy Friedlander. "Nineteenth-Century Households and Consumer Behavior in Wilmington, Delaware". *Consumer Choice in Historical Archaeology*. Ed. Suzanne M. Spencer-Wood. New York: Plenum Press, 1987. 233-259. Print.
- MacKenzie, Clyde L., jr. "History of Oystering in the United States and Canada, Featuring the Eight Greatest Oyster Estuaries". *Marine Fisheries Review* 58.4 (1996): 1-78. Print.
- McBride, Stephen W. and Kim A. McBride. "Socioeconomic Variation in a Late Antebellum Southern Town: The View from Archaeological and Documentary Sources". *Consumer Choice in Historical Archaeology*. Ed. Suzanne M. Spencer-Wood. New York: Plenum Press, 1987. 143-161. Print.
- Moloney, Brenna. "Speakeasy Project, Tommy's Bar 2013 Site Report". Detroit: Wayne State University Department of Anthropology (2013). Print.
- Mrozowski, Stephen A., Grace H. Ziesing, and Mary C. Beaudry. *Living on the Boott: Historical Archaeology at the Boott Mills Boardinghouses, Lowell, Massachusetts*. Amherst: University of Massachusetts Press (1996). Print.
- Mudar, Karen. "The Effects of Socio-cultural Variables on Food Preferences in Early 19th Century Detroit." *The Conference on Historic Site Archaeology Papers 1977 Volume 12*. Ed. Stanley South. Columbia: The South Carolina Institute of Archaeology and Anthropology - University of South Carolina, 1978. 322-391. Print.
- Murray, Tim, and Penny Crook. "Exploring the Archaeology of the Modern City: Issues of Scale, Integration and Complexity". *International Journal of Historical Archaeology* 9.2 (2005):89-109. Print.

- O'Keeffe, Tadhg, and Rebecca Yamin. "Urban Historical Archaeology". *The Cambridge Companion to Historical Archaeology*. Ed. Dan Hicks and Mary C. Beaudry. Cambridge: Cambridge University Press (2006): 87-103. Print.
- Peña, Elizabeth S., and Jacqueline Denmon. "The Social Organization of a Boardinghouse: Archaeological Evidence from the Buffalo Waterfront". *Historical Archaeology* 34.1 (2000): 79-96. Print.
- Reckner, Paul E. "Negotiating Patriotism at the Five Points: Clay Tobacco Pipes and Patriotic Imagery Among Trade Unionists and Nativists in a Nineteenth-Century New York Neighborhood." *Historical Archaeology* 35.3 (2001): 103-114. Print.
- Robinson, William R. "Archaeological Data Management and Analysis at Blandwood Mansion." MA thesis. University of North Carolina at Greensboro, 2010. Print.

Roskams, Steve. Excavation. Cambridge: Cambridge University Press, 2001. Print.

- Schiffer, Michael B. *Formation Processes of the Archaeological Record*. Albuquerque: University of New Mexico Press, 1987. Print.
- Seasholes, Nancy S. "On the Use of Historical Maps". *Documentary Archaeology in the New World*. Ed. Mary C. Beaudry. Cambridge: Cambridge University Press, 1988. 92-118. Print.
- Smith, Monica L. "The Archaeology of a "Destroyed" Site: Surface Survey and Historical Documents at the Civilian Conservation Corps Camp, Bandelier National Monument, New Mexico". *Historical Archaeology* 35.2 (2001): 31-40. Print.

South, Stanley. Method and Theory in Historical Archaeology. New York: Academic Press, 1977. Print.

Spencer-Wood, Suzanne M. "Miller's Indices and Consumer-Choice Profiles: Status-Related Behaviors and White Ceramics". *Consumer Choice in Historical Archaeology*. Ed. Suzanne M. Spencer-Wood. New York: Plenum Press, 1987. 321-358. Print.

