

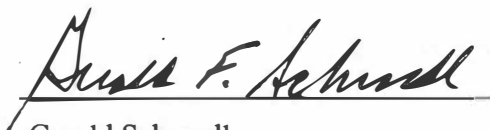
To the Graduate Council:

I am submitting herewith a thesis written by Greta Jill Gomez entitled "Transportation and Transformations: An Archaeological and Historical Study of the McBrearty Site (40KN270) and Carriage Houses in the North Knoxville Area." I have examined the final paper copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.



Charles Faulkner, Major Professor

We have read this thesis
and recommend its acceptance:

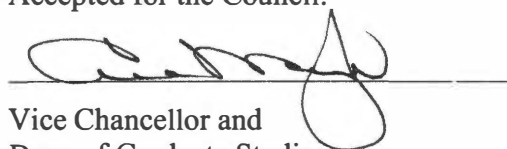


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Accepted for the Council:



Vice Chancellor and
Dean of Graduate Studies

**TRANSPORTATION AND TRANSFORMATIONS:
AN ARCHAEOLOGICAL AND HISTORICAL STUDY OF
THE McBREARTY SITE (40KN270) AND CARRIAGE
HOUSES IN THE NORTH KNOXVILLE AREA**

A Thesis Presented for the
Master of Arts Degree

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Greta Jill Gomez

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ABSTRACT

The McBrearty site is located on the northeast corner of West Glenwood and East Scott Avenues in Old North Knoxville, an area of the city that developed as part of the incorporated city of North Knoxville in 1889. Situated on the site is the McBrearty home, a Victorian Queen Anne Cottage built in 1892, and the architectural remains of a carriage house located at the rear of the property. While the McBrearty house has undergone few architectural changes since its construction, all that remains of the carriage house are thirteen brick piers protruding from the earth in the rear yard. These footers attest to the presence of the structure perhaps as early as the late 19th century.

Prior to this investigation, no research was done on carriage houses in the urban Knoxville area. For this reason, archaeological and historical investigations of the McBrearty site were aimed at determining when the carriage house was built, what materials were used in its construction, what original purpose the structure served, and how this function changed over time in relation to shifting transportation practices in Knoxville. Archaeological investigations were undertaken in an area to the rear of the property based on visible features and historic maps. This thesis represents the results of the historical research combined with an interpretation of the archaeological data recovered. As many original carriage houses in Historic Old North Knoxville no longer exist, it is hoped that this research will demonstrate the historical importance of these structures, and reemphasize the importance of preserving these valuable elements of the past for future generations to enjoy

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CHAPTER 1. INTRODUCTION, RESEARCH QUESTIONS, AND SITE DESCRIPTION

Introduction

The McBrearty site (40KN270) is located on the northeast corner of West Glenwood and East Scott Avenue in Historic Old North Knoxville, an area of the city that developed as part of the incorporated city of North Knoxville. Its growth was the result of the expansion of the streetcar lines, Knoxville's booming economy and growing population after the Civil War, and other technological advances that made urban living desirable.

The town of North Knoxville was incorporated on January 16, 1889. Larger than the current Old North Knoxville neighborhood, it was a series of speculative real estate expansions that reinforced the image of a desirable residential area. In response to this, the town grew rapidly. The city of North Knoxville provided a central water supply touted as superior to neighboring Knoxville's water. It had improved streets, fire protection, a city hall, and a school for approximately 100 students (Knoxville Metropolitan Planning Commission 1991). City gas lines and a sewer system were planned but not built before Knoxville annexed North Knoxville in 1897, and electric lights were installed in 1899.

While changes have occurred to the neighborhood since its establishment in 1889, the houses and public improvements remain very much intact. Unsurprisingly, the architectural elements that remain in the district are as rich as the area's history. Today, several original subdivisions make up the current Old North Knoxville Historic District, each lined with rows of late 19th and early 20th century Victorian homes displaying their

own historic charm. The architectural styles in the neighborhood reflect economic conditions as the houses range from large middle and upper class areas along Oklahoma, Scott, and Armstrong avenues to smaller homes and shotgun houses along Baxter Avenue that emerged during Knoxville's industrial revolution. Many of North Knoxville's homes were probably designed by architects, but most of the information that credits their designs has not been discovered. Most of the buildings are distinctive architecturally, with a high degree of ornamentation.

Because Old North Knoxville was developed as a streetcar suburb between 1880 and the 1940s, the area has a strong pedestrian orientation. In each neighborhood, the blocks are rectangular with parallel streets and service alleys. As the automobile did not have a major influence in Knoxville until the 1920s, there are only a few driveways or garages in the neighborhood. While some carriage houses remain behind the oldest houses, most people did not own a horse and a carriage. They depended on streetcars for transportation and used the neighborhood sidewalks to reach the streetcar lines once present on the major streets.

Despite the importance of the few remaining outbuildings in the neighborhood, the Old North Knoxville Historical Society and the Knoxville Metropolitan Planning Commission have few guidelines in place to protect the historical integrity of these structures. While historic houses in the neighborhood have specific, detailed regulations concerning roofing, masonry, new additions, wall coverings, windows, porches, and entrances, building recommendations concerning outbuildings have in the past been vague and imprecise. In 1991, the only detailed regulations of the Knoxville Metropolitan Planning Commission concerning outbuildings were as follows:

Buildings resembling servants quarters or carriage houses, work buildings, or simple one story garages are appropriate to be constructed in Old North Knoxville. Their size and construction should use materials which correspond to the original primary buildings on the lot (Knoxville Metropolitan Planning Commission 1991).

Currently, the Metropolitan Planning Commission has four recommendations for maintaining the historic characteristics of outbuildings in the Old North Knoxville Historic District; however, these guidelines only apply to the construction of new outbuildings, not the preservation of historic buildings already standing. The updated recommendations include specific instructions for the design of new outbuildings and accessory buildings. For example, the fourth design guideline for the construction of auxiliary or outbuildings states:

Materials used in constructing outbuildings or accessory buildings may only use materials and design guidelines selected from the following lists: wood lap siding with a 4 inch lap or board and batten; a 12/12 roof pitch; overhanging eaves; exposed rafter tails; wood windows; masonry but not exposed concrete block or split-face block; garage doors appearing to be carriage doors or plank doors with x-bracing or perimeter reinforcing timbers (Knoxville Metropolitan Planning Commission 2004).

While these new recommendations suggest that interest in the preservation of these structures is increasing, the historic outbuildings currently standing in the Old North Knoxville neighborhood are still not given adequate attention by the Knoxville Metropolitan Planning Commission. For this reason, it is not surprising that a great dichotomy exists in the few structures that remain. While some outbuildings are in horrible disrepair, others have received such extensive remodeling that the original building is barely visible beneath its new, more modern facade.

The urban outbuildings in North Knoxville are artifacts of the late 19th century residential energy and transportation technologies that defined city living of that period,

and these features are markers for the presence of that technology in the household. Many of these features are disappearing in the urban environment as the technologies they once supported have been replaced with those of more modern convenience. Therefore, it is important to document these features so that when they are encountered during archaeological investigations, they can be identified and interpreted.

The McBrearty carriage house provides valuable insight into the function and preservation of these types of structures in the Old North Knoxville area. Research on this structure is invaluable as no work has been done on Knoxville carriage houses. As this area has gained recognition for its historical significance, it seems unfortunate to ignore the function of these buildings. Much can be learned about people and their daily activities by understanding the function of these buildings and how they were modified through time. For these reasons, it is important that the history of similar structures in the North Knoxville area be recorded before more transformations take place and more testaments to an earlier time are lost.

Research Questions

The archaeological investigations conducted at the McBrearty site discussed in this thesis aim to expand on, explain, and clarify the historical information known about the site as well as outbuildings in the urban Knoxville area. These excavations should pave the way for future research on carriage houses, as well as reiterate the importance of these historic structures.

The research questions that the archaeological evidence and archival research sought to answer are:

When was the McBrearty carriage house built? Archaeological evidence in the

form of artifacts and features has been combined with documentary sources and informant interviews in an attempt to establish a probable timeline for the construction and alteration of the McBrearty carriage house. The architecture paired with archaeological evidence (such as brick fragments, glass, and nails) can provide evidence concerning the date of construction.

Furthermore, as it is probable that the carriage house was built at or around the same time the house was constructed, the history of the McBrearty house and grounds has been reconstructed using archival sources found in McClung Collection of the Knox County Library system and the University of Tennessee Hodges Library. Also, as not much has changed since the home was constructed and many of the original architectural features remain, it was possible to determine an approximate construction date for the home by simply observing the types of materials used in its construction. Furthermore, by comparing the architectural features of the house to those found archaeologically, it is possible to determine if the home and the carriage house were built simultaneously or at different times.

What materials were used in the construction of the carriage house and what did the structure look like? As mentioned previously, little is known regarding the construction of carriage houses in Knoxville and other areas of the urban South. For this reason, the architectural artifacts recovered at the site were of primary importance in determining what materials were used in the construction of the McBrearty carriage house.

As the McBrearty carriage house was most likely built to compliment the architectural features of the home, the architectural elements of the McBrearty house

were compared with those found archaeologically within and around the outbuilding's foundation. Architectural plans dating to the mid- to late 19th century were also examined in order to generate ideas regarding what the McBrearty carriage house might have looked like upon completion. As such plans are rare, vary between localities, and are often included as complimentary to house plans, their use is limited; however, they are beneficial for explaining many of the architectural features characterizing these structures. Plans provide general insight on the size of the buildings, the construction materials, the placement of doors and windows, the most common types of door hardware utilized, and finishing architectural touches done to the structure upon its completion. Perhaps most importantly, these 19th century plans are also helpful in determining how the interior of the structures was divided and utilized for maximum efficiency.

Architectural artifacts are also compared to those on contemporaneous carriage houses still standing in Old North Knoxville and the Historic Fourth and Gill neighborhood. This comparison provided potential clues regarding how the McBrearty carriage house was constructed and what it might have looked like upon completion.

What was the primary function of the McBrearty outbuilding, and did this function change with time? As archival resources are scarce, information regarding the original and shifting functions of the McBrearty carriage house can only be gleaned from informant interviews and the archaeological evidence. Ideally, any shift in the building's function should be mirrored in the archaeological assemblage from the site; however, as the ideal is often not reality, it was interesting to see if the archaeological assemblage provided clues in regards to how the building was initially used, and how this function

changed with time.

Furthermore, as carriage houses typically accommodated those who tended to the horses and drove the carriages, it was important to determine if the McBrearty structure was also used as a residence. No evidence of such function has been found to date, but as has been previously mentioned, archival information regarding the function of the structure itself is extremely limited. Because of this, the archaeological assemblage on the site proved critical in answering these questions.

Are these functional changes evident in the archaeological record, and if so, do these changes parallel the shifting transportation patterns in the Knoxville area during the late 19th and 20th centuries? Transportation practices in Knoxville were also researched in an effort to determine how and if shifting practices were represented both architecturally and archaeologically. A general overview on transportation in Knoxville and elsewhere in the country is provided, including a brief history of the streetcar as this mode of transportation was particularly important in North Knoxville during the late 19th and early 20th centuries.

As information on the subject is scarce, to supplement this investigation, transportation related listings in Knoxville City Directories were examined in an effort to determine an approximate time for the replacement of the carriage by the automobile. Furthermore, the patterning of carriage houses in an area of the city similar to Old North Knoxville area will be examined. The presence or absence of these structures on Sanborn maps subsequent to 1917 provided information on potential reasons for modification. Close attention was paid as to when carriage houses changed in designation on Sanborn maps, as these functional changes likely mirrored the shift in Knoxville transportation

practices. This is important as no work has been done to date on how changing transportation patterns affect the distribution and designation of late 19th and early 20th century outbuildings. Furthermore, no research has been done to determine how and if these shifting transportation practices and subsequent functional changes are represented in archaeological assemblages.

If horses were stabled in the McBrearty carriage house, archaeologists might expect to find horse-related artifacts such as bits and other metal tack, leather harness, bridle and apparel fragments, horseshoes and horseshoe nails, grooming tools, veterinary preparations, chains, snaps, rivets, buckles, and other horse-related hardware. Since only two artifacts of this type have been found to date on the McBrearty property, research was also conducted on urban liveryes. This has proven complicated as little information exists on the topic. For this reason, primary sources such as newspapers from the time and city directory advertisements provide much of the pertinent information on Knoxville liveryes.

Site Description

The McBrearty site, 40KN270, is located in Knoxville, Knox County, Tennessee, in the Old North Knoxville National Historic District, a triangular area north of the downtown area formed by Central Avenue, Broadway, and Woodland Avenue, as well as a section of Grainger, Luttrell and Leonard Place east of Broadway (Figure 1).

By the end of the 19th century, Knoxville had become a southern railway hub and had attained a leading position in wholesaling and manufacturing in southern Appalachia. Knoxville experienced a manufacturing boom between 1880 and 1887 that resulted in 97 new factories, many built on the northern fringe of the city west and east of downtown

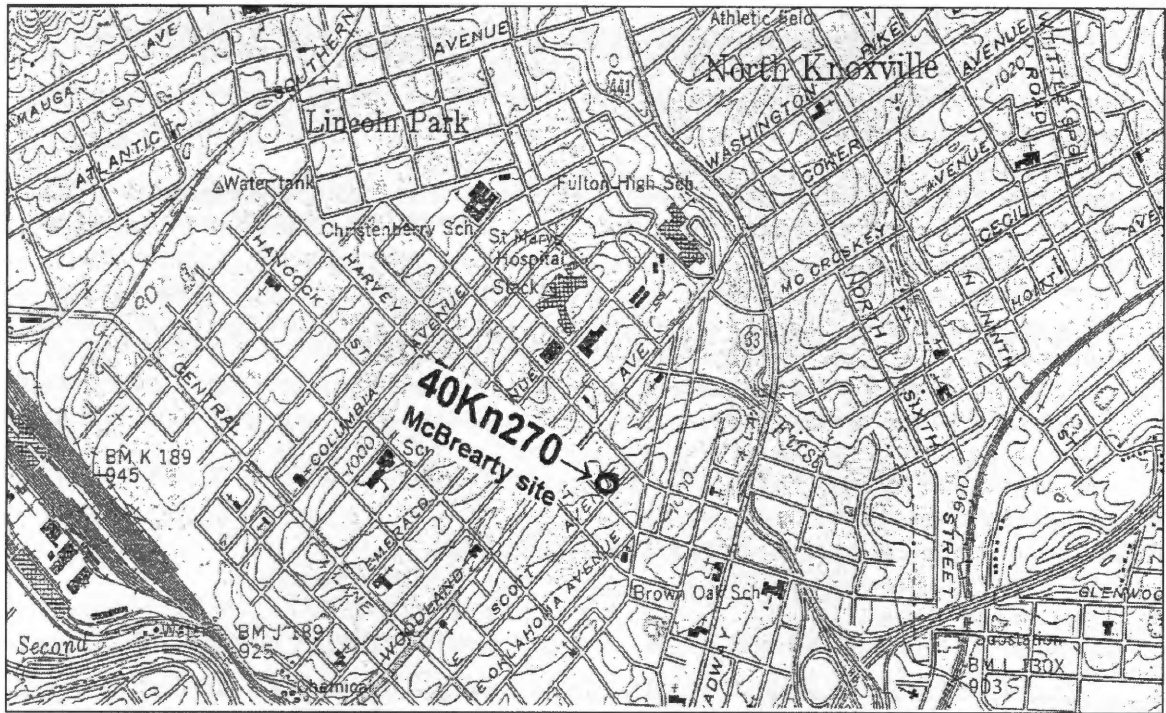


Figure 1. The location of the McBrearty site shown on the Knoxville Quadrangle.

Knoxville. Many of these businesses were large operations which produced clothing, iron, coal, and coal gas, and they fostered the growth of smaller businesses such as machine shops, coach and railway car manufacturers, and furniture manufacturers (Rule 1900; Deaderick, ed. 1976; McDonald and Wheeler 1983; Ash 1992). As a result of this economic growth, the population of Knoxville doubled to 30,000 people between 1890 and 1910, and residents were forced toward the northern and western fringes of the city.

As a result of this northern expansion, several middle to working class neighborhoods were established in the North Knoxville area during the latter part of 19th century. Historical sources state that Old North Knoxville and other neighborhoods in close proximity were developed to provide housing for an expanding work force, as they lay in close proximity to factories and manufacturers. While this may be true for some

northern neighborhoods, it is hypothesized that the Old North Knoxville and Historic Fourth and Gill neighborhoods were comprised primarily of middle- to upper-middle class professionals and businessmen. Judging from the modern conveniences installed in these neighborhoods and the size of the homes, it is assumed that these residents were wealthier than the typical factory worker as they were able to afford new domestic technologies as soon as they were available.

The McBrearty Site Today

The McBrearty site currently consists of the dwelling house, 13 exposed brick piers of a carriage house, concrete pond, and cistern. The McBrearty property is situated on a corner lot at the intersection of Glenwood and Scott avenues in the Old North Knoxville Historic District. As the lot only encompasses 1800 square feet, the structures on the property are clustered together. The closest stream to the neighborhood is First Creek, which is located 2,000 feet east of the McBrearty property.

McBrearty House. The McBrearty house is rumored to be one of the first houses built in the Old North Knoxville neighborhood (Figures 2 and 3). The architecture of the house is distinctively Victorian—a style known as Queen Anne Cottage, a folk form of architecture which grew out of the popular Queen Anne academic style popular in the late 19th century. The Queen Anne Cottage is characterized as being constructed of weatherboard, one and a half stories in height with a hip and gable roof, and corbelled chimneys with restrained Queen Anne massing, details, and sawn wood ornamentation. The cottage typically has a large porch with the roof supported by wooden columns which are often turned, chamfered or rounded. Post brackets, sawn wood, or louvered attic vents and spindle work balustrades are also often found, as are double sash windows



Figure 2. McBrearty house, southern facade.



Figure 3. McBrearty house, southwest elevation.

and sidelights with leaded or stained glass (McAlester and McAlester 2003).

Furthermore, a cottage window, an early form of the picture window, is often common in Queen Anne cottages. It consists of a large fixed pane window with fixed or movable transoms and narrow side windows which are often made of smaller panes, sometimes using stained glass (Knoxville Metropolitan Planning Commission 1991).

The McBrearty house, which faces the intersection of Glenwood and Scott avenues diagonally, is asymmetrical in design with a partially hipped roof over the center of the dwelling, and lower cross gables visible on the southern facade, and western, and eastern sides of the house. A small porch runs across the south end of the dwelling, and porch supports are crafted of turned spindles.

Today the exterior of the house is little changed. The wall-coverings are still weatherboard, painted appropriately in darker greens and burgundies common in the late 19th century. Three brick chimneys protrude from the hipped roof and eastern cross gable, the original wood cornice work lining the windows and front porch is elegantly intact, and two square stained glass windows, each with nine dark-colored panes, glimmer from the first story study. A small, fully operational door on the west side of the house opens into a basement coal bin once used to store fuel to heat the home during cold winter months. Even the original entry door with its beveled glass and ornate brass hardware still greets guests over 100 years after its installation.

The house rests on a continuous brick foundation. The bricks are predominantly machine made, and are mortared in place. A full basement is present; however, only the portion beneath the kitchen in the rear of the house is finished with concrete flooring. The remainder of the floor in the basement area is dirt. The basement is reached using a

low and narrow wooden staircase that communicates directly with the interior of the dwelling. The exterior walls are frame construction. The roof of the home is covered in asphalt shingles; however, it has likely been resurfaced, as typically, Queen Anne houses built in the latter part of the 19th century were roofed with slate or tin. To keep the historic integrity of the structure, the shingles are laid in a diamond pattern characteristic of the Queen Anne Cottage style.

The front door is positioned on a diagonal between the southern and western cross gables, while a second door is located on the northern, rear side. A concrete walkway leads from the front door to a brick sidewalk that runs parallel to Glenwood Avenue. The sidewalk is 8.5 inches wide and spans the entire length of the southern portion of the property. Interestingly, the design in which the bricks are laid changes five times over the course of the walk. It begins as a crude diagonal design, shifts into two dissimilar diagonal patterns, becomes herringbone for the next dozen or so feet, and after crossing the modern asphalt driveway, turns into English bond for the duration of the walk.

The rear door is accessed by a wooden deck and staircase that was constructed in 1990 by Andy and Dale Powers, past homeowners who were responsible for a majority of the renovations done to the home. Prior to the construction of the deck, the rear door of the house was accessed by a narrow metal landing and steep set of metal stairs.

Upon entering the front door, a parlor is encountered. The parlor is finished in gold painted sheet rock and has white oak tongue and groove hardwood flooring, as does the rest of the house. To the right of the parlor is a small room with a tiled fireplace that is currently used as a television room or study. Other rooms on the first story include the master bedroom and bathroom, guest bedroom and bathroom, living room, kitchen and

pantry. All of the walls, floors, and woodwork inside the home have been refurbished.

The upstairs space is divided into two rooms. One of the rooms, finished with white sheet rock walls and carpet over plywood flooring, is used as a guest bedroom. Apparently, an original staircase in the kitchen came down somewhere between the pantry and the attic. The guest bedroom shows clear evidence that the original staircase leading up from the first story was removed and a new one was built at a later date. Patching of the original tongue and groove floor with plywood is evident, suggesting that the original staircase was located east of the current one. This would have made the second story accessible from the pantry, rather than from the kitchen as it exists today.

The second area, above the northeast end of the house, is unfinished. This area is used predominantly for storage and thus serves the purpose of an attic. An original widow's walk is accessible by a crude wooden ladder located in this area that extends to the roof.

Architectural features of the house installed during its construction include cast iron door hardware including knobs and carpenter's latches. A pocket door with original hardware separates the television room from the foyer, and four light fixtures with both electric light and gas candles are hanging from the ceiling in the foyer, living room, master bedroom, and television room. Also, the heart of pine woodwork is in pristine condition in all rooms except the kitchen, where most of the home's renovation work was focused in the preceding years.

Currently, the house has central heat and air conditioning, but originally heat was provided by two fireplaces and a pot-bellied stove. The chimney for the main fireplace, positioned between the master bedroom and television room, is constructed of brick. A

second chimney, evident by a fireplace in the living room, is also constructed of brick. This chimney served as a vent for the pot-bellied stove which was used for both heat and cooking. At an earlier time, a third chimney was located in the northeast corner of the kitchen. While this chimney is visible from the exterior of the home, evidence of it in the kitchen is hidden by the current cabinetry.

All of the windows are one-over-one double hung sash windows with the exception of a stained glass window located on the front gable. The majority of the windows have been replaced. This is evident by a lack of waviness and other inconsistencies in the window glass. The stained glass window was reconstructed by the Powers family to mimic a similar window present in a 1920s photograph of the house (Figure 4).

Carriage House. The McBrearty carriage house is located approximately 102 feet from the northwest corner of the McBrearty home (Figure 5). As mentioned previously, all that remains of the structure are 13 brick piers constructed predominantly of machine-made end-cut bricks. Six load-bearing piers are located at the corners and ends of the center sill of the structure, and seven rectangular piers are located along center and outer sills. The dimensions of the foundation are 18 feet 4.5 inches north-south, and 24 feet 0.5 inches east-west, respectively. Three brick footers, two load-bearing corner piers and one rectangular pier, are spaced approximately 6 feet apart, along the east and west wall lines of the carriage house, while the north and south wall lines were supported by three rectangular piers, spaced approximately 5 feet apart, and two load-bearing corner piers, positioned approximately 3 feet from the rectangular piers. A central row, laid in the same fashion as the long axis piers, is located approximately 9 feet from the north



Figure 4. McBrearty house, ca. 1920.



Figure 5. Brick piers of the McBrearty carriage house.

and south wall lines. The rectangular piers are approximately 4 feet apart.

Concrete Pond. A concrete pond is located to the north of the house and southeast of the carriage house foundation (Figure 6). The pond, recently excavated by the current homeowner, is rumored to have been built sometime in the 1940s. A neighborhood informant remembers the pond during her childhood and stated that the pond was filled with water from the house's downspouts. Since the pond was excavated prior to this study, the exact date of construction cannot be determined; however, a *terminus post quem* of 1957 for the filling of the pond can be established based on the latest manufacture date of seven soda bottles recovered during its excavation. Furthermore, the pond is significant in that it demonstrates changes were occurring to the rear yard as early as the mid-20th century.

Cistern. A probable late 19th century cistern is located on the northwest side of the McBrearty house (Figure 7). The concrete cap of the cistern is approximately 5 feet 7 inches from a downspout that runs off of the southwest corner of the dwelling's roof. A piece of ceramic pipe protrudes from the brick sidewalk nearly parallel to the concrete cap. This likely served as an overflow pipe used to release water when the cistern reached capacity. The location of the cistern was confirmed by an interview with Dale Powers.



Figure 6. Concrete pond.



Figure 7. West elevation of the McBrearty house showing the location of the cistern.

CHAPTER 2. HISTORICAL CONTEXT

This chapter is divided into three sections. The first provides a brief history of Knoxville transportation practices of the late 19th and early 20th centuries. Included in this section is a discussion of Knoxville's urban liverys. The second section is devoted to late 19th century carriage house plans. Again, architectural drawings of turn of the century outbuildings are rare, but the few that remain are important as they indicate how carriage houses were constructed. The last section of the chapter provides a history of the McBrearty dwelling and carriage house. The sequence of ownership is examined in an effort to establish when the house and carriage house were constructed, and historical evidence relating to modifications to the dwelling and carriage house is provided as an explanation for possible changes that impacted the archaeological record of the site.

History of Transportation in Knoxville

In the late 1800s to the early decades of the 20th century, streetcars provided mobility for many of Knoxville's citizens. Knoxville's streetcar system was so superior that some experts hailed it as one of the best operated, most extensive systems in the South (Deaderick, ed. 1976). At its peak, Knoxville's streetcar network branched out from Gay Street in all directions serving not only downtown, but what was then called the suburbs, where residents were no more than two blocks from service (Deaderick, ed. 1976). Service was also available to Old North Knoxville and other northern subdivisions via Broadway.

The city granted its first franchise to the Knoxville Street Railway on February 11, 1876, and allowed the company to build streetcar lines on any street or alley in the city. The line was chartered on December 12, 1875, and after securing city approval,

began operation on April 14, 1876 over Gay Street between Main and Jackson avenues, using horse or mule-drawn vehicles. Early operation of the streetcar line was somewhat primitive as drivers had no protection from the weather, and animals were transferred from one end of the car to the other when the trip was complete. Each car held 18 passengers, who got on and off at any point along the route by merely signaling the operator, and during cold winter months, straw was provided to keep the patrons' feet warm. Each trip was scheduled at twenty minute intervals (Deaderick, ed. 1976: p. 216).

Increasing consumer demands for public transportation are evident by the growing number of streetcar railways established in the 1880s. In 1882, Market Square Railroad Company was organized and developed as the result of increased business. By 1885, Mabry Street, Bell Avenue, and Hardee Street railways were formed, and in 1887, all three lines were awarded franchises by the city. Furthermore, in November 1889, a charter was granted to the Fountain Head Railroad Company to build a steam railroad from Knoxville to Fountain Head, which is now Fountain City. This railroad that began operation on May 27, 1890, started a real estate boom in the area and was instrumental in the transformation of Fountain Head from primarily a farming community to a popular resort (Deaderick, ed. 1976: p. 217).

Between 1889 and 1890, important consolidations occurred, and an impetus for the expansion of the Knoxville Street Railway was provided by William Gibbs McAdoo, Jr., a young Chattanooga lawyer and son of the prominent East Tennessean, William McAdoo, Sr. McAdoo was enthusiastic about electricity for the streetcar motive power, and despite his inexperience, entered into negotiations for the Knoxville Street Railway with money he earned as an attorney. After several failed attempts to secure funding, he

succeeded in getting the city council to pass an ordinance granting his company the right to use electricity for propelling his cars over, along, and upon Knoxville streets. The electrification work was to begin in ninety days and two miles of track had to be in electric operation within six months of the passage of the ordinance; however, difficulties in obtaining equipment later resulted in the deadline being extended. On May 1, 1890, the streetcar line was formally opened, and by 1892, four routes were electrified which would later be called the McCalla Avenue, Burlington, Washington Avenue, and Broadway lines (Deaderick, ed. 1976: p. 218).

McAdoo suffered many losses from 1890 to 1891 due to underestimates in installations and operating expenses, frequent equipment breakdown, and costs due to the newness and consequent crude state of electrification technology. As a result, McAdoo went into receivership when a suit filed by the Union Trust Company on February 6, 1892 was granted. Following this suit, Josiah C. Duncan was named receiver of both the property and company which was turned over to him on March 5th. While Duncan was in control of the business, the remaining mule-powered lines were converted to electrical power (Deaderick, ed. 1976).

In the Old North Knoxville neighborhood, streetcars persisted as the predominant mode of transportation until the early 20th century, when the rising popularity of the automobile, the stock market crash of 1929, and the Depression of the 1930s all led to the decline of the streetcar (Deaderick, ed. 1976). In 1928, the city began experimenting with buses, and the City Council formed a motor bus committee to study the feasibility of converting streetcar lines to bus routes. By October 1930, the first streetcar to bus conversion that took place on the Sevierville Pike line in South Knoxville. In the early

1930s, patronage declined with the low point being 11,300 riders in 1933. Tearing up the tracks and substituting buses was not always based on business, as the city often saw substitution as a way to widen its streets at a relatively low cost or as a sign of local progress. Furthermore, many of the streetcar tracks were moved at the company's own expense. In 1934, North Knoxville suffered the same fate as 15 buses replaced four streetcars on this route, and in 1938, Tennessee Public Service scrapped the last of its two-axle, four-wheeled streetcars (Deaderick, ed. 1976: p. 218).

By 1947, many factors had influenced the curtailment of the streetcar service in Knoxville, with the city's role in its demise proving the most significant. After confiscating the streetcar's right of way along Kingston Pike, condemning bridges over which streetcars operated, and finally repaving Gay Street, the city successfully eliminated streetcars from Knoxville streets (Deaderick, ed. 1976). On August 1, 1947, a final procession of the last twelve streetcars made a specially-staged last run down Gay Street (Figure 8) to the car barn on Magnolia Avenue (Isenhour 1978).

Coinciding with the popularity of the streetcar in the late 19th and early 20th centuries, highway transportation in Knoxville and Knox County dominated the transportation spotlight when it replaced river transport due to increasing hazards presented by East Tennessee rivers (Deaderick 1976). By the 1850s, while several of the streets in Knoxville had been paved with cobblestone, the main thoroughfares were muddy and dusty and merely functioned as a means of preventing bottomless mud holes in wet weather (MacArthur 1978). Many early roads, including the Kingston Turnpike, were originally toll roads. On the Kingston Turnpike, tolls were collected from travelers every five miles except for patrons, churchgoers, and mill workers, who traveled



Figure 8. Final procession of the last twelve streetcars down Gay Street, Knoxville, Tennessee, August 1, 1947 (Isenhour 1978).

free (Rothrock, ed. 1946).

In 1876, Knox County established a workhouse for the punishment of criminals with the view of devoting their labor to the building of roads. Work began as soon as practicable, and by January 1, 1892, 77 miles of turnpike roads were constructed using the prisoners. During 1892, 16 miles of roads were constructed connecting Knoxville with Maryville, Sevierville, and other neighboring cities and counties, and by the end of the year, there were 95 miles of turnpike road in the county, costing the state and city of Knoxville approximately \$300,000 to build (Rule 1900).

It wasn't until 1893 that the city began proper surfacing of the streets by paving with brick. The resurfacing of Kingston Pike in 1894 from Knoxville to Campbells Station, a distance of 15 miles, was an event of great importance to both Knoxville and Knox County as it increased trade in town and the ease with which farmers could drive over the road. The time required to drive this distance on the old dirt road was about five hours, while after the completion of the pike, the trip took only two and a half (Rule 1900).

As late as 1899, many of Knoxville's roadways were operated under public and private ownership. By February of 1899, Knox County had assumed control of 173.5 miles of macadamized turnpikes with an additional ten miles of cross pikes constructed (Deaderick, ed. 1976). In total, 15 turnpike roads led out of Knoxville, all of which were macadamized for an average length of 12 miles (Rule 1900). These roadways enabled Knoxville to enter the 20th century with a developing network of streets and access roads.

The accelerating popularity of automobiles in the early 20th century is further evident by the increasing frequencies of listings found in Knoxville city directories. By

tallying the number of listings for blacksmith services, liverys and tack stores, carriage manufacturers and repositories, and automotive-related shops and services at the turn of the century, the rising reliance on new types of transportation technologies in Knoxville can be inferred. This has proven particularly important for this study as few sources on changes in transportation in Knoxville exist.

As Table 1 demonstrates, there is a general increase in automobile services and a decrease in carriage manufacturers, blacksmiths, and horse-related businesses between 1890 and 1930. The increasing frequency of automotive listings after 1910 indicates that cars were available to at least a small segment of Knoxville's population by the early 20th century. As cars were quite expensive during this time, it would make sense that only a small proportion of Knoxville's citizens would have been able to afford such luxury. The number of automotive-related listings continues to increase between 1915 and 1925, and by 1930, these listings comprise approximately 91% of all transportation-related listings found in city directories. This suggests that automobiles were becoming more affordable

Table 1. Frequencies of transportation related listings as represented in Knoxville city directories, 1890 – 1930.

Year	Automotive	%	Blacksmiths	%	Liverys & Tack	%	Carriage Manufacturers & Repositories	%
1890	0	0	19	38.0	28	56.0	3	6.0
1895	0	0	16	39.0	21	51.2	4	9.8
1900	0	0	15	36.6	20	48.8	6	14.6
1905	7	9.3	24	32.0	38	50.7	6	8.0
1910	7	9.2	24	31.6	40	52.6	5	6.6
1915	26	32.5	25	31.3	27	33.8	2	2.5
1920	48	55.8	18	20.9	18	20.9	2	2.3
1925	126	82.9	14	9.2	10	6.6	2	1.3
1930	194	91.1	14	6.6	5	2.4	0	0

and accessible to Knoxville residents, and by the 1930s, the automobile matured to become the major form of passenger transportation in Knoxville (Deaderick, ed. 1976).

The increasing reliance on the automobile and public forms of motorized transportation is also evident by the decreasing presence of livery stables and tack suppliers within Knoxville's city limits subsequent to 1917. A livery was a stable where horses, carriages, and horse-related tack were available for hire or sale (Webster's Dictionary 2005), but livery stables also provided boarding services for those who owned horses but did not have adequate space or time to care for them.

Between 1890 and 1930, there were 207 listings for livery stables and tack suppliers located within the Knoxville city limits, and from 1890 thru 1910, tack supplies and livery stables comprised the highest frequency of transportation-related listings found in the Knoxville city directories. By 1915, automobile-related listings and livery stable listings were fairly even, as there was only one more listing for livery stables than for automobile sales and services. However, by 1920, automobile-related listings comprised approximately 55 percent of the listings as compared to only 20 percent for tack suppliers and livery stables. This percentage decreases even further by 1930, when 194 automobile listings as opposed to five livery stables and tack suppliers appear in the city directory for that year.

The decreasing number of blacksmiths listed in the Knoxville city directories is also expected when the tasks blacksmiths performed during this time are examined.

Between 1860 and 1910, horses, wagons, and horse-drawn implements were the predominant forms of transportation for many United States citizens. For much of the late 19th and early 20th centuries, the blacksmith was a major player in transportation by

repairing carriage parts and horse accessories, and by crafting horseshoes and shoeing horses. By 1910, however, the horse and carriage became increasingly obsolete with the manufacture of the first affordable automobile, Henry Ford's Model T (Allen 2003). This change in transportation was rapid and significant, and for the most part, the art of blacksmithing became almost extinct during the latter half of the period. Essentially, if a job had to be done by hand, blacksmiths would have work; however, modern practice beginning in the latter portion of the 19th century dictated mass production and replacement rather than repair, and it became cheaper to throw away broken items rather than to make necessary repairs (Allen 2003).

Advertisements in Knoxville city directories further demonstrate that transportation-related businesses often updated their inventories and tweaked their services to reflect more modern consumer demands. Advertisements suggest that by the last decade of the 19th century, several businesses specialized in the sale of both cars and carriages. As early as 1898, Rodgers Cadillac, a third generation dealership located at the southeast corner of Gay and Main streets in downtown Knoxville, was in the horseless carriage and automobile business (Deaderick, ed. 1976). Cowan Rodgers began building cars at the turn of the century using parts ordered through the mail, and by the mid-1930s, Rodgers was selling Cadillacs, making it the oldest automobile dealership in the South (Isenhour 1978).

Livery stables also followed a similar trend as many continued to stable horses and offer horse-related tack and services as well as providing vehicle storage in the early decades of the 20th century. Furthermore, with the increasing popularity of the automobile, many liverys changed the focus of their business from the stabling, rental,

and sale of horses, carriages, and horse-related tack to transfer companies that assisted patrons with relocating. This allowed the business to continue utilizing horsepower while also becoming more marketable to the general public by keeping up with the times.

Numerous examples of these shifting business practices are evident when late 19th century and early 20th century Sanborn maps and Knoxville city directories are examined. On the 1890 Sanborn map of downtown Knoxville, a number of liverys are depicted on the adjacent blocks of Church and Cumberland avenues between Gay and Prince streets. The largest liverys are listed as the Brown Pryor Livery, located at 63 W. Church Avenue, and the Gilmore and Bell Livery, at 67-71 Cumberland Avenue (Figure 9). While both the structures continue to operate as liverys for the last decades of the 19th century, by 1903, the Brown Pryor Livery is labeled as a transfer and the Gilmore and Bell Livery is no longer listed by the same name. The once large, fenced structure area at 62-70 Church Avenue between both the Brown and Bell liverys is cleared of the original structures and designated as a stable (Figure 10).

Due to these complicated architectural changes and the absence of livery names on the 1903 map, city directories were consulted to determine what changes occurred to the businesses and when the transformations took place. The city directory search revealed a complicated history of changing names and shifting business functions for both the Brown Pryor and Gilmore and Bell liverys in the early 20th century.

Between 1901 and 1903, the Gilmore and Bell Livery changed in name and address to the R.H. Bell Livery, located at 317-319 W. Cumberland Avenue. City directories indicate that the structure served as a livery, despite changing names two more times, until 1912, when the lot was subdivided into two businesses. The largest portion

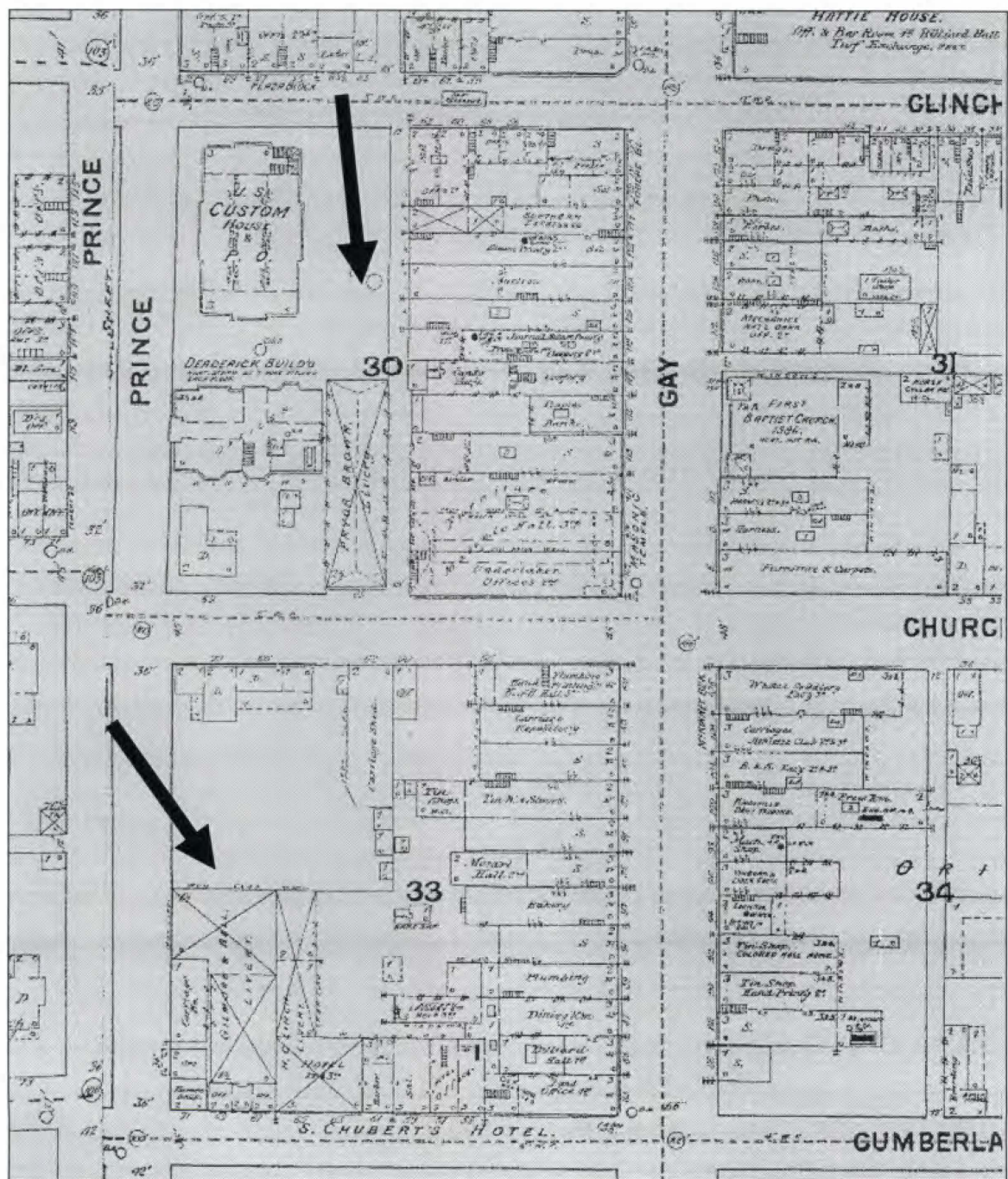


Figure 9. 1890 Sanborn Fire Insurance map showing the Brown Pryor (top arrow) and Gilmore and Bell (bottom arrow) liveries.

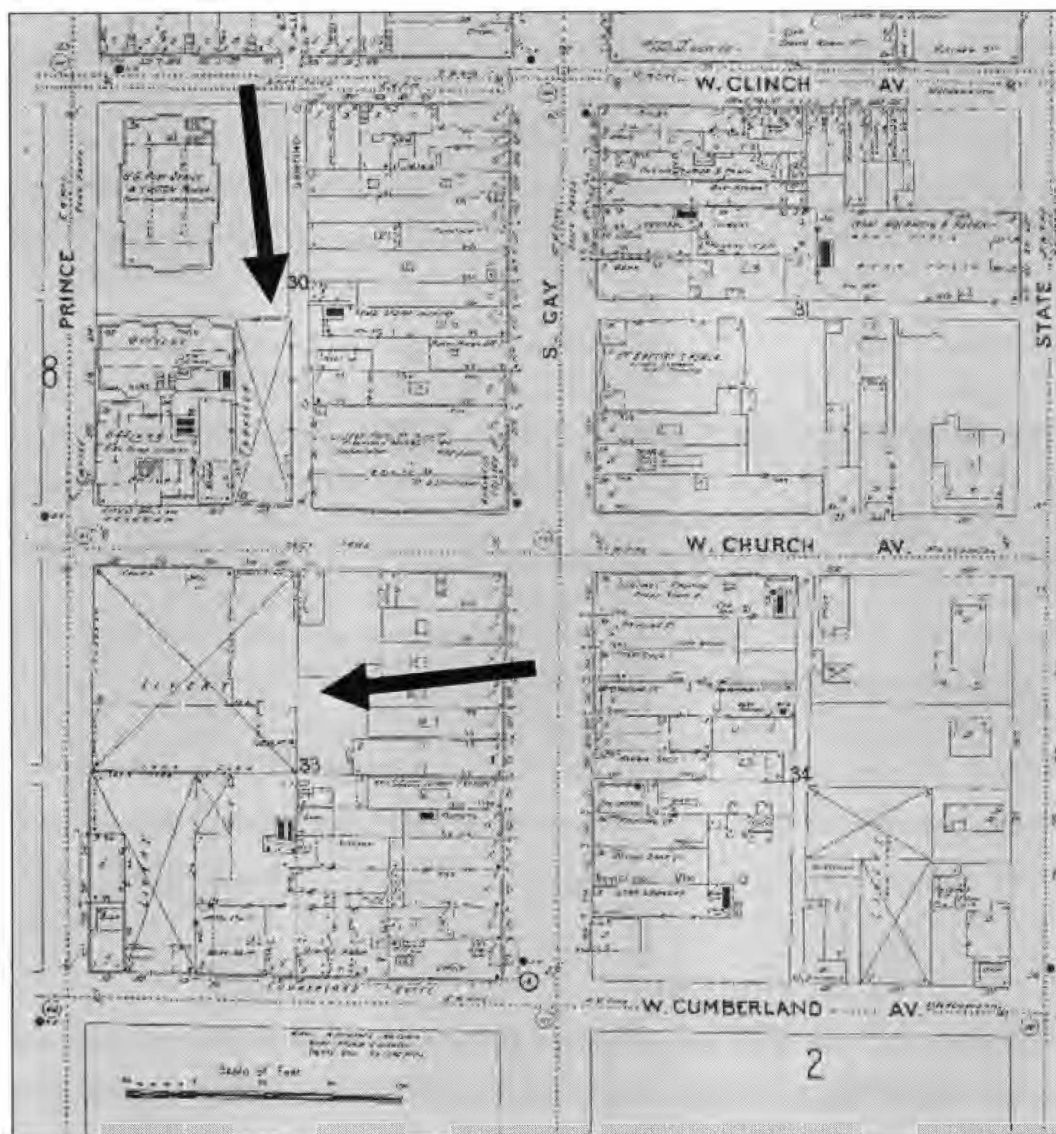


Figure 10. 1903 Sanborn Fire Insurance map showing Knox Transfer Company (top arrow) and R.H. Bell livery (bottom arrow).

of the lot, 315-317 W. Cumberland, became Appalachian Rubber Works, while a smaller livery stable, the Cunningham and Johnson Livery, was maintained at 319 W.

Cumberland. As this subdivision coincides with the increasing popularity of the automobile, it is likely that the livery was moved to a smaller location because the business was less profitable than it had been previously. By 1914, the livery was out of business as it was no longer listed in the city directory. Perhaps more interesting, 319 W. Cumberland reappears in the 1917 City Directory as City Garage and Transfer Company. The 1917 Sanborn map illustrates this change, and even indicates that the structure had the capacity to store up to 60 cars (Figure 11).

The history of the Brown Pryor Livery is even more complicated than the Bell Livery. Similar to the Gilmore and Bell Livery, between 1890 and 1902, the Brown Pryor Livery changed in name and address to the Brown and Flenniken Livery located at 313 W. Church Avenue. A transfer company, Knox Transfer Company, was listed next door at 314 W. Church, and a horseshoer and veterinarian were also listed in the same vicinity. In 1902, the livery moved across the street to 312-322 W. Church, while Knox Transfer Company moved into the unoccupied stable. With the move, both the livery and transfer company nearly double in size. This suggests that the business for both companies was thriving during this time, as more space was necessary to meet growing consumer demands.

Both the Brown and Flenniken Livery and the Knox Transfer Company continue to operate at the same locations until 1910, when the livery no longer occupies 312 W. Church and changes its name to Brown and McCalla Livery. The transfer company also closes its doors across the street, changes its name to Imperial Transfer Company, and

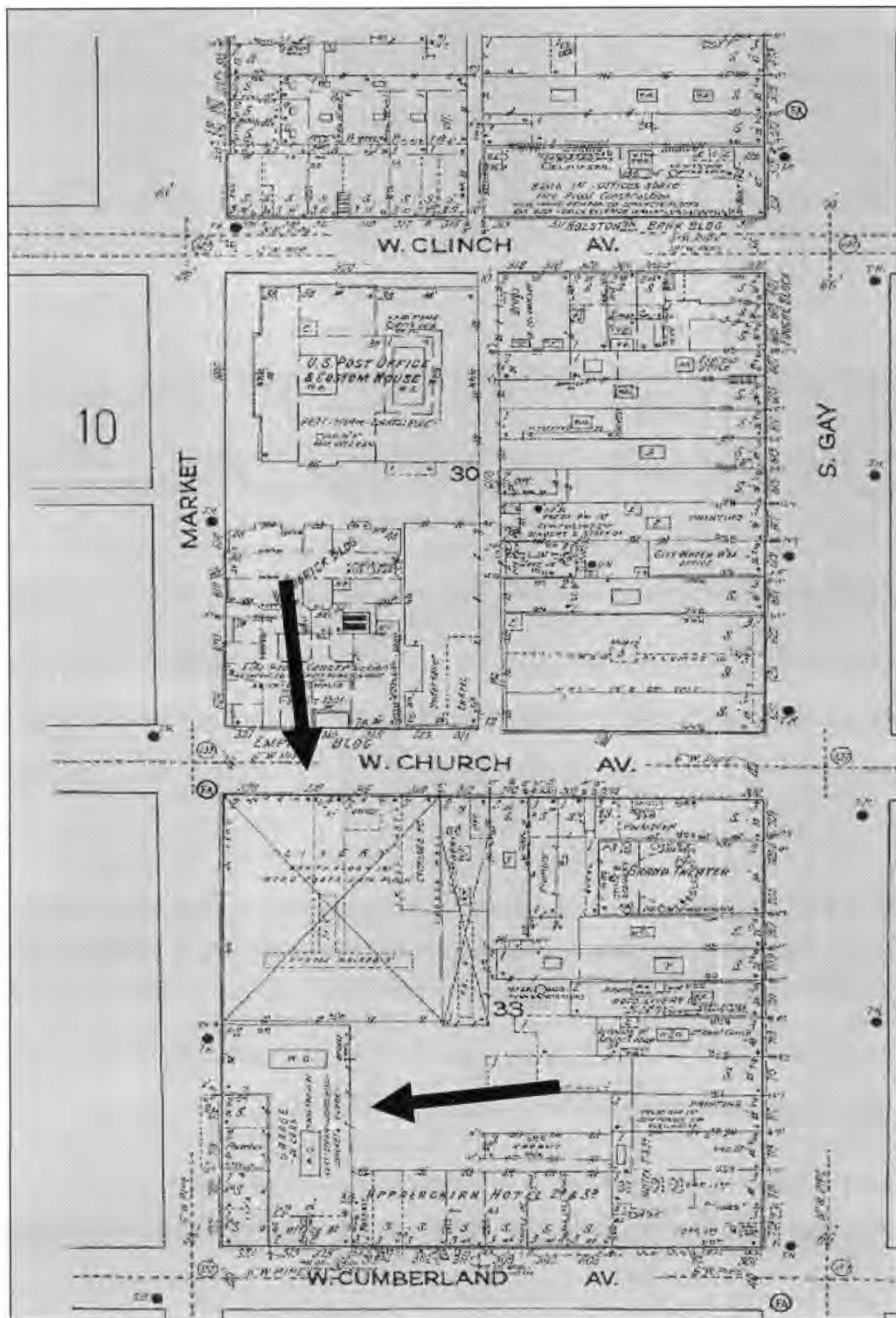


Figure 11. 1917 Sanborn Fire Insurance map showing the Brown Pryor Transport Company (top arrow) and City Garage and Transfer Company (bottom arrow).

moves back into the same structure as the livery. In 1912, the livery stable changes its name back to Brown Pryor, inherits 324 W. Church, and closes the livery, only to reopen the business in 1914 under the name of Brown Pryor Transfer Company. Sometime between 1914 and 1917, the Brown Pryor Livery is closed, and the Brown Pryor Transfer Company continues successful operation in the building until the mid-20th century, when it finally goes out of business.

The evolution of the Brown Pryor Livery stable is also evident in a manuscript collection housed in the Special Collections Library at the University of Tennessee, Knoxville. The 45 volume collection, which includes the cash books, ledgers, time logs, and driver's records for the Brown Pryor Livery between 1883 and 1916, demonstrates that horse-related rentals were decreasing and transfer services were increasing by 1916 when the livery closed its doors. While the records are handwritten, and at times hard to decipher, driving records indicate that by 1916, employees of the Brown Pryor Livery were earning more moving baggage than driving carriages. In 1916, drivers earned approximately \$9.54 a day, or a total of \$286.20, moving baggage for patrons, as opposed to only \$6.77, or a total of \$203.15, when baggage charges are excluded (Brown Pryor Livery Stable 1916). Unfortunately, this figure cannot be compared with previous years, as income earned from moving services was not tracked prior to 1916.

To demonstrate that a similar trend also occurred in other areas of Knoxville, the history of the Lewis and Mull Livery stable, located several blocks from the McBrearty house on the corner of the Central and Baxter avenues, was also studied. In 1917, the livery was listed at 1115-1119 North Central Avenue. Knoxville city directories confirmed that the livery was located on several lots on Central Avenue as late as 1919,

when the original grouping of lots was subdivided into five separate lots. The first four lots, addressed 1115 through 1118 Central, were listed as private residences in 1919, while the lot addressed 1119 was listed as the Lewis Livery Stable. The Lewis Livery Stable appeared in city directories at 1119 North Central Avenue until 1920, when its designation changes to the Jr. Lewis Transfer Company in 1921.

When the histories of the three liverys are examined, similar patterns in the evolution of the businesses are evident. In the case of all three businesses, the liverys operated as singular entities until 1903, when transfer companies opened in collaboration with the stables. These businesses function alongside one another, occupying relatively the same amount of space, until the 1910s, when the transfer companies spread into adjacent areas and the liverys wane in comparison. Furthermore, in all the cases, the liverys were closed sometime between 1914 and 1920. It cannot be a coincidence that these businesses cease operation at the same time automobiles are becoming increasingly prevalent in Knoxville. By operating as transfer companies rather than livery stables, the businesses could slash their inventories, while still utilizing horsepower and wagons to move residents and their belongings about the city.

Similar to Knoxville city directories, historic maps are particularly important for providing insight into shifting transportation practices in Knoxville. By examining Sanborn Fire Insurance maps, it is possible to infer the popularity of various types of transportation based on the prevalence of carriage houses and garages depicted during a particular time. To make these comparisons, the patterning of carriage houses and garages in several North Knoxville neighborhoods was examined. As the presence or absence of these structures on Sanborn maps subsequent to 1917 provides information on

potential reasons for modification, close attention was paid as to when carriage houses changed in designation on the maps. As these changes most likely mirror the shift from horse to automobile transportation, functional changes to the structure are useful for determining how changing transportation patterns affected the distribution and designation of late 19th and early 20th century outbuildings.

As Old North Knoxville is located north of the immediate downtown area, Sanborn Fire Insurance maps do not include this area of the city until 1917. Therefore, it is not possible to observe changes to the outbuildings of this area prior to this time. For this reason, a similar historic area, the Fourth and Gill neighborhood, was selected (Figure 12). Like Historic North Knoxville, the Fourth and Gill Historic District is an excellent example of the neighborhoods that flourished in Knoxville during the last



Figure 12. Knoxville, Tennessee map showing the location of the historic Fourth and Gill neighborhood (taken from *Knoxville – Knox County, Tennessee Street Atlas*, 2000).

quarter of the 19th century. Thriving under the new urban ideals of the City of North Knoxville, the Fourth and Gill area evolved into a tree lined streetcar suburb made up of a series of separate subdivisions. Similar to Old North Knoxville, the subdivisions were designed in a grid pattern with either narrow lots for greater density, or larger tracts more befitting the desires of Knoxville's middle to upper classes. Furthermore, the architectural styles are a good representation of the residential architecture popular in America between the 1880s and 1940s. The houses are primarily of frame construction, with large porches and complex rooflines, and similar to Old North Knoxville, the styles are predominantly Victorian.

The earliest map depicting the Fourth and Gill neighborhood was drafted in 1890, with the last map drawn in 1940; similarly, maps were drawn in 1903 and 1917. While these maps vary in some degree as to which areas of the neighborhood were updated, they are useful for providing a general idea when carriage houses were constructed, and how these structures were modified over time in 10 to 20 year increments. Table 2 illustrates the number of carriage houses and garages present in relation to the total number of houses depicted on the Sanborn maps.

Table 2. Houses, carriage houses, and garages depicted on Sanborn Fire Insurance maps of the Fourth and Gill neighborhood, 1890-1917.

Year	Total Houses	Carriage Houses	%	Garages	%
1890	37	13	35.14	0	0
1903	65	25	38.46	0	0
1917	298	0	0	38	12.75

As Table 2 demonstrates, by 1903, out of 65 houses mapped in the Fourth and Gill neighborhood, only 25 had carriage houses on the property. On one houselot, the original carriage house, depicted on the 1890 map, was converted to a building of another function, and a new carriage house was constructed. Similarly, three carriage houses showed additions being added to the original structures between 1890 and 1903.

Interestingly, by 1917, no homeowners in the Fourth and Gill neighborhood had carriage houses. On eight houselots, the carriage houses that were previously depicted on the 1903 map were no longer standing. On one of these lots, a garage was built in place of the carriage house, and on another, a new outbuilding of unknown function was constructed. Fifteen of the carriage houses depicted earlier were still standing in 1917, but were no longer designated as carriage houses, indicating that the function of the buildings changed. Of these 15 structures, two were labeled as outhouses. The function of the other 13 buildings was not recorded. Furthermore, two structures were converted from carriage houses to garages, but no modifications to these structures were evident.

For comparison, another 1903 map of the area directly adjacent to Fourth and Gill neighborhood was examined. This area depicted on the map, which includes all streets north of Gill and west of 3rd Avenue, is now included in the Historic Fourth and Gill neighborhood. In this area, 43 houses were depicted. Of those houses, 32, or approximately 74 percent of the homes had carriage houses on their property.

By 1917, 307 houses were depicted. Of those 307 houses, five had carriage houses to the rear of the main house, 27 had garages, and interestingly, one house had a combination carriage house and garage depicted as one structure. Of the 34 carriage houses depicted on the 1903 map, six of these buildings had been transformed into

garages, one was utilized as an outhouse, ten were torn down with two garages built in different areas of the yard, six changed into structures of unknown function, and three remained identified as carriage houses.

When the frequency of carriage houses and garages in the Fourth and Gill neighborhood is compared with those of Historic North Knoxville and the area surrounding the McBrearty house, there are several notable differences. Unlike the Fourth and Gill area, in 1917 Historic North Knoxville had fewer garages and more carriage houses despite a comparable number of houses. In the McBrearty neighborhood, 26 houses out of 274 had carriage houses, while only ten were depicted as having garages. This pattern is likely explained by varying degrees of socioeconomic status between the residents of these two neighborhoods.

Since the Fourth and Gill area had only garages in 1917, this suggests that the residents of this neighborhood were of a higher income bracket than those residing in Historic North Knoxville. As only 4,000 automobiles were registered in the state of Tennessee in 1915, the presence of garages behind the majority of the houses in the Fourth and Gill neighborhood suggests that these residents were wealthy (Deaderick, ed. 1976). This is further supported by visible differences in the size of both the houses and outbuildings on Sanborn maps, as dwellings, carriage houses, and garages were typically larger in the Fourth and Gill neighborhood than in Historic North Knoxville.

Mid- to Late 19th Century Carriage House Plans

Interestingly, dozens of plans for urban, Victorian-style carriage houses exist in the architectural literature of the late 1800s, with many of these plans having the same exterior characteristics of the carriage houses still standing in the Old North Knoxville

and Fourth and Gill neighborhoods. Because of these similarities, carriage house plans are invaluable for understanding how these buildings were constructed, what materials were used in their construction, and perhaps most importantly, how variations in size influenced the function as well as the cost of the structures. Furthermore, the plans are useful as they can provide insight on unexplainable architectural features present on many of the structures that are still standing today in historic areas.

Nineteenth century architectural periodicals were beneficial in locating turn-of-the-century carriage house plans, as many architects published articles including home and outbuilding designs as a means of showcasing their abilities and properties. For this reason, these designs tend to be fancier than the everyday outbuilding, but nonetheless, they are significant in that they provide a framework for what many of these elaborate carriage houses looked like and the function they served.