- Stabbetorp, Odd E, et al. "In Search of Tegea: Delimiting a Greek Polis By Spatial Analysis of an Archaeological Field Survey." European Landscapes and Lifestyles: The Mediterranean and Beyond. Lisbon: Edições Universitárias Lusófonas, 2007. Print.
- Stelle, Lenville J. "An Archaeological Guide to Historic Artifacts of the Upper Sangamon Basin, Central Illinois, U.S.A." Center for Social Research, Parkland College, 2001. Web. 6 April 2015.
- Surveyors' Manual for the Exclusive Use and Guidance of Employees of the Sanborn Map Company. New York: Sanborn Map Company, 1936.
- Swaminathan, Nikhil. "The Pre-Motor City". Archaeology Magazine 64.6 (2011): 32-37. Print.
- Taylor, Kent C. "Footwear Consumption in Nineteenth-Century Detroit: A Case Study From the Beaubien Privy". *The Michigan Archaeologist* 40.3 (1994): 77-99. Print.
- Thomas, David Hurst. "The Archaeology of Mission Santa Catalina de Guale: 1. Search and Discovery". Anthropological Papers of the American Museum of Natural History 63.2 (1987): 47-161. Print.
- Wall, Dianna Di Zerega. "Sacred Dinners and Secular Teas: Constructing Domesticity in Mid-19th-Century New York". *Historical Archaeology* 25.4 (1991): 69-81. Print.
- Wall, Dianna Di Zerega. "Examining Gender, Class, and Ethnicity in Nineteenth-Century New York City". Historical Archaeology 33.1 (1999): 102-117. Print.
- Williamson, M. D. "Appendix F: Predictive modeling of Civil War artillery artifact dispersion using geographic information systems." *Geographic Information System Methodologies for Historic Landscape Analysis and Management*. Ed. R. B. Culpepper, M. Williamson, and W. F. Limp. Fayetteville, AK: Center for Advanced Spatial Technologies, University of Arkansas, 1993. 216–297. Print.
- Wood, W. Raymond, and Donald Lee Johnson. "A Survey of Disturbance Processes in Archaeological Site Formation." Advances in Archaeological Method and Theory 1 (1978): 315-381. Print.

Yamin, Rebecca. "Alternative Narratives: Respectability at New York's Five Points". *The Archaeology of Urban Landscapes: Explorations in Slumland*. Ed. Alan Mayne and Tim Murray. Cambridge: Cambridge University Press, 2001. 154-170. Print.

Zunz, Olivier. *The Changing Face of Inequality: Urbanization, Industrial Development, and Immigrants in Detroit 1880-1920*. Chicago: The University of Chicago Press, 1982. Print.

### ABSTRACT

# THE HURTTIENNE AND MEYER LOTS OF CORKTOWN, DETROIT – A HISTORICAL ARCHAEOLOGICAL STUDY IN IDENTIFICATION OF FORMATION PROCESSES AND RESIDENT BEHAVIOR

by

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Advisor: Dr. Thomas Killion

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This thesis examines two historical archaeological excavations at the Hurttienne and Meyers properties in the Corktown district of downtown Detroit. A series of houses were built upon these lots in the late 1800's, and were occupied for more than a century, before burning down and being bulldozed in the 1980's. Both single family households and boardinghouses are represented at these sites. Data has been compiled and mapped using Geographic Information System (GIS) software, interpolating contour maps for both lots. These interpolations are further overlaid with building footprints obtained by georectifying Sanborn and other historic maps. Comparison of different excavation layers within and across the two sites illustrates site formation processes that have occurred on these lots, as well as refuse disposal patterns. Compiling of documentary record information on the residents, as well as comparison of the ceramic assemblages with other 19th-century sites, yielded information on workingclass consumption patterns.

### **AUTOBIOGRAPHICAL STATEMENT**

Graham Sheckels is a native of the Detroit metropolitan area. He has a strong interest in preserving the cultural heritage of Detroit's Irish-American community, particularly traditional Irish music and social dancing. He holds a Bachelor of Science degree in Materials Science and Engineering from Wayne State University, a Master of Science degree in Materials Science and Engineering from the University of Pittsburgh, a Bachelor of Arts degree in Anthropology from Wayne State University, and with the completion of this Thesis a Master of Arts in Anthropology from Wayne State University. His current research interests include historical archaeology, site formation processes, the use of Geographical Information Systems in archaeology, and experimental archaeology. Past research has also involved ferrous physical metallurgy, recovery and recrystallization processes in low and ultra-low carbon sheet steels, and the study of the stored energy of cold work via Differential Thermal Analysis.