The earliest carriage house plan, published in an 1875 issue of *Manufacturer and Builder*, demonstrates that urban carriage houses were typically built to serve two primary functions. Though moderate in size, measuring 22 by 28 feet wide, the carriage house provided ample room for the housing of both horses and carriages. Included in the design were stalls for three horses and room for four carriages with stairs leading to a second story loft. The second story loft was divided into a man's room, hay mow, and feed bins (*Manufacturer and Builder* 1875).

In 1890, another plan for a stable and carriage house appeared in *Manufacturer and Builder*. The interior of the carriage house was arranged so that it could be driven through, making it convenient for every-day use, as well as utilizing the room. An adjacent shed was incorporated into the design, for the intended use as a shelter for horse

and carriage, “so that the horse can be fed noon times without unhitching, a very convenient arrangement for a business man who has little time to spare in the middle of the day” (*Manufacturer and Builder* 1890: p. 21). Two stalls and a box stall provided ample room for the stabling of two to three horses, with enough room remaining for the storage of three carriages. The second story was divided into three rooms—a man’s chamber, a hay loft, and feed room with bins built into position with chutes down to the stable below.

Unlike the earlier carriage house plan, the 1890 design incorporated a number of new technologies into the construction of the structure, making it more elaborate and efficient. A ventilator was connected with the stable below by means of wooden vent pipes, providing thorough ventilation for the entire building. Heat was provided by an open fireplace located in the harness room with a chimney running up through the man’s room on the second floor. Water was supplied to the first floor, and an interior trap was provided for manure disposal so that the waste could be dropped into a pit accessible from the exterior. Furthermore, chutes located in the hay loft and feed room allowed for the convenient transport of hay and grain between stories, and so that space under the building was properly utilized, a cellar for the storage of vegetables and roots being incorporated into the design.

The carriage house was constructed of quality materials as well, with the exterior of the building built of wood. While the lower story was clapboarded, the upper story was wood shingled. Furthermore, the exterior of the building was constructed of Georgia pine, and the overhead was dressed and chamfered. On the interior, the harness room was fitted with all the necessary hooks and pins for hanging and storing tack, and the

hayracks, mangers, and stable fixtures were crafted of heavy duty iron. The whole structure, built in first class manner cost the purchaser \$850 (*Manufacturer and Builder* 1890).

In an 1893 issue of *Manufacturer and Builder*, a carriage house of moderate size and ornamentation was depicted (Figure 13). This carriage house, described as 30 feet long and 20 feet wide, was one and a half stories with 600 square feet. Similar to the 1890 design, the structure was set on posts, six feet apart with the first story clapboarded and the rest of the building shingled. There was room for two horses and three carriages and the loft was sufficiently large to contain a winter's supply of grain. The structure, which was considerably less elaborate than the previous design, was estimated to cost between \$400 and \$500 (*Manufacturer and Builder* 1893).

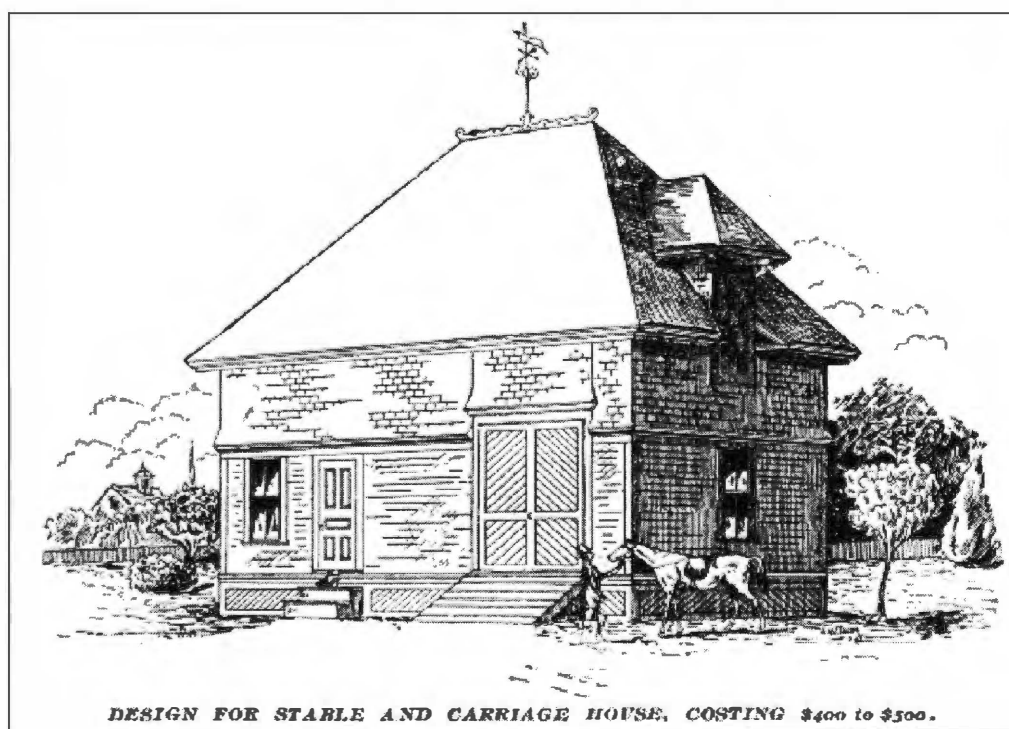


Figure 13. Carriage house perspective (*Manufacturer and Builder* 1893).

Similar to architectural periodicals published at the turn of the century, books including both barn and house plans were important in determining what these structures looked like and how they were constructed and utilized in urban environments in the late 19th and early 20th centuries. In *Barn Plans and Outbuildings*, written by Byron David Halsted in 1881, plans are included for several small barns which provided adequate space for both a carriage and a horse. One of these plans (Figure 14), referred to as a small cheap barn, is described as being ideal for small farmers, villagers, and gardeners who wished to only have enough room for a single horse and carriage or cow (Halsted 1881). The first floor of the structure was 20 feet by 28 feet with 8 feet between joists. A large, 9 foot wide sliding door admitted the carriage with the horse attached, which when unhitched, was led through a sliding door into the stable. The small stable door opened on hinges inward while a back door on rollers opened into the manure yard. Two small windows provided sufficient light to the stable and hay racks and feed boxes for the stalls each had a hay chute leading from the floor above. The grain bins were neatly arranged under the stairway and ranged in capacity from ten to 50 bushels. The second story, or hay loft, was described as 6 feet from floor to plates, and gave ample room for the storage of hay and straw. For throwing down straw used for bedding, a ventilator was provided. The chute is described as having a number of openings at various heights, including one at the bottom for cleaning out dust and chaff which constantly accumulated in the loft (Halsted 1881).

Another small barn depicted in *Barn Plans and Outbuildings*, is described by Halsted as having a ground floor of 18 by 24 feet with 8 feet between joints (Figure 15). On the interior, the carriage room was 13 by 18 feet wide with a door connecting it to the

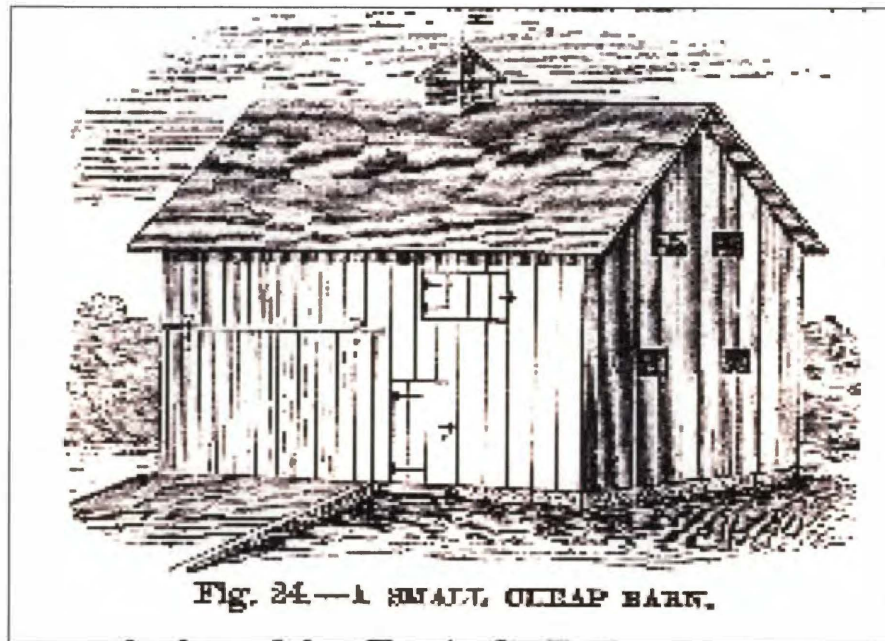


Figure 14. Small, cheap barn perspective (Halsted 1881).

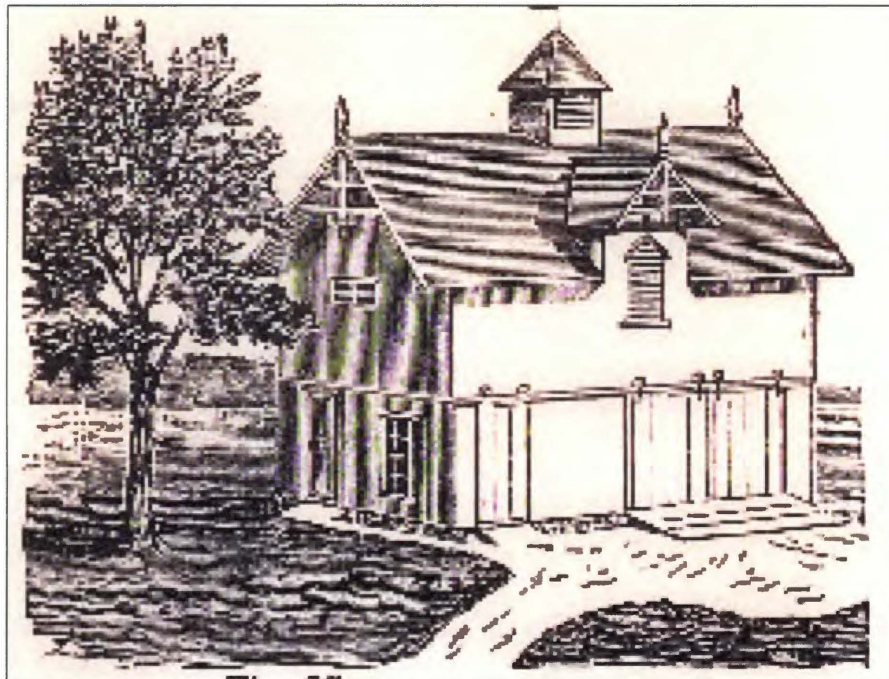


Figure 15. Barn perspective (Halsted 1881).

stable. Also located on the ground floor was a harness closet, hay chute, feed boxes, and one window to provide light for the feed rooms and stalls. The second story is described as a loft, 6.5 feet high to the plates with a three-quarter pitch to the roof providing sufficient room for the storage of hay and straw. The exterior of the barn was constructed of hemlock, sided with 7/8 inch dressed boards, 12 inches wide and battened. Complete and painted, the barn is listed as being in the neighborhood of \$200 (Halsted 1881).

As many houses in the North Knoxville and Fourth and Gill historic districts were designed by renowned architect, George Barber, architectural books including his house and carriage house plans were instrumental in providing examples of how outbuildings were built specifically for the North Knoxville area. While Barber's plans were popular throughout the country, Barber was a long-time resident of Knoxville and spent much of his career building dwellings for many of the city's most prominent citizens. In fact, a number of the plans provided in his books include black and white photographs of houses built for residents in the Old North Knoxville and the Historic Fourth and Gill district, many of which are still standing today.

In his book entitled *The Cottage Souvenir of 1891*, Barber provides architectural plans for three carriage houses of differing architectural styles, size, and expense. The first plan, Design No. 62, is described as being convenient and tasty (Figure 16). Overall, the carriage house measures 22 feet by 32 feet six inches. The plan states that proportion, more than ornamentation is the aim of the exterior appearance which is of horizontal weatherboard construction with shingled roof and gables. The interior is described as having a carriage room, harness closet, and four good stalls on the first floor, while the

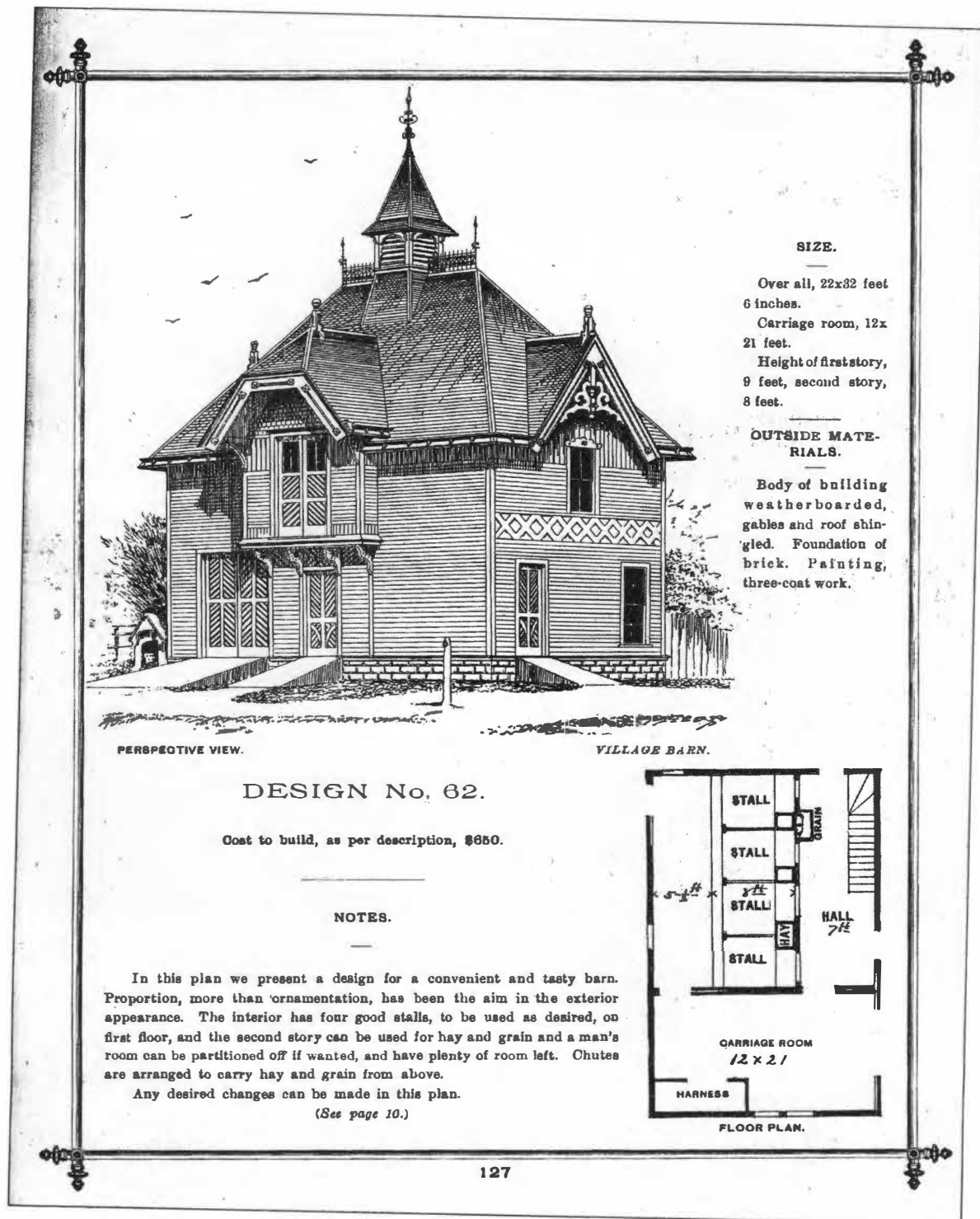
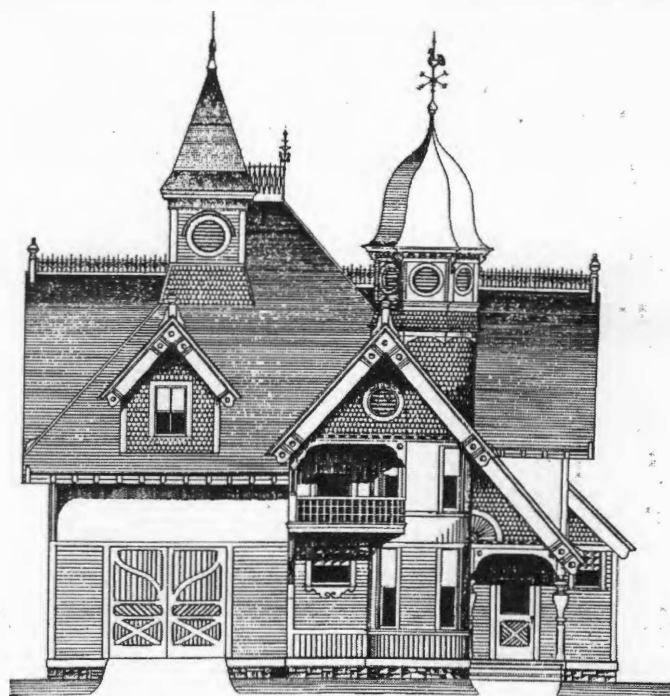


Figure 16. Design No. 62 (Barber 1891).

second story is designed for hay and grain storage and a man's room. Chutes are arranged to carry hay and grain from above (Barber 1891).

Design No. 63 is described as a two story structure constructed of weatherboard, stone, and shingles (Figure 17). According to Barber, the barn was designed for either city or country living, to have ample and convenient floor space, and to be neat and artistic in appearance with as small an outlay as possible (Barber 1891). The overall dimension of the building is 32 feet 6 inches by 39 feet, and the first story floor plan includes a 16 feet by 26 feet carriage room, three stalls placed approximately 6 feet apart, a harness closet, man's room, and exterior porch. The first story also has several conveniences including heat and a passage that blocks the stalls from the main part of the barn. The second story is divided into grain bins, hay loft, tool shop, and balcony. The exterior of the building is incredibly ornate with Victorian detailing including spindled columns, wood shingling on exterior wall surfaces, a corbelled brick chimney, a second story porch, numerous eaves, metal roof cresting, and a circular cupola with iron weathervane. The cost to build the barn is listed as between \$1,000 and \$1,200 (Barber 1891).

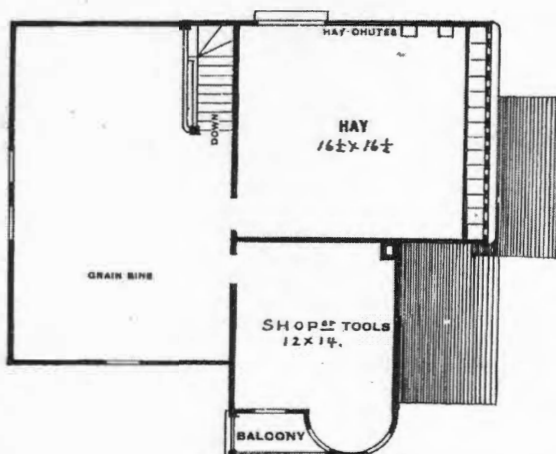
Design No. 64 is the smallest and cheapest carriage house plan listed in Barber's *The Cottage Souvenir of 1891* (Figure 18). This design includes two plans, the first of which is slightly smaller and differently arranged than the second (Figure 19). Floor plan no. 1, which measures 18 feet by 18 feet, includes a carriage room, two box stalls, an area for grain bins, and a harness closet. Floor plan no. 2 is a considerably larger, measuring approximately 18 feet by 30 feet. This floor plan includes a carriage room, three stalls, coal and wood storage areas, grain bins, and an earth closet. Regardless of the floor plan,



FRONT VIEW.

DESIGN No. 63.

Cost to build, as per description, \$1,000 to \$1,200.



SECOND-FLOOR PLAN.

NOTES.

This was designed for a city or village barn; to have ample and convenient floor space, to be neat and artistic in appearance and at as small an outlay as possible.

The man's room is in front and has good outlooks. It can be entered from porch or carriage room. A grate in the corner will afford heat in cold weather, and a couch can be placed in the opposite corner for sleeping purposes. The passage cuts the stalls off from main part of barn, and the harness room is conveniently located. A nice shop is over the man's room, for boys to work in. Other parts of the second story can be arranged for hay or grain, as required.

This plan can be enlarged, reduced or changed to front in any direction.

(See page 10.)

Figure 17. Design No. 63 (Barber 1891).

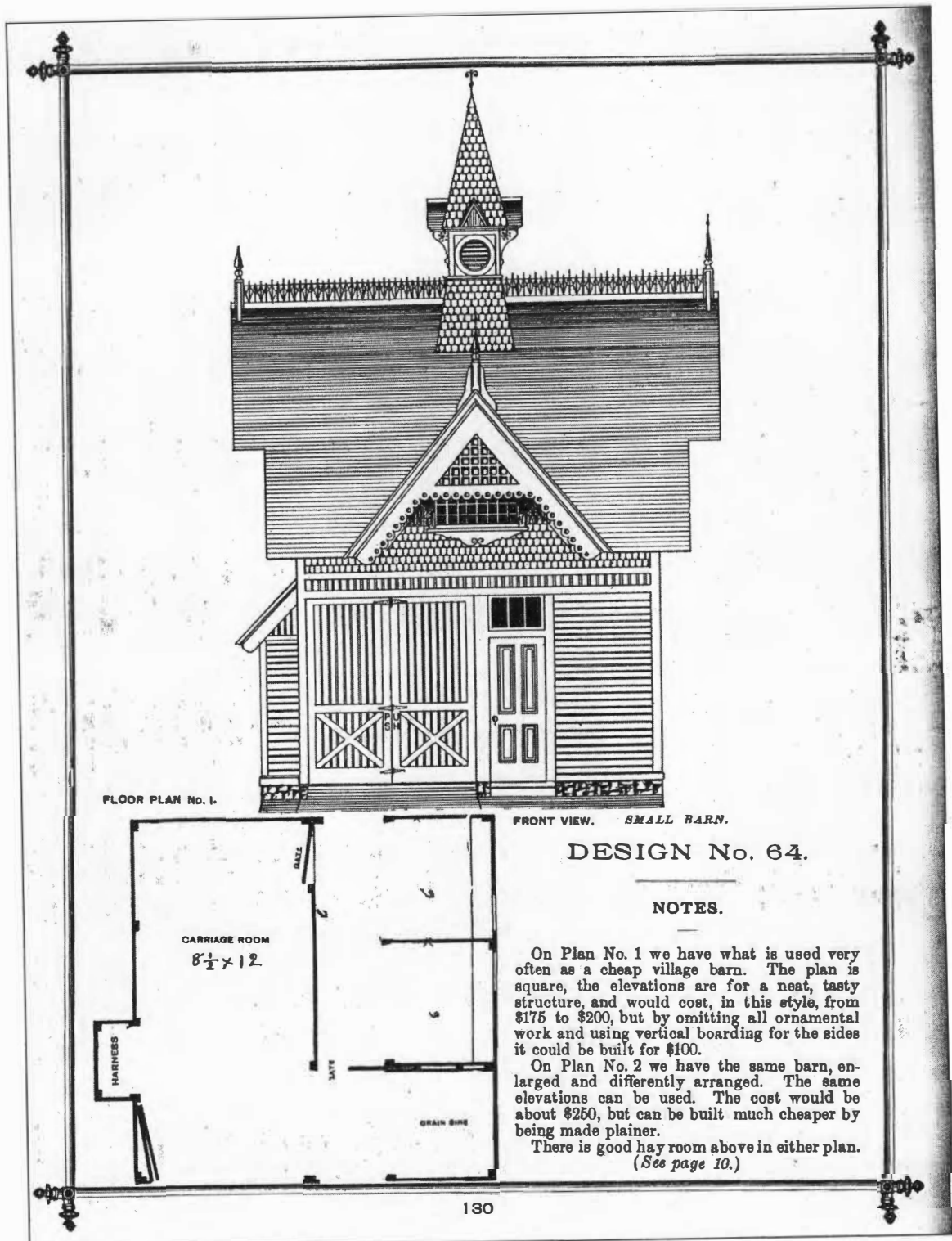


Figure 18. Design No. 64, front view and floor plan no. 1 (Barber 1891).

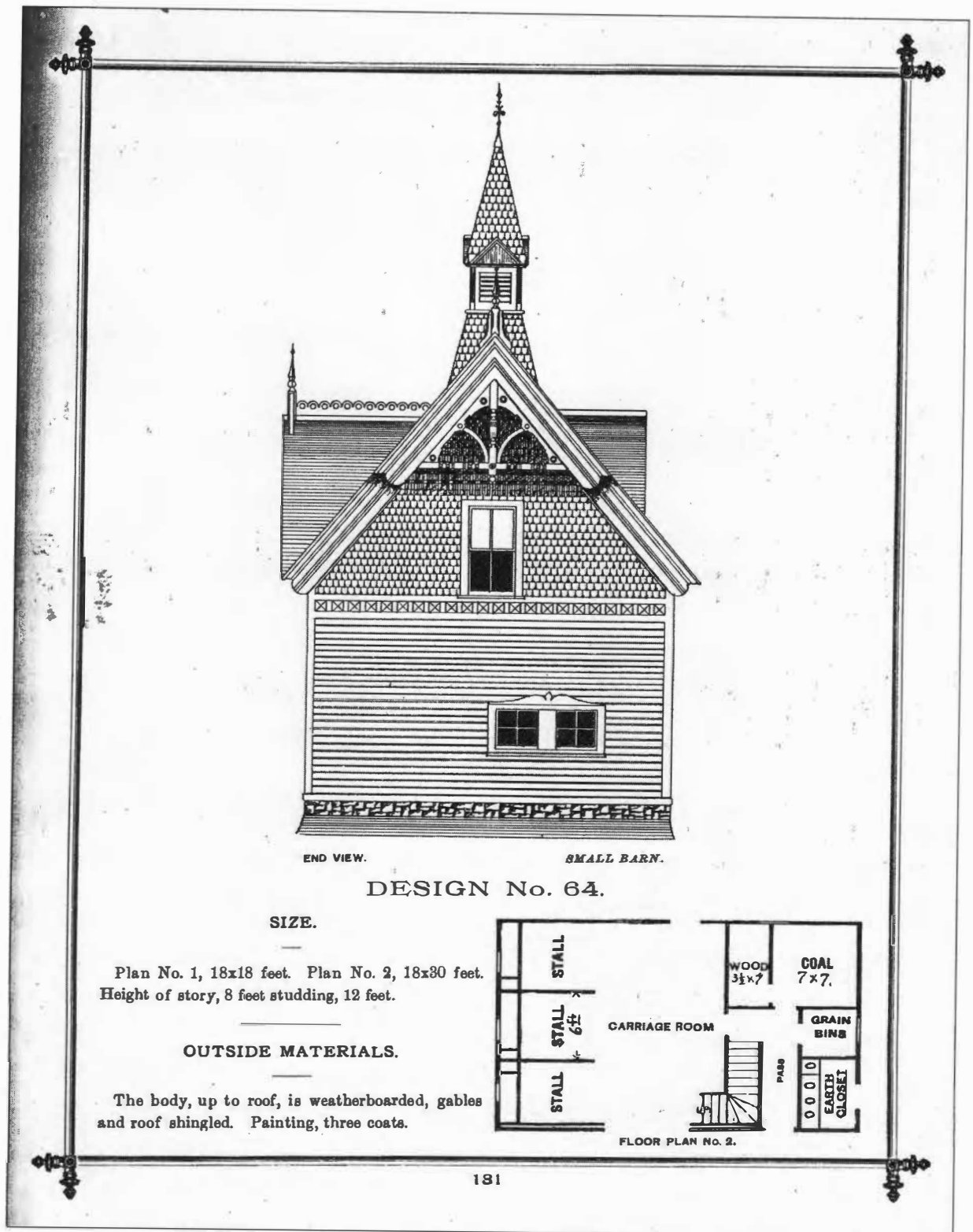


Figure 19. Design No. 64, rear view and floor plan no. 2 (Barber 1891).

both structures are constructed of weatherboard with a shingled roof. The cost of floor plan no. 1 ranged between \$175 and \$200, though omitting the ornamental work and using vertical boarding for the sides would reduce the price to \$100 (Barber 1891). Floor plan no. 2 cost approximately \$250, though it too could be built cheaper by reducing the exterior architectural detail (Barber 1891).

Another book, entitled *Art in Architecture: Modern Architectural Designer for Those Who Wish to Build or Beautify Their Homes*, written by Barber in 1893, includes a number of Victorian house plans and complimentary designs for both urban and rural carriage houses. Similar to the *Cottage Souvenir of 1891*, *Art in Architecture* lists eight carriage house and barns designed by Barber and Kluttz, which represent a number of different sizes as well as varying levels of expense. The first design, referred to as a country barn, is described as being 39 feet 6 inches by 23 feet. The one and half story structure includes a carriage room measuring 16 feet by 20 feet, two stalls, two box stalls, a central hallway, feed bins, manger, and hay loft (Figure 20). The hay loft is accessed

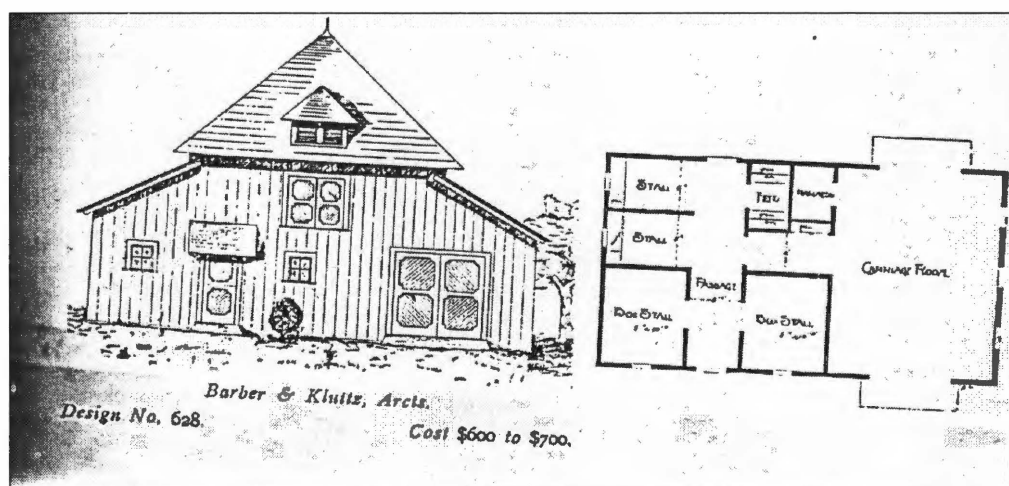


Figure 20. Country barn (Barber 1893).

by a wooden ladder to save expense and the space taken by stairs. The barn cost between \$600 and \$700 to construct (Barber 1893). The second barn design, or a low priced barn as it is called (Figure 21), is summarized as “a neat little barn, with two stalls, carriage room, and a grain and tool room, with many other conveniences” (Barber 1893). Grain bins, a work bench, and harness closet are included in the tool room, and a hay loft is reached by a step ladder located in a convenient place. The one and a half story barn, which measured 26 feet 6 inches by 21 feet, cost between \$300 and \$400 to build (Barber 1893).

Also costing \$300 to \$400 was the neat village barn (Figure 22). This barn, described as a model little barn for village or country, had a carriage or implement room with two adjacent stalls and grain and harness room or box stall. The barn was 29 feet 6 inches by 21 feet (Barber 1893).

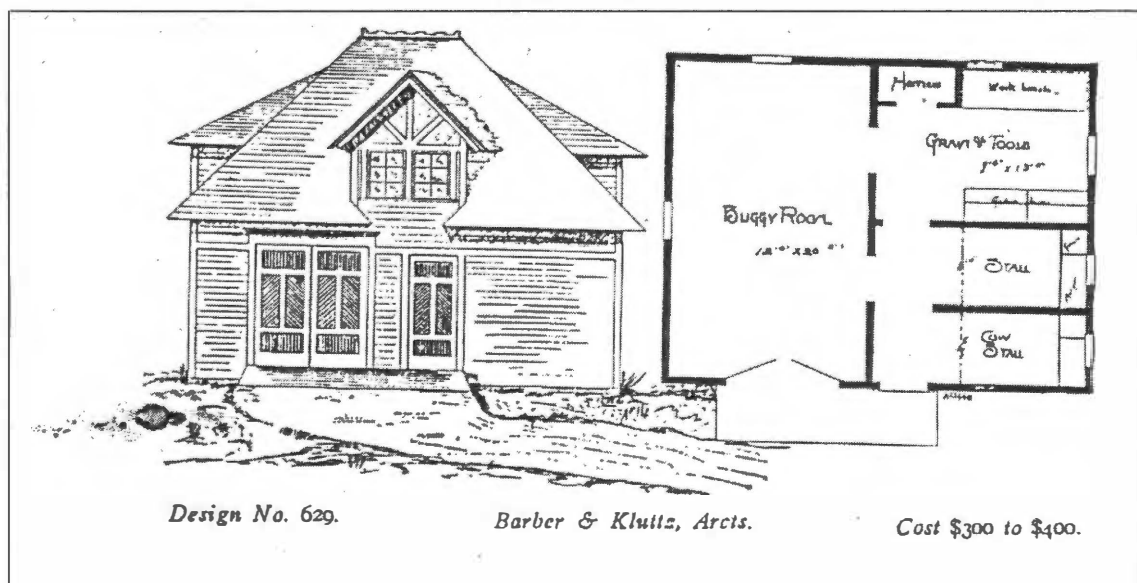


Figure 21. Low priced barn (Barber 1893).

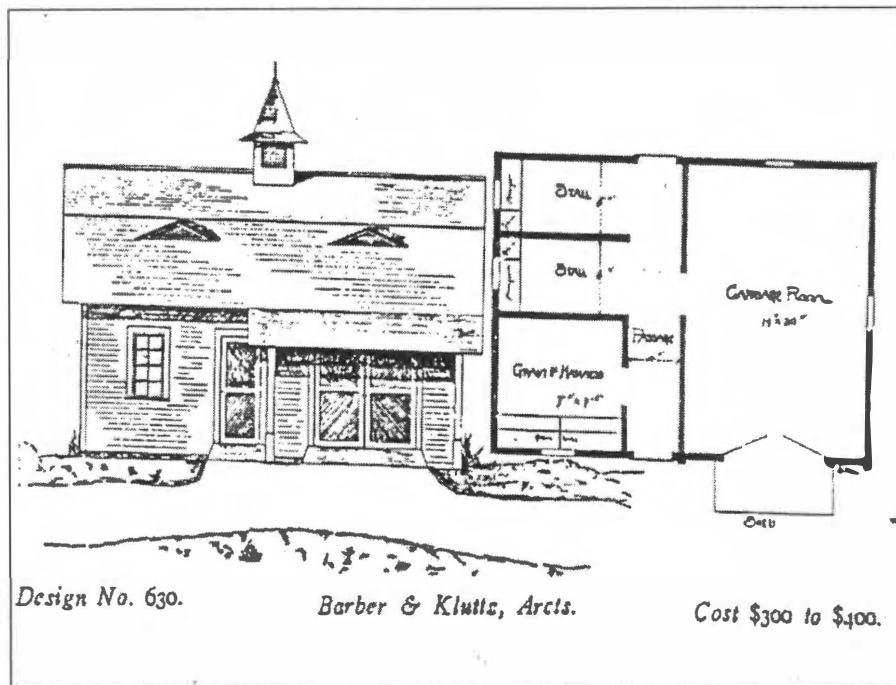


Figure 22. Neat village barn (Barber 1893).

A more elaborate version of the low priced and village barns could be built for an additional \$500. This barn, referred to only as Design No. 634, had a floor plan similar to the low priced and village barns (Figure 23). The first story of the carriage house included a carriage room, measuring 14 feet 6 inches by 20 feet 6 inches, three stalls, a grain and harness room, and a hay loft accessible by an ordinary ladder. In fact, the only visible difference between the three structures was more elaborate ornamentation on the exterior of Design No. 634 (Barber 1893).

The cozy barn, measuring 29 feet by 25 feet, was also of moderate price (Figure 24). Unlike Barber's other barn designs, the cozy barn was two stories high, thus affording plenty of room for hay and a man's room above the first story. The first floor had two stalls, a harness room, and a feed room that could be utilized as a box stall if

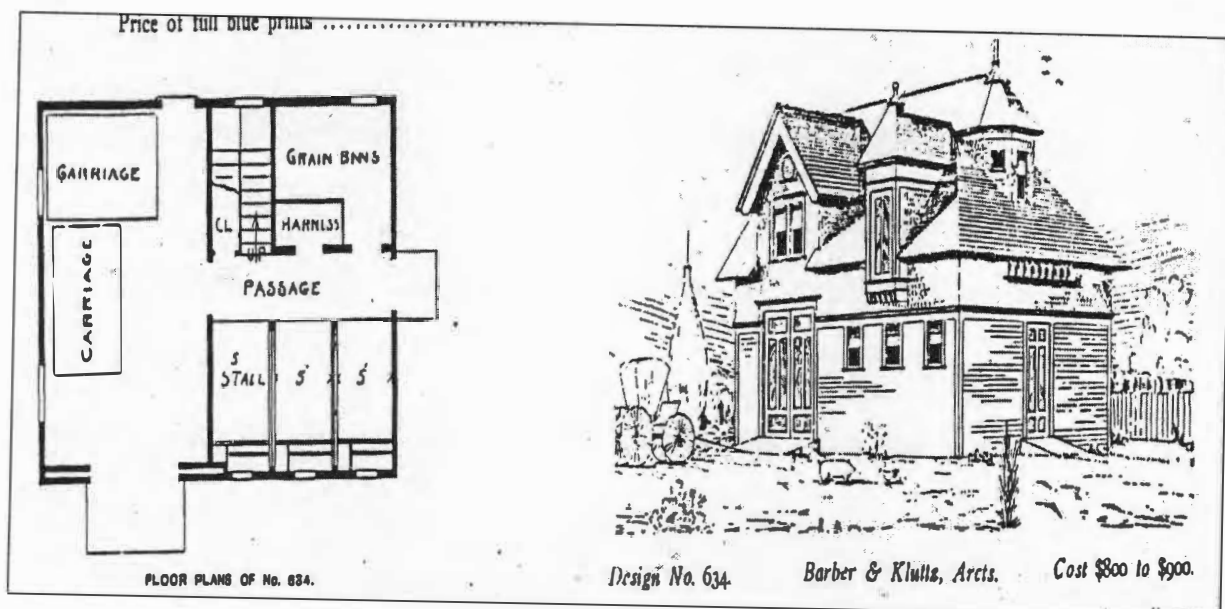


Figure 23. Design No. 634 (Barber 1893).

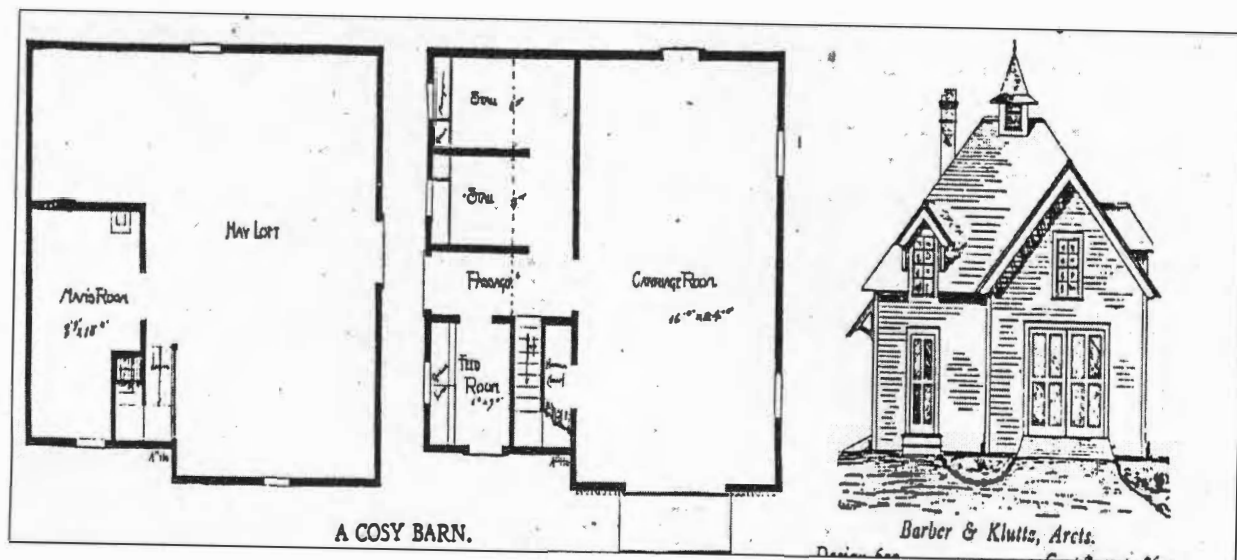


Figure 24. Cozy barn (Barber 1893).

necessary. Instead of a ladder, stairs were used to access the second story. The building cost between \$450 and \$600 depending on ornamentation (Barber 1893).

The plain barn, or fifth barn designed by Barber and Kluttz, measured 41 feet 6 inches by 28 feet (Figure 25). Though simple in appearance, the barn contained a considerable amount of room and a convenient floor plan. The carriage room was centrally located, with three stalls and two box stalls on either side. Stairs leading to the loft and harness closet opened from the carriage room, and a work or man's room was located behind the stalls. Water troughs and feed boxes were included in the \$750 to \$900 construction price.

The colonial barn was the largest and most elaborate barn included in the text (Figure 26). This barn, described as being suitable for both city and country living, was 39 feet by 50 feet 6 inches with many conveniences found inside. The first story floor plan included a carriage room, measuring 20 feet 6 inches by 24 feet six inches, six stalls, a groom's room, box stall, and harness closet. The second story, accessed by wooden

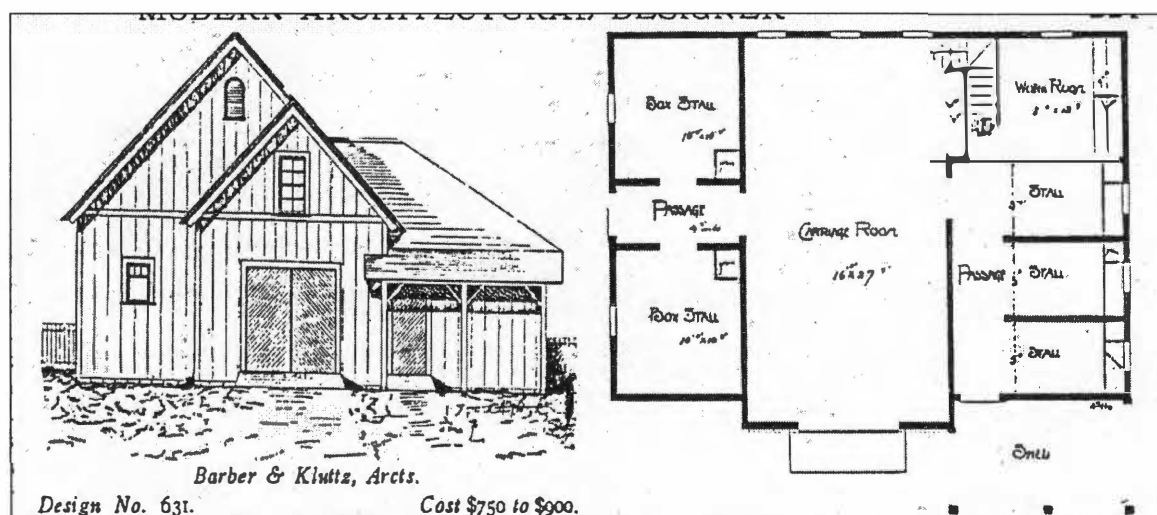


Figure 25. Plain barn (Barber 1893).

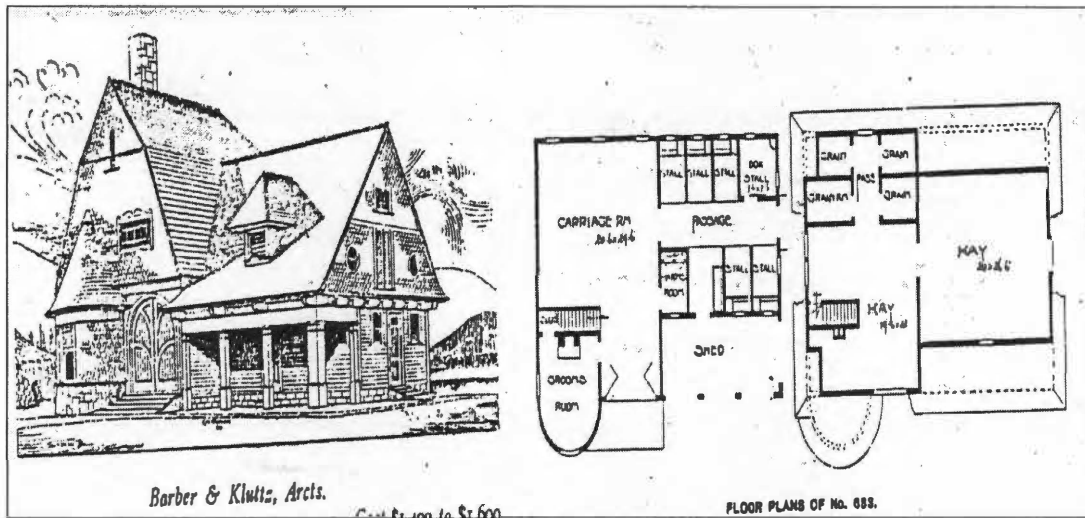
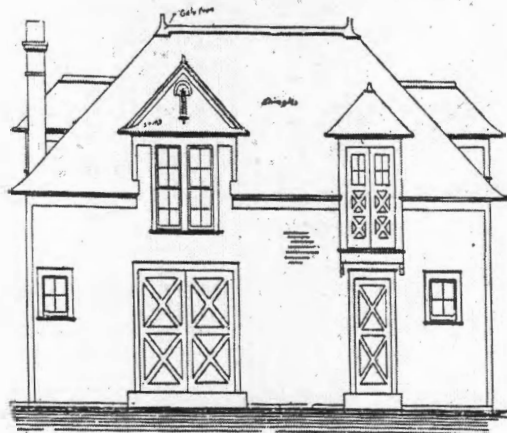


Figure 26. Colonial barn (Barber 1893).

stairs, included two large rooms for hay and four grain rooms. The exterior of the building had elaborate ornamentation and Victorian inspired architectural features including circular windows, a circular tower, arched doorways, a porch with heavy square columns, and wood shingled detailing on the second story. At a cost of between \$1,400 and \$1,600, the colonial barn was the most expensive of Barber and Kluttz's designs (Barber 1893).

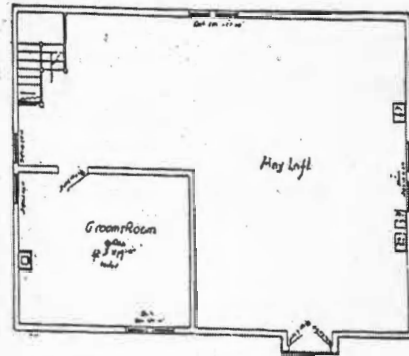
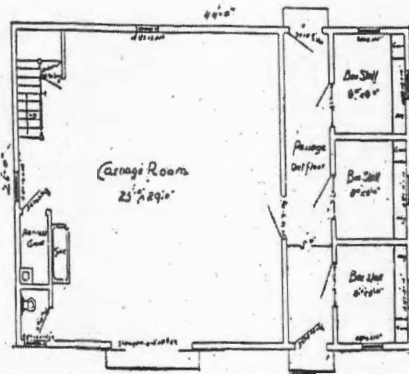
Lastly, Barber provides the plans for a good frame barn, described as being 26 feet by 44 feet with three box stalls (Figure 27). So the stable could be separated from the carriage room, three tight doors were on the box stalls. Unlike the other carriage house designs, the carriage room, measuring 25 feet by 29 feet, included both a sink and water closet. A stairway provided access to the second story, which was divided into a groom's room and a hay loft. The hay loft could also be accessed from the exterior by a large double door located on the second story (Barber 1893).



Design No. 635.

Barber & Kuttz, Arcis.

Cost \$800 to \$950.



A good frame barn 26 x 44, with three box stalls and a tight door by which the stable part can be cut off from carriage room. Stairs, harness room, water closet and sink are provided in the carriage room.

Price of full plans and specifications \$15.00.
Price of full set blue prints 3.00.

Figure 27. Good frame barn (Barber 1893).

History of the McBrearty Site and Grounds

Prior to this investigation, little was known about the history of the McBrearty site. While the primary focus of this thesis is the McBrearty carriage house, it is impractical to draw any conclusions about the age of the structure without studying the McBrearty dwelling. As the history of the house is undoubtedly linked to the history of the carriage house, establishing a date for the McBrearty house is important as it creates a *terminus post quem* for construction of the carriage house and other events taking place at the site. Furthermore, by establishing when the McBrearty dwelling was built, the architectural materials used to construct this building can in turn be compared to those found archaeologically, to demonstrate if the carriage house was built shortly after the house or several years later.

As is often the case in historic neighborhoods, the majority of information regarding the history of a particular house, outbuilding, or family often results from neighborhood speculation about stories handed down from one homeowner to the next without validation. Early research on the McBrearty house generated the same types of stories and speculation, with no one providing the “facts” having any idea where they originated. An example of this is evident in an Old North Knoxville home tour flyer distributed sometime in the mid 1990s. The flyer states the following regarding the history of the home: “The house, a classic Victorian cottage built in approximately 1892, is thought to be the first or second house constructed in the neighborhood, then the city of North Knoxville.”

While the style of the house would indeed suggest that it was constructed sometime around 1892, there was little way to verify this information as there was no

indication on the flyer of where this date was obtained. Neighborhood accounts also affirmed that the house was constructed in 1892; however, these accounts also lack validity as the majority of their opinions regarding the age of the home originated from what they learned while attending the Old North Knoxville Home Tour.

In an effort to establish when the McBrearty dwelling and carriage house were constructed, the following government documents and commercial publications were consulted: Sanborn Fire Insurance maps, property deeds, and Knoxville city directories. All of these items are located in the McClung Historical Collection and the Knox County Archives in the East Tennessee Historical Center, the City-County Government Building in downtown Knoxville, and the Special Collections Library located on the University of Tennessee, Knoxville campus.

A search of land deeds at the City-County Building yielded results as early as 1907, when the property was owned by Mr. O.P. Temple, a gentleman who owned much of the neighborhood during this time period. The deeds prior to this period are located at the Knox County Archives. These deeds are handwritten and relatively hard to decipher, but it appeared that O.P. Temple purchasedouselots 12, 13, 14, 15, and 19 from William A. Galbraith and wife, Lizzy, on January 14, 1897 (Figure 28). Galbraith was a partner in Galbraith, Kerns and Others, a business which owned the entire block of Glenwood and Scott until purchased by Mr. Temple. The house currently sits on lot 12 and shares lot 19 evenly with three adjacent houses. This demonstrates that the arrangement of the lots is nearly as old as the McBrearty house itself. Sanborn maps printed during the late 19th and early 20th centuries were not particularly beneficial as the earliest maps did not include any enclaves of the city outside the immediate downtown

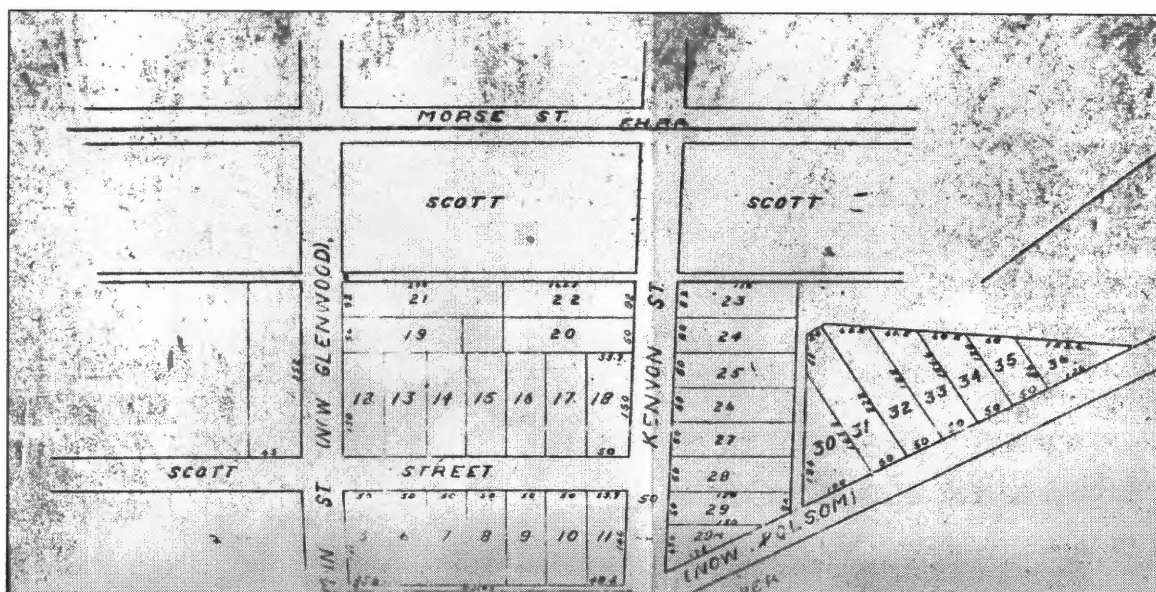


Figure 28. Galbraith, Kern and others map showing the McBrearty lot, ca. 1907 (on file at the City County Building, Knoxville, Tennessee).

area. As North Knoxville was independently incorporated and on the outskirts of Knoxville's city limits, this area of the city went unmapped until 1917.

While this source is of little use for determining when the construction of the McBrearty residence and carriage house occurred, the map does provide an address change that might otherwise have gone undetected (Figure 29). Rather than 701 East Scott Avenue as the address is today, the map indicates that the house number in 1917 was 501. This designation of the house's change of address is important in that it made the search in 19th century city directories less complicated. The map also shows two other buildings at the rear of the property—the McBrearty carriage house and a small building which was most likely a privy. City directories are perhaps the most valuable of the consulted sources, as with their aid, it is possible to trace the house and its inhabitants back to 1892. City directories prior to 1892 did not list 501 East Scott Avenue as an

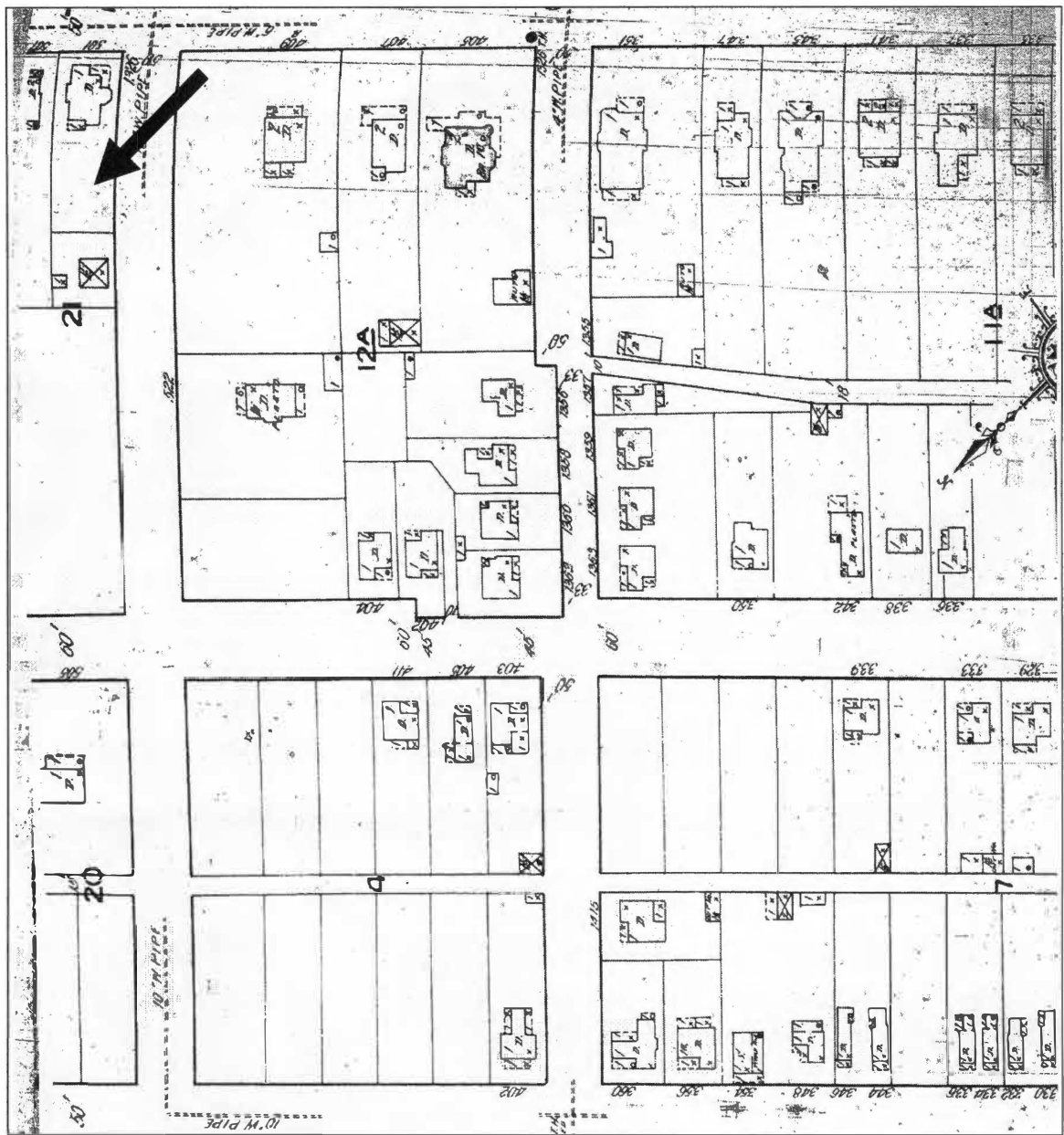


Figure 29. 1917 Sanborn Fire Insurance map with arrow pointing to 501 East Scott Avenue.

address; thus the house had to have been built during or later than 1892. Furthermore, as the earliest occupant of the house, F.E. Clark appears in the 1893 directory; this indicates that the house was built sometime between 1892 and 1893.

As Table 3 illustrates, the first inhabitants of the house were renters with various trades as the names on the deeds do not match those found in the city directories. Knoxville city directories indicate that the house was rented as late as 1915, when H.D. Anderson, a brick contractor and proprietor with H.D. Anderson and Brothers, purchased the property. According to city directories, Mr. Anderson lived in the house with his family until 1923, when it was again occupied by renters of various trades. Interestingly, the Anderson family moved back into the house in 1931. Mr. Anderson is listed as the primary resident of the dwelling until his death in 1936. After 1936, the wife, children, and spouses of the Anderson children are listed as residents until the death of H.D. Anderson's wife, Elizabeth in 1970, when the house was sold to Mr. and Mrs. J.E. Hutton.

Fortunately, as not much has changed since the construction of the house, and many of the original architectural features remain, it is possible to determine an approximate date for the building by simply observing the types of materials used in its construction. These materials can in turn, be compared to those found archaeologically, to determine if the dwelling and carriage house were built at the same time or different times. The architectural elements found on the interior and exterior of the house further support a construction date of 1892. Late fully machine cut nails protrude from the structural beams and woodwork in the attic and also along the stairway that leads into the cellar. In Knoxville, these nails were manufactured between 1835 and 1890, and by the

Table 3. Resident history of the McBrearty house, 1893-1980.

Name	Occupation	Length of Residency
F.E. Clark	Co-owner of Scheitin and Clark, a company specializing in sheet music and other musical merchandise	1893-1894
W.W. Woodruff	Owned W.W. Woodruff and Company, a hardware store	1895-1897
G.T. Wright	Bookkeeper for a clothing store	1898-1899
H.H. Yount	Storekeeper for the Southern Railroads	1900
J.C. White	Employed by the hotel Imperial in general insurance	1901
John Yule	No occupation listed	1902-1903
H.L. Crowell	Engineer for Southern Railroads	1904-1909
Maurice Mulvania	Assistant bacteriologist for the University of Tennessee	1910
J.R. Reece	Manager for the Jim Anderson Company, a grocery and retail store	1912-1914
H.D. Anderson	Brick Contractor and co-owner of H.D. Anderson and Brothers	1915-1922
W.M. Burton	Superintendent of Life and Casualty Insurance Company	1923
H.V. and G.D. Brinkman	Mr. Brinkman was an agent for New York Life Insurance Company	1925-1927
G.M. Hale	Local manager of Prod. and Ref. Corporation	1928
W.L. and C.O. Bishop	Mr. Bishop was a draftsman for Farragut Lumber Company	1929
H.D. Anderson	Same as above	1931-1936
C.F. Eppes, Jr.	Window decorator for Quality Service Stores	1937-1938
E.A. and H.D. Anderson, Jr.	Worked for Tennessee Valley Authority in the Transportation Department	1939-1940
M.L. Anderson	No occupation listed	1941-1942
M.L. Anderson and C.F. Eppes, Jr.	Same as above	1943-1945
M.L., E.L. and M.E. Anderson H.D. Anderson, Jr.	Same as above	1946-1965
J.E. and D.T. Hutton	Mr. Hutton was a construction worker while Mrs. Hutton worked for Knox County Circuit Court	1970-1974
D.T. Hutton	Same as above	1975-1979

end of this time period, were both inexpensive and common. Naturally, machine cut nails would not completely disappear after their manufacture ceased prompted by the introduction of wire nails circa 1890. For this reason, it is not surprising that all other woodwork in the house is carpentered with wire nails. During this time period, overlap in the type of nails used is common as both nail types were manufactured simultaneously for a period of time.

Furthermore, the foundation of the house appears to have been constructed of pressed rather than handmade or extruded bricks. Pressed bricks, similar to earlier handmade bricks in appearance, were made of soft clay and mud that was pressed together by an automated machine. By 1885, these bricks were the main kind of brick used by Knoxville builders (Greene 1992). Pressed bricks remained the most common brick in Knoxville until they were replaced by extruded bricks in the early 20th century. It is possible that the foundation also contains end-cut extruded bricks as well, as these were manufactured beginning in 1888 and would have been somewhat common by 1892 when the house was constructed (Greene 1992). While no end-cut bricks were observed, this does not rule out their use as it is difficult to distinguish brick types when they are in situ and covered with mortar and painted.

All of the floors in the living room, master bedroom, foyer, and study are constructed of white oak; however, the guest bedroom has a wooden floor unlike any other in the house. The reason for this is evident on the 1917 Sanborn map which shows that a porch or outdoor room was located in this area of the house. While there is little evidence to suggest when this room was converted, Mrs. Powers stated that this area was a second bedroom by 1978, as she was told that it was in this room, that the previous

owner's wife passed away. Architectural evidence is of little use in determining when the room was constructed as unsurprisingly, the nails found in the woodwork of the room are all wire nails. Later Sanborn maps provided no help for this either as the versions which included the Glenwood area are missing from the McClung Collection.

During the interview, Dale Powers indicated that the interior of the house was in horrible condition when she and her husband purchased it in June 1986. She remembered that the house had green wallpaper and green paneling in every room giving the home a dark and eerie appearance. Mrs. Powers speculated that the wallcoverings were probably from the early 1960s. Since the previous owner's wife was stricken with brain cancer for several years before her death in 1985, the couple were more than likely unable to keep up with the demands of the aging house.

One of the first things the Powers did was to remove the green plaster and paneling and replace them with ones more reminiscent of 1892. They also closed off several original doors and relocated the hardware to other more convenient locations. A hallway that originally ran alongside the living room bay window and into the kitchen was closed creating a new hallway at the opposite end of the living room. Also the doorway of a second bathroom that once opened into the old hallway was sealed and juxtaposed to the opposite wall so that a new entrance utilized the new hallway at the end of the living room. Mrs. Powers stated that this renovation was done for the convenience of their guests. Consequently, by sealing off the bathroom door and hallway, a pantry was formed in the kitchen.

Another large area of renovation was the master bedroom. Originally the master bedroom and bathroom were separated by a wall. The bathroom was not accessible from

the bedroom as the original door opened into the living room. To create a master suite, the Powers opened the casing between the bedroom and the bathroom and closed the original bathroom door. Again, they maintained the authenticity of the house by moving the original door and casings to the new door they created in the bedroom.

Unlike the house, little information is available for reconstructing the history of the McBrearty carriage house, and for this reason, its construction has remained somewhat of a mystery. The 1917 Sanborn map that includes the dwelling depicts the structure as a one and half story frame stable or carriage house (the two terms were used interchangeably in 1917) with a shingled roof, and doorway on the gable end facing Glenwood Avenue.

As archival resources are of little use in recreating the history of the carriage house, it was hoped that contact with past homeowners would be beneficial in creating a time line for the construction and demolition of the structure. Contact with Becky Anderson Clark, granddaughter of Henry and Elizabeth Anderson, has proven invaluable for learning details relating to the landscaping of the rear yard, but has been disappointing in regards to the carriage house. In a letter written to the homeowner on January 25, 2004, Mrs. Clark elegantly writes of the McBrearty yard:

Although I have many, many memories of the house's interior, it is the yard which I remember most fondly. . .Near the corner of the living room was the loveliest, thickest patch of lilies of the valleys imaginable. Are they still there? It was so tall that it was a constant source of frustration for me. . .Always hated the fact that there were so many cherries on the tree but they were too far off the ground to reach, except for the birds, of course. There was such a lovely terraced garden just beyond the lawn area in the backyard. It was filled with many "old-fashioned" flowers, such as sweet peas and carnations. . .Do you keep the goldfish pond stocked? At one time there were really large goldfish there. . . (Clark 2004).

While Mrs. Clark reminisces of the rear yard in impeccable detail, she remembers very little about the carriage house. When asked questions regarding the structure during a personal interview, Mrs. Clark recalled that the building was one and a half stories, painted white, with a double door that swung outwards toward Glenwood Avenue. She was unable to recall how many windows the structure had, where the windows were located, or if the building had a chimney or other doorway. Mrs. Clark also remembered that the area around the carriage house was inhabited by black snakes and poison ivy, so she and her siblings did not often play in that area.

While informants were not particularly helpful in generating any information on the appearance of the carriage house or the date of construction, personal contact with past homeowners did prove useful in determining a demolition date for the structure. During a personal interview, Mrs. Clark recollected that the building was standing as late as 1967 or 1968, when she returned to the property following her grandmother's death to help her parents prepare the house for resale. She remembers that the 'barn' was packed to the rafters with years' worth of her grandparent's personal belongings.

Likewise, a telephone interview with Mrs. Powers revealed that the carriage house was not standing in the rear yard when she and her husband purchased the property in 1984. Due to the obvious disrepair of the house evident when the Powers purchased the property, it is likely that the carriage house received little or no attention subsequent to 1967 when the Anderson family sold the property. For this reason, it is probable that the building simply deteriorated until it was torn down sometime between 1967 and 1986. This, of course, is little more than speculation, but seems logical when the archaeological assemblage of the carriage house is considered in subsequent chapters.

CHAPTER 3. ARCHAEOLOGICAL EXCAVATIONS

Archaeological investigations began during the last week of March 2003 and continued until October 2004. During the early stages of excavation, a benchmark and five permanent datum points were established. The grid for the site was established using a principal datum point (1000N 1000E) located 14 feet off the northwest corner of the house. Four alternative permanent datums were located with, Datum 2 at 1087N 1000E, Datum 3 at 1132N 100E, Datum 4 at 1087N 1000E, and Datum 5 at 1087N 1039E. With the exception of Datum 5, which is marked with an iron spike, all other datums are marked with PVC pipe. All five datums are located as to be visible from the majority of the site. A contour map of the rear yard was created based on the principal datum (Figure 30).

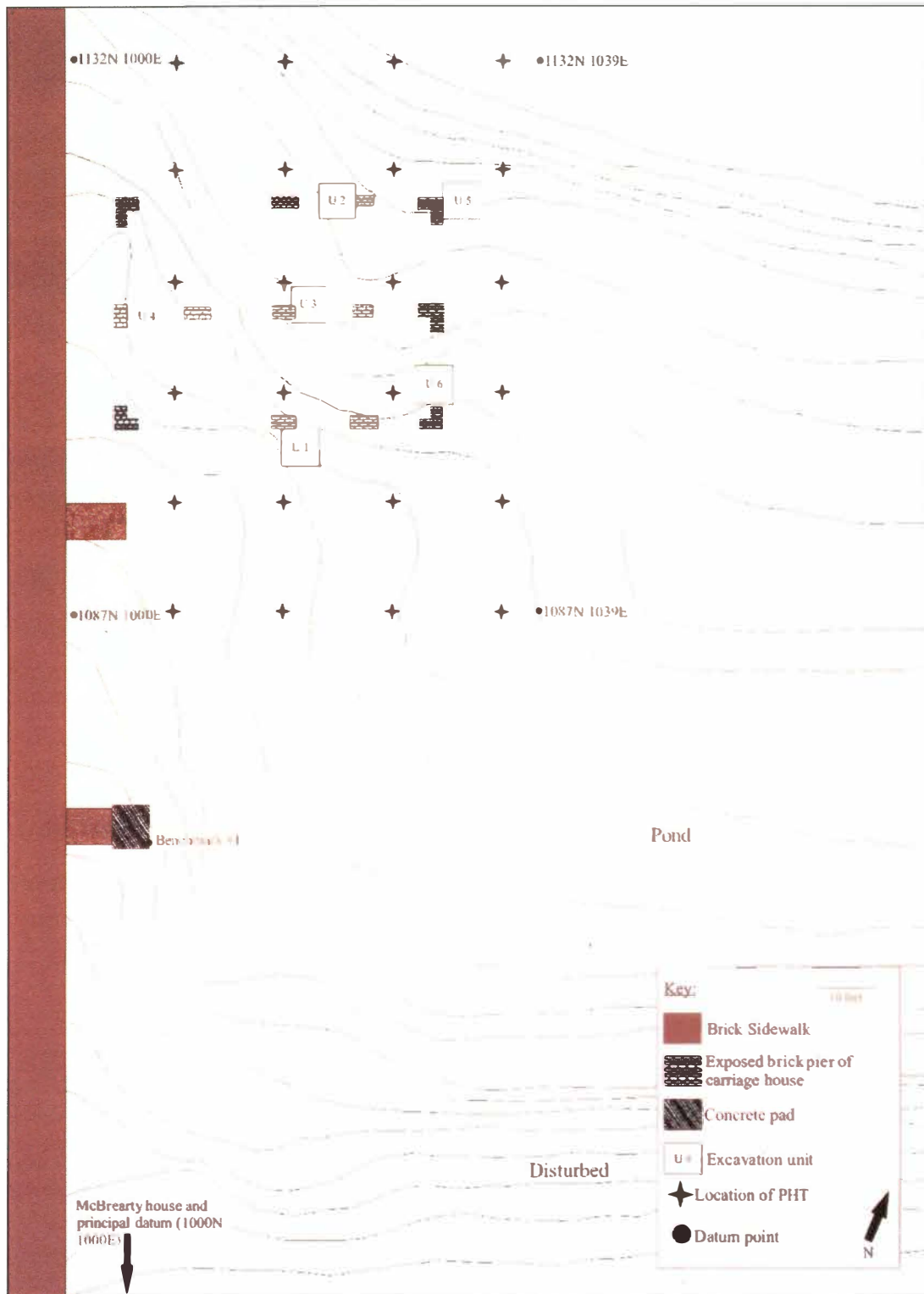
Testing Phase

Once the datum points were established and a grid was formulated, archaeological testing was carried out using three methods: soil coring, posthole testing, and controlled surface collections. The testing phase was completed during the spring of 2003.

Cores

On March 30, 2003, five 1 inch soil cores from around the perimeter of the structure were taken to prepare a strategy for excavation. These cores provided a wealth of information on the stratigraphy of the site and proved invaluable in determining prospective locations for more intensive archaeological excavations.

Core 1. Core 1 was taken from the south side of the structure. This core indicated that approximately .20 feet of dark humus was underlain with dense, mottled clay. The clay continued to 1.7 feet below surface where a hard surface was encountered.



This appeared to be a dark, buried A horizon.

Core 2. Core 2 was also taken on the south side of the structure, approximately one foot east of Core 1. This core revealed .20 to .30 feet of humus with the dense surface being encountered at approximately 1.5 to 1.6 feet below surface. An attempt to push through this dense surface brought up coal and cinders. This was an old buried surface that was covered with red clay fill to level the yard on the south side of the building.

Core 3. Core 3 was taken on the west side of the structure on a mound of soil that appeared to contain a large amount of plaster. There was virtually no humus there, and the gray plaster-rich soil is exposed on the ground surface. The loose plaster stratum was .90 feet thick, resting on what appeared to be a dark brown buried A humus that graded into a lighter B and yellow-brown C horizon, or subsoil.

Core 4. Core 4 was taken on the north side of the structure in an area where there were considerable artifacts visible on the ground surface. The core revealed .25 feet of humus with a gradual transition to subsoil at approximately .70 feet below surface. The core was taken into the clay subsoil to 1.7 feet below ground surface, and the soil was characteristic to that seen in Core 3 below the plaster stratum.

Core 5. Core 5 was taken toward the southeast corner of the carriage house depression. The core indicated .40 feet of humus, .60 feet of dense red clay fill (similar to that visible in Cores 1 and 2), and the hard buried A horizon containing cinders at 1.3 feet below surface. This core indicated that the fill against the south wall extended a short distance around the southeast corner of the structure.

Posthole Tests

Once coring was complete and a research design was formulated, a series of posthole tests (PHTs) were excavated to investigate both inside and outside the perimeters of the carriage house foundation. The goals of this testing phase were to date the structure, define any associated activity areas, determine a time sequence for any functional changes, and gain a broader understanding of the soil stratigraphy revealed in the core testing. An area of 1620 square feet including the foundation and the area between it and the road was designated for testing. The test area was defined by four datums, which were shot in with a transit. The location of each PHT was triangulated based on these points and marked by pin flags. In all, 24 PHTs were excavated on grid, at 9 foot intervals. Each test was excavated to subsoil. This phase of the investigation was undertaken by University of Tennessee students and was completed on April 23, 2003.

Soils in the test area were found to be much more complex and deeper than determined from previous coring. A thin layer of humus covered most of the area, ranging in depth from 0 to .20 feet. Generally, this humus lay directly over a dark A horizon which was underlain by a red clay stratum of fill on the south, west, and east sides of the structure. In some areas, alternate lenses of red clay fill and lenses of dark brown organic soil were observed. In the 1087N line, the original ground surface was reached at about 1.5 to 1.6 feet below surface. This stratum appeared as a dark brown loam that graded into a lighter brown clay characteristic of horizon B. One buried brick was also noted in this stratum. This soil is similar to that found in the center of the structure and on the lower slope. Artifacts were not abundant but found in several levels.

The majority of the PHTs ended at sterile subsoil between .40 and 1.81 feet in depth; however, the tests located on the 1096 line were done with a soil auger as the fill approached levels deeper than 2 feet. PHT 5, 6, and 8 were excavated using this method. Subsoil was reached in PHT 8 at 3.3 feet below ground surface. The stratigraphy was dark humus, clay fill, cinder lens, buried A clay loam and subsoil respectively. The clay fill in this area contained large chunks of weathered chert, and it was determined that this fill did not come from the immediate area of the structure. This was confirmed by checking the depth with the transit. The depth was recorded at 4.42 feet below benchmark #1 (100 feet). When compared to the depth of the lowest point under the structure, 3.76 feet below benchmark #1, there is good evidence that the old buried A horizon is underneath the fill and slopes toward the north end of the rear yard. The PHT data from the south side of the building was useful for identifying landscape modifications in the rear yard, but not with correlating artifacts to particular phases of the life cycle of the building.

The stratigraphy revealed by the PHTs located on the 1105 line within the confines of the structure was quite different than that on the south side of the structure. A much heavier concentration of artifacts was noted, especially nails and window glass. Also, there was little or no red clay fill with an organic rich stratum, or A horizon, grading into a grey-brown B horizon and then into a light brown-red subsoil. Unlike the fill found on the south, east, and west sides of the structure, the subsoil is homogeneous dense, lighter colored clay.

Controlled Surface Collections

In collaboration with posthole testing, controlled surface collections were also conducted in the area of the carriage house. The rear yard was divided into four quadrants: southeast, northeast, southwest, and southeast, and all artifacts visible on the ground surface both inside and outside the structure were collected, bagged, and labeled with appropriate provenience. This phase of testing was also conducted by University of Tennessee students and was completed on April 22, 2003.

Excavation Units

Six 3 by 3 foot units were excavated on grid on the interior and exterior of the carriage house foundation. Units were numbered sequentially beginning with Unit 1 as no excavations had taken place at the site before and few units were necessary due to the small size of the site. This intensive excavation phase took place sporadically between April 2003 and October 2004. Field work was conducted by a crew of University of Tennessee students and several volunteers from the university and community. Excavation was done by hand using shovels and trowels in .20 foot arbitrary levels or according to natural stratigraphic and cultural levels. All soil was screened through ¼-inch hardware cloth.

Unit 1

Unit 1 was a 3 by 3 foot square located along the exterior south wall of the building. This location was chosen to provide information about the foundation and wall line of the carriage house and also reveal the stratigraphy on the south side of the building. Level 1 consisted of thin humus on top of red clay fill. When the top of the red clay was removed, at least two root intrusions were evident on the surface of the fill. Due

to the hard and compact nature of the fill, Level 2 was removed with a mattock and shovel. The soil was full of weathered chert and several small cinder lenses. The level was worked down to approximately .20 to .40 feet above the buried A stratum, exposed in a small window on the south side of the unit. Due to a considerable amount of cinders uncovered in the A stratum, excavation of Level 2 continued by carefully peeling back the clay fill from the top of the cinder stratum. Level 3 consisted of the cinder stratum resting on top of a hard, compact dense subsoil clay. The cinders at the south end of unit were loose and extended deeper than .20 feet. Compact cinders continued to the north end of the unit, and loose cinders were thicker at this end as well. Unlike the north end of the unit, in the south end the loose cinders were mixed with a more dark organic soil. Because the cinders were different in texture and thickness, the compact cinders were removed as Level 4. The cinders and soil of Level 4 were softer and deeper toward the north end of the unit and followed the slope down to the wall line of the structure. It was obvious the cinders were dumped on the slope along the edge of the carriage house.

There was also evidence that some of the cinders were dumped while still hot, since patches of fire-reddened soil were found under the cinder deposit. It is believed these cinders were carried from the house to begin to fill around the edge of the carriage house. Excavation of Unit 1 ended with Level 5, as clay subsoil was uncovered beneath burned soil at the base of Level 4 and the top of Level 5 (Figures 31 and 32).

Unit 2

Unit 2 was a 3 by 3 foot square located along the north wall of the carriage house around one of the brick piers. Level 1 was taken down to what appeared to be a soil change between the interior and the exterior of the structure. While the soil inside the



Figure 31. Photograph of Unit 1, Level 4, west profile.

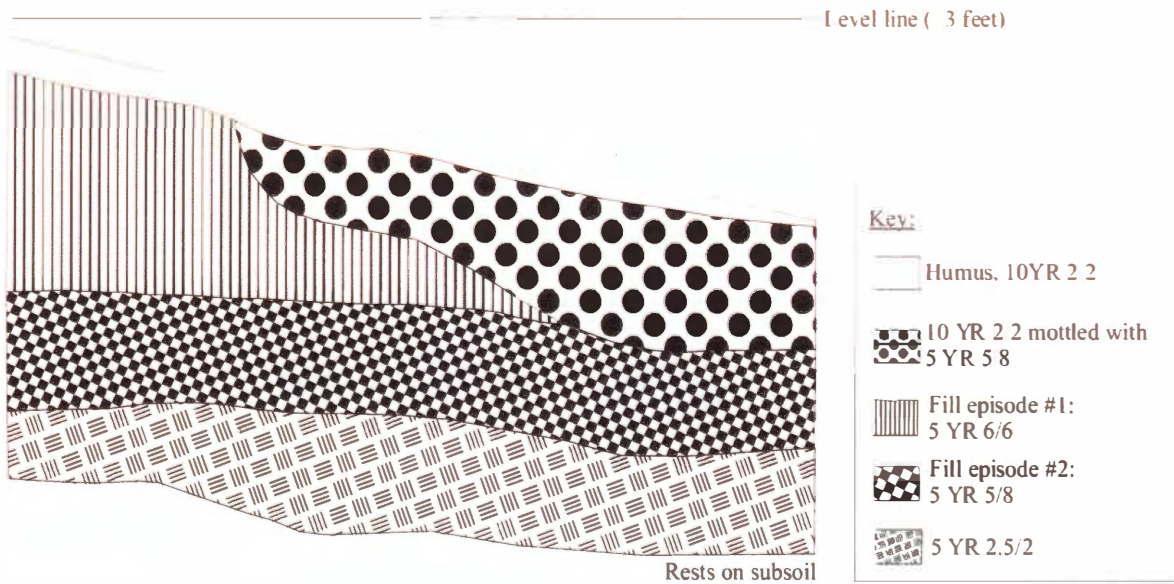


Figure 32. Profile drawing of Unit 1, west elevation.

structure was loose and dark brown in color, the exterior soil was darker and more compact. A cinder deposit was also located in a possible builder's trench on the west side of the brick pier. This deposit, recorded as Feature 2, was removed and found to be a shallow pocket of cinders. Due to the soil differences observed in Level 1, Level 2 was removed in two areas, inside (south) and outside (north). The level was terminated outside the building when the soil became much harder and more compact. The soil inside the structure continued to be very loose, lighter in color, and more friable. This was perhaps due to a disturbance by a 20th century metal water pipe located nearby. Level 3 consisted of a much harder packed floor of the same light brown soil on the interior of the structure. On the north side of the structure, soil was removed until the soil color changed to a light brown similar to that found in the interior. Level 4 was removed on both the inside and outside of the wall line until the brown soil characteristic of the south side extended to the north portion of the unit. The brown soil was different in the southwest corner of the unit where there was also a red clay lens. On the east and north sides, the soil was much looser and contained cinders and pebbles. There was also very loose soil around the brick pier, especially on the north side. This area was designated Feature 3, a builder's trench around the pier. Two iron railroad spikes were removed next to the pier, as were several large pieces of metal. Level 4 was removed from the exterior portion of the unit down to the C horizon, or subsoil. This revealed most of the outline of Feature 3. In the south side of the unit, the stratigraphy of the level was confusing. Level 4 revealed a large rock buried near the brick pier. This, along with the general softness, color, and apparent disturbed nature of the soil suggested that Feature 3 was indeed a builder's trench; however, the edge of the feature could not be discerned.

A red clay deposit and a pavement of small rocks were also present in the southwest corner. Excavation of the unit ceased when Level 5 was taken down to the clay subsoil, or the C horizon.

Unit 3

Unit 3 was located in the center of the structure roughly in line with units 1 and 2. Removal of Level 1 revealed rotted wood approximately .10 feet under the surface. The wood, which was oriented east-west, appeared to be cedar fence posts as nails and wire were found in a member on the south side of the unit. The humus of Level 1 was very dark and appeared quite deep in places. Lighter brown soil became apparent beneath the dark humus, and this was also removed as Level 1. The lighter soil contained pea-sized gravel in some areas. The wood members rested on the lighter brown soil and the humus covered them. Level 2 was taken down to brown subsoil except for the dark, soft soil around the brick footer. This was designated Feature 4. Level 3 was removed .10 to .20 feet to uniform brown soil with no artifacts but containing a large number of small rocks, similar to those found in Unit 2. This is apparently gravel from the macadamized street that had washed in under the building. Dense clay subsoil was reached at approximately .53 feet below the ground surface.

Unit 4

Unit 4 was located at the west end of the structure to collect data concerning the doorway that faced the street. The unit was also located here to test the ramp-like area to determine how this deposit was formed and its relationship to the west end of the carriage house. It was already known that the mounded area was a deposit of plaster and that much of the area consisted of clay fill like that found in Unit 1. Unit 4 was laid out to

include the east end of the brick pier in the center of the west wall line of the building.

Level 1 was a thin layer of recent humus underlain by dark brown loam. Plaster was also exposed immediately under surface vegetation in the southeast corner. The plaster appeared to be isolated to the east corner as troweling over .20 feet in the northwest corner did not expose it. The brick pier in the west profile was also exposed. Level 2 involved troweling back from the edge of the plaster and following it west until a change in color was evident. The plaster stratum continued under the brown loam but was scattered and more like mortar in appearance. Time restraints prevented further excavation of this unit.

Unit 5

Unit 5 was placed at the northeast corner of the carriage house outside the wall line to see if a brick concentration, visible on the ground surface, represents the remains of a chimney. Seven levels were removed from the unit, with the last level approximately .60 below the ground surface in the deepest area. Level 1 consisted of dark brown humus. Whole bricks were exposed immediately beneath the surface in the northern portion of the unit, with at least three bricks appearing to have been intentionally laid flat. The brick concentration was designated Feature 6, and was excavated accordingly. Level 2 consisted of moderately dense clay loam. The level was taken down to a darker, softer soil initially exposed along the west profile. There was a noticeable concentration of artifacts located on the western edge of the unit as well, and construction materials including cinderblock, plaster, and mortar were found in the northern half of the unit. Levels 3 and 4 were uniform in soil color and texture. Dense brown clay characterizing these levels was troweled away, revealing large chunks of

asphalt in close proximity to Feature 6. Asphalt was also uncovered in the southwest portion of the unit with the excavation of Level 5. Cinders were found uniformly within the dense clay of the level, and a concentration of coal was present in the western half of the unit. Level 6 exposed black soil mottled with yellow-red clay with artifacts recovered only from Feature 6 and the northeast corner. Due to the complicated stratigraphy of unit and time constraints, excavation ceased with the removal of Level 7. As the buried A horizon was uncovered in the northern half of the unit, only the northwest corner was excavated to subsoil for soil profiles.

Unit 6

Unit 6 was placed at the southeast corner of the structure to include areas both inside and outside the east wall line. The unit also exposed the north end of the load-bearing pier at the southeast corner of the building. The stratigraphy of Unit 6 was complex. Level 1 revealed a concentration of shale along the south profile. A dark mottled brown, yellow, and red clay loam surrounded the shale and was scattered on the east side of the unit. The soil along the west profile was a strip of dark brown loam, the remains of the sill on the east side of the building. Pieces of rotten wood and chunks of mortar were also present in this deposit designated Feature 5. Level 2, removed after the excavation of Feature 5, consisted of silty loam. The northwest corner of the unit was excavated as Feature 5. Level 3 revealed cinders, scattered brick, and rock. A large slab of concrete was also revealed in the northeast corner of the unit. As the concrete obstructed the eastern half of the unit and was too large and heavy to be removed, excavation stopped at the base of Level 3.

Features

Feature 1

Feature 1 was uncovered during the excavation of Unit 1 at the base of Level 1. The feature, located in the south central portion of the unit, is characteristic of a root disturbance. The dimensions of the feature were 1.9 feet north-south and 1.3 feet east-west. Artifacts recovered in Feature 1 included a wire nail, a window glass fragment, and the partial shell of a walnut. This is believed to be a modern disturbance.

Feature 2

Feature 2 was a cinder concentration located within Unit 2 at the base of Level 1. Located just west of a brick footer supporting the north wall of the structure, the feature contained several wire nails and fragments of window glass. This feature is also believed to be a modern disturbance.

Feature 3

Feature 3, designated as a builder's trench for a brick pier, was located in the western portion of the Unit 2 at the base of Level 4. Builder's trenches were dug during construction to provide a solid, level surface for the foundation of a structure. The builder's trench fill was comprised of moderately loose, dark gray soil mixed with rock and cinders and measured approximately 1.8 feet north-south and 1.4 feet east-west. The stratigraphy of the feature suggests that the trench was dug through loamy clay to subsoil on which the bricks were laid. Associated artifacts included a metal plumbing pipe, and miscellaneous sherds of glass and ceramics. The presence of these artifacts suggests that the trench was likely not backfilled after construction of the building was complete, and the open trench was filled with soil and artifacts that accumulated under and around the

building.

Feature 4

Feature 4 represents a builder's trench revealed in Unit 3, Level 3. The trench is located around the brick pier centrally located on the west wall of the structure. The pier was placed on a layer of dense yellow red clay. The dimensions of the feature are 2.6 feet north-south and 1.2 feet east-west. The pier was set so that the bottom bricks were resting on a layer of mortar on the southwest and southeast sides. A small amount of cinders were present in the southwest corner of the feature; otherwise, no associated artifacts were recovered.

Feature 5

Feature 5 was comprised of wood remnants found along the west profile approximately 1.1 feet towards the center of Unit 6. The wood was uncovered in the silty loam of Level 1. Bricks of the northeast load-bearing corner pier of the east wall were lying directly on the bottom of the feature and wood, possibly remnants of a sill, extended from the west profile of the unit. The dimensions of the feature were 3 feet north-south and 1.1 feet east-west. Artifacts associated with the feature included wood, window glass, nails, asphalt roofing shingles, mortar, brick, and land snails.

Feature 6

Feature 6 represents a brick concentration resting on the moderate dense clay loam of Unit 5, Level 2. It was thought that this concentration was an intentionally laid architectural feature such as a chimney base; however, after excavating both the unit and feature, there was no evidence that the brick concentration was intentionally laid, nor

were there any cinders or coal found in association with the feature that would suggest a chimney was located in this corner of the building.

Feature 7

Feature 7 is a builder's trench for a load-bearing brick pier located in Unit 4. The pier rests on clay fill at the base of Level 3. The builder's trench indicates that the clay fill was dug out for the placement of the pier, and unlike the fill encountered in Unit 1, the clay fill here precedes the construction of the carriage house. The dimensions of the trench were 2.2 feet north-south and 1.9 feet east-west. A wire nail was recovered from the feature (Figures 33 and 34).

Brick piers

The 13 brick piers of the McBrearty carriage house foundation were not assigned individual feature numbers as the piers themselves were not excavated and in several cases, they are only partially exposed on the surface. Two types of piers were utilized in the construction of the carriage house. The first type, the rectangular pier, is laid with alternating rows of stretcher and header bricks. The second type, the load-bearing pier, is similar to the rectangular pier, as it consists of alternating rows of stretcher and header bricks; however, an additional row of stretcher bricks extends from the end of the rectangular portion, giving the pier an L-shaped appearance. This type of pier is used to support the four corners of the structure, and also comprises the east and west ends of the central sill. All 13 piers are constructed of end-cut, machine made bricks. These bricks were invented in 1888, but did not become widespread in Knoxville until 1905 (Greene 1992).



Figure 33. Photograph of Unit 4, Level 2, showing Feature 7.

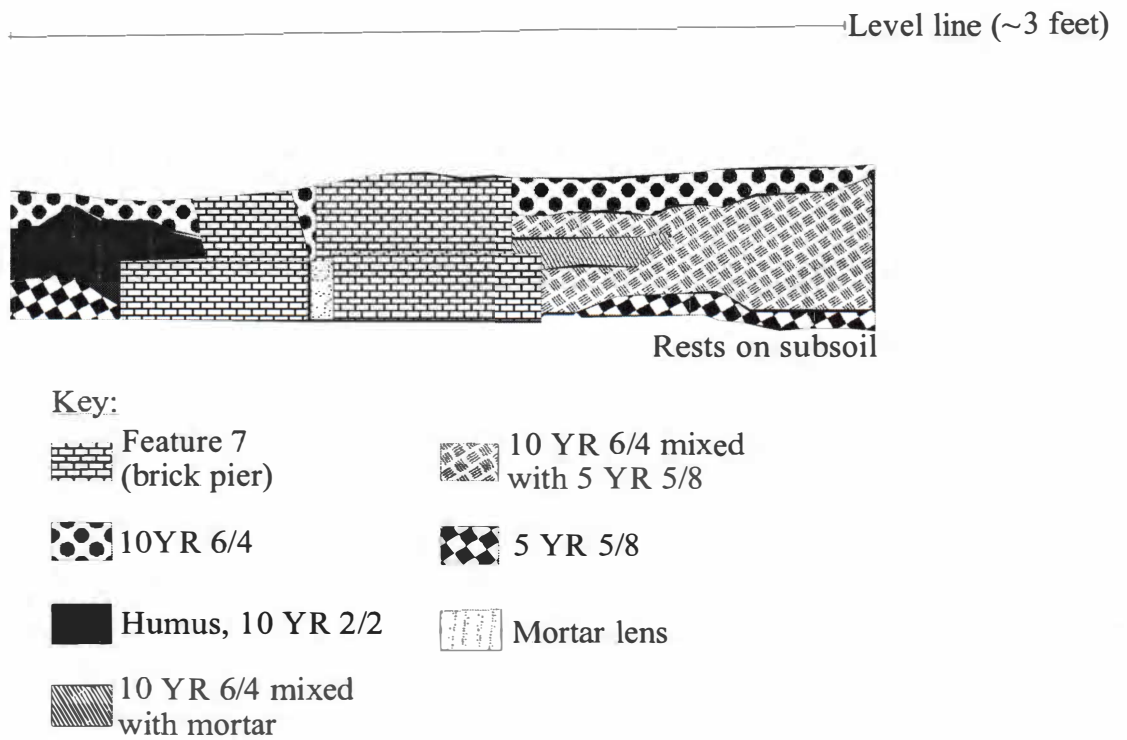


Figure 34. Profile drawing of Unit 4, eastern elevation, showing Feature 7.

CHAPTER 4. CULTURAL MATERIAL

All cultural material recovered during excavations at the McBrearty site, with the exception of gravel, coal, and cinders, were retained for analysis. The artifacts were transported to the University of Tennessee Historical Archaeology Laboratory where they were processed. Processing included the washing, sorting by material, and cataloguing of artifacts, which was accomplished by the students in the lab under the direction of the author and the author herself. After processing, the material was counted, weighed or measured where appropriate, and was assigned to a functional level of identification when possible.

Artifact Analysis

Analysis of the artifacts was based on a modified version of Stanley South's (1977) classification system. While South's system is widely accepted and fairly easy to use, it is designed to classify artifacts recovered on 17th, 18th, and early 19th century sites. Since the McBrearty carriage house was constructed after 1892, not all of the assemblage can be classified according to South's scheme. Therefore, later materials such as plastics, plumbing, and electrical parts have been classified to South's group level, and where possible, have been assigned to an intuitive functional class based on material and form. South recognizes eight functional groups in his classification: 1) Kitchen Group, 2) Architectural Group, 3) Furniture Group, 4) Clothing Group, 5) Arms Group, 6) Personal Group, 7) Tobacco Pipe Group, and 8) Activities Group (South 1977).

The Kitchen Group consists of items used in the preparation, service, consumption, and storage of food and beverages. This group includes ceramics, container glass, glassware, tableware, and miscellaneous kitchenware. Medical and

household chemical containers are included in this group as well as storage container lids and utensils. Modern materials included in this group are plastic food wrappers and styrofoam vessels.

The Architectural Group includes materials used in the construction of domestic and utilitarian structures. Included in this group are heavy construction materials such as brick, mortar, and concrete, as well as screws, nails, window glass, and other hardware and fasteners. Also included in this group are modern materials such as electrical materials and plumbing related artifacts.

The Furniture Group includes lamp chimney glass, shelving, mirror glass, and functional and decorative hardware belonging to furniture such as drawer pulls, cabinet hooks, and upholstery tacks.

The Clothing Group includes artifacts associated with the manufacture and use of apparel. The group includes items such as pins and needles used in the manufacture and repair of clothing, and apparel items worn on the body such as buttons and buckles.

The Arms Group includes firearm supplies and equipment such as gun parts and ammunition.

The Personal Group includes items carried by a person or belonging to an individual. These are typically grooming items, writing implements, jewelry, coins, and keys.

The Tobacco Pipe Group includes tobacco pipes, tobacco products, and all related materials associated with smoking.

The Activities Group includes many items that cannot be placed into other groups. This category comprises a wide variety of items such as toys, construction tools,

stable and barn materials, miscellaneous hardware materials, fencing materials, farming and gardening tools, and automotive parts. Modern materials in this group include plastics and unidentifiable metal artifacts. Material within this group is useful in that it often indicates non-domestic activities that were taking place in a given area.

In addition, faunal remains consist of any portion of the skeleton of mammals, birds, fish, reptiles and mollusks, representing both natural occurrences and food-related remains. Analysis of the faunal remains was done by Clay Barry, a zooarchaeology graduate student at the University of Tennessee, Knoxville.

A total of 1,904 artifacts were recovered from test units, surface collections, and posthole tests at the McBrearty site. This includes all classes of artifacts as well as faunal materials. Their representation according to group category is: Kitchen Group (N = 414, 21.74%), Architectural Group (N = 1262, 66.28%), Furniture Group (N = 1, 0.05%), Clothing Group (N = 1, 0.05%), Personal Group (N = 2, 0.11%), Tobacco Pipe Group (N = 5, 0.26%), Activities Group (N = 137, 7.20%), and faunal remains (N = 82, 4.31%). No artifacts were recovered belonging to the Arms Group.

Kitchen Group

The Kitchen Group consists of ceramics (N = 54, 13.04%), container glass (N = 336, 81.16%), and other miscellaneous kitchen related items (N = 24, 5.80%).

Ceramics. Recovered ceramics include whiteware (N = 32, 58.18%), porcelain (N = 13, 23.64%), unidentifiable earthenware (N = 7, 12.73%), and stoneware (N = 3, 5.45%).

The ceramic assemblage is typical for a late-19th to 20th century occupation (Worthy 1982), which would be expected at the McBrearty site. The most frequently

occurring ceramic is whiteware, which became popular in East Tennessee around 1830 and continues to be used today with modern glazes. Undecorated sherds are the most common (N = 20, 62.5%), while decal decoration is also well-represented (N = 12, 37.5%). Vessel form is indeterminable in approximately a fourth of the whiteware assemblage (N = 7, 21.88%), while the majority of those identified are classified as plates (N = 13, 40.63%). The remainder is distributed between bowls (N = 9, 28.12%), saucers (N = 2, 6.25%), and flatware (N = 1, 3.12%).

Utilitarian wares are represented by three stoneware sherds from hollow ware vessels. Surface treatment on the stoneware consisted of salt glazing. While salt glazing is common on utilitarian vessels as early as the 1780s, this surface treatment technique persists well into the 20th century (Worthy 1982).

Container Glass. The overwhelming majority of the container glass present at the McBrearty site consists of indeterminate bottle or jar fragments that cannot be placed into specific functional groups. The majority of the sherds were colorless (N = 241, 71.73%) and the method of manufacture could not be determined. Other colors were green (N = 32, 9.52%), amber (N = 25, 7.44%), blue green (N = 14, 4.17%), blue (N = 12, 3.57%), white or milk (N = 6, 1.78%), pink (N = 4, 1.19%), yellow (N = 1, 0.3%), and purple (N = 1, 0.3%). Soda, beer and liquor bottles, medicine bottles, food jars, Mason canning jars, tumblers, and other glassware were also identifiable in the container glass assemblage. The assemblage consists mostly of indeterminate vessel parts (N = 237, 70.53%) or body fragments (N = 63, 18.75%) with very few bases or finishes that allow a determination of method of manufacture or function. Owens scars on the base of two vessels (1903+), two solarized amethyst fragments (1880-1915), and

enameled labels on several soda bottles (1935+) indicate refuse disposal from the late 19th through mid-20th centuries. As can be seen in Figure 35, there is a distinct concentration of curved glass in the northeastern corner of the area, with almost none in the southern half of the area.

Kitchenware. A wide assortment of kitchenware was recovered, including two molded plastic cups, a candy bar wrapper, six melted glass fragments, eight zinc canning jar lid fragments, a complete zinc canning jar lid, one plastic screw top lid liner, and a pop-top and three pieces of aluminum from a beer can. This material dates to the mid- to late 20th century occupation of the site.

Architectural Group

The Architectural Group consists of nails (N = 569, 45.08%), window glass (N = 247, 19.57%), bricks (N = 73, 5.78%), drain pipe (N = 11, 0.87%), hardware (N = 16, 1.27%), other fasteners (N = 12, 0.95%), electrical materials (N = 4, 0.32%), door lock parts (N = 3, 0.24%), other construction materials (N = 296, 23.45%), and iron fragments (N = 31, 2.46%).

Nails. Nails include wire (N = 516, 90.69%), fully machine cut (N = 16, 2.81%), wrought (N = 1, 0.18%), or indeterminate (N = 36, 6.32%). As can be seen in Figure 36, there is a distinct concentration of nails in the area of the eastern half of the area, with almost none in the northwestern or southwestern corners of the structure.

The nails were analyzed according to condition, categorizing them as clinched, pulled, or unaltered. Clinched nails include those bent at a ninety-degree angle. Clinching is typically done after driving the nail partially into the wood, and clinched nails usually occur archaeologically as a structure decays. Pulled nails include those that

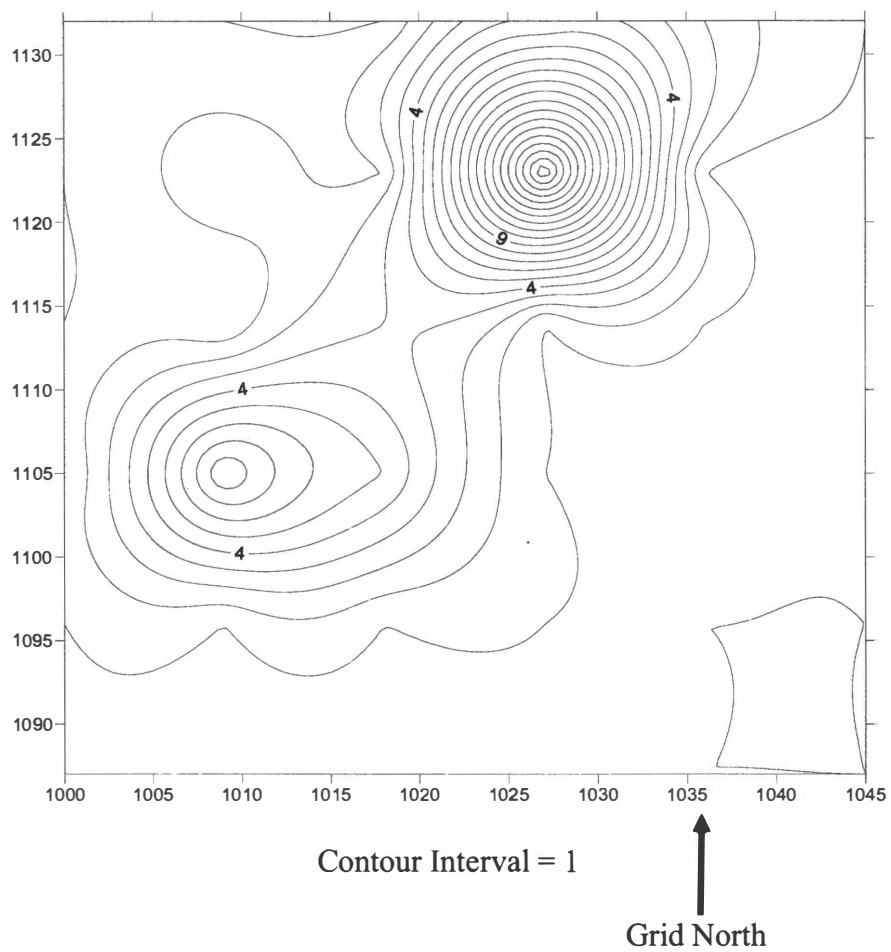


Figure 35. SURFER plot of the distribution of curved glass recovered from PHTs.

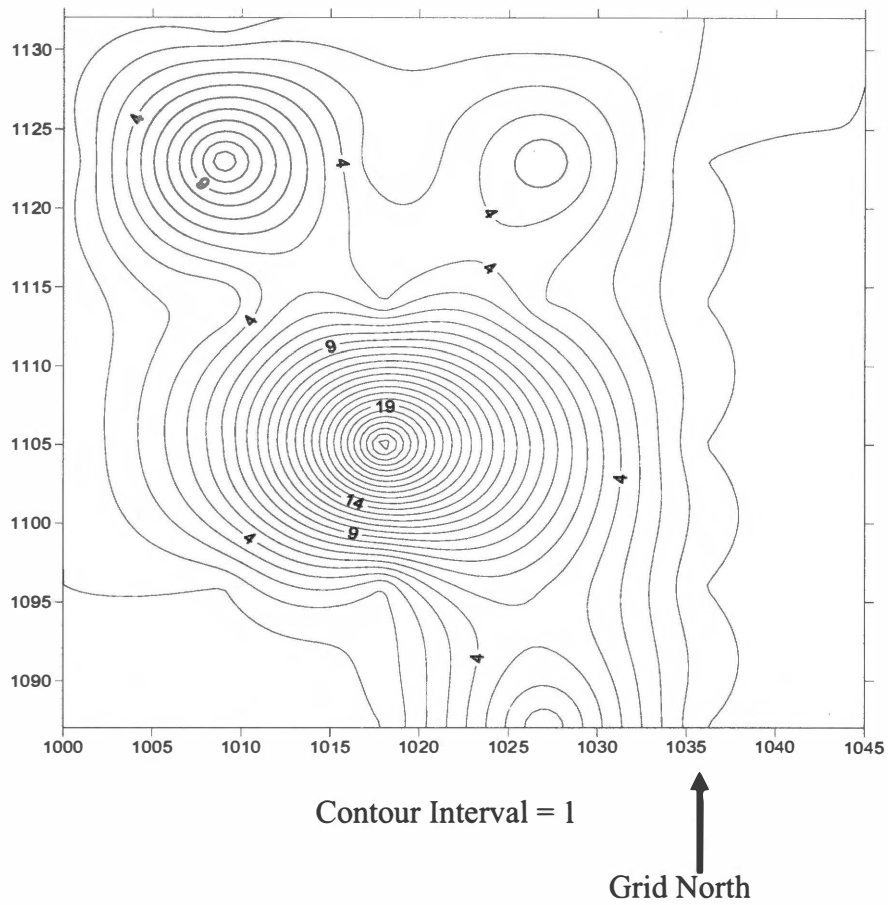


Figure 36. SURFER plot of the distribution of nails recovered from PHTs.

are bent, but not as fully as clinched nails. These are seen archaeologically as discarded nails, either during use resulting from damage, or later from the dismantling of a structure. Unaltered nails are those that are not damaged and have either been dropped during use or result from the decay of a structure in place (Young 1991).

The function of the nails can be analyzed by examining the pennyweight (d) of the unbroken nails in the assemblage. The function of a specific nail may be determined based on its size (Walker 1971). This information, can in turn, be used to determine how a wood building was constructed. Walker (1971) provides a list of common pennyweight sizes and their likely uses within a structure:

2d	attachment of wooden shakes, metal roofing, flashing and lath in plaster walls
3d	same as above
4d	same uses as above and also moulding and interior finishes
5d	moulding, finishing work and ornamentation
6d	light framing, clapboard siding and bevel siding
7d	same as above and also flooring
8d	flooring, furring strips and interior fittings
9d	boarding, flooring and interior fittings
10d	same as above
12d	wooden studding and framing
16d	wooden studding, heavy framing and rafters
20d+	heavy framing

Size in pennyweight was recorded on 296 complete nails. Table 4 illustrates the number of complete nails found in each length category and the percentage each pennyweight is represented in the archaeological assemblage of the site.

As expected, there was a substantial number of 8d and 9d nails (N = 90, 30.41%). These nails are typically used for flooring, boarding, and interior fittings. As the 1917 Sanborn map indicates that the carriage house was of frame construction, it is not surprising that these nails are found at the McBrearty site. The high frequency of 10d or

Table 4. Percentage of nails by pennyweight found at the McBrearty site.

Nail Length	N	%
1.00 (2d)	36	12.16
1.25 (3d)	30	10.14
1.50 (4d)	13	4.39
1.75 (5d)	9	3.04
2.00 (6d)	17	5.74
2.25 (7d)	17	5.74
2.50 (8d)	47	15.88
2.75 (9d)	43	14.53
3.00 (10d)	4	1.35
3.25 (12d)	11	3.72
3.50 (16d)	10	3.38
>3.50 (16d+)	59	19.93

larger nails (N = 84, 28.38%) is also expected as these nails are typically used in heavy frame construction, rafters, and wooden studding. Furthermore, there is evidence that the original roof was shingled with wooden shakes as there is a substantial number of 2d and 3d nails (N = 66, 22.30%) to be replaced later with asphalt shingles due to the occurrence of 4d wire roofing nails (N = 13, 4.39%).

The absence of finishing nails in the archaeological assemblage suggests that the building was not constructed for domestic use. As these nails were commonly used for affixing trim to the interior and exterior of the structure, the lack of ornamentation suggests that the building did not serve as a residence, but had a more utilitarian function.

Frequencies of nail conditions were also determined as it has been demonstrated that such frequencies exhibit patterns which can indicate whether the building deteriorated in place, was torn down, or the site is actually a dump of discarded wooden building material (Young 1991). During the process of construction, some nails are

lost at the site. After construction, some of these nails may be cleared from the area, while others enter the archaeological record as unaltered nails. Pulled nails are also discarded at the construction site as damaged nails. If a structure was allowed to deteriorate at its original site, nails would fall to the ground as the wood rotted or the structure collapsed.

When a building is destroyed, nails are pulled from wood using either a crowbar or claw hammer, or entire boards are pulled from the building. Often large portions of walls or roofs are removed from a building and carried to a dump site. At this point, pulled nails enter the archaeological record at the dump site as the wood rots and pulled and clinched nails left in the wood enter archaeological context. For these reasons, dump sites are characterized by a large number of pulled and clinched nails. At a building site where a structure was razed, the nail assemblage should be characterized by a significant proportion of pulled and unaltered nails, with relatively few clinched nails. At a site where the structure was allowed to deteriorate, the assemblage should be characterized by significant numbers of clinched and unaltered nails with relatively fewer pulled nails (Young 1991).

When this pattern is compared to the observed frequencies of unaltered, pulled, and clinched nails found at the McBrearty site (Table 5), it is probable that the building did not rot in place, but was rather dismantled. Rather than stack the refuse on the site, the high number of unaltered nails and the lower frequencies of pulled and clinched nails suggests that the building materials were quickly removed from the site after the building was torn down. Therefore, the high frequency of unaltered nails results from loss associated with construction or from the long term storage of nails in the building.

Table 5. Observed frequencies of unaltered, pulled, and clinched nails found at the McBrearty site.

Condition	N	%
Unaltered	324	59.02
Pulled	193	35.15
Clinched	32	5.83

Window Glass. Two hundred and forty-seven sherds of window glass were analyzed for color and thickness. The thickness of each fragment was then dated using the Moir (1987) formula. Recovered fragments ranged in thickness from 1.04 to 3.78 millimeters with a mean thickness of 2.27 mm. Unfortunately, Moir's formula is only useful until the early-1920s due to standardization in the manufacture of window glass and regulation of thickness by the federal government. This means that any fragment measuring over 2.5 mm in thickness cannot be reliably dated. Sixty-nine sherds of window glass dating after 1923 were recovered. If these are excluded, the mean date for the assemblage is 1884.2. However, the exclusion of 28% of the sample renders these data statistically invalid. When these dates are included, a mean date of 1895.07 is obtained for the assemblage.

By examining concentrations of window glass, it is possible to ascertain if a structure had windows and in which walls of the building they were located (Table 6). When the frequencies of window glass were analyzed, two areas around the building had higher concentrations of window glass than the other areas. Out of the 247 sherds of window glass recovered at the McBrearty site, 103 sherds (41.70%) were recovered in Unit 2, levels 2 and 3. High concentrations of window glass were also recovered from PHT 10 (N = 34, 13.77%), located at 1105N 1018E directly to the north of Unit 1. This

Table 6. Concentrations of window glass found at the McBrearty site.

Location	N	%	Mean Date
Unit 1	24	9.72	1895.07
Unit 2	103	41.70	1905.37
Unit 3	10	4.05	1892.52
Unit 4	18	7.29	1889.44
Unit 5	26	10.53	1891.6
PHT 7 (1096N 1027E)	2	0.81	1908.4
PHT 10 (1105N 1018E)	34	13.77	1873.24
PHT 11 (1105N 1027E)	1	0.40	1902.2
PHT 14 (1114N 1018E)	1	0.40	1882.8
PHT 23 (1132N 1027E)	2	0.81	1866.82
Surface (NE Quad – Exterior)	10	4.05	1911.12
Surface (SE Quad – Interior)	3	1.21	1899.7

suggests that windows were located on the north and south walls of the structure. Other frequencies were as follows: Unit 1 (N = 24, 9.72%), Unit 3 (N = 10, 4.05%), Unit 4 (N = 18, 7.29%), Unit 5 (N = 26, 10.53%), and Unit 6 (N = 14, 5.67%). When plotted (Figure 37), there is a distinct concentration of flat glass in the western half of the area, with almost none in the northeastern and southeastern corners of the area.

Bricks. Recovered brick fragments include both handmade specimens and machine-made types. The majority of the sample, 97.26%, were machine-made (N = 71). Handmade brick fragments (N = 2) comprised only 2.74% of the sample. In Knoxville, machine-made types replaced handmade bricks generally by the end of the 19th century (Greene 1992). Since the McBrearty carriage house was undoubtedly built after the construction of the house in 1892, a higher frequency of machine-made bricks is expected.

Drain Pipe. Eleven pieces of ceramic drain pipe were recovered from surface collections and PHT 8 located at 1096N 1037E. This type of pipe dates to the early 20th

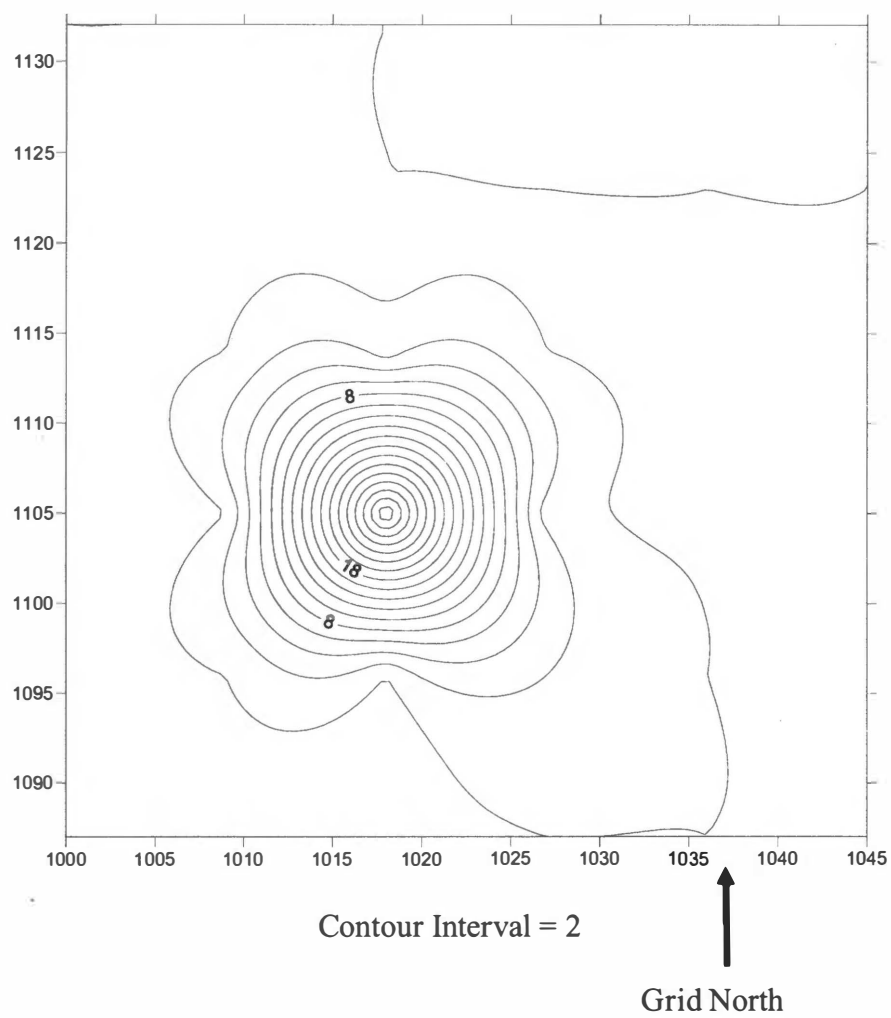


Figure 37. SURFER plot of the distribution of flat glass recovered from PHTs.

century and may have been made by the Southern Clay Manufacturing Company, although it is unmarked.

Construction Hardware. Construction hardware artifacts include 12 iron pipe fragments, an iron pipe coupler, a hose bracket, two complete iron pipes, and a metal door hasp.

Other Fasteners. Seven modern screws were recovered from units 4 and 5. All seven screws are complete and date after 1846 due to the presence of a gimlet end. Prior to 1846, screws were manufactured with blunt, flat tips (Sloane 2004). The screws could have been used in nearly any type of construction or modifications done to the carriage house.

Five iron railroad spikes were also found in Unit 2. The function of these spikes on this site is unknown.

Door Lock Parts. Three door lock parts, a lock, hinge and metal door hasp, were found at the site. The lock and hinge were found together during the controlled surface collection of the yard, with the lock still fastened to the hinge. The metal door hasp was recovered from Unit 4, Level 2. All three door parts date to the later 20th century occupation of the site.

Electrical Materials. The four pieces of electrical materials found at the McBrearty site include three wire insulator fragments and a piece of electrical wire. Since electricity was not available until the late 19th century at the site, a *terminus post quem* for their occurrence can be established. The wire insulator fragments were found in PHT 16 and Unit 6, Level 2, and the electrical wire was recovered during the controlled surface collection of the rear yard.

Other Construction Materials. A large amount of material falls under this category. This includes 117 asphalt shingle fragments, 76 roofing paper and tar fragments, 62 chunks of mortar, six plaster fragments, three pieces of roofing slate, three chunks of marble, two chunks of gravel covered in asphalt, two concrete or cement chunks, and one firerock. It is documented on the 1917 Sanborn map that the McBrearty carriage house was roofed with asphalt shingles. The recovered fragments probably resulted from the destruction of the structure. The shingles and roofing paper fragments were heavily concentrated in the northeast corner of the site, in PHT 24 located at 1132N 1039E, and in Unit 2, along the north foundation line of the carriage house.

The three slate roofing tiles were likely deposited at the rear of the yard when the roof of the McBrearty home was replaced during restoration. The proveniences of these tiles as well as large amounts of construction and domestic debris found in the rear yard during surface collections suggest that the tiles were dumped there along with other trash in the 20th century.

Iron Fragments. There were 31 iron fragments found at the McBrearty site. These fragments are presumably nails judging from their shape, but they cannot be classified because of extensive rusting and breakage.

Furniture Group

The Furniture Group consists of one decorative brass furniture knob recovered from the loose cinders lens in Unit 1. The knob, which dates to the 20th century, appears to be from a small drawer; however, its function cannot be related to a specific piece of furniture.

Clothing Group

The Clothing Group consists of one glass button recovered from Unit 5, Level 6. The button is white with an indiscernible color design in the center. Glass buttons, which date to the late 18th century, were manufactured predominantly in Czechoslovakia or Bohemia (Pool 1987).

Personal Group

Only two artifacts included in the Personal Group were recovered at the site. Two pieces of a slate pencil were found in Unit 1, Level 3 in the loose cinder stratum. These pencils, crafted from natural slate beginning in the 17th century, were sold in America until the latter part of the 19th century (Gomez 2000).

Activities Group

A number of artifacts in the Activities Group were recovered, including toys (N = 4, 2.92%), stable and barn (N = 2, 1.46%), construction tools (N = 3, 2.19%), fencing (N = 18, 13.14%), hardware (N = 4, 2.92%), and miscellaneous (N = 106, 77.37%).

Toys. The toys include one clay marble, two unglazed bisque doll fragments, and a porcelain doll sherd. Clay marbles, predominantly manufactured between 1870 and 1920, were a common toy in the late 19th and early 20th centuries. The marble appears to be handmade due to its lack of decoration and symmetry. As the marble was recovered in the layer of loose cinders in Unit 1, Level 3, it is most likely associated with activity in the home. The cinders were presumably removed from a fireplace within the home and dumped next to south wall of the carriage house.

Two unglazed bisque doll fragments, which date from the late 18th century until the early 20th century, were found in Unit 3, levels 2 and 3 (Noel-Hume 1969). A flesh-

colored porcelain doll fragment dates from the mid-19th century to the 20th century.

Stable and Barn. Stable and barn artifacts include a metal harness boss and a piece of a leather harness. The metal harness boss was found in Unit 2, Level 4 and the piece of harness was recovered during a surface collection of the northwest area of the yard outside the perimeters of the structure. Both the artifacts date to the late 19th and early 20th century.

Construction Tools. There were three construction tools recovered in units 1 and 2. The head of a small pipe wrench or clamp was located in Unit 1, Level 4, and two fragments from a flat handled tool, possibly a file or screwdriver, were found in Unit 2, Level 1. Both of these tools likely date to the later 20th century occupation of the site.

Fencing. Fencing artifacts recovered include 15 barbed wire fragments and 3 u-shaped fence staples. The barbed wire fragments date from the 1870s through the 20th century (Faulkner, per. comm.) The fragments are found predominantly in Unit 2, but several fragments were located the in the rear yard northeast of the structure. The u-shaped fence staples were recovered from PHT 11 and Unit 5, levels 2 and 3.

Hardware. Recovered hardware includes two large bolts and two small metal washers. This hardware likely dates to the later 20th century occupation of the site.

Miscellaneous. Miscellaneous artifacts include a copper fragment, two iron handles, 51 metal fragments of indeterminable function, a piece of galvanized sheet iron, 13 fragments of crimped sheet iron, five pieces of melted glass, a small unidentifiable fastener, three rubber fragments, a metal scoop, a tin lid fragment, eight plastic fragments, a stove pipe, four brass plates, a tin container fragment, and 13 bent metal wire pieces. None are datable and their functions could not be determined. They were

found throughout the six units, more heavily concentrated in units 2 and 3.

Faunal Remains

There are 82 faunal remains recovered from the McBrearty site. These include pig (N = 8, 9.76%), rat (N = 3, 3.66%), an abdominal vertebrae of a freshwater drum, a chicken femur, a mollusk shell fragment, land snail shell fragments (N = 29, 35.37%), a cleithrum from a smallmouth bass, an indeterminate fish bone, indeterminate mammal (N = 34, 41.46%), and indeterminate aves (N = 3, 3.66%).

Pig (Sus scrofa). Pig bones and teeth include a right deciduous second incisor, a partially erupted right first incisor, a left tibia, two thoracic vertebrae, a left femur, a right ischium and a left ilium. Sawing is evident on both the ischium and ilium.

Rat (Ratus ratus, Ratus norvegicus). Three remains representing two rat species were recovered at the McBrearty site. *Ratus ratus* remains included a right pelvis and right tibia, while a right mandible of *Ratus norvegicus* was recovered.

Indeterminate Mammal. Recovered mammal fragments include a right lumbar vertebra, three rib fragments, an indeterminate vertebra, a left scapula, a thoracic vertebra, three rib fragments, an indeterminate vertebra, a left scapula, a thoracic vertebra, and 27 unidentifiable bones.

Indeterminate Aves. Indeterminate ave bone fragments include a left metacarpel and an unidentifiable bone.

Since only 4.31% of the archaeological assemblage of the McBrearty site is faunal remains, this suggests that the carriage house did not serve as a primary residence. The small number of pig and chicken remains and the absence of cow bones suggest that food was not being prepared, eaten, or discarded in close proximity to the structure. For

this reason, it is likely that the faunal remains were deposited around the carriage house as a result of dumping, as it is known that trash and other household garbage was discarded at the rear of the property and behind the carriage house in the last decade of the 20th century.

CHAPTER 5. COMPARISON WITH OTHER STANDING STRUCTURES IN THE NORTH KNOXVILLE AREA

A short walk around Old North Knoxville and the Historic Fourth and Gill neighborhood reveals a number of outbuildings representative of different time periods, functions, and varying construction costs. While some of the outbuildings have been immaculately restored into garages and apartments for current homeowners, others are dilapidated and in horrible disrepair. Regardless of their condition, however, outbuildings in the Old North Knoxville and Fourth and Gill districts are important as they serve as three-dimensional representations of the 19th century plans discussed in Chapter 2. Instead of visualizing these structures in a flat, one-dimensional plane, the buildings can be examined from multiple angles, and as a result, numerous insights are gained regarding similarities and differences in primary methods of construction, the initial function of the buildings, and how and why the structures are transformed over time. Furthermore, by comparing these standing structures with the archaeological assemblage at the McBrearty site, potential clues can be gained regarding the construction of the McBrearty carriage house, how it looked upon completion, and what function the building served over time.

This chapter is divided into two sections. The first section provides an archival study of the history of the Parks house, carriage house, and garage, located in Old North Knoxville on the corner of Harvey Street and Scott Avenue. The Parks carriage house was selected based on its close proximity to the McBrearty site. In the second section, a carriage house located in the Fourth and Gill neighborhood is examined. This carriage house, referred to as the Johnson carriage house, is located at 911 Luttrell Avenue.

Unlike the Parks carriage house, which is extensively renovated, the Johnson carriage house remains relatively unchanged from its original appearance. For these reasons, the Parks and Johnson carriage houses are excellent for comparative purposes as they reflect two architectural extremes evident in carriage houses still present in North Knoxville neighborhoods today.

The Parks Carriage House

The Parks home is located at 505 East Scott Avenue, four houses west of the McBrearty site at the intersection of Scott and Harvey avenues. To the rear of the yard are two buildings, a carriage house, which currently serves as an apartment, and a frame garage primarily used for storage. The gable end of the carriage house faces Harvey Avenue, and the building has undergone extensive remodeling; however, the exterior is well preserved and most architectural elements, such as windows and doors, remain in their original locations (Figure 38). The presence of an addition on the western portion of the structure, evident by a shift from brick to concrete block foundation, is perhaps the most noticeable exterior indication of change to the original carriage house. Furthermore, notches for roof beams are present on the northern side, indicating a symmetrical hip roof once sat atop the structure.

The garage to the north of the carriage house has a concrete block foundation and other architectural elements that suggest it is of relatively modern construction (Figure 39). Unlike the carriage house, the garage is in great disrepair. Several of the windows are broken, the board siding is rotting on the exterior and the rear of the building is no longer present. Despite obvious differences in their age and levels of upkeep, the two buildings are similar in both shape and size suggesting that perhaps the garage was built

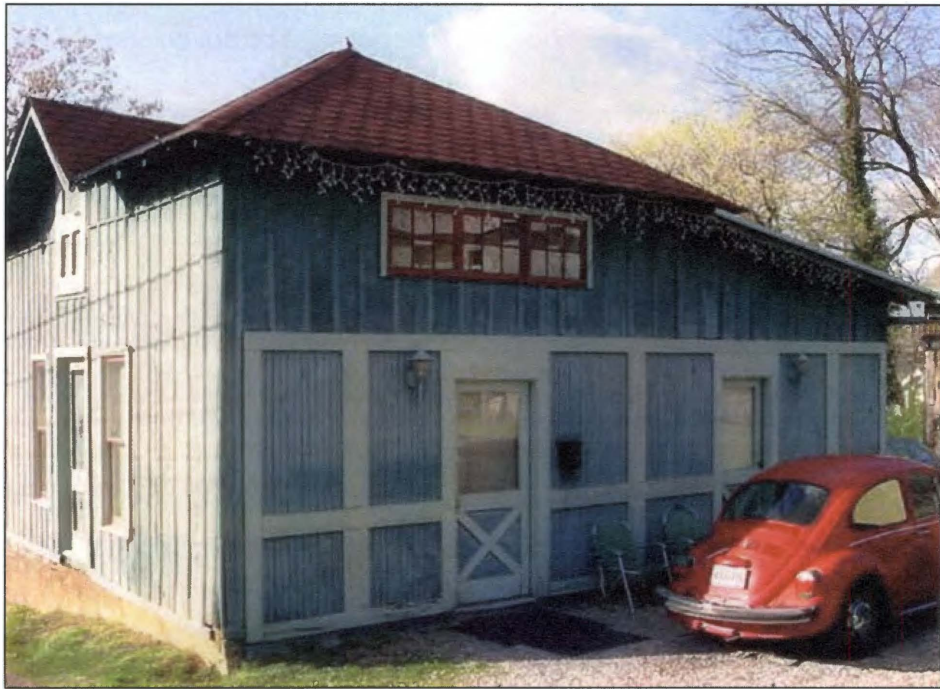


Figure 38. Parks carriage house, southern elevation.



Figure 39. Parks garage, eastern facade.

to replicate the style of the carriage house at a later date. The dimensions of the original portion of the carriage house are almost identical to those of the garage. The garage is only slightly larger at 20.1 feet wide versus a dimension of 18.3 feet wide for the carriage house.

The idea that the garage was built to mimic the style of the carriage house would not be outlandish considering the heavy influence of preservationist building codes established to protect the architectural integrity of the area. According to current guidelines of the Knoxville Metropolitan Planning Commission, the size and structure of all new outbuildings should use materials which correspond to the original primary buildings on the lot (Metropolitan Planning Commission 1992). As the garage is not original to the property, its architectural elements will not be examined in this thesis; however, since the two buildings do have some architectural and functional parallels, the similarities, as well as differences between the two buildings should not be dismissed.

Similar to the McBrearty house, the Parks house looks much like it did 150 years ago (Figure 40). A photograph of the home taken in 1916 archived in the Thompson Photograph Collection in the McClung Collection, stands testament to the house's almost original exterior (Figure 41). Among the only obvious stylistic changes to the dwelling is the absence of two Victorian style railings, one that ran along the entire roof line above the porch and first story, and another on the very top of the hip roof outlining a widow's walk. Today, the widow's walk is accessible from the attic, but metalwork no longer delineates its presence and the railing that once spanned the roof line is only visible on the south side of the house where it encases a balcony. All other architectural elements, including those of small and intricate detail, seem to be unchanged.

Prior to this investigation, little was known about the history of 505 East Scott Avenue. Marty, Marlene, and Cameron Parks, homeowners since 1996, have conducted some archival research on the property; however, as is often the case, learning the history of the home took precedence to that of any other structures located on the property. Furthermore, as the Parks home is in the same vicinity as the McBrearty house, 505 East Scott Avenue does not appear on a Sanborn map, or any other historic map, until 1917 (Figure 42).

From the Sanborn map alone, it is impossible to draw any conclusions regarding the age of the Parks dwelling and carriage house other than they were built prior to 1917. The map is helpful, however, as it provides a time frame for several architectural alterations to the carriage house, not evident in the 1916 photograph. The Sanborn map demonstrates that the concrete block addition was constructed prior to 1917.

Since maps are not particularly useful for dating the carriage house, perhaps the best indicator of when the structure was constructed is the architectural styling of the house itself. The house, distinctly Queen Anne Victorian, represents an academic style that was predominant in the late 19th century. Between 1880 and 1910, architectural pattern books were spreading the style through the country while expanding railroads helped make its pre-cut architectural details widely available. The home is categorized as a hipped roof with lower cross gables due to its pyramidal roof and three cross gables, one front-facing and the other two side-facing (McAlester and McAlester 2003). Typical of the Queen Anne style, the three gables are asymmetrically placed and two dormers, one wall dormer and one roof dormer exist on the second story. Also characteristic of the hipped roof Victorian house, a round, wooden tower with steeply pitched roof is

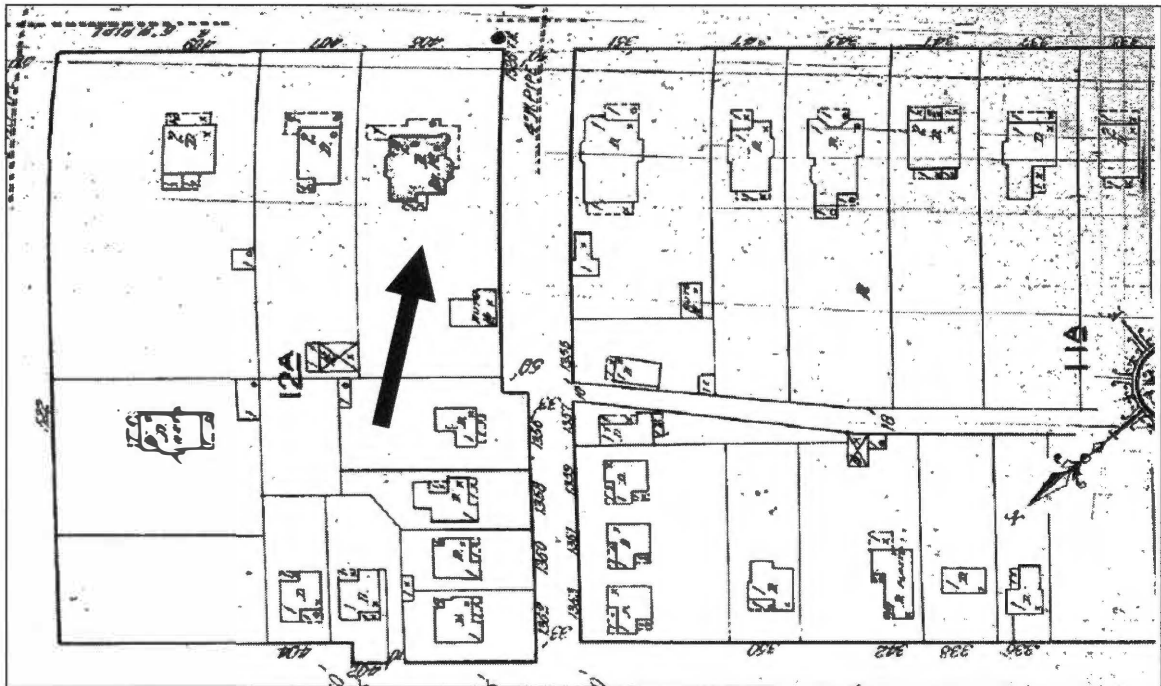


Figure 42. 1917 Sanborn Fire Insurance map with arrow pointing to the Parks property at 405 East Scott Avenue.

cantilevered out of the second floor at the southwest corner of the facade. An extensive one story porch accentuates the asymmetry of the house, extending along the west and south sides, while a large overhang creates covered parking on the east side of the house. A second story porch on the south side is present as is a small recessed porch in the front gable.

On the basis of its decorative detailing, the dwelling is categorized as Free Classic, a subtype common in 1890. Characterized by the use of classical columns as porch supports rather than delicate turned posts with spindle work detailing, the Free Classic subtype is the second most common type of decorative style, evident in 35 percent of Queen Anne houses (McAlester and McAlester 2003). Architectural elements on the house that fit the Free Classic decorative detailing subtype are porch support styles

that are grouped in units of two and raised on brick pedestals to the level of the porch railing, cornice-line dentils, and jack arches over palladian windows (McAlester and McAlester 2003).

Since wall surfaces were used as primary decorative elements, two types of materials are employed on both stories of the Parks home. While the dwelling's first story and foundation are constructed of machine-made pressed brick, the second story consists of a wood frame infrastructure covered by wood shingles shaped in a fishscale pattern. Like the Queen Anne style, the Shingle style was also popular between 1880 and 1900 (McAlester and McAlester 2003).

Unlike the style, shape, and decorative detailing of the house, which suggest a construction date between 1880 and 1900, the architectural elements found on the interior and exterior of the house tell a different story. Wire nails protrude from the structural beams and woodwork in the attic and also along the interior stairways. In Knoxville, these nails were common after 1890. Furthermore, the foundation and first story of the house are constructed of pressed face bricks rather than handmade or extruded brick. By 1882, pressed bricks were the main kind of brick used by Knoxville builders and remained the most popular brick in the area until ca. 1890 when they were replaced by extruded bricks (Greene 1992). It is possible that other types of brick were used in the house's construction although it is difficult to distinguish between manufacture types when bricks remain intact and covered with mortar.

It is interesting that the architectural materials used in the construction of the Parks house are of late 19th century commonality and manufacture. As the architect rumored to have built the home was of Swiss descent and wire nails were first utilized in

Europe, perhaps he had access to newer building technologies at a slightly earlier date than most Knoxville contractors. Furthermore, the bricks are of late 19th century invention; however, they resemble handmade brick, suggesting that they are early in the evolution of pressed, machine-made brick. Because these architectural elements would be relatively new innovations at the time of their use, the Parks house serves as an excellent example of turn-of-the-century architectural styling.

In order to narrow the date range to a single date of construction, a thorough search of Knoxville's archival resources was conducted. Most useful were Knoxville city directories housed at both the McClung Historical Collection in the East Tennessee Historical Center and the University of Tennessee Special Collections Library. As the Sanborn map indicates that the house was 405 East Scott Avenue rather than 505 in 1917, residency at 405 was traced using Knoxville city directories published prior to this time. In 1900, W.W. Demming, a lumberman, his daughter, Ethel A., a teacher at North Knoxville School, and son, Clayton, a boardsman, were listed as living in the house. Similarly, the house was occupied by the Demming family in 1898; however, city directories indicated that the home's address was 167 rather than 405. As the Demming family still occupied the home, and Ethel's signature is written in the brick penciling on front facade of the home in 1902, this suggests that the home simply changed addresses from 405 to 167 in 1898.

The house at 167 East Scott Avenue was traced back to 1894, when David Getaz, a Swiss architect rumored to have built the house, is listed as the primary resident. The house number again changes to 169 in 1893, and the home is simply listed as the northeast corner of Corta from 1890-1892. Again, despite numerous address changes,

Mr. Getaz remains the primary resident of the property. Because there is no listing for the northeast corner of Corta prior to 1890, it is probable that the house was constructed between 1889 and 1890. This date of construction fits nicely with stories provided by the Parks family, who suggest that Mr. Getaz completed the construction of the home during this year.

Determining the date for the carriage house is much more difficult as no direct evidence of the structure exists prior to 1917. Dating is further complicated by the extensive amount of remodeling evident on both the exterior and interior of the structure. The board and batten siding, although a popular exterior wall covering in the late 19th century, has likely been replaced as wear to the wood is minimal. Furthermore, two skylights were added to the half story of the structure, framing around the original windows and doors was replaced and the large doors that once would have provided for the passage of the carriage were framed over by boards to mimic the doors that once hung there. Even the brick foundation shows extensive remodeling as in some spots, cracks are filled in with concrete or pieces of ornamental brick which were obviously not part of the building's original foundation.

Perhaps most useful in determining a date for the carriage house's construction was a telephone interview with James Wampler, a restoration contractor and homeowner between 1990 and 1995 (Wampler, per. comm.). Mr. Wampler was responsible for the renovations to the carriage house which were completed during the time that he owned the dwelling. According to Mr. Wampler, the carriage house was architecturally unaltered when he moved into the home in 1990. As the carriage house was in bad disrepair, Mr. Wampler's original intention was to tear the structure down and rebuild it;

however, this was not possible as city zoning prohibited a new structure from being built so close to the street.

During the interview, Mr. Wampler suggested that the carriage house was built later than the house, perhaps at the turn of the century, when what he recalls as a “architectural craze to make the homes more Victorian” swept over the area and changed many of the original house facades in the Old North Knoxville neighborhood; however, when architectural elements are compared with those of the home, it seems likely that the carriage house was constructed at the same time. The bricks used in the construction of the carriage house foundation are the same size and type of bricks that were used in the foundation of the home. Interestingly, however, the brick in the two types of structures suggest that during construction, face bricks, or the best crafted bricks, were used in the construction of the dwelling, while the less attractive bricks were used to build the carriage house. This was a common practice in the late 19th and early 20th centuries, and given the elaborateness of the house, it would not be surprising that the very best materials would have been used for its construction. Furthermore, like the dwelling, all nails protruding from the exterior woodwork have round heads, a characteristic of wire nails, which became prevalent in Knoxville by 1890 and are still manufactured today.

Unlike other outbuildings in the neighborhood, the Parks carriage house is interesting in that it appeared to serve two primary functions. Based on the exterior architectural evidence and Mr. Wampler’s account of the condition of the building prior to remodeling, it seems that the structure was used to house both a carriage and the horses that pulled it.

When compared with 19th century combination carriage house and stable plans,

the Parks carriage house has several architectural similarities. Like the descriptions of the above structures, the Parks carriage house has a loft door with its original hardware on the gable end. Since it is convenient to the street, this door was most likely used to load hay into the half story loft. According to Mr. Wampler, on the east side of the structure above the original brick foundation was a large sliding door, approximately eight feet in length, which admitted the carriage with the horse attached. Unfortunately, no interior walls were present when Mr. Wampler began renovations on the Parks carriage house; however, he noted there was structural evidence for interior walls having once been there. Mr. Wampler also remembered a steep staircase in one corner of the structure that was used to access the second story. Further suggesting that the structure housed horses as well as a carriage was Mr. Wampler's recollection that the building smelled of manure and that hay was still present in the half story loft.

While somewhat similar in exterior appearance and size, the Parks carriage house has several distinctive architectural features unlike any of those found on late 19th century carriage house or stable designs. Perhaps the most interesting of these architectural features was a turnabout, a large circular cutout that spun with the aide of a wheel so the carriage could be turned around once it was parked inside the structure. Mr. Wampler found the turnabout in the wooden floor of the original portion of the carriage house when doing renovations.

Also interesting is a feature on the rear of the structure that remains an architectural mystery. Two corbelled brick piers, each approximately 1 foot 6 inches wide, protrude from the brick foundation on the north side of the structure (Figure 43). The piers, mortared together with poorly made portland cement, are approximately 3



Figure 43. Parks carriage house, northern elevation.

feet apart. Above on the west wall, slightly off-center to the brick piers is an opening, approximately 3 feet 8 inches by 3 feet 8.5 inches. The opening has no hardware on the exterior, but appears to be accessible from the inside of the structure. Below the opening, the foundation bricks between the piers are badly eroded.

While no literature has been helpful in determining what this brick feature may have been, 19th century carriage house plans do make reference to a rear door used for sweeping out dust and manure. Without references to similar available features, it can only be surmised that this opening might have served the same purpose with the corbelled brick area below functioning as a storage pit for manure. The notion that the pit was used for manure storage is perhaps supported by the erosion of the bricks between the piers as the acidity of manure might have caused the damage. If this was indeed the function of

the pit, it seems strange that the doorway would not be centered over the brick piers; however, construction might have prohibited the opening from lining up directly over the area. Whatever their function, the opening and brick piers were constructed intentionally, as they are built into the brick foundation of the structure. This also indicates that they were built at the same time as the carriage house foundation.

It is probable that the function of the structure remained that of a carriage house and stable until the early 20th century. Exactly when this transformation in function occurs can only be speculated; however, this shift had to occur at some time prior to 1917, as the structure is labeled a garage on the 1917 Sanborn map. It is likely that this change in function occurred close to this date as automobiles were not common in Knoxville until the 1920s. Furthermore, this date coincides with increasing amounts of urbanization in the neighborhood. As many of the homes on Scott Avenue were built in the 1910s and the area was becoming increasingly populated, it seems unlikely that horses would have continued to be kept on the property.

Again, while it also is unknown how long the structure functioned as a garage, at some point in time, cars were no longer parked in it and the building was used primarily for storage. This shift occurred prior to 1990, and likely coincided with the construction of the Parks garage. As a newer, more solid garage would have been available for parking, the older carriage house would have provided the perfect location for storage. When Mr. Wampler bought the property in 1990, he stated that the building had undoubtedly been used as a shed for quite some time, as it was packed to the rafters with garbage and debris.

The Johnson Carriage House

The Johnson house and carriage house are located at 911 Luttrell Avenue in the Historic Fourth and Gill neighborhood (Figure 44). Unlike the McBrearty and Parks property, the Johnson residence is not situated on a corner lot but is instead bounded on all four sides by streets and houses. Luttrell Avenue borders the house on the east, houses stand on both the north and south sides, and a dirt alley bounds the lot on the west side.

Similar to the Parks and McBrearty properties, the Johnson carriage house is located at the rear of the lot directly behind the dwelling. Currently, the Johnson carriage house serves as a storage shed for the house's current residents. The carriage house is approximately 30 feet by 20 feet, with the long axis of the building oriented to an adjacent alley that runs parallel to Luttrell Avenue. The exterior of the structure is well preserved and most architectural elements, such as windows and doors, remain in their



Figure 44. Johnson house, southern facade.

original locations (Figure 45).

Unlike the Parks carriage house, which underwent extensive renovation in the mid-1980s, the exterior of the Johnson carriage house appears to have undergone few changes since its construction. The original sliding door and hardware still span the west wall of the structure, wooden pegged windows are found on the eastern wall of the first story, and the original cupola with iron lightening rod still perches on the top of structure's hipped roof. The absence of an addition on the northern portion of the structure, evident by triangular fading on the vertical weatherboard exterior, and the presence of a modern wooden stairway and concrete landing are perhaps the most noticeable exterior indication of change to the original carriage house.

Similar to the exterior of the structure, a minimal amount of remodeling is evident on the first floor of the structure. The majority of modifications to the ground floor are



Figure 45. Johnson carriage house, northwest elevation.

predominantly structural in nature. While the original corner bracing is still evident in the northwest, southwest, and southeast corners of the structure, support beams have been added for further support on all four interior walls and the second story. A doorway once present on the two story portion of the carriage house is crudely closed in with vertical weatherboarding similar to the rest of the exterior. This doorway was likely closed when the shed addition was built as the original entrance was no longer practical since it did not provide entry into the shed. Once the original doorway was closed and the new doorway built in the eastern wall of the shed addition, another door was needed to connect the shed with the carriage house. This door, once connecting the two structures together, remains in the north wall of the structure.

The second story, on the other hand, has evidence for extensive remodeling on both the interior and exterior of the structure. The Johnson family stated that the interior renovations obvious in the second story of the carriage house were done in the 1980s, when the homeowners responsible for the major renovations to the house resided in the carriage house until repairs were completed. Modifications to the second story include the addition of a full bathroom in the northeast corner and the removal of an original wooden staircase. The presence of a staircase in the northwest corner of the structure is evident by the replacement of the original floor with plywood. These repairs, visible from both the first and second stories, suggest that the exterior wooden staircase and concrete pad were added sometime in the 1980s. The addition of the exterior staircase would not only have been a more structurally sound way of reaching the second story, but would have also allowed for more convenient accessibility to the apartment from the street. Furthermore, removal of the interior staircase would have increased the square

footage of both the first and second stories by providing more floor space in the northwest corner of the structure.

As the exterior staircase is of recent construction, it is also possible that the exterior doorway of the second floor is not original to the structure either. The doorway, currently situated in the eastern gable of the roof, appears to be constructed in a similar manner as the first story doorway in the north wall of the carriage house. As the same pegged windows of the first story are situated in the northern, western, and southern gables of the roof, it is probable that a window was also placed in the eastern gable to maintain the architectural symmetry of the structure. Once the staircase was moved to the exterior, the window was removed and a larger opening was made to accommodate a doorway. This would have again provided easier access to the second story from the rear yard. While it is possible that the second story doorway was incorporated into the original design of the carriage house, this does not seem likely as none the 19th century carriage house plans have exterior staircases. Instead, all of the designs incorporate either wooden ladders or interior staircases for accessibility to the second story.

Prior to this investigation, nothing was known about the history of the carriage house located at 911 Luttrell Avenue. What little information that was known about the property came from stories handed down from past homeowners and neighbors. Current homeowner, Kelly Johnson, who purchased the home in 2002, has conducted some research on the property; however, as learning the history of the house took precedence to that of any other structure located on the property, the history of the carriage house has remained a mystery.

Unlike the Old North Knoxville area, which was not included on Sanborn Fire

Insurance maps prior to 1917, the Fourth and Gill neighborhood was mapped beginning in 1890. The earliest depiction of the Johnson home and carriage house, however, is found on the 1903 map (Figure 46). From this map, it is impossible to draw any conclusions regarding the age of the Johnson dwelling and carriage house other than they were built prior to 1903. The map is helpful, however, as it serves as a time line for several architectural alterations done to the carriage house between 1903 and 1917. On the 1903 map, the building is depicted as a two-story frame stable or carriage house with a one-story frame addition to the north; however, by 1917, a number of structural and functional modifications have taken place (Figure 47). Changes include the replacement of the original slate or tin roof with asphalt shingles on the main portion of the structure, the addition is no longer identified as a shed, and the two-story portion of the structure changes in designation from a stable to a garage.

Furthermore, the maps are useful for providing an architectural sequence for the construction of the structure. The 1903 map demonstrates that the shed addition is later than the two-story portion of the carriage house, evident by the different roofing materials employed in the building's construction. While the roof of the stable is shingled with tin or slate, the shed is roofed with asphalt shingles. As asphalt shingles were more affordable than slate or tin roofing, and were both plentiful and common by the early 20th century, it is plausible that the shed addition was constructed at a later date (McAlester and McAlester 2003). This is further evident when the carriage house is compared to the dwelling, as the roof of the house is shingled with the same materials as the two story portion of the carriage house.

As the Sanborn maps are not particularly useful for dating the carriage house,

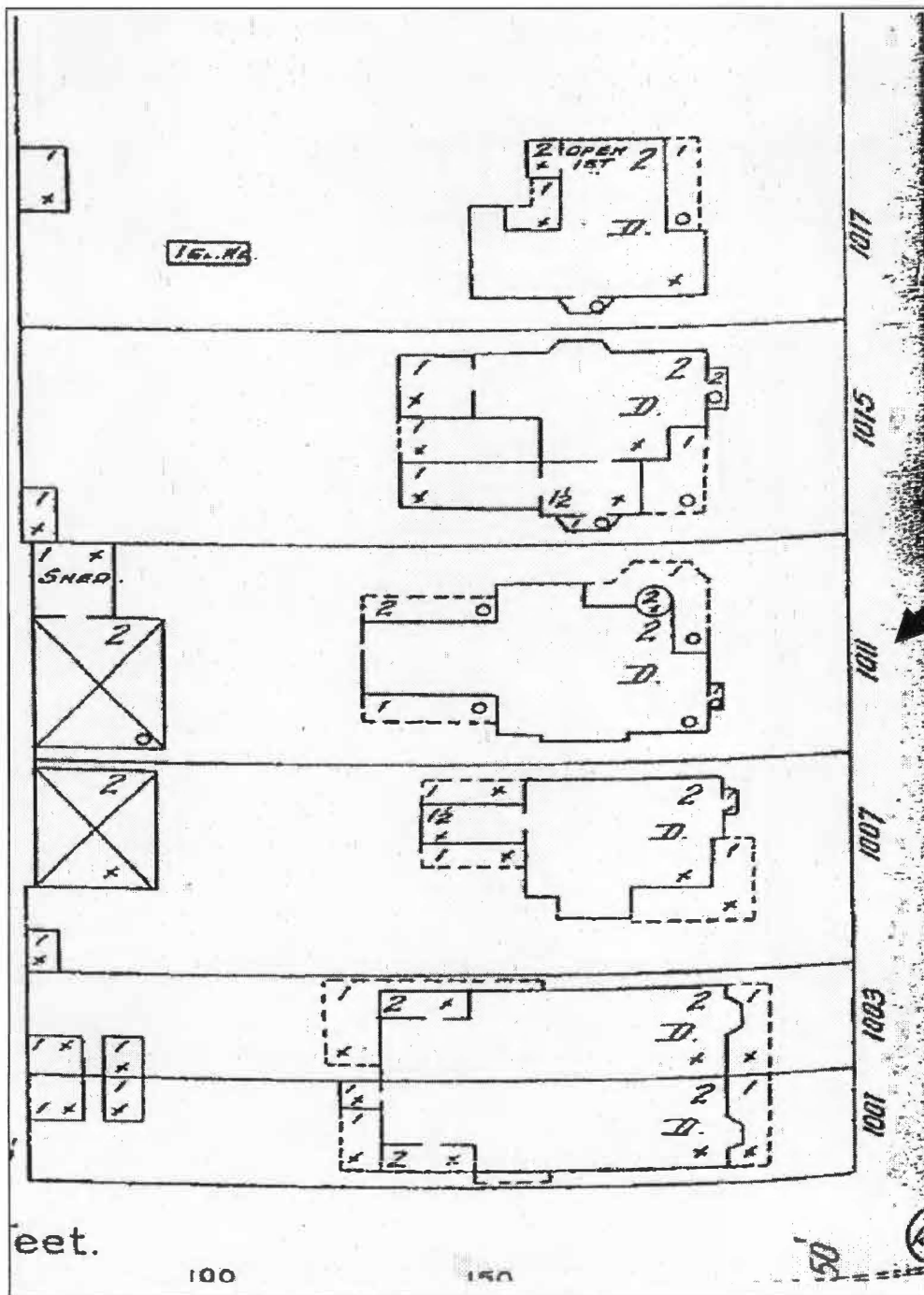


Figure 46. 1903 Sanborn Fire Insurance map with arrow pointing to 1011 Luttrell Avenue.

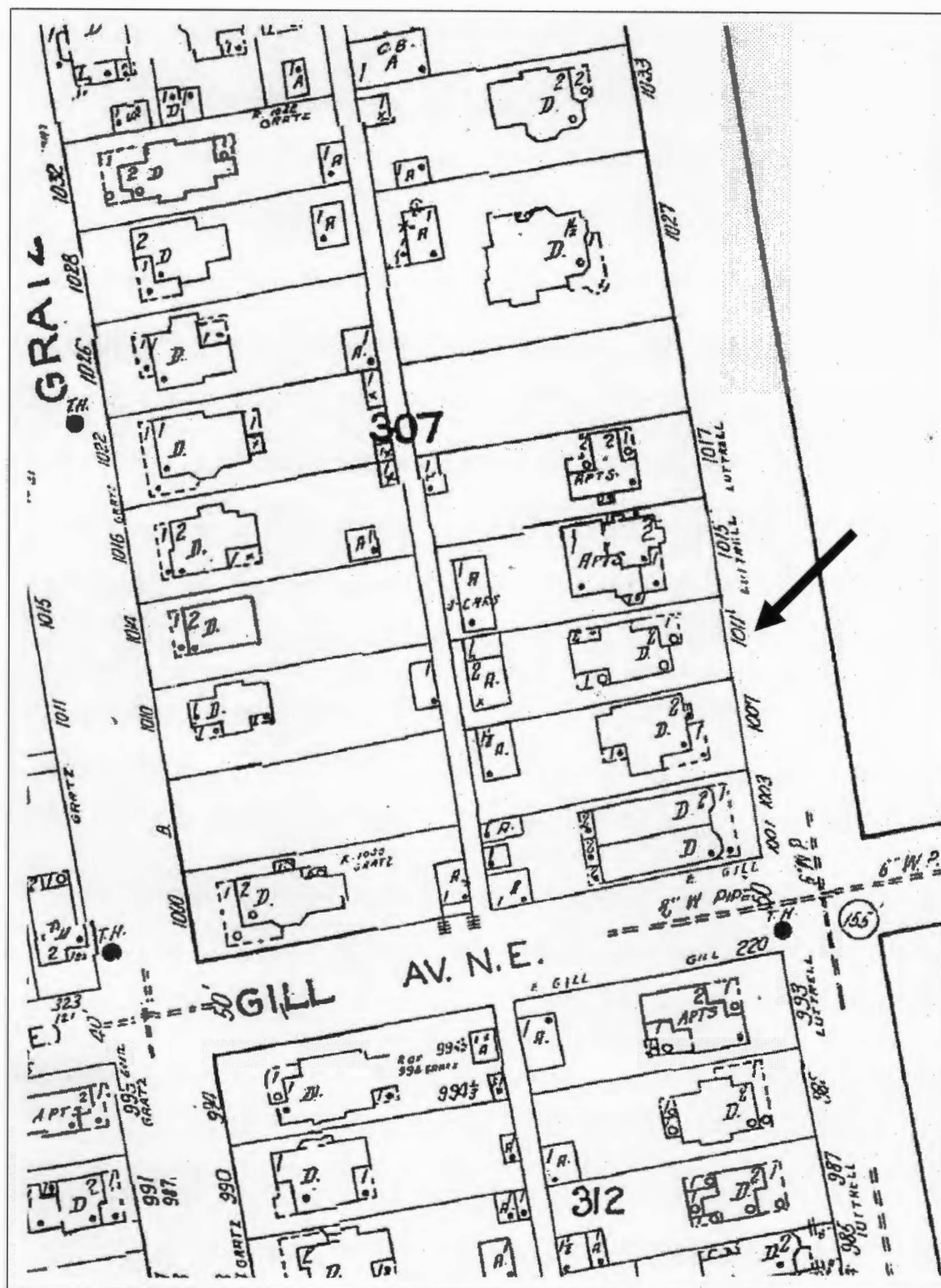


Figure 47. 1917 Sanborn Fire Insurance map with arrow pointing to 1011 Luttrell Avenue.

perhaps the best indicator of when the structure was built is the architectural styling of the house itself. Similar to the McBrearty and Parks homes, the Johnson dwelling is distinctly Queen Anne Victorian with decorative detailing characteristic of both the free classic and half-timbered types. Both of these decorative subtypes were common at the turn of the century, and numerous houses in the Fourth and Gill neighborhood and Old North Knoxville are built in these styles. Architectural details of the Johnson house typical of late 19th century Queen Anne houses include an extensive one story porch that encompasses the front entrance area and extends along the north side of the house, full height classical columns, two patterned masonry chimneys, window rows on the front gable, shallow rectangular windows over main windows, differing wall textures using patterned wood shingles, a polygonal tower cantilevered out of the second floor, and an iron finial crowning the steeply pitched hipped roof (McAlester and McAlester 2003).

In order to narrow the date range for the house and carriage house, a thorough search of Knoxville's archival resources was conducted. Perhaps most useful were Knoxville city directories. As the Sanborn map indicated that the house was at 1011 Luttrell Avenue rather than 911 in 1903, residency at 1011 was traced backwards beginning with this date. The 1903 Knoxville City Directory listed saloon owner, Michael J. Sullivan, as the primary resident. Mr. Sullivan remained the only occupant of 1011 Luttrell as far back as 1893, when the earliest entry for the address appears in Knoxville city directories. Because there is no listing for the dwelling prior to 1893, it is probable that the house was constructed between 1892 and 1893.

Determining the date for the carriage house is much more difficult as no direct evidence of the structure exists prior to 1903. Architectural evidence including window

glass, bricks, and nails suggest that the building was constructed in the late 19th century, most likely contemporaneous with or shortly after the construction of Johnson home. Window glass sherds, representative of the two types of window found in the carriage house, were measured in an effort to determine approximate dates of manufacture and installation. The mean thickness of a piece of window glass found in the sill of a small barred window on the southern facade of the carriage house provides a manufacture date of 1918.2; however, it is likely that these windows were replaced sometime after the construction of the building. Another window glass sherd, recovered on the ground next to a broken window on the east side of the building, dated to 1867.7. As this date is much too early for the construction of the carriage house, it is possible that this window was recycled from an earlier structure.

Another architectural indicator of the age of the structure is the type of nails used in its construction. Similar to the Parks and McBrearty carriage houses, the Johnson carriage house is constructed entirely of wire nails. No handmade or cut nails are visible in the weatherboarding, window or door frames, or exterior or interior trim. As these nails were the predominant type of nail used in Knoxville after 1890, this again suggests that the carriage house was built at the same time or shortly after the construction of the home.

The foundation of the carriage house is also useful for determining when the building was constructed. The foundation beneath the two story portion of the carriage house appears to be constructed of a mixture of both handmade and machine-made pressed bricks. As pressed bricks were common in Knoxville between 1882 and 1890, this suggests that the building was constructed sometime in the last decade of the 19th

century (Greene 1992). As this date is earlier than what city directories provide for the house, the presence of earlier handmade bricks combined with pressed bricks likely indicates that architectural materials left over from the construction of the home were used to build the carriage house. The salvage of architectural materials was common during this time, and windows, doors, and bricks were often recycled when updates to the house left the old, replaced elements available for reuse. This trend is evident in the construction of the Parks carriage house as well as other standing structures in the Old North Knoxville and Fourth and Gill neighborhoods.

The carriage house had a slate or tin roof similar to the home in 1903, suggesting that the two story portion of the carriage house was built sometime near the construction of the home in 1893. If the two story portion of the carriage house was constructed considerably later than the home, the structure would most likely be roofed with asphalt shingles, similar to the northern shed addition, as these were the predominant material used for roofing after 1900 (McAlester and McAlester 2003).

When compared with 19th century combination carriage house and stable plans, the Johnson carriage house has a number of architectural similarities. Like the Parks carriage house, several architectural features suggest that the Johnson carriage house was used to house both a carriage and the horses that pulled it; however, whether the carriage house served as a temporary shelter for rented horses, or functioned as a permanent stable can only be speculated. Three small, barred windows are evenly spaced in the southern wall of the first story (Figure 48). The even spacing of these windows suggests that at least three separate stalls were present in the interior of the structure. This is further substantiated by the 1891 and 1893 Barber and Barber and Kluttz carriage house plans, as



Figure 48. Johnson carriage house, southern elevation.

several of their drawings show horse stalls as being 6 feet wide. Similar to the Barber and Klutz plans, the barred windows are approximately 6 feet apart with 2 feet remaining on both ends of the southern wall.

Unfortunately, the stalls are no longer present on the interior of the structure, and interestingly, there is no evidence on the floor to indicate that stall dividers were there in the past. It is possible that the current concrete floor could have been resurfaced when the dividers were removed to level the surface; however, this can only be speculated as nothing is visible on or around the floor to substantiate this resurfacing.

Another interesting feature of the Johnson carriage house is a central drain incorporated into the concrete floor. While no references were found regarding carriage house floor construction or the installation of drains, it appears the drain is original, as a ceramic drainpipe protrudes from the brick foundation in the southwest corner of the

structure. Undoubtedly, a concrete floor with a central drain would have made cleaning the carriage house and stalls both efficient and convenient, so it is likely that the floor and drain were installed during the construction of the building for this purpose.

The placement and type of doors present on the carriage house also suggest that horses were stabled in the Johnson carriage house. On the eastern wall of the carriage house is a set of Dutch doors, which can either swing entirely open, open halfway with either the left or right door latched closed, or latched in place so that the top doors open while the bottom doors remain closed. The latter arrangement would have allowed horses to be left in the carriage house with no possibility of escape, but with adequate ventilation. These doors are typically found on 19th century barns, and are also present on barns of more modern construction. Ventilation for horses was also provided by a cupola on the roof of the structure.

Perhaps the last architectural element of the Johnson carriage house that suggests horses were stabled there is a small iron ring, approximately 2 inches in diameter, bolted to the eastern exterior facade wall south of the Dutch doors. While the exact function of the ring is unknown, it is possible that the ring was used to temporarily hitch horses outside the structure. Since it is not known if the property was fenced when the dwelling and carriage house were constructed, the ring would have allowed the horse to graze in the rear yard, without threat of the animal wandering off the property.

It is probable that the function of the structure remained a carriage house and stable until the early 20th century. Exactly when this transformation occurred can only be speculated; however, this shift occurred prior to 1917, as the structure is labeled a garage on the 1917 Sanborn map. As automobiles were increasingly common in Knoxville by

the 1920s, the carriage house was likely converted into a garage around the date the map was drafted. This can also be surmised, based on an informant interview with Mr. John Moriarty, a long-term resident of 710 Deery Street, a block west of the Fourth and Gill neighborhood. In an interview with Wendy Goodman, former graduate student at the University of Tennessee, Mr. Moriarty remembered that a neighbor converted his carriage house to a garage after purchasing an automobile in 1916 (Goodman 1996).

As the original door hardware on the east wall of the carriage house is rusted and no longer operational, and there is no access to the structure from Luttrell Avenue, it is likely that cars have not been parked in the building for quite some time. When the building ceased to be used as a garage is unknown, and what function the structure served afterward can only be speculated; however, based on the histories of both the McBrearty and Parks carriage houses, and the visible fates of other carriage houses still standing in the Old North Knoxville and Fourth and Gill neighborhoods, it is likely that the Johnson carriage house was little more than a storage shed after its structural integrity was compromised due to a hundred years of use.

In conclusion, the architectural study of the Parks and Johnson carriage houses is significant for a number of reasons. By comparing the archaeological assemblage of the McBrearty site with visible architectural characteristics of the Parks and Johnson carriage houses, numerous insights can be gained regarding similarities and differences in primary methods of construction, the initial function of the buildings, and how and why the buildings were transformed over time. Furthermore, comparison of the three structures demonstrates that there is a considerable amount of variation in the size and elaborateness of carriage houses built in during the late 19th and early 20th centuries. When the

McBrearty, Parks, and Johnson homes are examined, it is evident that socioeconomic status undoubtedly influenced the manner in which outbuildings were constructed. As the Parks and Johnson houses are considerably larger than the McBrearty house, it is not surprising that the Parks and Johnson carriage houses are larger and more elaborate than the McBrearty outbuilding. Not only does this suggest that the size and ornamentation of the carriage house is a direct reflection of the home, it also demonstrates that not all outbuildings were architectural masterpieces, but rather simple, functional designs were available to builders with a tighter budget.

CHAPTER 6. INTERPRETATIONS AND CONCLUSIONS

Interpretations

The artifact assemblage of the McBrearty site provides a number of insights on the five research questions presented in Chapter 1. The historical documentation, correlated with the archaeological evidence, has provided the following answers to these questions.

Archaeological evidence confirms that the McBrearty carriage house has a construction date during the late 1890s or early 1900s. Though an inadequate sample of window glass was found in association with the cinder lens located in Unit 1, Level 1, two glass sherds with a mean date of 1915 suggest that hot cinders from the home was dumped on the southern portion of the carriage house during this time. The ash concentration does not slope past the southern piers of the carriage house and into the center of the structure, suggesting that the building was built sometime after the construction of the house and before the dumping of the ash in 1915. The mean window glass date of 1895 and the evidence that wooden shakes were originally used on the roof suggest the construction date was shortly after the house was built.

Similar to other archaeological sites, the McBrearty site contains a stratified sequence of events that reveals the landscape history preserved in the archaeological record. Groover (2003) has proposed that landscape events at rural residences are not haphazard or random occurrences, but rather correspond to significant junctures or transitions within households such as the succession of property. As the McBrearty home was occupied by renters for nearly 25 years, it is unlikely that during this time, short-term residents would have made expensive, time-consuming, and permanent modifications to

the home, carriage house, or yard, knowing that their stay on the McBrearty property was temporary. For this reason, it is logical that major changes to the McBrearty home, carriage house, and yard occurred when H.D. Anderson purchased the property in 1915.

Is it possible that the Anderson family was responsible for the construction of the building when they purchased the property? The designation of the structure as a carriage house on the 1917 Sanborn map suggests otherwise, as automobiles were becoming increasingly popular in the Knoxville area by this time. Furthermore, by 1917, many carriage houses built in the Old North Knoxville and Fourth and Gill neighborhoods had been transformed into garages. Given these patterns, if the Anderson family was responsible for building the structure, it is likely that they would have built a garage rather than a carriage house, as horses and carriages were fleeting memories by this time.

While it is highly unlikely that the Anderson family built the carriage house when they purchased the property in 1915, the landscape chronology of the site demonstrates that the Andersons were responsible for modifications to this building and rear yard during their occupation of the property. Two separate fill episodes located above the cinder lens of Unit 1 appear to coincide with the Anderson occupation of the property and known events taking place there during this time. The first fill deposit possibly resulted when the rear porch was converted into a bedroom sometime after 1917. As this required that the original brick piers be closed in with additional brick to support the weight of the new addition, this allowed an extension of the basement beneath the northwest portion of the home. The Anderson family is also likely responsible for the second fill deposit as well, since Mrs. Clark remembers an elaborately terraced garden in the rear yard

as a child.

This interpretation of the stratigraphy on the south side of the carriage house is substantiated by the color and consistency of the fill deposits found in Unit 1. The fill in the first episode is like the clay subsoil found at the site and thus similar to the type of dirt excavated during the construction of a basement. Furthermore, the color and texture of the soil in the second deposit is mixed and characteristic of soil found elsewhere on the property. Also, the second fill deposit has window glass and artifacts dating to the early occupation of the home. If this deposit was taken from an area of the yard close to the house, the presence of window glass and other household artifacts in the fill would be expected.

When architectural elements recovered from the site are compared with those used in the construction of the house, the conclusion that the carriage house was built after the dwelling is further substantiated. Unlike the carriage house, which was built entirely with wire nails, late fully machine cut nails were the predominant fasteners used to construct the house. Also, the foundation of the McBrearty home is constructed of a mixture of pressed brick and extruded bricks. This differs from the piers of the carriage house, which are built exclusively of generally later extruded, end-cut bricks. While some overlap in materials is expected based on advances in architectural technologies at the turn of the century, the McBrearty house and carriage house are built almost exclusively of different architectural materials. It seems likely that if the dwelling and carriage house were constructed at the same time, both structures would be built of comparable materials.

The high frequency of 2d and 3d nails found at the site suggests that the roof was

originally covered with wood shakes rather than slate or tin. As asphalt shingles became available and were easy to apply, relatively inexpensive, and fire-resistant, composition roofs became the dominant roofing material for American homes in the 20th century (McAlester and McAlester 2003). For this reason, the shingled roof depicted on the 1917 Sanborn map is likely representative of the second roof, probably placed on the building by the Anderson family during their improvement to the property.

When the archaeological assemblage of the site is compared to 19th century carriage house plans and standing structures in the North Knoxville area, it is possible to determine what the McBrearty carriage house might have looked like when it was constructed. The diversity of the structures depicted in the 19th century architectural plans demonstrate that there was a considerable amount of variation in the size and elaborateness of carriage houses built during the 19th and 20th centuries. Furthermore, comparison of the McBrearty structure to the Parks and Johnson carriage houses demonstrates that socioeconomic status undoubtedly influenced the manner in which the buildings were constructed. When the size and degree of ornamentation are examined for each of the three houses, it is likely that the owners of the Parks and Johnson dwellings were of higher socioeconomic status than persons who occupied the McBrearty house. These comparisons are significant, in that they demonstrate that not all carriage houses were architectural masterpieces, but rather simple, functional designs were available to builders with a tighter budget.

Architectural elements such as nails and window glass found at the McBrearty site indicate that the building was relatively simple in appearance. The absence of finishing nails associated with the building demonstrates that the interior and exterior of

the carriage house lacked the typical Victorian ornamentation one would expect to find based on the style of the dwelling, while the distribution of window glass suggests that the building had few windows. High concentrations of window glass recovered in Unit 1 and PHT 10 indicate that at least one window was present in both the north and south walls of the structure. The lack of window glass found in association with the east and west walls suggest that the structure had no windows in the gable ends. This is logical as the facade is approximately 18 feet in length. The 19th century carriage house plans of Barber and Kluttz indicate that a typical carriage door is at least 12 feet wide. With this arrangement, only 3 feet on either side of the doorway would have remained for the placement of a window in the facade (Barber 1893).

The stratigraphy on the eastern and southern sides of the carriage house suggests that the building stood higher than the original ground surface for a number of years after its completion. When the basement was dug and the garden terraced, the dirt resulting from these events was moved to the bottom of the yard and spread around the eastern and southern sides of the carriage house to level the backyard with the floor of the building. As previously discussed, this took place in two separate events, both of which probably occurred after 1915 based on the association of the fill deposits and cinder lens in Unit 1.

As the building was raised on piers and stood higher than the ground surface on the northern and southern sides until the yard was intentionally leveled after 1915, it is unlikely that doors were located anywhere other than the front or rear of the structure. While it is possible that additional doorways on the long-axis of the structure could have been reached using stairs, no evidence was found on the northern or southern sides to indicate that a staircase was present, nor was there any archaeological evidence indicating

that an entrance was located at the rear of the structure. This notion is further substantiated by the Sanborn map, which indicates that only one door was present on the western end of the structure facing Glenwood Avenue in 1917. Fill would have been required to level this doorway with the street and the fact that one of the facade piers is intrusive into the fill indicates it was laid down before the carriage house was built.

Unfortunately, archaeological investigations provide very few clues on the function of the McBrearty carriage house, and because of this, it is difficult to determine if the function of the building changed with the advent of new transportation technologies. Archaeological evidence demonstrates that the structure was never used as a residence. This is substantiated by the small number of ceramics and kitchenware found in association with the structure. There was also no indication that the building had a chimney, stove or any other means of heat, and the miniscule amount of faunal remains suggest that people were not eating or disposing food and food-related products in or around the structure. From the current condition of the yard and the mean date of the materials, it is likely that the majority of the household related artifacts and faunal remains associated with the building were deposited there as result of dumping taking place at the rear of the property and behind the carriage house in the latter part of the 20th century.

Despite being labeled as a carriage house on the 1917 Sanborn map, there is little evidence to suggest that the McBrearty structure was used to stable horses. Except for a harness buckle and leather fragment, no artifacts associated with horses such as horseshoes or horseshoe nails were recovered. This differs from the Parks and Johnson carriage houses, where there is substantial architectural evidence suggesting that horses

were stabled in both structures, at the least on a temporary basis.

While the 19th century carriage house plans demonstrate that the size of the McBrearty carriage house was large enough for the storage of both carriage and horse, the orientation of the structure with the street, the presence of only one doorway on the gable end, and the elevation of the building above ground surface, also suggest that the building was not built with the intention of stabling horses. On all the 19th century carriage house plans built for the purpose of keeping horses, the doorway is located on the long axis of the structure. This is not the case with the McBrearty carriage house, as the entrance of the structure is on the short axis, or gable end facing Glenwood Avenue.

As the McBrearty home functioned as a rental property as late as 1915, it is plausible that renters would not have had the financial means necessary to purchase and care for a horse. While it is also possible that privately-owned horses were boarded in the neighborhood livery, this option seems less feasible due to complications associated with moving the horse and the expense this would have presented to the owner.

Research on Knoxville livery stables has demonstrated that a number of these businesses were located close to Old North Knoxville, and cash books records from the Brown Pryor Livery Stable indicate that the types of services provided were reasonably affordable. For this reason, it is probable that residents of the McBrearty home rented horsepower on an as-needed basis. Furthermore, as John Moriarty, a resident of the Fourth and Gill neighborhood, is listed in an April 1914 Brown Pryor Livery cash book as renting a carriage for the cost of \$4.00, this demonstrates that members of the North Knoxville community both utilized and relied on these services prior to the increasing popularity of the automobile in the 1920s.

While shifting transportation patterns were not evident in the archaeological assemblage of the McBrearty site, archival studies were useful for establishing a timeline for the changing functions of carriage houses in the North Knoxville area. Sanborn Fire Insurance maps demonstrate that by the early 20th century, the majority of carriage houses constructed in the 1880s and 1890s are transformed into garages. The maps also demonstrate that transportation-related businesses such as blacksmith shops, livery stables, and carriage repositories, follow similar trends. The historical research on transportation patterns in Knoxville demonstrates that by late 1910s, horse-related businesses and personal reliance on non-motorized forms of transportation are fleeting. While this pattern is not detectable at the McBrearty site, it is possible that archaeological research on other carriage houses in the neighborhood could potentially provide answers to these unanswered questions in the future.

As no indication of the function of the building was found archaeologically, it is probable that the McBrearty carriage house suffered a fate similar to those of other outbuildings in the Old North Knoxville and Historic Fourth and Gill districts. The condition of the nails found at the site suggests that the carriage house was torn down and the building materials quickly removed after its demolition. Furthermore, personal correspondence with past homeowner, Dale Powers, and resident, Becky Anderson Clark, indicate that the building was torn down between 1967 and 1981. As the carriage house stood at the rear of the McBrearty property for over 80 years, and evidence for substantial repairs is not evident in the archaeological record, it is logical that years of neglect took its toll on the structure and as a result, the structure deteriorated with time. As only two horse-related artifacts and no automotive artifacts were recovered at the site, it is

probable that the building was used for storage shortly after its construction until the late 1970s or early 1980s, when it was torn down and removed from the property.

Conclusion

This thesis presents the synthesis of the scarcely documented historical record and the newly recognized archaeological evidence regarding the McBrearty property and other historic properties located in the Old North Knoxville and Fourth and Gill historic districts. It aimed to expand on, explain, and clarify a number of questions concerning known historical information about the McBrearty carriage house and similar standing structures in North Knoxville, as well as the evolution of transportation in Knoxville after the turn of the 19th century.

While a number of these goals were reached, many of the questions examined could not be answered definitively and presented other questions for future investigation. The exact date of construction for the McBrearty carriage house could not be ascertained, and it was concluded that the structure was built sometime after the construction of the home between 1900 and 1915.

Unfortunately, the archaeological assemblage of the site did not provide any clues to the primary function of the McBrearty outbuilding. In fact, without the 1917 Sanborn Fire Insurance map indicating that the structure was a carriage house and the Glenwood Avenue curb cut centered on the gable end of the structure, it is difficult to conclude that the building served as anything more than a storage shed since its construction. Furthermore, because two horse-related artifacts and no automobile-related artifacts were recovered at the site, and very few artifacts indicative of other domestic and utilitarian activities were found, functional changes occurring to the structure subsequent to its

construction cannot be determined, and it is therefore impossible to demonstrate the impact of shifting transportation patterns in Knoxville at the McBrearty site.

Recent studies have demonstrated that there are good reasons to include urban outbuildings in historic and archaeological research. First and foremost, these features are useful for the investigation of spatial patterning as they represent artifacts of the late 19th and early 20th century urban landscapes. Data derived from studying these features can enhance our understanding of the occupation chronology of a site, how residents lived and worked, and the cultural setting within which the site was formed (Goodman 1996). Furthermore, by combining archaeological research, architectural investigations, and historic documentation, a more complete picture emerges of how the late 19th and early 20th century urban neighborhood evolved and what part a site like McBrearty played in the history of a city.

Because few original outbuildings remain in the Old North Knoxville and Fourth and Gill neighborhoods, it is vital that the history of these important buildings be preserved before more transformations take place and more testaments to an earlier time are lost. For this reason, the remaining structures in the Old North Knoxville and Historic Fourth and Gill areas provide valuable insight into the function and preservation of outbuildings in the North Knoxville area.

As there are currently no regulations governing the alteration of these important structures, it is likely that they will soon disappear, only to be uncovered years later as part of the archaeological record. As the Old North Knoxville area has gained recognition for its historical significance, it seems unfortunate to ignore the function that these buildings served through time.

Since its establishment, Old North Knoxville has been an area rich in ethnic and historical diversity. Although changes have occurred in the neighborhood, the houses and public improvements remain very much intact. Because of this, North Knoxville constitutes a strong and viable community that contributes to Knoxville's progress while symbolizing its history. There is a pride that exists in North Knoxville. People are proud of their homes and their history and many have an interest in historic preservation. It is important that the integrity of these historic properties be maintained as once they are gone, they are gone forever. It is my hope that continued research will further this trend by reemphasizing the importance of preserving the past for future generations to enjoy. The stories that these old buildings tell is not only interesting but irreplaceable. For this reason, studies such as these are not only critical to understanding our past, but also predicting our future.

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VITA

Greta Jill Gomez was born on May 10, 1977 in Culpepper, Virginia. After graduating from Eastern Mennonite High School in Harrisonburg, Virginia in 1995, Greta attended Arizona State University in Tempe, Arizona. While at ASU, Greta took numerous anthropology courses and developed a profound interest in physical anthropology and archaeology. This love of physical anthropology and skeletal biology eventually took Greta to the University of Tennessee, Knoxville, where she continued her study of anthropology. During her junior year, Greta took a Historical Archaeology course with Dr. Charles Faulkner. She enjoyed this course so much, that in subsequent years, she took other archaeology courses, and by her senior year, Historical Archaeology was her newfound passion. After graduating with a Bachelor of Arts degree in Anthropology in 2001, Greta enrolled in the University of Tennessee Anthropology graduate program with the intention of providing the first historic work on carriage houses and outbuildings in the urban Knoxville area. This thesis presents the culmination of her work at the university and she appreciates the many opportunities she received during her studies there.

